Hannu Eerikäinen

CYBERSEX and PROSTHETIC GOD

“Sex,” Desire and the Posthuman Body in Cyber Discourse

VOLUME 2
“Sex,” Desire and the Posthuman Body in Cyber Discourse

The Promise of the Cyborg

Hannu Eerikäinen
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Part Two
3 Give Me a Word and I Will Raise a World

Writing is pre-eminently the technology of cyborgs, etched surfaces of the late twentieth century. Cyborg politics is the struggle for language and the struggle against perfect communication, against the one code that translates all meaning perfectly, the central dogma of phallogocentrism. That is why cyborg politics insist on noise and advocate pollution, rejoicing in the illegitimate fusions of animal and machine. These are the couplings which make Man and Woman so problematic, subverting the structure of desire, the force imagined to generate language and gender, and so subverting the structure and modes of reproduction of “Western” identity, of nature and culture, of mirror and eye, slave and master, body and mind. “We” did not originally choose to be cyborgs, but choice grounds a liberal politics and epistemology that imagines the reproduction of individuals before the wider replications of “texts.”

Donna Haraway (1991a: 176)

We have now only to name and program a process or a product in order for it to be accomplished.

Marshall McLuhan (1964: 305)

In the light of previous discussions, we are now well prepared to return to the question posed in the introduction: if cybersex is the solution, what is the problem?

Whatever sex is, with regard to the radical sexual skepticism prevailing in contemporary theory, initiated by Foucault (1990k [1976]) with his genealogy of “sex” and “sexuality” understood in terms of *le sexe* (Foucault 1994a [1976]) and now ranging from the deconstruction to the negation of all the inherited conceptions and conceptualities of “the sexual” (from various perspectives, see, for example, Rubin 1984; Butler 1990, 1993; Halperin et al. 1990; Sedgwick 1990; Stein 1990a; Dollimore 1991; Davies & Loughlin 1997; Ott 1998; Schmerl et al. 2000; Potts 2002; Preciado 2003; Parisi 2004b; Giffney & Hird 2008; for “sex” and “sexuality” as historical categories, see Laqueur 1992a [1990]; Stanton 1992a; Davidson 2001; Nussbaum & Sihvola 2002b), this question implies another one: is there sex after Foucault, or, put more clearly, is sex possible after Foucault at all? Then again, considering sexuality in general in terms of the excessive sexualization of the way of life in the affluent Western world (see, for example, Singer 1993: 34–61; Bauman 1999: 19–22; Hawkes 2004: 5–23; McNair 1996, 2002; Hennessy 2000; Guillebaud 2001 [1998]; Reichert & Lambiase 2006; in terms of the “hypersexual,” see Kammeyer 2008; Poulin & Claude 2010), one can hardly avoid yet another question: “What are you doing after the orgy?”

But first, back to Baudrillard. To understand Baudrillard’s question correctly, in its proper context, it should be remembered that, for Baudrillard, it is an American question, a question concerning American culture as a manifestation of Americanism as a specific historical formation (see, for example, Kazin & McCartney 2006; for the genesis of the idea of America from a philosophical-historical perspective, see Hegel 1986d [1837]: 107–115; de Tocqueville 2003 [1835/1840]; Offe 2005 [2004]; for the idiosyncrasies of American culture, see, for example, Laws & Schwartz 1981 [1977]; Sokolow 1983; Luedtke 1992; Paglia 1992; Strozier 1994; Armstrong 1996; D’Emilio & Freedman 1997 [1988]; Kraus & Auer 2000b; Sorsio 2002; Levine 2004; Berger 2005; Chideister 2005; De Victoria 2005; Reumann 2005; Klein 2006; Brandt 2007; Abella 2008; Fraterrigo 2009; in terms of “American exceptionalism,” see Lipset 1997; Madsen 1998; Pease 2009). The problem is, in Baudrillard’s words:

> On the aromatic hillsides of Santa Barbara, the villas are all like funeral homes. Between the gardenias and the eucalyptus trees, among the profusion of plant genuses and the monotony of the human species, lies the tragedy of a utopian dream made reality. In the very heartland of wealth and liberation, you always hear the same question: “What are you doing after the orgy?” What do you do when everything is available – sex, flowers, the stereotypes of life and death? This is America’s problem and, through America, it has become the whole world’s problem. (Baudrillard 1988a: 30)

As we can see, the problem is not sex “as such” (whatever it might be after the Kantian an sich); instead, the problem is an overwhelming affluence prevalent in America since the 1950s, a cumulative excess that has finally amounted to the horrible observation that after the exceeding all limits there are no longer any limits to exceed at all. And, in a supremely affluent society, in a culture of abundant excess, this is a situation in which a boredom, a real ennui, a metaphysical tedium, prevails that, paradoxically, exceeds its own limits and turns into an existential Langeweile described in vivid detail by Heidegger (1992a [1929–1930]: 111–255) in his lectures on Die Grundbegriffe der Metaphysik in the winter semester 1929–1930.
3.1 Reality Effects of the Signifier

This is the situation concerning what we, for some unknown reason, still designate – or, rather, try to designate – by that thoroughly worn-out signifier “sex.” Therefore, what remains to do is to face things as such as they are. Thus, if, in the first place, there is (or ever has been) something properly sexual at all, the questions above inevitably result in the query: does sex have a future – provided, of course, that sex has not yet disappeared altogether in its all-consuming excess, in its overwhelming simulation, in its bottomless duplicity by way of postmodern trompe l’oeil? Or, rather, is sexual nihilism, implicitly present in contemporary hypersexuality, the very future of all that is sexual?

In their own way, these questions lead through language, through the configurations of signifiers effected by the linguistic of language. From this perspective, the questions above pertain, in the final instance, to “the sexual” within its own bounds. Mutatis mutandis, to paraphrase Heidegger:


In what follows we shall be questioning concerning sex. Questioning builds a way. We would be advised, therefore, above all to pay heed to the way, and not fix our attention on isolated sentences and topics. The way is a way of thinking. All ways of thinking, more or less perceptibly, lead through language in a manner that is extraordinary. We shall be questioning concerning sex, and in so doing we should like to prepare a free relationship to it. The relationship will be free if it opens our human existence to the essence of sex. When we can respond to this essence, we shall be able to experience the sexual within its own bounds. (cf. Heidegger 1977f [1953]: 3–4)

What happens in this paraphrase, a “defamiliarizing” reading (in the sense of Brechtian Verfremdung), of Heidegger, in this piece of decontextualizing writing, a rewritten passage of Heidegger’s text, a text that in itself is an effect of a textuality of its own making, a specific Heideggerian text that, nevertheless, has a claim on universal validity in its very particularity, not, of course, as a statement of truth, but as a question; a question taking place in language, that is able – if it is able – to ask its own meaning as a question (see Heidegger 1985a [1957/1958], 1985b [1958]; cf. Thiele 1995: 114–131; Smith 1996: 269–270, Kockelmans 1980 [1972]); that is, as a way to “world-disclosure” (Lafont 2000 [1994]: 85–177), as a Seinsfrage, a question concerning the meaning of Being (see Heidegger 1976d [1955]; cf. Steiner 1991 [1978]: 33–65), meaning in the sense of sense? Does this Heidegger paraphrase belong to the same category with Chomsky’s (1957: 15) famous sentence: “Colorless green ideas sleep furiously”? 
If not, why not? Or, rather, does this decontextualization follow the logic of what Haraway (1991a: 175) calls “cyborg writing”:

Cyborg writing must not be about the Fall, the imagination of a once-upon-a-time wholeness before language, before writing, before Man. Cyborg writing is about the power to survive, not on the basis of original innocence, but on the basis of seizing the tools to mark the world that marked them as other. (ibid.: 176; cf. Derrida 2000 [1988])

What is the question, as a question, that I am elaborating here? This question necessarily leads back to Heidegger. What is the question – this Heideggerian fragen – that Heidegger’s text in itself, as a text, is asking? If, for Heidegger (2000b [1953]: 7), firstly, it is the question concerning Technik that, in the very act of asking, enables us to prepare a free relationship to it, what, then, about sex, sex as a question? And if, secondly, for Heidegger, a relationship is free if it opens our human existence to the essence of technology (ibid.), does this postulate also pertain to sex? Finally, if, thirdly, for Heidegger, on the condition that we manage to respond to the essence of technology, it will become possible for us to experience the technological within its own bounds (ibid.), does the same premise apply to the sexual as well?

3.1.1 “The Sexual” as a Product of Language

However one answers these questions, what is certain is that in the world of the “post” the idea of meaning, and more profoundly, the ideal of making sense, has lost meaning altogether. Where there was once meaning, there is now significiation, a never-ending flow of signifiers each of which are their own signifieds.

Accordingly, my object of study is the epistemic order of post-theory as such as it appears in the linguistic figuration of cyber discourse, the world of the “cyber.” In this respect, what is at issue here is a fictionalization of theory in the mode of the postmodern (apart from that, there is in theory always a moment of the fictional as well as the fictitious); that is, a specific form of literaturization of language peculiar to all that is “post” that is the condition of possibility of the “cyber” (in terms of literatumost and ostranenie in Russian Formalism, cf. Erlich 1980 [1955]: 172; Hawkes 1977: 60–67; Striedter 1994 [1969]; for a historical contextualization, see Pomorska et al. 1987; for formalism as one of the origins of the “linguistic turn” in the American context, cf. Watten 2003: 106–111, 124–126). Thus, the problem of the world of the “cyber” is a question concerning fictionalized theory; that is, theory as theoretical fiction, theory as fiction, that, as a far echo – or, perhaps, as an ultimate radicalization – of the “linguistic turn” of the 1960s, functions according to the logic of the “post.”

To emphasize, the problem is not science fiction as a literary genre (see, for example, Roberts 2000; James & Mendlesohn 2003; Luckhurst 2005; Seed 2005a); the problem is the theoretical status of theory-fictions distinctive about post-theory, exemplified here by the theory-fictional figures and figurations of
cyber discourse. It is clear that this is no longer the constructionist ideal of science aptly formulated by Bruno Latour (1983: 142): “Give me a laboratory and I will raise the world”; instead, the ideal of the “post” is: Give me a word and I will raise a world. This is the epistemological and ontological Grundssatz of post-theory: if one has the right words, one is able to construct a world at one’s own will, a world of one’s own: a world in which nothing can constrain one’s existential freedom, the freedom of being beyond the limits and limitations of the subject and identity, the liberty of post-Enlightenment emancipation; that is, the liberation from the confinement of “the liberal humanist subject” (Hayles 1999: 2–7, 85–88, 140–149; cf. Haraway 1991f, 1997).


The Power of the Linguistic of Language

From the perspective outlined above the question arises: what is actually “the sexual” in cybersex, exemplified by the cybersex apparatus constructed by Stahl Stenslie and Kirk Woolford discussed above? Is it the same sexual as the sexual constitutive of the Anti-Onanie-Apparat and the Vibrations-Massage-Apparat “Autovibrator” during the time from Enlightenment reason to nineteenth-century scientific rationalism? And moreover, what is the difference – if there is any – between “the sexual” in Stenslie and Woolford’s techno-sexual construction and in Haraway’s (1991a: 150) “cyborg ‘sex’”?

As I argued above, if human experience in general is culturally conditioned, there is no sexual outside culture, that is, outside the order of language. In these terms, everything that is called “sex” in contemporary culture is ultimately a question concerning the language of the sexual: linguistic figurations through and by which something specific called “the sexual” emerges.

How, then, is sex, this ambiguous, seductive and anxious-ridden signifier characteristic of the twentieth century, the “sexual century” (Hawkes 2004: 165–166), to be construed in a world in which, after the “linguistic turn,” language in general has entirely lost its “innocence,” its self-evident transparency (see, for example, Rorty 1992a [1967]: 3–39; Bonnell & Hunt 1999b: 8–9; Taylor 2000: 39–47; Rajan 2002a: 4–8, 34–39, 123–136; in Chow 2006: 1–24; in terms of “capitalism’s linguistic turn,” see Poster 2001b: 39–59; for the “linguistic turn” as an “aesthetic turn” originating from German Romanticism, see Bowie 1997; for a historical articulation of “linguistic turns in modern philosophy,” see Losonsky 2006)? In other words, why is it that in the twentieth century, an era during which the world, on the one hand, was at the brink of total annihilation, and on the other, enjoyed the unprecedented progress of science and technology, welfare and freedom, the sexual, reduced to sex, turned into a signifier that in the postmodern has now a power similar to religion, as an all-embracing meta-code of desires and plea-
sures, constitutive of what Foucault (1990k: 7–8) aptly characterized as “a great sexual sermon” that “has made people dream of a New City”?

If this is the situation in Western culture in general, then, more specifically, why is it that the Foucauldian “great sexual sermon” has also made postmodern academia “dream of a New City”; that is, why has “the sexual” turned into a preoccupation of post-theory?

To understand the implications of these questions in their historicity, that is, in their genealogical coming-into-being (cf. Foucault 1977c [1971], 1980g [1976]), it is appropriate to ask what the apparatuses for “anti-onanism,” “vibrations-massage” and “cybersex,” discussed above, actually are; apparatuses that in their specific manner manifest the vicissitudes of the rational in the contexts of Enlightenment reason, nineteenth-century scientific rationalism and contemporary technoscience, respectively; the latter understood as the paradigm of scientific-technological rationality of technoscience constitutive of the postmodern (see, for example, Ihde & Selinger 2003; Michael 2006; Asdal et al. 2007)?

Besides being artefacts, what else are these contrivances, the Anti-Onanie-Apparat, the Vibrations-Massage-Apparat “Autovibrator” and the Anzug “Cyber SM bodysuit, female version, if not facts of language, acts of language, and as such, “social facts” in the sense of linguistics developed by de Saussure (1966 [1907–1911]: 77; for a historical contextualization, see Koerner 1973; Culler 1986 [1976]); a conception of language having affinities with Émile Durkheim’s (1982 [1895]: 50–59) idea of factuality in social terms (cf. Rafanell 2009: 64–73)?

What for Durkheim was sociology became for de Saussure (1966: 15) semiology, a “science which studies the role of signs as part of social life.” In this sense, as de Saussure says, “language never exists apart from the social fact” (ibid.). This is the facticity of language that is at the same time the linguistic of the factual, the linguistic of language producing the “factual” of facticity; regardless of whether the factual is about fact, or something fictional or altogether fictitious. In language, the potential is always actual, not only in its actual potentiality, but also in its potential actuality: in language, there is no difference between the factual and the fictional, between the real and the imaginary and between the theoretical and the actual. Speaking of the world language always speaks of itself by itself and by that creates a world, a world in its own terms, the terms of language (cf. Foucault 1989 [1966]: 34–44, 250–300, 1977a [1963], 1977b [1963], 1996a [1966]).

1 The background of this insight, forming the basis of the whole Saussurean position towards language, is a new science of the time, sociology, established by Durkheim, a contemporary of de Saussure. According to Durkheim (1982 [1895]: 50), in sociology the “first and fundamental rule is to consider social facts as things”; that is, a “social fact is every way of acting which is capable of exercising an external constraint upon the individual.” It is the “coercive power” of “manners of activity, thinking and feeling” (ibid.: 51) that makes something extra-individual into specifically social; therefore, the social exists not in the consciousness of the individual, but in the institutions that constitute society. For this reason, social facts are things. It is not difficult to see that Durkheim’s thought has had far-reaching consequences in the theories of Max Weber and Norbert Elias, as well as Freud and Foucault, up to the discursive-performative conception of all that is, discursively performed by Butler.
This is the world of *différence*; a world in which everything that “is” exists as a result of never-ending supplementation and dissemination, a proliferation of signifiers that procreate ever-new signifieds functioning as new signifiers, *ad infinitum* (see Derrida 1973 [1967]: 88–89, 1997 [1967]: 141–164, 195–200; cf., for example, Wolfreys 1998; Howells 1998).

Similarly to “sex,” this Foucauldian “phantasm” (Young 1990: 69–90), the *Anti-Onanie-Apparat* and the *Vibrations-Massage-Apparat “Autovibrator”* are linguistic facts, *words* that produce the things they speak about, signifiers that engender the signified they signify, terms that by constituting a vocabulary, a terminology, a specific *linguistic nomenclature*, establish a discourse, a world that literally exists in terms of language, in the realm of the linguistic of language.

As such, these apparatuses are *terms*, discursive markers, that designate material entities, “technical-corporeal materializations” (Mackenzie 2002: 51), that as technological inventions are technical terms; that is, words in special vocabularies at once expressing and constituting specific discourses: *discourses on masturbation and hysteria*, both of them in themselves contingent configurations of signifiers conditioned by a specific social and cultural constellation (cf., for example, Lamott 2001; Laqueur 2003); contingent in the sense that they are not predetermined by some intrinsic necessity of the state of matters, but, rather, in another historical constellation things could have been otherwise. In turn, as such discursive configurations “masturbation” and “hysteria,” each revolving around a pertinent conglomeration of ideas, practices and technological inventions, are particular signifiers *materialized* in these apparatuses purporting to bring the uncontrol-lable under control, the realm of “the sexual”; a realm that ultimately, in its revolt against the regime of reason, is always a materialization of the imaginary.

In this sense, as practical devices designed for certain purposes, these apparatuses derive their concrete-material existence from the constitutive materiality of the technological, the reality of the ideal as a realm of ideas, the realm of potentiality, a historical *a priori* articulated in the *epistēmē* of a certain cultural constellation (cf. Davidson 2001; Lachman & Rieger 2003; Zammito 2004; Rheinberger 2009); that is, *technology as an epistemology in itself*. In this manner, the existence of these devices is predicated upon, as Foucault 1992a [1969]: 56–63) says, the “formation of concepts,” and thus they go through a process of “epistemologization” (ibid.: 187–192; cf. Hazelrigg 1989), finally materializing, in different ways, in the concrete manifestations of the technological as a *manifestation of the corporeal*. Accordingly, these technical contrivances only function as apparatuses in discursive frameworks created by themselves: technological systems in their technicity that is the very materiality of their conceptuality (cf. Easton 2003: 168–175; in terms of Heidegger/Foucault encounter, cf. Sawicki 2003 [1987]; in the context of contemporary medical technologies, cf. Lock et al. 2000). This is the materiality of the linguistic of language: the condition of possibility of the materializations of technology. And, on the same premises, this is the materiality of “the sexual”: concepts, categories and forms of knowledge organizing the bodies and their...
desires and pleasures as specifically sexualized bodies, not in themselves, but in terms of the technological defined by certain sexual discourses at a certain time.

If this is the manner in which “objects constitute themselves in discourse” (Rorty 1996 [1986/1979]: 41), and, accordingly, the very “materiality” of the apparatuses for “anti-onanism” and “vibrations-massage,” what, then, is the materiality of Stenslie’s Anzug “Cyber SM bodysuit, female version”? Is it the same materiality as the materiality of those apparatuses used in efforts to bring masturbation and hysteria under control? Or, is it the materiality of the cyborg created by Haraway (1991a: 150) as a “condensed image of both imagination and material reality” in her attempt to establish a “post-gender world” by means of a specific politics of words in which sex turns into “cyborg ‘sex’”?

In their manner of manifesting the discursive-material constructions of hysteria, masturbation and cybersex, the three sexual-technological appliances discussed here articulate, in terms of language, “the technological” as a moment of “the sexual,” and vice versa, “the sexual” as a moment of “the technological.” Thus, what are all these configurations of signifiers – the Vibrations-Massage-Apparat, the Anti-Onanie-Apparat and the Cyber SM bodysuit – each in their specific cultural contexts, if not at the same time both constituents and manifestations of discourses that give meaning to and thus make the material entities, which they designate, significant and intelligible?

In Foucauldian terms, this is the power of discourses: without any pre-ordained teleology, without any pre-set intentionality, without any purpose as an act of will, for some contingent reason, certain linguistic figures – words, terms, idioms, phrases – belonging to a certain vocabulary and, at the same time, creating that vocabulary as a linguistic universe, cohere and condense into certain signifiers charged with specific meanings constituting a certain theory, doctrine or world-explanation, and take on the meaning as authoritative knowledge, emanating the power of Erkenntnis, that is, cognizance and cognition, as an organizing mode of insight and perception: knowledge as power that is the power of knowledge; in this sense, power is always productive, even when it is destructive (see, for example, Foucault 1990k: 92–95, 1978c [1977], 1980a [1975], 1980b [1977], 1990d [1977]; cf. Brieler 1998: 449–461; Schneider 2004: 167–182). Thus, a discourse is not a master-plan, a political programme, a scientific doctrine, or a philosophical system; rather, a discourse is a linguistic configuration that makes manifestations of thought as materializations of “power-knowledge” possible (see Foucault 1990k: 61–62, 82–102, 1980a [1975], 1980b [1977], 1990d [1977], 1996d [1978], 1996h [1977]; Rouse 1994: 92–102; Smart 2002 [1985]: 71–80, 93–105; Mills 2003: 67–80).

Knowledge is always immanent, also when it is about the transcendent. There is no knowledge outside language (although there is language outside knowledge); what is given in language is never identical with itself, in a state of stasis: the linguistic constitutive of language consists of différance (see Derrida 1982 [1972]: 24–33, 39–47, 1984a [1972/1968]). Nevertheless, in its unending move-
ment of difference language is not in-different; there are differences that constitute signifiers that have nomothetic efficiency, an ability to stabilize – of course, always momentarily – meaning in the flow of the linguistic of language. Thus, a contingent idea, just in its contingency (cf. Nietzsche 1968c [1887]: 274–278, 298–303; cf. Foucault 1977c [1971]), can carry with it its own logic of necessity: what occurred by chance at the outset turns into the inevitable, and in this way the accidental becomes conclusive, indispensable, self-evident, in the end, coercive (cf. Foucault 1990k [1976]: 17–35, 53–73, 97–98, 1980c [1977], 1980d [1977], 1980f [1977]; Brieler 1998: 401–418; Smart 2002: 93–102; Schneider 2004: 136–148). This is the idea of “power-knowledge”: the extraction of knowledge from the body constitutes it as the body of power: the body of knowledge.

In this manner, in the formation of a discourse the contingent assumes the role of the imperative: the contingent turns into a closure, into a nomos that has its own logos.

From this perspective, similarly to the appliances for “anti-onanism” and “vibrations-massage,” what else is the wearable body-machine construction called by Stenslie the “cybersex bodysuit,” if not a construction of words, a signifier in a certain vocabulary, a linguistic figure in a certain discursive configuration, and as such, a term that manifests, maintains and proliferates a certain discourse, the discourse of the “cyber” in the world of the “post.” And as a corollary, is it this very discourse, cyber discourse, that – in the manner of the postmodern artspeak constitutive of media art – turns a certain assemblage of technology (receptors, effectors, vibrators, computer displays and all the pertaining paraphernalia constitutive of Stenslie’s “cybersex bodysuit”) into a specific discursive-material entity; that is, a “technological-corporeal materialization” (Mackenzie 2002: 51) referred to by the signifier “cybersex,” a signifier that in itself is a linguistic assembly, a configuration of signifiers that signify by the force of signification it itself effects, similarly to the signifier the “cyborg”?

This is the question pertaining to both “the sexual” and “the technological” in the discursive order of the “cyber” following the logic of the “post.”

The Discursive Figures of Onanism

To see how a discourse emerges and functions, it is illuminative to return to the middle of the early eighteenth century, the hayday of “onanism disease,” a conceptual construction deriving from the medico-theological mode of thought of the time concerning the alleged dangers of what was called onanism, understood as a pathology (see Sharrock 1997: 419–421; Vidal 2004b: 265–267; for a comprehensive historical contextualization in terms of the theological conceptuality of Christianity, see Braun 1995): a historical period during which, in the campaign against onanism, “devices of all sorts had joined the potions and pills of the anti-masturbation marketplace” (Laqueur 2003: 46), devices that at the same time became constituted by and were constitutive of the discourse on anti-onanism (cf. Mottier 2008: 28–30; Roudinesco 2009 [2007]: 67–69).
Sometime between 1708 and 1716 in London, written by an anonymous author, appeared a short tractate that “not only named but actually invented a new disease” (Laqueur 2003: 13). Onania; or, The Heinous Sin of Self-Pollution, as the first part of the long title of this booklet indicated, was about a “wilful self-abuse” (ibid.: 15) that, similarly to Onan’s fate in the Old Testament, had terrible consequences: death. This “mortal sin,” a “solitary vice,” a “crime contrary to nature,” or an “abominable self-defilement” (ibid.: 25–183; Stengers & Van Neck 2001 [1998]: 19–59; Meyer-Drawe 2004) as it, among other things, was called, seemed to be a plague threatening, in a manner of an epidemic, general health and, in the end, the entire future of humankind.

After the “invention” of this entirely new “disease,” or, as Karl Braun (1995), referring to the medical expression used by physicians of the time, says, die Krankheit Onania, the “onanism disease,” an extreme rapid proliferation of a new discourse – a discourse that turned a seemingly “scientific” vocabulary into scientific factuality – set in, right in the heart of the Age of Reason (for an overview, see Porter 2003; specifically in terms of “the sexual,” see Roosseau & Porter 1987b; Rousseau 1991, 1993; Porter 1995): anti-onanism discourse that, at the same time, was a discourse on onanism, that is, a discourse that itself created the “disease” that it fought against; a discourse that, indeed, constituted a “panic body” avant la lettre (see Kroker & Kroker 1988b: 15–16, 1988c; Kroker et al. 1989: 203), a dystopian body invented by the Enlightenment. This discourse, an amalgam of religious-moral, physico-theological and physiological-medical doctrines (Braun 1995: 170–186), attained its final “scientific” legitimation by the Swiss physiologist and physician, Samuel August André David Tissot in his widely circulated treatise L’Onanisme, ou Dissertation physique sur les maladies produites par la masturbation, published in 1760 (see Laqueur 2003: 27–99; for a science-historical contextualization, see Sarasin 2001: 403–433, 1995; in terms of the “hygienic imagination” of philanthropism, see Meyr-Drawe 2004; with regard to the conceptual transition “from perfectibility to perversion” in Enlightenment thought, see Winston 2005: 104–117; for Tissot’s notable career as a medical adviser and social critic of European intellec-
Fig. 2–3. Samuel August André David Tissot (1728–1797), an eminent Swiss neurologist, physiologist and physician practicing in Lausanne; an Enlightenment scientific authority in whole Europe, a medical adviser equally for the common people (Avis au peuple sur sa santé, “Advice to People on their Health,” 1761) and literary and philosophical luminaries (De la santé des gens de lettres, “Treatise on the Health of Men of Letters,” 1768).

While Onania, the title of an anonymous pseudo-medical pamphlet and the term introduced by it, “gave rise to onanism,” although the author, curiously, “never used it himself” (Stengers & Van Neck 2001 [1998]: 53), it was Tissot who, due to his highly esteemed position as a physician and scientist, gave a medical legitimacy to onanism as a specific disease with its symptomatic consequences. This notwithstanding, both onania and onanism, according to an early-eighteenth-century dictionary, still referred to “the crime of self-pollution, mentioned in Scripture to have been practised by Onan, and punished in him with death” (ibid.: 53–54).

The difference was that, whereas onania, the pernicious habit of self-abuse, was a moral-theological problem, onanism, in its French form, onanisme, designated a dangerous, even lethal pathology, described by Tissot in his widely circulated treatise L’Onanisme, ou Dissertation physique sur les maladies produites par la masturbation (the picture shows the title page of the fourth edition), “Onanism, or a Treatise upon the Disorders Produced by Masturbation,” published in 1760 (see, for example, Porter 1994: 140–143; Rosario 1995: 103–105; Vidal 2004b: 273–281; Phillips & Reay 2011: 193–194; Jordanova 1987; for a historical contextualization in terms of pathology, see Vila 1998).

Why is it that genital pleasure induced by oneself, a mode of pleasure that was not only for the Christians, but also according to Kant (1988c [1803]: 759, 1991c [1797/1798]: 390), a “mortal sin,” one of the crima carnis contra naturam, “crimes of the flesh against nature,” that in its gravity was even not appropriate to be named (Laqueur 2003: 58–60; cf. Caygill 1995: 366; Žižek 1997b: 65; for a historical contextualization, see Böhme & Böhme 1985 [1983]: 427–495; Jauch 1989; Puff 2004), became during the Enlightenment, the “Age of Reason,” an epoch idealizing scientific rationality, a serious and far-reaching medical and moral-political problem, widely discussed not only by physicians and pedagogues, but also by philosophers like, in addition to Kant, Voltaire and Rous-
seanou (Laqueur 2003: 41–60)? First of all, why was “onanism” considered as a “disease,” an incurable malady that was seen to consume the body and result in a premature death (Stenger & Van Neck 2001: 37–59)?

To begin with, onanism is not to be conflated with masturbation in the contemporary sense; at issue is an entirely different concept (for an exemplary historical clarification of the complicated conceptual complexity around the notions “onanism” and “masturbation” from the Biblical times to the era of Freud, see Braun 1995; cf. Gutmann 1998; Walter 2004; Piller 2007; for the Freudian conception of “onanism,” see Freud 1990d [1912], 1990g [1912]). From the early eighteenth century to the times of Freud, onanism was not only about the habit of onanism, but, at the same time, it designated a pathological way of life amounting to both the syndromes and the ailment proper, an allegedly morbid sickness ravaging the body (cf. Allen 2000; for the idea of sexuality as a “disease” in itself, see Wernz 1993; for a historical contextualization, see Jordanova 1980, 1987, 1989, 1999; Gallagher & Laqueur 1987 [1986]). In onanism, the problem was, besides the act of illicit genital pleasure as such, the deformation of personality, a grave disorder of the self, that entailed also an alarming decay of the civilized order of life. In contemporary terms, onanism was a “civilization disease” in the cultural sense of the term (cf. Porter 1993b): at the same time the cause and the effect of an assumed decline of all that was about to be achieved through Enlightenment reason.

In these terms, everyone who fell a victim to onanism was an embodiment of unreason, a negation of the rational and reasonable self: the very disgrace of the human.

It is in this manner that Onania, the tractate of an anonymous author, spreading quickly all over Europe in the early eighteenth century, gave rise to a discourse that, on the one hand, not only summarized and revived, but also rearticulated and recontextualized the whole Christian complex of the “sins of the flesh,” and on the other, introduced a secular conception of the dangers of carnal desires and pleasures based on the medical views of the time. This was the origin of die Krankheit Onania, the “onanism disease,” that manifested a Körperangst, an “anxiety of the body,” inherent to the Enlightenment conception of the human being: the body as the very threat to the enlightened unfolding of civilized personality; that is, the body as a threatening “other” of the disciplined self, the ideal of the emerging bourgeois subject.

2 The problem is succinctly illuminated by Ben-Ami Scharfstein (1980: 226): “Kant’s attitude toward sexual crimes may have been characteristic of his period, but looked at from our perspective, it is strikingly harsh. He thought masturbation to be ‘a violation of one’s duty to oneself and […] certainly in the highest degree opposed to morality.’ The reluctance to name it, he said (without himself naming it), shows that it is fundamentally more degrading than suicide (emphasis mine). Yet despite the severity of the crime, he said, ‘it is not easy to produce a rational demonstration of the inadmissibility of that unnatural use’ of a man’s body merely to gratify the man’s own animal drive. Kant was right, of course. It was not rational demonstration, but his early training and his sexual attitudes that led him to believe that sexual crimes irrevocably destroy a man’s humanity.” The problem was that in the act of masturbation the human being degrades the humanity as a whole in his own body (see Kant 1991c [1797/1798]: 390; for a historical contextualization, see Böhme & Böhme 1985 [1983]: 427–495; Jauch 1989).
Fig. 4. Wenn schnöde Wollust dich erfüllt / So werde durch dies Schreckenbild / Verdornter Totenknochen / Der Kitzel unterbrochen, “If vile lust possesses you / So by this specter / of withered bones / Will the titillation be broken.”


Similarly, echoing Tissot’s medical verdict that onanism is a pathology that finally leads to death, a French doctor pronounced in 1801: “Of all the destructive vices of the human species, the worst is unquestionable masturbation” (Stengers & Van Neck 2001 [1998]: 84–85). A counterpoint to the sign of death inscribed in onanism was the idea of personal health care based on an appropriate conduct of life promoted by philanthropism. Thus, during some two decades after Tissot’s ground-breaking work, for example, German philanthropists managed “to develop a complete and detailed anti-masturbatory pedagogical system” (ibid.: 86; cf. Braun 1995: 251–254; Hull 1996: 233–237, 258–280; Meyer-Drawe 2004; for a historical overview of German philanthropism, see Lempa 1993).

As such a hybrid discourse, “onanism disease” derived from what I term the medicalization of sin (for the idea on medicalization, see, for example, Eckart & Jütte 2007: 161–167, 208–213, 313–316; Duden 1991 [1987], 1994 [1991]; Loetz 1994; Metz-Becker 1997; Seidel 1998; for the origin of the idea, see Foucault 1994b [1963]: 22–37; Goubert 1982). While the anonymous tractate, Onania, as a “flood of curses” on the “heinous sin,” the “abominable practice” and the “frightful consequences” of onanism, established a “trinity” of “sin, vice and self-destruction” (Stengers & Van Neck 2001: 38) that came to dominate the conception of “the sexual” until the end of nineteenth century, it was only Tissot who gave “onania” the scientific foundation (of course, as the “scientific” at the time was understood). In his authoritative treatise, L’Onanisme, ou Dissertation physique sur les maladies produites par la masturbation (1760), Tissot, a practicing physician, presented, among other things, a case study that established the medical characteristics of onanism as a morbid disease.

The case of “L. D***,” a “young watchmaker-masturbator” (sic) (Stenger & Van Neck 2001: 65) is the locus classicus of “onania” discourse, a point of origin for innumerable variations of descriptions demonstrating the devastating effects of onanism. This young man had “enjoyed good health, up until the age of seventeen” (ibid.), but after learning to enjoy self-induced genital pleasure his destiny was sealed.
“Before a year had passed” he found himself in a “state where he feared death was imminent” (ibid.). And indeed, this was the case, as Tissot reports:

I learned of his state, I went to his home; what I found was *less a living being than a cadaver* lying on straw, thin, pale, exuding a loathsome stench, almost incapable of movement. A pale and watery blood often dripped from his nose, he drooled continually; subject to attacks of diarrhea, he defecated in his bed without noticing it: there was a constant flow of semen; his eyes, sticky, blurry, dull, had lost all power of movement; his pulse was extremely weak and racing; labored respiration, extreme emaciation, except for the feet, which were showing signs of edema. Mental disorder was equally evident; without ideas, without memory, incapable of linking two sentences, without reflection, without fear for his fate, lacking all feeling except that of pain, which returned at least every three days with each new attack. Thus *sunk below the level of the beast*, a spectacle of unimaginable horror, it was difficult to believe that he had once belonged to the human race […]. He died after several weeks, in June 1757, his entire body covered in edemas. (ibid.: 65–66; emphasis mine; cf. Timm & Sanborn 2007: 169–172; for a historical contextualization in terms of “the erotics of corruption,” see Miller 2008)

We have all the reasons to believe that Tissot, indeed, *saw* what he reported, and *reported* what he saw, since, as Foucault (1994b [1963]: 57–62) describes Tissot’s approach, as a theoretically interested and practically oriented physician, Tissot was a meticulous observer, a man of methodical rigour and human empathy. But the problem was precisely the professional mode of observation in itself: the “medical gaze,” as Foucault says, “the sovereignty of the gaze,” “the eye that knows and decides, the eye that governs” (ibid.: 89; cf. Darius 2002: 73–74; During 2004 [1992]: 44–48). It is in this sense that Tissot, in fact, *saw more than he saw*: he saw the “young watchmaker-masturbator” as a *case* that exemplified his *theory*, as a paradigmatic example of his *epistemological construction* of “onanism” as a “disease.” The problem was that what Foucault (1994b: 4–16) calls “the suzerainty of the gaze” in medicine constituting the epistemological regime of “the medical gaze,” the faculty of knowing eye, enabled Tissot’s professional observation under which “the abyss beneath illness, which was the illness itself […] *emerged into the light of language*” (ibid.: 195; emphasis mine): the “disease” of “onanism” that he deemed to be the “illness” of his patient. In other words, the moribund “onanist,” the dying “young watchmaker-masturbator,” became a discursive fact and, as such, a corroboration of medical truth (for a historical-epistemological contextualization, see Fleck 1980 [1935]; Rheinberger et al. 1997; Sarasin 2001).

Of course, in terms of the desires and pleasures of the body, the era in which Tissot was living, the Age of Reason, convinced of its own sovereign rationality in the name of the Enlightenment, was aeons away from the times of *aphrodisia* celebrated by the Greeks (see Foucault 1983b [1982]: 238–242, 1992b [1984]: 38–52), a mode of “pleasure in terms of a relation to self, an art or aesthetics of existence” (Gillan 1988: 36; cf. for example, McWhorter 1999: 114–117; O’Leary 2002: 41–43, 64–67; Smart 2002 [1985]: 112–115). But then again, is the irreversible decay of the body ensuing from onanism an epitome of the Christian conception of the consequences of *libido* and *concupiscencia*, the “sins of the flesh” (see, for example, Bonner 1962: 303–314, 2002 [1963]: 375–378, 398–401;
Fig. 5–20. A series of illustrations from Jérôme Millon’s anti-masturbation tractate, *Le Livre Sans Titre*, “The Book without a Title,” 1830; a description of the progressive physical decline of a young man suffering from the consequences of onanism.

A cautionary morality tale typical of the times (for a historical contextualization in terms of “the crusade against masturbation,” see Foucault 2003 [1999/1975]; cf. Elden 2001; for a comprehensive history of *die Krankheit Onania* or “onanism disease,” see Braun 1995; for onanism and masturbation in the context of the emergence of sexuality, see Davidson 2001: 116–120; in terms of the idea of pathology in Enlightenment literature and medicine, see Vila 1998; with regard to “the pathologies of imagination in early modern medical discourse,” see Zaun et al. 2004; for the figure of the onanist as representing “sexual outcasts” in the sense of “secret or forbidden sexual practices” in the eighteenth and nineteenth centuries, see McCormick 2000b).

“He was young, handsome; his mother’s fond hope…”

“He corrupted himself!… soon he bore the grief of his error, old before his time… his back hunches…”

“A devouring fire sears his gut; he suffers horrible stomach pains…”

“See his eyes once so pure, so brilliant; they are extinguished! a fiery band envelops them.”

“He can’t walk any more… his legs give way…”

“Hideous dreams disturb his slumber… he cannot sleep…”

“His teeth rot and fall out…”

“His chest burns… he spits up blood…”

“His hair, once so lovely, falls as if from old age; his scalp grows bald before his age…”

“He hungers; he wants to satiate his appetite; food won’t stay down in his stomach…”

“His chest collapses… he vomits blood…”

“Pustules cover his entire body… He is terrible to behold!”

“A slow fever consumes him, he declines; all of his body burns up…”

“His entire body stiffens!… his limbs stop moving…”

“He is delirious; he stiffens against death; death gains strength…”

“At the age of 17, he expires, and in horrible torment.”
Baldwin 1994: 116–118, 127–139; Rist 1994: 136–138)?3 No, because Tissot does not construe and construct his case in religious terms, but in terms of scientific research, that is, medicine and the emergent science of physiology (see Porter 1995: 86–87; Hull 1996: 236–266; Richter 2004: 194–195). Tissot’s work is not about sin but disease. And yet, in all its Enlightenment rationality Tissot’s medical study of “onanism” is deeply embedded in Christian tradition. In this sense, “onanism” is a scientific translation, a medicalized reading, of the theological notion of “self-pollution”: sin turned into a morbid malady.

In the beginning, in the origin of the origin (in genealogical terms), there was “Onan’s Crime,” Onan’s refusal of begetting as it was prescribed by the kinship rules regulating progeny, that is, the “obligations of levirate marriage” (Laqueur 2003: 113; Stengers & Van Neck 2001 [1998]: 21–22).4 But although Onan “spilled his seed upon the ground,” his “crime” was not what later became known as onanism (in the sense of the pathological conception of masturbation), but a grave misdeed: coitus interruptus constituting a transgression against God’s command on procreation (“be fruitful and multiply and replenish the earth”) and the canon of descent based on it. Thus, in Christian terms, Onan was not an “onanist”; instead, his deed was an offence against the divine order: it was an act against the continuity of family line, in fact, a murder on unborn life, and as such a misdemeanour against human generation, the continuation of human-kind. From the Biblical perspective, a grave sin, indeed.

3 My conception of the postmodern mode of sexual desires and pleasures that I designate by the term “post-sex” implies not only that what today are called “sex” and “sexuality” have come into being only in the first part of the twentieth century, disintegrating now into various incomensurable sexual orientations, proclivities and practices with their own idiosyncrasies, but, more fundamentally, that before the era of sex and sexuality, there are to be discerned four historical periods that differ from one another in terms of their relationship to the body as a source and means of specific corporeal desires and pleasures: (1) Greek Antiquity and aphrodisia as male-oriented uses of the body for erotic, intellectual and corporeal enjoyment (the era of the body); (2) early Christianity and its Middle Age aftermath: concupiscencia as the renunciation of the carnal body as the source of sin and depravation (the era of the flesh); (3) the Enlightenment as the time of onania: a disciplinary, medico-hygienic and moral-theological regime of the body (the era of the genital); and (4) the paradigm of the Freudian libido and Trieb (the era of the sexual) as the transition from the presexual modes of desires and pleasures to the normalization of the trinity of heterosexuality, conjugal relations and procreation constitutive of twentieth-century sexual culture as the era of sex, still present in the form of its disintegration (for the central sources informing my periodization, see Brown 1988; Rousseau & Porter 1987b; Foucault 1983b [1982], 1990k [1976], 1990h [1984], 1992b [1984]; Halperin et al. 1990; Rousseau 1991; Porter & Teich 1994b; Braun 1995; Hull 1996; Eder 2002; Crawford 2007).

4 According to the Bible, Juda gave Tamar as wife to his son Er, but since Er was disobedient God slew him. Thereafter Onan’s destiny took its course: “Da sprach Juda zu Onan: Geh zu deines Bruders Frau und nimm sie zur Schwagerehe, auf daß du deinem Bruder Nachkommen schaffest. Aber Onan wußte, daß die Kinder nicht sein eigen sein sollten, ließ er’s auf die Erde fallen und verderben, wenn er einging zu seines Bruders Frau, auf daß er seinem Bruder nicht Nachkommen schaffe. Dem Herrn mißfiel aber, was er tat, und er ließ ihn auch sterben.” (1. Mose 38: 8–10) What is at issue here is the “something” that is indicated by the abbreviation ‘s, that is, es, semen. In contemporary terms, what Onan did was not masturbation but coitus interruptus. In Christian terms, however, the offence was that Onan let his semen die, and thus he exterminated the seed of life, that is, the progeny of his dead brother. Therefore, according to Calvin: “To withdrawal on purpose from woman, so that the seed falls to the ground, is doubly monstrous: for it is the extinguishing of all hopes for posterity, as well as the murder of the anticipated child before his birth” (Stengers & Van Neck 2001: 22).
But also in onanism, as it was understood by Tissot, at issue was precisely the “seed,” semen, seminal fluid: the emission of sperm. It is the idea of pollution as the figure of the “loss of semen” that from the Aristotelian philosophy and Galenian medicine through Christian theology to the Enlightenment world of reason and science finds its culmination in Tissot’s doctrine of the debilitating effects of onanism. In these terms, Tissot’s framework was, instead of the Bible, the scientific legacy of his predecessors, the founders of a new science, physiological medicine: Herman Boerhaave and Albrecht von Haller (see, for example, Lindemann 1999: 83–85, 92–99; Eckart 2005 [1990]: 134–168). It is in this context of the eighteenth century conception of the humoral and nervous functions of the body (see, for example, Vila 1998: 13–107; Muri 2007: 32–41) that the Christian idea of sin turned into a scientific notion of a specific pathology, “onanism disease.”

“Onanism Disease”: mollitia, pollutio and immunditia

In the light of his alarming clinical observations pertaining to the case studies of his patients, Tissot believed that he was witnessing a perilous epidemic threatening the health and morality of the whole civilized world. Based on assumed “scientific facts” and authorized by all the leading physicians of the time, the discourse on the “solitary vice,” the “wilful self-abuse” or “heinous sin of self pollution” (Laqueur 2003: 13–46; Meyer-Drawe 2004) brought about a wide-spread panic concerning the grave misuse of the genital organs, organs that, according to the prevailing theological conception of the human being, were created for the purpose of procreation. Thus, from the very beginning, the burgeoning idea of “sexuality” was defined in terms threat and danger of which “onanism disease” was the most frightening evidence. In this constellation, onanism, for its part, gave rise to the proliferation of discourses around the nodal point of “the sexual” during the Enlightenment; discourses that, coming from various learned circles, finally resulted in the conceptual codification of “sex” and “sexuality” by a new science, the scientific discipline of Sexualwissenschaft, in the nineteenth century (for a comprehensive overview, see Sigusch 2008). Foucault’s summary is illuminating:

First there was medicine, via the “nervous disorders”; next psychiatry, when it set out to discover the etiology of mental illnesses, focusing its gaze first on “excess,” then onanism, then frustration, then “frauds against procreation,” but especially when it annexed the whole of the sexual perversions as its own province; criminal justice, too, which had long been concerned with sexuality, particularly in the form of “heinous” crimes and crimes against nature, but which, toward the middle of the nineteenth century, broadened its jurisdiction to include petty offences, minor indecencies, insignificant perversions; and lastly, all those social controls, cropping up at the end of the last century, which screened the sexuality of couples, parents and children, dangerous and endangered adolescents – undertaking to protect, separate, and forewarn, signalling perils everywhere, awakening people’s attention, calling for diagnoses, piling up reports, organizing therapies. These sites radiated discourses aimed at sex [le sexe], intensifying people’s awareness of it as a constant danger, and this in turn created a further incentive to talk about it. (Foucault 1990k: 30–31; 1994a [1976]: 42–43)
In this way, by “putting into discourse” (Foucault 1990k: 11) the disparate elements of “the sexual,” eighteenth and nineteenth centuries power centres attempted to “civilize” the human body, its wayward desires and pleasures, its unbridled drives and affects (cf. Freud 1972a [1930]; Elias 1980a [1939], 1980b [1939]). What stands at the beginning of this wide-ranging discursive process is “onanism disease,” a pathology that, by its horrific consequences, demonstrated what it was that “the sexual” was about: a deadly dangerous realm of life.

From this perspective, it is understandable that, for Tissot, onanism was not so much a Biblical crime against unborn life, but, rather, a medical problem concerning both personal and national health: a deliberately committed devastating act against oneself, against one’s own life. In other words, as a self-induced disease “onanism” was no more and no less than an insidiously progressing suicide. Precisely this idea, however, was, in its origin, a reinterpretation of the Christian notion of mortal sin.

According to Pauline theology, the body is a “temple of the holy spirit” (1 Cor 6, 12–20; Gaca 2003: 145–165; Brown 1988; for a cultural-historical and theological contextualization, see Coakley 1997). Given by God, this “temple” was not to be defiled by sinful life. In early Christianity, the conceptual complex of the “sins of the flesh” consisted of, on the one hand, fornication and adultery, and on the other, effeminacy and sodomy (Murray 1991: 49–61, 67–68, 192–193; Bennett & Rosario II 1995: 3; Sharrock 1997: 417–420; Jordan 1997; Carden 2004). In this configuration, in which fornication and adultery designated acts and practices of carnal desires and pleasures that did not purport procreation and that as such were sinful, the whole problematics of the penis, penetration and pollution was subsumed by the concepts of effeminacy and sodomy, concepts that were to manifest the historical transition in terms of the uses of the body from ancient Greece through early Christianity to the Age of Reason (Laqueur 2003: 140–163; cf. Rousseau 1991). This is the conceptual complex of “crimes against nature” (Jordan 2002: 76–106), the “other side” of “the sexual” constitutive of what became known as sexuality as a whole.

5 The Biblical idea, expressed by Paul in his epistle to the Corinthians, is that the body belongs not to the human being but to Jesus: Wißt ihr nicht, daß eure Leiber Glieder Christi sind? Sollte ich nun die Glieder Christi nehmen und Hurengliedern daraus machen? (Kor 6, 15) Oder wißt ihr nicht, daß euer Leib ein Tempel des heiligen Geistes ist, der in euch ist und den ihr von Gott habt, und daß ihr nicht euch selbst gehört. Denn ihr seid teuer erkauft, darum preist Gott mit eurem Leibe. (Kor 6, 19–20)

It is in this manner that the idea of “the sexual,” in fact, derives from the “constitutive outside” (Butler 1993: v, 3, 8) of the accepted and legitimate uses of the body, and, as such, an illegitimate domain of desires and pleasures. Thus, not only fornication and adultery, as relentless excess of venery, but, first of all, effeminacy and sodomy, as transgressions contra naturam, that is, gross iniquities contrary to nature, implying carnal acts between men, concubitus cum persona ejusdem sexus, were all sins of luxuria, non-productive and useless excess of desires and pleasures that endangered the very existence of the social order as the “natural order” created by God (Berry 1994: 14, 64–68, 89–98; Rogers 1999: 100–101; for a comprehensive in-depth reading of the tradition of Christian theology, see Jordan 1997); an order that implied an economy of the body that became the origin of Western sexuality. From this Biblical origin, sodomy widened out, from early Christianity to the Enlightenment, to embrace “unnatural” practices in general: modes of salacity and lechery including especially anal and oral intercourse whether between men, or between men and women, inappropriate positions in copulation and, last but not least, bestiality. Thus, in one way or another, sodomy was always about non in debito vase, “in the wrong orifice,” or non in debitus modus, “in an improper fashion” (Laqueur 2003: 153).

This is the constellation of illegitimate desires and pleasure that constitutes the conceptual fundament of “onanism disease,” the medico-theological discourse of onanism having its emblematic form, its paragon, in Tissot’s physiological and moral-theological theory of the dangers of seminal loss. According to Braun (1995: 147–159), this is the configuration of the “little sodomy” consisting of the conceptual interrelations and the transformations of meaning in the complex of mollitia/pollutio/immunditia; notions that in themselves manifest the centrality of the penis, penetration and seminal emission in the genealogy of all that is “sexual” in the Western tradition.

In ancient Greece, malakos, or in Latin mollitia, “softness,” referred to the position of the male penetrated by another; a position that epitomized subservience and weakness, in other words, the characteristics of unmanliness or effeminacy (see Edwards 1993: 63–97). Mols were young men or slaves who were persuaded or forced to serve as the objects of pleasure for free men, or – and here begins the problem proper – who voluntarily, instigated by their own desire, yielded themselves up to be penetrated (see Jordan 1997: 103–105; Crawford 2007: 189–190, 202–204). Because these men assumed in the act the “female” role they were called kinaidos, catamites, or “effeminate”; in other words, these were “soft” men, “weaklings,” whose desire did not correspond to the idea of masculinity, the ideal of man commanding himself similarly as the others (see, for example, Winkler 1994 [1990]: 73–86, 104–108; Halperin 2002b: 32–43, 71–72, 148; in terms of “the cultivation of the self,” see Foucault 1990h [1984]: 39–68).

In turn, the problem referred to pollutio or pollution is a consequence of this subservient position: how did the malakos manage to get his own pleasure? By his own hand, or with the help of the other penetrating him (Braun 1995:
Although in this practice there was nothing sinful for the Greeks, it was, nevertheless, seen disgraceful and as such scorned by them. But for Christians, this was an apotheosis of cardinal sin: a man who lets another to penetrate himself and, on top, masturbates at the same time— that, indeed, is life in Sodom, a horrible offence rightly punished by God.\(^7\)

While, for the Christians, in the sense of Augustinian moral theology, “nocturnal emissions,” or involuntary effusion of semen, as a sign that sin had still the body in its grip, was already as such a serious problem (Krondorfer 1996: 7; for a historical contextualization, see Brundage 1990: 80–87; Posner 1992: 46–46; Gaca 2003: 6–11; Brown 1988), the more it was in the act that induced a voluntary emission: the practice of “self-pollution.” In Tissot’s theory of onanism, this idea of seminal loss turned from being, in Christian theology, an indication of sinful thoughts in dream, into a physiological cause effecting an irreversible deprivation of the body (in terms of the “hygienic imagination” of philanthropism, see Meyer-Drawe 2004). Accordingly, what for the Christians was *immunditia*, that is, a state of shameful uncleanness resulting from an involuntary seminal emission, became to designate for Tissot a pathological state of seminal loss in which the organism was destroyed as the result of voluntary “self-defilement” or “onanism disease” (Braun 1995: 98–109).

Mediated through this conceptual complex, *mollitia* (“weakness”), *pollutio* (“self-defilement”) and *immunditia* (“uncleanness”), a configuration in which Greece and Christian ideas became intermingled, a seminal loss deliberately induced by oneself took on the meaning, for Tissot, of a grave loss of life energy. Based on the Galenian humoral theory of the balance of bodily fluids, seminal fluid signified in Tissot’s conception of onanism the most precious substance of the organism that vitalized all the functions of the body (Stengers & Van Neck 2001 [1998]: 94–95; Laqueur 2003: 194–200). Accordingly, the loss of this substance that, similarly to the Cartesian theory of the *corps-machine* (see Baker & Morris 1996: 35–38, 89–100), consisted of “life spirits” (*esprits animaux*), amounted to a gradual emaciation of the victim of onanism (Vidal 2004b: 260; Quinlan 2007: 40–42; for a comprehensive history of the doctrine concerning the “animal spirits,” see Ochs 2004). In this sense, seminal fluid was, for Tissot, literally the “semen of life” that not only enabled procreation, but maintained the health of the body.

Thus, as a voluntary waste of the very life-spending substance of the living organism, onanism was in Tissot’s theory a horrible disease in which sin, vice and crime combined in a mortal pathology. For this reason, from the eigh-

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7 The devastation of Sodom takes place after a group of male citizens demanded Lot to give them the visitors to be used for their carnal pleasure: *Wo sind die Männer, die zu dir gekommen sind diese Nacht? Führe sie heraus zu uns, daß wir uns über sie her machen.* (Mose 19, 5) Here, the Lutheran expression *her machen* means to take advantage, to exploit. In Sodom, like women who had replaced “natural intercourse” by “unnatural” habits, *desgleichen haben auch Männer den natürlichen Verkehr mit der Frau verlassen und sind in Begierde zueinander entbrannt und haben Mann mit Mann Schande getrieben und den Lohn ihrer Verirrung, wie es ja sein mußte, an sich selbst empfangen* (Röm 1, 24–27). Thus: *Ihr sollt nichts mit einem zu schaffen haben, der sich Bruder nennen läßt und ist ein Unzüchtiger* (Kor 5, 11).
eenth through the nineteenth century onanism was seen as a lethal disease the victims of which took each day a “step closer to the tomb”; thus, “neither the plague, nor war, nor the pox, nor a host of similar evils, have more disastrous results for humanity than this fatal habit” that is “one of the most serious causes of the degeneration of the species” (Stengers & Van Neck 2001: 3–4).

The Problem: The Sexual Self-Relation of the Subject

The onanism discourse initiated by Tissot with his epochal treatise L’Onanisme, ou Dissertation physique sur les maladies produites par la masturbation materialized not only in the form of cultural, political and educational practices that attempted to combat the spreading of this “heinous sin” by means of enlightenment and education, but also in the form of medical means purported to be used as remedy against “onanism disease.” All these methods and techniques were, at the same time, discursive figures precisely in their practical materiality, as instruments, devices and potions, in a firmly established discourse formation, the anti-onanism discourse; a linguistic configuration that produced what it named: onanism as a “disease” and, as its consequence, various efforts to escape its fatal grip.

Driven by anxiety and guilt, there was a seemingly inexhaustible demand for something, anything, that would stop the depredations of the supposedly secret vice. Capitalism and technology rose the challenges: a steady stream of appliances – erection alarms, penis cases, sleeping mitts, bed cradles to keep the sheets off the genitals, hobbles to keep girls from spreading their legs – earned at least twenty patents in the United States alone. And parents were urged by many a guidebook to exercise the utmost vigilance even without the help of technology. Right up to the Great War, in short, an extensive commercial medical network profited from the disease and the guilt born in and around 1712. (Laqueur 2003: 46; cf. Jordanova 1987)

At the end of the nineteenth century, as a result of the advances in technology, ever-new devices were applied to combat the “furor of onanism” (Stengers & Van Neck 2001: 12). For example, a medical dictionary of 1881 announced that a great number of instruments have been conceived for boys or girls. These instruments must fill the same prescription: to imprison the genital organs of the child or the adult, in such a way that he is unable to reach them, while still permitting menstrual flow and micturition. (ibid.; emphasis mine)

8 For more than two centuries onanism was seen to cause a large spectrum of various illnesses: (1) in the cerebrospinal system: cephalalgias, vertigo, cerebral congestion; (2) in the nervous system: asthenia, melancholia, hysteria, convulsions, stupidity, imbecility, insanity; (3) in the sense organs and phonation: weakening or total loss of sight and hearing, progressive loss of smell and taste, speaking disorders; (4) in the skeletal system: rachitis, gibbosities, stunting of growth, articular rheumatism, gout; (5) in the muscular and adipose system: palpitations, syncope, lesions of the heart and large blood vessels, aneurysmal rupture; (6) in the respiratory system: chronic catarrh, phthisis, tubercular consumption, scrofula; in the digestive system: chronic gastralgia, dyspepsia, colic; (7) in the genitourinary system: spermatorrhea, prostatitis, impotence, sterility (Stenger & Van Neck 2001: 2–3). Thus, onanism, or, “genital ardor,” was not only a solitary vice; it was an “abominable practice” that “put to death more individuals than all the great wars, joined to the most depopulating epidemics” (ibid.: 3).
Likewise, a French “hernial surgeon” invented an “undergarment that is to be worn day and night” to prevent an “onanist” to touch his or her genitals. For the same purpose, “a surgical bazaar” in Paris offered in 1860 “bandages,” “straightjackets” and “belts” that were to be worn “without the slightest sensation of discomfort, as they have no metal fittings” (ibid.: 12–13). In 1873, a Belgian teacher invented an “anti-masturbation school bench” that prevented “schoolboys from crossing or closing their legs,” so ensuring that “both the rubbing and the heating of the genital parts are avoided” (ibid.: 14). But whatever instruments were applied, “[r]emaining vigilant for even the smallest clue was all the more important in that it would permit energetic intervention from the very start of the malady, since once the vice was established, the cure was often exceedingly delicate and difficult” (ibid.). Accordingly, as Jean Stengers and Anne Van Neck explain:

The malady could be arrested only by energetically applying a series of converging techniques, both psychological and physical. On the psychological level, moral and religious sermons were designed to make the masturbator, gripped with fear and shame for his behavior, envisage the calamities that awaited him. On the physical level, the same measures that had been prescribed for preventing or restraining the child’s behavior were to be continued; fatiguing him was particularly recommended. Prescribed too were various medicinal products, for example, calming herbal teas made from various plants: orange flowers, centaury, violets, marsh mallow, couch grass, purslane, lettuce, water lily. (ibid.: 14–15)

In spite of vigilance and all the precautions to not only prevent but eradicate it altogether, this “malady,” the horrible habit of onanism, was extremely difficult to combat. In his “case history” on “Onanism and Nervous Disorders in Two Little Girls,” a French physician, Demetrius Zambaco, reported in 1881 of two sisters who were about to perish in the clutches of this disease. One of them, a ten years old girl, “of delicate complexion, thin, nervous, extremely intelligent” (Zambaco 1995 [1881]: 22), was exceptionally resistant to the efforts to cure her.

At this epoch a straight-jacket was employed to prevent the child touching herself continuously. Both forearms were held crossed on the chest, hands in proximity of the shoulders; legs and feet set wide apart and firmly attached to the iron bed-sted: A body-belt in the form of a strap fixed the trunk to the mattress by cords knotted to the bed. In spite of all these precautions X..., by a veritable tour der force worthy of the Davenport Brothers, managed to untie everything in order to satisfy her craving. (ibid.: 25)
In 1896, an American entrepreneur, Michael McCormick, sought a patent for an “anti-masturbation device,” the purpose of which was “to control lascivious ‘waking thoughts’” (above); the idea was “an abdomen-mounted, anti-erection device with sharp metal points,” to be “worn under the clothing” (Levins 1996: 14–15).

“In the case of an ‘irresponsible’ person who needed to be involuntarily restrained” from practicing “the involuntary vice,” it was advisable “that the ‘appliance can be permanently secured to him’ with ‘a fastening strip of some permanent character, like sticking plaster’” (ibid.: 15). In 1915, another American, Alfred M. Jones, presented to the Patent Office his invention, “an appliance […] for use in hospitals, sanatoriums, and the like […] to treat patients for the purpose of protecting them from masturbation or self-abuse” (ibid.) (below, on the left). In 1903, Albert Todd, again an American, submitted a patent application for “a wire-coil penis-and-testicle cage,” “a device that applied electricity to the task of deterring masturbation” (ibid.: 17) (below, on the right) (for a historical contextualization with regard to Victorian sexuality and its Puritan origins in America, see Pivar 1973; Haller & Haller 1974; Sokolow 1983; Fessenden et al. 2001b; Horowitz 2002; Griffith 2004; in terms of “American nervousness,” cf. Beard 1881, 1894 [1889]; Beard & Rockwell 1881 [1878]; Gosling 1987).

What is common to all these anti-onanism devices is that they combine an unprejudiced spirit of innovation and technical dexterity with a narrow-minded secular-religious moralism and reformist actionism accompanied by an ethos of self-righteous rigorism – finally even producing an unintentionally comic effect. In this sense, “American inventors traditionally have tried to meet the perceived needs of society,” and thus, if society “defines certain behaviour as a problem, then some tinkerer or another will try to solve the problem through innovative technology” (Bullough 1987: 828).

It is in this manner that “the widespread 19th-century belief in masturbatory insanity” (ibid.) became a challenge to the technological pragmatism constitutive of American enterprise.

Frank Orth, “an inventor from Astoria, Oregon,” “opened what might be thought of as the Rube Goldberg era of nocturnal emissions control technology” (ibid.: 36). “In 1983, Orth was granted patents for water-cooled and air-cooled night harness systems, each as bulky and complicated as a major kitchen appliance. One had its own plumbing system, with a water reservoir mounted on the wall and a drainage tub beneath the bed. The other employed the latest technology of the era – a battery powered electric motor. The motor drove a fan that forced cooling air down a tube into rubber drawers fitted with air circulating bladders.” (ibid.) “Each of these thermal harness systems was installed permanently in the bedroom, like a piece of furniture. At night, the user would fit his body into the device and then, along with the trailing straps, wires, and flexible pipes, slide under the covers.” (ibid.: 37)
Fig. 25. An American anti-onanism device (1899), based on the “idea of linking the penis to an audible alarm system,” designed by a Californian inventor, George F. Dudley, “working in the erection detection and prevention field” (Levins 1996: 37).

In 1899, Dudley “received a patent for a metal tube device that fit over the penis, to be strapped in place by a waist band” (ibid.). “An intricate, clock-like mechanism inside the tube used a light piston to detect penile movement. A ratchet wheel, springs, and elastic band power were used to trigger a bell at the top of the tube when an erection occurred. This, according to Dudley, ‘will awake the sleeper to that self-control which will relieve him from the consequences which would otherwise occur.’” (ibid.)

Fig. 26. An American anti-onanism device (1900), “a night harness designed to detect an erection and activate an electrical circuit that turned on a phonograph or gramophone to awaken the sleeper with gentle music” (Levins 1996: 41).

The device, invented by a Pennsylvanian entrepreneur, Joseph Lees, “sought to take advantage of the nation’s fascination with Thomas Edison’s voice recording inventions” (ibid.). “An expensively crafted apparatus, Lees’s invention was aimed at discerning and cultured males. He wrote: ‘The object of my invention is to provide a device which in the event of an erection will automatically sound an alarm sufficient to awaken even a heavy sleeper.’ He took careful account of the psychological sensibilities as well as the urbane musical tastes of his intended customers.” (ibid.: 40)

Accordingly, what else remained to Dr. Zambaco but the last resort at the time, recommended to him in an “international medical congress” in London by “Dr. J. Guérin” who “affirmed that, after all other treatments had failed, he had succeeded in curing young girls affected by the vice of onanism by burning the clitoris with a hot iron” (ibid.: 31). This drastic method, called “cauterisation” (ibid.: 32–33; cf. Sedgwick 1995: 141–145; Allen 2000: 102–105, Stengers & Van Neck 2001: 112–114), was an accepted, scientifically grounded “cure” from the Age of Reason to the fin de siècle, an era that celebrated rationality and the advancement of sciences for the best of humanity (cf. Laqueur 2003: 42–73, 247–376; for a historical contextualization, see, for example, Rohlje 1991; Rousseau 1991; Porter 1993b, 1995, 2003a, 2003b; Porter & Teich 1994b; Vila 1998). At the same time, for both male and female masturbators a surgical method termed as “infibulation” was used to defeat onanism (Allen 2000: 101–102; Piller 2007: 193–194), which, for male onanists, was “performed by passing metal safety pins through the foreskin” (Stengers & Van Neck 2001: 114).
In this manner, these anti-onanism methods and techniques functioned, at the same time, as discursive figures that both justified their use and proliferated onanism discourse. This discourse, an amalgam of religious-moral, physico-theological and physiological-medical doctrines (see, for example, Böhme & Böhme 1985 [1983]: 61–80; Braun 1995: 154–178; Hull 1996: 230–233, 257–281; Eder 2001: 91–127; Toppe 1999), obtained its scientific legitimation from the leading physicians of the time (for a historical contextualization of onanism in terms of “unauthorized sexuality during the Enlightenment,” see Maccubbin 1987; for onanism as “socio-sexual pathology,” see Winston 2005: 12–14). Under such terms as the “wilful self-abuse” or “heinous sin of self pollution” (Laqueur 2003: 13–46) this discourse created a wide-spread panic about a private genital pleasure that precisely as such defined what the emerging idea of “the sexual” implied: passions of the body that, if left on their own, had devastating, even lethal consequences.

With regard to my approach, what is important here is that for two centuries, from the era of the Enlightenment up until the days of Freud, anti-onanism discourse in itself constituted the onanism discourse it fought against; that is, the idea of onanism as a “pathology” and as such an unhealthy and anti-social behavioural disturbance that finally resulted in the category of “sexual outcasts” (see McCormick 2000); a discourse that at the same time was effected by and proliferated a certain vocabulary, a specific scientific terminology, an authorized nomenclature that by linguistic means established onanism as a serious social and moral problem. In this way, it set up a discursive-practical order, a horizon of understanding and acting, in the matters of public health that at once produced the “disease” it spoke about and the “remedies” it held as its necessary antidotes (see Braun 1995: 67–72; Laqueur 2003: 182–191; Jordanova 1987; Rohlje 1991; Bennett & Rosario II 1995; Stengers & Van Neck 2001 [1998]; Belemann-Smit 2003; Zaun et al. 2004).

This is the origin of technological inventions purporting to prevent the assumed calamity affecting individual and public health as well as the prevailing social and moral order, caused, as it was conceived of, by the unhampered epidemic of the “solitary vice.” Although masturbation as a “disease” was an imaginary idea, believed to be a scientific fact (see Allen 2000: 87–99; Laqueur 1999: 22–25; Jordanova 1987), it was a real thing in terms of its cultural consequences, materialized in social practices, patterns of behaviour, modes of speech and thought, and finally, in various – and, indeed, they were not just a few but a plentiful variety (see Stengers & Van Neck 2001: 78–91) – devices to help the “victims” of the “self-pollution,” that fatal “disease” which, according to enlightened physicians, not only resulted in a catastrophic deterioration of health, but could finally result in death.

And yet, what else were these erection alarms, penis cases, sleeping mitts, bed cradles to keep the sheets off the genitals, hobbles to keep girls from spreading their legs, among other things, were, if not specific words, signifiers, that maintained
and proliferated the idea of “sex with oneself” (Laqueur 2003: 18) as a form of sexuality gone awry (to be precise, it should be noticed, however, that the contemporary terms “sex” and “sexuality” do not adequately express the manner in which genital practices at the time were understood).

These words, these specific signifiers, giving certain devices a certain meaning, a constitutive sense, were figures in the cultural configuration concerning the panic of onanism, a discourse that had its origin in the imaginary, in the Greco-Roman and Christian conceptual complex of mollitia, pollutio and immunditia constitutive of the juridico-theological category of “sodomy” (Braun 1995: 147–179; Jordan 1997; Carden 2004). This is the way onanism discourse functioned: it was a socially regulated linguistic practice that brought about an appropriate mode of behaviour in terms of genitality as part of human corporeality to be guarded by a scientifically constructed disciplinary regime; a discourse formation that was based on a certain vocabulary with a suggestive and evocative power that defined in a detailed manner what was understood to be “right” and “wrong” uses of the genitals, that is, “productive” and “non-productive,” “natural” and “unnatural,” “social” and “asocial,” sexuality; in other words, a cultural codification of reproductive heterosexuality as “useful” for society as well as for individual and family life (see, for example, Flandrin 1991 [1981]: 285–288; Porter 1994: 146–149; Sharrock 1997: 420–421; Weeks 1997a [1981]: 141–156; Jordanova 1999: 103–117; Hawkes 2004: 100–105; Quinlan 2007: 39–42). In this sense, onanism, as the very opposite of propriety, a deeply anti-social behaviour, was an emblem for “wasteful” and “useless” life, a “heinous sin” and a “solitary vice” endangering the civilized order (cf. Hawkes 2004: 117–126).

In these terms, onanism was conceptualized in Tissot’s anti-onanism campaign as a “socio-sexual pathology” that had as its “ultimate effect the displacement of man from his position in the great chain of being” and situated “him beyond the limits of any form of social relation” (Winston 2005: 13, 104). That is, a cosmic solitude – that was the fate of the onanist in Tissot’s Enlightenment world.

However Tissot himself understood his medical conceptualization of masturbation, both onanism and the moral-political campaign against it as a politics of anti-onanism, were discursive constructions that dominated the understanding of “the sexual” in its protoform for some two centuries, from its very origins in the early eighteenth century to its being conceptually established at the beginning of the twentieth century, and well beyond (see Stengers & Van Neck 2001: 123–175; Laqueur 2003: 359–420; Bennett & Rosario II 1995; for the construction of sexuality from the Enlightenment to the present, see Timm & Sanborn 2007; for an overview of “sexuality at the fin de siècle,” see Cryle & Forth 2008). As a result, the idea of onanism – the entire psychosexual complex attached to masturbation – became deeply inscribed in the discourse on “the sexual” in Western culture; a culture that still today is obsessed by all that is sexual, originally understood as genital (for the psychosexual process based on the mutually constitutive, complicated interconnections between “the sexual” and

This is the culmination of the transformation of the Biblical “sins of the flesh” into constitutive concepts regimenting corporeal desires and pleasures in Christian moral theology (see Lyman 1989 [1978]; Brundage 1990; Allen 2000; for original sin and the Fall in Derridean terms, see Hart 2000); that is, on the one hand, the notion of sodomia (anal and oral intercourse, improper positions in copulation and bestiality), and, on the other, the conceptual complex of molilitia, pollutio and immundia (voluntary seminal loss as self-defilement), that from the Enlightenment to the days of Freud proscribed, in terms of pathology, the use of the genitals to other purposes than procreation (see, for example, Flan-drin 1991 [1981]; Rohlje 1991; Lütkehaus 1992; Jordan 1997; Carden 2004; Crawford 2007; in Freudian terms, see Freud 1990d [1912], 1990g [1912]; Stengers & Van Neck 2001: 138–141; Laqueur 2003: 387–394; Makari 1998; for a critical history of the consequences of the Enlightenment onanism panic in the context of mental insanity, see Szasz 1997 [1970]: 172–206, 300–310).

In fact, a complex intermingling of these concepts became constitutive of the idea of “the sexual” in the nineteenth century. Thus, the problem was the sexual self-relation of the subject, that is, desires and pleasures for which the object was the subject in itself; in other words, autoeroticism in the sense of auto-sex, self-sex as a form of sexual enjoyment sui generis (for the origin of the idea, see Ellis 1900: 110–138; cf., for example, Bullough 1994: 83; Hawkes 1996: 58–60; in feminist terms, cf., for example, Stockton 1994: 53–57, 155–158). In this sense, all that is sexual is, in its origin, a product of the conceptual construction of “onanism disease.” Accordingly, sexuality is a bourgeois notion that came into being as a manifestation of the body ideal emblematic of the emerging bourgeoisie of the eighteenth century, the Age of Reason (Braun 1995: 204–271; Laqueur 2003: 185–245).

To sum up, where there was once aphrodisia, there was now onania. This is the transformation of ancient ars erotica into modern scientia sexualis (Foucault 1990k: 53–73). The problem still remains: what is it precisely that the sexual is all about?

Electricity and Neurasthenia: The Linguistic Realm of Hysteria

A discursive regulation comparable to the discursification of onanism, occurred, of course, mutatis mutandis, in the case of female genital massage in the context of the discourse on hysteria; a discourse formation that, although it has its origin already in Greek Antiquity (see, for example, Weickmann 1997: 22–28; Nolte 2003: 113–134; Gilman et al. 1993; Micale 1995), came into being as a distinctly

The medicalization of hysteria, however, took place in an entirely different context in comparison to “onanism disease.” While Tissot, the leading medical authority of the pathological character of “self-abuse,” still operated within a medical paradigm based on the Galenian conception of the “humoral body” reinterpreted in terms of Enlightenment physico-theological thought and the theory of “irritability” peculiar to living organism, proposed by the most prominent physiologist of the time, Albrecht von Haller (see Braun 1995: 182–184, 211–24; Vidal 2004b: 252–256), the cultural context of the genital massage was a neurological reinterpretation of the female body in terms of neurasthenia, a new pathological concept and diagnostic category, introduced by the American neurologist George M. Beard in 1869 (see Beard 1881, 1894 [1889]; Beard & Rockwell 1881 [1878]; for a medical-historical contextualization, see, for example, Gosling 1987: 9–17, 78–88; Rosenberg 1997 [1976]: 99–108; Caplan 2001: 37–56; Gijswijt-Hofstra 2001: 1–4; Kern 2003 [1983]: 125–128; Simon 2005: 96–122; for a historical contextualization concerning French and German culture, cf. Nye 1984: 148–154; Radkau 2000 [1998]).

From the very beginning, “neurasthenia” was a broad and rather unspecified concept applied to quite different ailments and disorders. Francis G. Gosling’s summary is illuminative:

In 1869, a New York neurologist, George M. Beard, coined a term that gave legitimacy to a group of mystifying complaints tormenting the lives of an unknown number of Americans. Beard called this new disease “neurasthenia” (from neuro for nerve and asthenia for weakness) or “nervous exhaustion.” The term has no equivalent in modern medicine, but from the late nineteenth century until Freud’s psychological terms were accepted in the 1910s and 1920s, neurasthenia was used to characterize practically every nonspecific emotional disorder short of outright insanity, from simple stress to severe neuroses. Neurasthenics were not insane – indeed, many occupied important positions in business and society – but they suffered both mentally and physically. They complained of vague symptoms such as insomnia, headache, fatigue, dyspepsia, depression, and other ailments that prevented them from keeping up their former pace of life. (Gosling 1987: 9)

While Tissot, a practicing physician, “wedded empiricism to moral philosophy when he revealed the masturbator’s individual physis as nature’s battleground” (Puff 2004: 252), Beard’s conception of neurasthenia, deriving from his clinical experiences, and its central treatment method, electrotherapy, emerged from a specific American context: technological culture dominated by the imperative of the machine under the rule of which the body was conceived of in terms of
machinic language (see Rice 2004: 151–155; in the German context, cf. Killen 2006: 48–80). Thus, according to Beard, nerves comprised a system equal to an electric machine:

The nervous system of man is the centre of the nerve-force supplying all the organs of the body. Like the steam engine, its force is limited, although it cannot be mathematically measured – and, unlike the steam engine, varies in amount of force with the food, the state of health and external conditions, varies with age, nutrition, occupation, and numberless factors. The force in this nervous system can, therefore, be increased or diminished by good or evil influences, medical or hygienic, or by the natural evolutions – growth, disease and decline; but none the less it is limited; and when new functions are interposed in the circuit, as modern civilization is constantly requiring us to do, there comes a period, sooner or later, varying in different individuals, and at different times of life, when the amount of force is insufficient to keep all the lamps actively burning; those that are weakest go out entirely, or, as more frequently happens, burn faint and feebly – they do not expire, but give an insufficient and unstable light – this is the philosophy of modem nervousness. (Beard 1881: 99)

In this manner, as Beard said, neurasthenia was a “modern and originally American” disease (Caplan 2001: 39), a product of a dynamic culture based on rapidity, speed, tempo and velocity, relentless concurrence and ruthless entrepreneurism, a culture in which to be a successful citizen one had to work like a machine, in fact, to be a machine.

And yet, although Tissot and Beard represent different times, there is a continuity between them: while Tissot’s conception of onanism, manifesting “moral physiology” (Laqueur 2003: 206) based on Enlightenment physico-theology, was a “fluidistic view” of the human body (see Vidal 2004b: 256–257), Beard’s conceptualization of neurasthenia, applying, in its neurological materialism, the model of thermodynamics inherent to the physical mode of thought of the time (see Gosling 1987: 10–11; Rabinbach 1990: 61–76, 153–163; Rosenberg 1997 [1976]: 98–108; Sarasin 2001: 242–248), projects a vision of an electric body, which, in fact, is the machine age version of Tissot’s “fluidistic” body. Instead of Tissot’s “animal spirits” (see Ochs 2004), electric currents circulate in Beard’s machinic body. In other words, Beard’s neurasthenic body implies a transition from the Enlightenment economy of bodily fluids to the economy of body electricity that epitomizes the dynamics of the modern in its specifically American sense. As Andreas Killen (2006: 51) sums up, in Beard’s conception, “neurasthenia was defined by its modernity”; as such, it “assumed three principles, all of which aligned it with the most up-to-date scientific thinking: the identification of electricity with nervous conduction; the first law of thermodynamics concerning the conservation of energy; and the concept of reflex action” (cf. Russett 1989: 125–129).

The transition from the economy of bodily fluids to the economy of body electricity brings the idea of “the sexual” in a new conceptual constellation in which the notions of “charge” and “discharge” have a central position; a notion that has similarities, on the one hand, with Havelock Ellis’s (1903: 18, 38–49, 78–88) description of sexual desire and pleasure in terms of “tumescence” and
“detumescence,” and with Freud’s (1981c [1905]: 7–8, 33–69, 1983a [1938/1940]: 70–73, 1986d [1915–1917]: 331–350, 1991g [1914]: 139–152, 1991d [1915]): conceptualization of sexuality by a tension model based on the notions Trieb, Lust and Libido, on the other (cf., for example, Tiefer 2004: 42–43; Giles 2003: 18–26; Bruns & Walter 2004b; Quindeau & Sigusch 2005). In the context of the American conception of neurasthenia, the idea of “charge”/“discharge” directly takes on an electric meaning, paradigmatically expressed at the time by one New York physician in his treatise on “neurasthenia sexualis”:

The mechanism of sex-activity may thus be compared with the charge of a Leyden-jar. The generative organs must first be charged, like the jar, with a certain material turgescence and with nervous energy in order to evoke the impulse of de-tumescence. Just as the charge of the Leyden-jar with electricity is of a longer duration, compared with the instantaneous discharge at its contact with the earth, so is the charge of organism with nervous sex-tension usually of longer duration in comparison with the short duration of the discharge. [...] Sexual activity, therefore, consists in the charging and discharging of the vital fluids and nervous tension. (Jones 1998: 163; in terms of “human sexual response” as the constitutive idea of modern orgasmolgy, cf. Masters & Johnson 1966; Béjin 1985a [1982]: 183–192, 1985b [1982]: 201–206; Bauman 1995: 154–155; Weingart et al. 1997: 94–95; Potts 2002: 25–32; Lotringer 2007 [1988]: 35–37)

Electricity – that is the keyword of what Beard (1881) calls “American nervousness,” a mode of nervosity that manifests the spirit of the machine (cf., for example, Nye 1992; Pursell 1995; de la Peña 2003). The relationship between the body and electricity, of course, is as an idea older than the era of the modern. As Timothy W. Kneeland and Carol A. B. Warren (2002: viii), in their history of electroshock, say, “[f]rom ancient times, philosophers had been fascinated by magnetism (the lodestone) as well as electricity”; what is important here is that “[m]agnetism, like electricity, was used, from prehistoric time onward in Europe, to treat a variety of ailments, including melancholia.” As surprising as it may sound, “[b]y the time of Columbus and his momentous voyage, electricity and magnetism had been harnessed to the treatment of numerous physical and mental disorders, especially mania, melancholia, and hysteria.”

The treatment of mental disorder in Western medicine is grounded in the body and its four humours; aimed at behavioral, rational, emotional, or role-related symptoms of insanity that have troubled family members and puzzled experts throughout recorded history. Ancient electrotherapy for insanity was practiced upon the body, seeking to rebalance its fluids through nutrition; and upon the organs, discharging a galvanic shock through the brain – arguably the site of the soul, emotion, or reason. But electrotherapy was also practiced upon the genitalia, especially in the case of female hysteria. The threads of electricity and the genital treatment of hysteria were not drawn together until the nineteenth century, but the origins of this convergence are found in the Hippocratic and post-Hippocratic gynecologies, and in Galen’s widow’s treatment. (ibid: ix)

It is in this conjunction that neurasthenia, electricity and the theory of thermodynamics meet one another. “Articulated around mid-century, the second law of thermodynamics,” according to Roy Porter (2001a: 38), “posited that the quantum of energy available in the Universe was gradually and inexorably
decreasing” (in the context of cybernetics, cf. Wiener 1961 [1948]; Bailey 1994: 121–143; for a theoretical contextualization in terms of the regulation of biological processes, see Lamprecht & Zotin 1985). This “entropy theory” was incorporated in the medicine of the time in assertions that deemed the energy of the human body as a “definite and not inexhaustible quantity” (Porter 2001a: 38).

Reserves of nervous energy were finite, Victorian doctors warned: over-exertion, mental or physical, would sap an individual's supply, leaving a depleted nervous system incapable of activity. Just as an epileptic fit might be explained in terms of excessive build-up and then discharge of nervous energy, so the symptoms of depression, fatigue, melancholia and nervous breakdown could be attributed to the ebbing of the same force. Utter paralysis might follow, indicating that so-called weakness of will had a nervous foundation. (ibid.)

It is not difficult to hear in this kind of pessimistic, even alarmistic, diagnosis an echo of the times of Tissot’s medico-theological conception of onanism, a sombre vision of the pathological body that loses its living energy as a consequence of an insidious malady. Like Tissot, Beard and his contemporaries saw an imminent decline threatening the achievements of civilization resulting from an unhealthy way of life.

There is, however, a substantial difference between Tissot’s masturbation panic and Beard’s neurasthenia: although both are implicitly and explicitly theories of the male body as the bearer of culture and human progress, in the very sense of “the perfectibility of man” celebrated by Enlightenment philosophers and their modern followers (see, for example, de Tocqueville 2003 [1835/1840]: 4, 439, 444, 521–523, 562; Passmore 1970; Jackson 2004; Winston 2005), the theory of neurasthenia, in its own way, set the scene for various views emerging in late nineteenth-century medicine to reconceptualize the female body, as both a biological organism and a social entity, in terms of thermodynamics, electricity and machine; views in which “being woman,” as a “natural” state of being, was seen as a mode of existence that was in contradiction to a world driven by science and technology. Yet, paradoxically, the very achievements of science and technology were orchestrated to “readjust” the female body to the demands of machine culture; that is, to reengineer the female body for the benefit of being woman, as it was understood at the time.

From this perspective, it is quite understandable that an American doctor, observing the sexual functions of the female body in the late 1890s, expresses his views in machine language:

The genital organs of women […] are nothing more or less than a central telegraphic office, from which wires radiate to every nook and corner of the system, and over which are transmitted messages, morbific or otherwise, as the case may be; and it should be remembered right here that telegraphic messages travel both ways over the same wire; that there are both receiving and sending at each end of the line. (Gosling 1987: 98)

As we can see, long before the emergence of cybernetics in the late 1940s, disrupting the distinction between the machine and the organism, and long

The “Hysterical Paroxysm” and the “Electrified Hand”

This is the historical context of female genital massage by means of specific devices and apparatuses.

According to Rachel P. Maines (1999: 5–7), in the late nineteenth century, as hysteria, according to the “androgenic model of sexuality,” was conceptualized as a “disease paradigm,” female sexuality as such was represented as a “pathology,” and consequently, “female orgasm, redefined as the crisis of a disease, was produced clinically as legitimate therapy” (emphasis mine). This model, constructed entirely on the basis of male sexuality, seeing the penis, penetration and intercourse as the sole source for female sexual gratification, was consonant with the phallocentric model of the early sexology in which sexual desire and pleasure was considered from the standpoint of orgasmic teleology, that is, a mechanistic model predicated upon the idea of genital finality implying the notions “charge” and “discharge” (cf. Birken 1988: 40–56, 92–112; Weeks 1997a [1981]: 141–152). As a sexual paradigm that was ruled by the “coital imperative” (Segal 1994: 71–116; Hawkes 1996: 36–62, 92–97; Potts 2002: 32–34), this model accepted sexual gratification for women only if it, in Gail Hawkes’s (1996: 45) words, was “defined in terms of male/female, penetrative procreative monogamous sexuality,” which made the failing female orgasm to a dysfunction. In these circumstances, when “marital sex was unsatisfying and masturbation discouraged or forbidden,” female sexuality “asserted itself through one of the few acceptable outlets: the symptoms of the hysteroneurasthenic disorders” (Maines 1999: 5; emphasis mine).

A “hysteroneurasthenic disorder”? Again, this is a linguistic figure that produces what it designates: an assumed deviation from “normality” categorized in “scientific” terms as a pathology. Thus, the inability – real or hypothetical, it makes no difference – of women, considered to be “hysterics,” to achieve orgasm, and the “production” of it by a “vulvular massage treatment” (Maines 2001: 224) given by a male physician, was constructed, paradoxically, at the same time as a “disease” and a “cure” (in terms of the Derridean pharmakon, cf. Derrida 1981c [1972/1968]: 95–117; Hobson 1998: 63–77, 84–85, 99–109). In this way, while “hysteria was for the most part no more than the normal functioning of female sexuality, the inducement of the crisis of the disease, called the ‘hysterical paroxysm’” (Maines 1999: 9; emphasis mine; cf. Maines 2003: 101–102; for a contextualization, see Libbrecht 1995: 38–66), came to signify the climax of geni-
tal excitement, usually designated as orgasm in sexual intercourse (cf. Breuer & Freud 1977 [1895]: 151); as Josef Breuer in his joint study with Freud on hysteria came to conclude, with a certain resignation: “Ich glaube nicht zu übertreiben, wenn ich behaupte, die große Mehrzahl der schweren Neurosen bei Frauen entstamme dem Ehebett” (Breuer & Freud 2000 [1895]: 265; emphasis in the original), “I do not think that I am exaggerating when I assert that the great majority of severe neuroses in women arise from the marriage bed.”

In the linguistic configuration around the “hysteroneurasthenic disorder,” the signifiers “orgasm,” “crisis” and “hysteria” imploded into each other creating a new signifier, a scientific term – the “hysterical paroxysm,” a regulatory category with a medical-political meaning, a notion that by naming a corporeal occurrence defined it as a physiological fact. In this manner, a discourse created its own reality, a reality of language; a “reality” that, as a manifestation of Foucauldian “power/knowledge” (see Foucault 1978d; Rouse 1994; cf. Mills 2003: 34–39, 67–80), established itself as a scientific configuration in which not only female sexuality but being woman was determined. That is, the female sexual organs, in and through their assumed peculiarity, became the constitutive definition of “woman” (see, for example, Weeks 1997a [1981]: 38–47; Barker-Benfield (2000 [1976]: 56–57, 83–95, 107–132; Harvey 2004: 102–123; Duden 1991 [1987], 1994 [1991]; Honegger 1991; Bergmann 1998 [1989/1992]; for the conceptual history of the sexual organs and gender definitions, see Laqueur 1992a, 1992b, 1987 [1986], 1999; from a primatological perspective, see Haraway 1990; in terms of the “perfectibility of man,” see Winston 2005: 8–12, 84–101). In other words, a politics of language that created both a particular vocabulary and the scientific legitimation of its appropriate usage produced a cultural constellation in which being woman was perceived as a potentially pathological condition.

According to Maines (2001: 223), “electromechanical massage of the female genitalia” in therapeutic purpose, introduced as a medical treatment for hysteria in America in the 1880s, “represented the convergence of several older medical massage technologies, including manual, hydriatic, electrotherapeutic and mechanical methods” (ibid.: 224). Already since Antiquity, “internal and external gynecological massage with lubricated fingers had been a standard medical treatment for hysteria, disorders of menstruation and other female complaints,” and there is even evidence of orgasm as “the intended result” of the treatment (ibid.). This is the idea of what is known as “Galen’s widow’s treatment” (Kneeland & Warren 2002: 15, 31, 33–34), according to the name of Galen (129–216), the leading medical authority in the ancient Roman Empire and one of the most influential founders of Western medicine (see, for example, Nutton 2006 [1996]: 61–74; Eckart 2005 [1990]: 23–34). In Galen’s medical doctrine, what later came to be designated as hysteria has its origin in the malfunctions of the female genitalia, especially in the disorder of the uterus – issues which were discussed in Greek and Roman Antiquity not only by physicians, but also by philosophers (see, for example, Mazzoni 1996: 7–8, for a critical discussion on the conceptual confusion around the notion “hysteria” and its antique sources,
Fig. 27. “Excitateur vulvo-uterin” electrode, a faradization electrode, illustrated in Auguste Élisabeth Philogène Tripier, Leçons cliniques sur les maladies de femmes. Thérapeutique générale et applications de l'électricité à ces maladies (1883).

Tripier, a French physician, “observed in 1883 that the convulsive crisis of hysteria” is “sometimes the same as the orgasm” (de même quelquefois de la crise vénérienne) (Maines 1999: 38–39). If “convulsive crisis” or orgasm was not achieved in marital intercourse, it appeared as a hysterical symptom the remedy of which was a “crisis” produced clinically by means of an appropriate device or of what Tripier, in accordance with the medical terminology of the time, called “vulvular massage” (ibid.: 39). In Tripier’s words: “I am talking about vulvular massage, recognized in ancient times and put back into practice by Briquet” (ibid.). “I would like to point out that for a while Briquet was treating hysteria with masturbation, practiced more or less systematically by his interns” (ibid.). “My observations have led me to concede the usefulness, at least for a while, of the hysterical crisis, so I suggest that Briquet has replaced a spontaneous crisis with one that is clinically induced, similar if not identical, in order to achieve remission of the disease” (ibid.).

This conception of the female genitalia and their disorders resurfaces, mutatis mutandis, in the context of neurasthenia, electricity and new kinds of medical treatments known as electrotherapies in the late nineteenth century in American technologically oriented medicine (for the history of electricity and electrotherapies, see, for example, Gritzer & Arluke 1985: 17–37; Morus 1998: 231–256; Kneeland & Warren 2002: 3–40; de la Peña 2003: 91–109; for the fascination with electricity in late nineteenth-century America, see Marvin 1990). It is in this context that what Maines above calls the “revolt against sexual deprivation” takes on a new meaning; a meaning that pertains not only to the sexual-technological complex around electrotherapy in general and electromechanical massage of the female genitalia in particular, but the very idea concerning the origins, modes and manifestations of sexual desires and pleasures.

It is in this context that electricity, female genitality and the medical complex of syndromes designated as hysteria redefine the female body as an object of scientific-technological interests and interventions. The female body becomes, literally, an operational theatre in which syndromes, their ana-
tomical sites and their specific sensitivities are figures in a medical experimentation that has a curious sexual character. While the “sites of electrical treatment for hysteria during the eighteenth century were often the legs, arms, shoulders, and spine,” “by the turn of the eighteenth century there were signs of the electrical renaissance of Galen’s widow’s treatment, although referencing menstrual obstruction rather than sexual frustration as the cause of symptoms and target of intervention” (Kneeland & Warren 2002: 15). In 1803, a “London ‘Surgeon’” wrote of “the use of electrical shock to the ‘pubis’ and ‘in the region of the uterus’” (ibid.); at the same time, another medical pioneer “published an essay on the use of electricity in the treatment of female genital obstructions,” assuring the reader that there was no ‘indelicacy’ to the ‘mode of treatment’” (ibid.). The “electric treatment, which used a Leyden jar and two glass rods,” called “Directors,” were placed

below the peak of her stays [...] the wheel is turned and the shock passes through that part of the Pelvis which is included between the directors. [...] The nerves and vessels [of] the uterus must be affected by the passage of the electrical fluid. (ibid.)

Kneeland and Warren assume that the physician in case was aware of “the sexual implications of genital treatment” (ibid.), without, however, specifying what exactly these “implications” were. In which sense the inducing an “electric shock” was sexual: as a procedure or its result? The more complicated the issue becomes when we learn that, for another physician in the 1850s, “female hysteria and electricity were isomorphic” and thus, the “hysterical woman, like the highly electrified thunder cloud, requires but the point to draw the flash” (ibid.: 31). What was the “thunder” here: the “electric charge” of the body or its “discharge”?

Whatever “the sexual” was in this context, in any case it was Beard, the inventor of neurasthenia, who, by his reconceptualization of the human

Fig. 28. “Galvanism in gynecology,” a schematic drawing illustrating “Tripier’s technique”: “Electrodes in bladder and uterus caused localized contraction of uterine muscle, correcting retroflexed uterus” (Aronowitz 2007: 906). During the late nineteenth century, electricity enabled new diagnostic and therapeutic methods in medicine (see, for example, Gritzer, & Arluke 1985: 17–25; Simon 2005: 5–20, 45–66, 97–109); in this connection, as Timothy W. Kneeland and Carol A. B. Warren (2002: 21–39) say, “the woman on the couch” was redefined in terms of electrotherapy. According to Jesse N. Aronowitz (2007: 905–906): “Medical electricity gained credibility from the work of prominent physiologists and neurologists. Carlo Matteucci (1811–1868) and Emil DuBois-Reymond (1818–1896) showed that muscles and nerves generate currents, establishing a rationale for electricity-based therapy. A lecture series by Goldberg Bird (1814–1854) to the Royal College of Physicians in 1847 showed that electricity warranted medical attention. Guillaume Duchenne (1806–1875) devised a technique called localized faradization to stimulate nerves without injuring overlying skin. His treatise on electrotherapy, De l’Electrisation Localisée (1855), became a classic of neurology, neuropathology, and electrophysiology. Duchenne was the leader of the French school of faradists, which included Jean Martin Charcot (1825–1893). Robert Remak (1815–1865) led the German school of galvanists.”
“By the 1870s, regular electric treatments had largely been standardized. Physicians used galvanic currents, which required only a galvanic power source, and faradic treatments, which utilized an ‘alternating’ induction coil. In the 1880s, companies like Jerome Kidder manufactured battery systems specifically for physicians. Their price, roughly twenty-five dollars for a combined galvanic/faradic battery and from ten to eighteen dollars for a galvanic or faradic model, made the devices affordable to most physicians, and their compact design made them specifically attractive to those who made home calls. […] Physicians used easily controlled direct, or galvanic, currents to create localized muscle contractions, to stimulate digestion and evacuation, and to remove or reduce moles, ulcers and tumors. The currents could be stimulants or sedatives, depending on whether one used the positive or negative electrode in contact with the affected part. Faradic currents issued a more powerful jolt to the body and were therefore given primarily as a nerve tonic or general stimulant.” (de la Peña 2003: 95; cf. Maines 1999: 82–89; Kneeland & Warren 2002: 21–23; Simon 2005: 109–111, 118, 156–158; for a historical contextualization, see Gosling 1987; Killen 2006).

As Kneeland and Warren (2002: 30) say, “Beard set the stage for the electrical treatment of neurasthenic women and men.” “Electric treatment for neurasthenia incorporated galvanic, faradic, or static electricity, applied to the entire body, head, spine, or genitalia” (ibid.). In this context, the electrical techniques introduced by Beard comprised “a fusion of the sexual body of the patient with the sexual body of the physician, through the transfer of electricity from one to the other” (ibid.: 32). This “fusion,” in fact, embraced a curious medical-sexual scene, an encounter to exchange libidinal vibrations which conspicuously resembles a Mesmeric session with its “new-scientific” paraphernalia purported to produce, by means of “animal magnetism,” healing effects on various ailments and disorders especially in women (see Maines 1999: 33–34; Riskin 2002: 189–225; Willis 2006).

In a similar manner, during Beard’s treatment the patients had the opportunity to feel the touch of an “electrified hand” (Simon 2005: 111, 309), referred to by Kneeland and Warren in their discussion of Beard’s method; to initiate the procedure:
Fig. 31. An “influence machine” (1890). “Influence machines were often massive, with multiple pairs of large discs, and they were capable of generating more than 100,000 volts. When accumulated charges in Leyden jars were large enough to overcome resistance of air separating prime conductors (“spark gap”), discharge would occur. By adjusting spark gap, magnitude and frequency of discharge were regulated. Note array of electrodes.” (Liebig, G. A. & Rohe, G. H., Practical Electricity in Medicine and Surgery, 1890; Aronowitz 2007: 907)

According to Andreas Killen (2006: 49, 73), the influence machine itself, as an impressive contraption, had a “suggestive influence” which contributed to its “influence” on the patients; in the words of the Berlin neurologist Albert Eulenburg: “The large, uncanny machine […] with its special motor, its incomprehensible accessory apparatus, its noisy workings, the hissing and rattling of the discharges, the sparks, the flashing of lights in the dark, the buildup of ozone and so on, all this and other similar factors inarguably exercise a mysteriously alluring and imposing total effect, one that powerfully excites the senses” (ibid.: 77); and, moreover: “It is within the doctor’s ability to heighten quite significantly this impression of the mysterious and fantastic, by means of casually made remarks” (ibid.; for the idea of “the influencing machine” as a fantasy or a metaphor in psychoanalysis, cf. Tausk 1992 [1919]; Armstrong 1998: 101–105; Liu 2000: 130–134; Kang 2011: 273–274). According to Andreas Killen (2006: 49, 73), the influence machine itself, as an impressive contraption, had a “suggestive influence” which contributed to its “influence” on the patients; in the words of the Berlin neurologist Albert Eulenburg: “The large, uncanny machine […] with its special motor, its incomprehensible accessory apparatus, its noisy workings, the hissing and rattling of the discharges, the sparks, the flashing of lights in the dark, the buildup of ozone and so on, all this and other similar factors inarguably exercise a mysteriously alluring and imposing total effect, one that powerfully excites the senses” (ibid.: 77); and, moreover: “It is within the doctor’s ability to heighten quite significantly this impression of the mysterious and fantastic, by means of casually made remarks” (ibid.; for the idea of “the influencing machine” as a fantasy or a metaphor in psychoanalysis, cf. Tausk 1992 [1919]; Armstrong 1998: 101–105; Liu 2000: 130–134; Kang 2011: 273–274).

both male and female patients removed all their “upper” clothing, females “covering themselves modestly with a sheet.” The patient’s feet were placed on a cupper plate, the negative pole of the electrical charge. The operator held the positive electrode, wrapped in a sponge, in his hand, squeezing and releasing the sponge to vary the current. The current passed through the operator’s body (bulking up his arm muscles over time) and transferred through his “slightly moistened” hand to the patient’s spine, muscles, and “entire body.” (Kneeland & Warren 2002: 32–33)

The operator “experienced the same exhilaration and tonic effects from the current passing through their bodies as did the patients” (ibid.). As we can see, “the sexual” is present in Beard’s electrotherapeutic treatment in a subtle manner which brings into mind an odd mixture of a spiritistic séance (participants sitting in a magical circle) and Wilhem Reich’s experiments with “orgone energy” (a flow of a cosmic life energy) (see, for example, Robinson 1969: 64–68; Sharaf 1983: 276–309). The descriptions of Beard and his partner, David Alphonse Rockwell, in their co-authorized treatise on electrotherapy, in which they often used “the electric hand,” “echoes the body parts of the widow treated by Galen” (Kneeland & Warren 2002: 33), but, as Kneeland and Warren remark, “not the orgasmic and pleasurable response” (ibid.). This is the difference to the electromechanical massage of the female genitalia, that is, a vibra-
tor treatment, that emerged in the context of electrotherapy initiated by Beard with his method for the treatment of neurasthenia. While in Beard’s procedure the effect was “tonic,” but not “orgasmic,” in vibrator massage the result was explicitly orgasm, although camouflaged by the “scientific” term the “hysterical paroxysm” (Maines 1999: 9–11, 23–26; Warren 2004: 184–193; Mottier 2008: 34–35). Another, as important, difference is that vibrator therapy exclusively focused on female patients, while it, as a third difference, greatly increased the intimacy of the treatment by making it a twosome session between the patient and the therapist (see Maines 1999: 11–18, 89–100); that is, a clinical sexual encounter without sex, without a sexual act proper.

It is precisely this intimacy that evoked criticism and resistance in the circles of medical professionals. “Local, genital electrical, or other stimulatory treatments for female hysteria were subject to debate among Victorian physicians, as they had been among Renaissance theologians” (Kneeland & Warren 2002: 33). New methods for the treatment of hysteria were invented at the same time as the speculum for internal genital examination which, in turn, “gave impetus to the burgeoning discipline of gynecology” (ibid.). Both the speculum and gynecology “were considered highly improper by some practitioners, the one likely to over-sex, and the other to un-sex the female patient” (ibid.; emphasis mine). The manipulation of the female reproductive organs, as one physician expressed his concern, run the risk of “inducing involuntary erotic manifestations on the part of the patient” (ibid.; emphasis mine). Although some practitioners disavowed internal examination, they nevertheless allowed external stimulation, “possibly on the ancient grounds that only penetration constituted ‘real’ sex” (ibid.; emphasis mine; cf. Maines 1999: 10).

In this constellation, we can once again see how the medicalization of the female body not only contributed to the conceptualization of sexuality assumed to be typical to women, but, more fundamentally, the medical conceptuality of the Victorian era constituted the framework in which the very idea of “the sexual” became defined.

The Origin of the Vibrator

Although neurasthenia was conceptualized as a predominantly male ailment, it was “the upper-middle-class woman on the couch,” “reclining at the behest of the moral, electrical, or psychoanalytical physician” (Kneeland & Warren 2002: 32; cf. Jordanova 1989), that constituted the paradigmatic case that created the preconditions for the rise of electromechanical massage of the female genitalia to a prominent position within new medical technologies and treatment methods (with regard to Krafft-Ebing’s conception of female sexuality and neurasthenia, cf. Gay 1995 [1988]: 119–124; for the female body in the historical context of the lie detector, cf. Bunn 2012: 51–74). In this constellation, under the “medical gaze” (Foucault 1994b [1963]: 89) of the emerging scientific-technological medicine of the nineteenth-century, the female body with its own organic construc-
tion and psychodynamics, came to the focus of new clinical procedures. And it was in this connection that “the sexual,” this enigmatic form of sensitivity, sensuousness and sensibility that haunted the burgeoning human sciences as well as the popular imagination of the time, became a central topic, if not the very subject, of Victorian medicine. “Hysteria” and “nymphomania,” “sexual frustration” and “greensickness,” diagnosed alternately as causes and symptoms of “sexual deprivation” and “masturbation” (Maines 1999: 32–34, 53, 57, 83), turned into obsessions of the physicians of the nineteenth century (see, for example, Rousseau 1991: 44–64; Rosario 1995: 113–114; Hawkes 1996: 51–56; Mazzoni 1996: 38–44, 156–196; Morus 1998: 240–248; Kneeland & Warren 2002: 30–36; Vidal 2004a; for a cultural-historical contextualization, see von Braun 1994 [1985]).

In the 1880s, in the time when “the sexual” and “the genital,” especially in the context of “female sexuality,” had become highly problematic and contested matters in American culture, it was precisely orgasm, the climax of sexual act understood as the aim and result of heterosexual intercourse, turned out to be the main problem of the electromechanical massage of the female genitalia. The problem was whether the inducement of orgasm was the stated intention of the procedure or just its byproduct. In other words, what exactly was the therapeutic rationale of the female genital massage with the vibrator apparatus as a clinical treatment? In general, what had female genitality to do with hysteria? And, last but not least, what was “the sexual” in this context? Since at the time it was not possible to directly approach these questions it was needed a politics of language to translate female genital massage, a massage operation with an obviously sexual character, into a medical treatment with a non-sexual therapeutic intention. In this manner, hysteria, sexuality and technology intertwined with one another into a discursive construction informed and ruled by a professional nomenclature which neutralized the connections between a clinical therapy and its factual meaning as a genital manipulation that resulted in orgasm.

In this context, the highly esteemed scientific status of electricity as an emblem of modern technology and its beneficial effects upon the progress and prosperity of humanity in late nineteenth-century America (see, for example, Marvin 1990; Nye 1992; Pursell 1995; de la Peña 2003; Simon 2005) significantly contributed to establishing the electromechanical massage of the female genitalia as a socially accepted therapy.

The camouflage of the apparently sexual character of such therapy was accomplished through its medical respectability and through creative definitions both of the diseases for which massage was indicated and of the effects of treatment. In the case of the electromechanical vibrator, the use of electrical power contributed the cachet of modernity and linked the instrument to older technologies of electrotherapeutics, in which patients received low-voltage electricity through electrodes attached directly to the skin or mucous membranes, and to light-bath therapy, in which electric light was applied to the skin in a closed cabinet. The electrotherapeutic association was explicitly invoked in the original term for the vibrator’s interchangeable applicators, which were known as “vibratodes.” Electrical treatments were employed in hysteria as soon as they were introduced in the eighteenth century and remained in use as late as the 1920s. (Maines 2001: 224)
As a treatment of hysteria, vibratory therapeutics was first used at the Salpêtrière in Paris in 1878 (see Maines 1999: 93, 2001: 227), referred to in the treatise *The Medical and Surgical Uses of Electricity* by Alphonso D. Rockwell (1896), an American physician, who had published a joint study, *Clinical Researches in Electro-Therapy* (1873), with George M. Beard, the American neurologist who had introduced the concept of neurasthenia in 1869 (for a historical contextualization, see Gosling 1987; Gijswijt-Hofstra & Porter 2001). Joseph Mortimer Granville, a British physician and the inventor of the electromechanical vibrator (1883), “expounded on its theoretical underpinnings in rhetoric that was self-consciously scientific and rational” (Maines 1999: 98).

“As a necessary result of this state of matters, it must be possible to act on the nervous system by purely mechanical agents and influences, with the effect of interrupting, modifying, or altogether arresting organic vibrations, whether in afferent sensory or efferent motor nerves. These effects are capable of demonstration, producing changes in the rate and rhythm of nerve vibration precisely correspondent with those which would be effected in the vibration of unorganized substances by the operation of the same or similar agents working in like processes.” (ibid.: 99)

The electromechanical vibrator, with its *healing vibrations*, became an emblem of scientific-technological progress that, by harnessing *natural forces*, helped humans to withstand the demands of the very same progress that had caused, among other things, neurasthenia, “nervous exhaustion,” that increasingly plagued nineteenth-century Americans. In this constellation, electromechanical massage of the female genitalia, its controversial character notwithstanding, appeared, if not “natural,” at least scientifically legitimated.

What was the problem was not just the obvious sexual character of the female genital massage by means of an electromechanical apparatus, but specifically the mode of sexual pleasure implied by it:

The case of the electromechanical vibrator, as a technology associated with women’s sexuality, involves issues of acceptability rather than legality. The vibrator and its predecessor technologies, including the dildo, are associated with masturbation, a socially prohibited activity until well into the second half
Fig. 34–35. From the age of steam power to the era of electricity: the “patient interface” of George Taylor’s “Manipulator” of the late 1860s (on the left) and a “vibratory operating room” at the beginning of the twentieth century (on the right) (Maines 1999: 15, 19).

In 1869, George Taylor, an American physician, patented a “steam-powered vibratory and massage apparatus” for female disorders, especially for the treatment of hysteria (ibid.: 14). The device, promising “to produce ‘statuminating vitalizing motion’” (ibid.: 77), was intended for spas and physicians who offered “massage of the pelvic and abdominal areas, including the female genitalia” (Maines 2006: 127).

The electromechanical vibrator enabled “effective therapeutic massage that neither fatigued the therapist nor demanded skills that were difficult and time-consuming to acquire” (Maines 1999: 11). “Mechanized speed and efficiency improved clinical productivity, especially in the treatment of chronic patients like hysterics, who usually received a series of treatments over time. Among conditions for which massage was indicated in Western medical traditions, one of the most persistent challenges to physicians’ skills and patience as physical therapist was hysteria in women. This was one of the most frequently diagnosed diseases in history until the American Psychiatric Association officially removed the hysteroneurasthenic disorders from the canon of modern disease paradigms in 1952.” (ibid.; in terms of electrotherapy, cf. Morus 1998: 243–248; for the history of hysteria, see Micale 1995; Lamott 2001; Didi-Huberman 2003 [1982]; with regard to the dildo in the context of the cyborg, cf. Gray 2001: 152–153)

Thus, at issue was a specific linguistic camouflage, a sophisticated discursive regulation, through which female genital massage with the vibrator apparatus appeared as a socially and culturally acceptable non-sexual therapy for a “pathology” that was female sexuality in itself (see Maines 1999: 11–20, 93–100, 2001: 224–231; cf. Russett 1989: 104–128; Allan & Burridge 2006: 144–150; for a historical contextualization, see Gilman 1985; Gilman et al. 1993; from a psychoanalytical perspective, see Sadoff 1998). The very same climax of pleasure that was called orgasm in marital penetrative intercourse (if it was experienced by women at all), and thus understood to belong to the realm of the sexual understood as genitality, took on another meaning – effected by another term – in the medical treatment of hysteria: the “hysterical paroxysm” (Maines 1999: 9–11) as a necessary release of nervous tension caused by what was designated as “hysteroneurasthenic disorders.” In other words, what today is seen not only as “normal” but “necessary” part of female sexuality, even its true purpose, was considered as a “crisis” in the nineteenth century, as a dangerous disorder that always threatened the health of women (for the female orgasm from the contemporary perspective, see, for example, Segal 1994: 34–116; Potts 2002: 26–47, 71–101; Hawkes 2004: 155–173; Jackson & Scott 2002; Lloyd 2005; cf. Iri-garay 1985b [1977]; in terms of theology, see Pellauer 1994; for “the science of orgasm,” see Komisaruk et al. 2006).
What Rachel Maines (2001: 226) calls “the social camouflage” applied to vibratory appliances was carefully maintained at least until the 1920. Thus the marketing of medical vibrators to physicians emphasized “two important professional considerations”: “the respectability of the devices as medical instruments (including their reassuring clinical appearance) and their utility in the fast and efficient treatment of those chronic disorders, such as pelvic complaints in women, that provided a significant portion of a physician’s income” (ibid.).

“The importance of a prestige image for electromechanical instrumentation” (ibid.) is exemplified by the advertising for the Chattanooga vibrator: “The Physician can give with the ‘Chattanooga’ Vibrator a thorough massage treatment in three minutes that is extremely pleasant and beneficial, but this instrument is neither designed nor sold as a ‘Massage Machine.’ It is sold only to Physicians, and constructed for the express purpose of exciting the various organs of the body into activity through their central nervous supply.” (ibid.)

In this manner, as a peculiar twist of thought enabled by a specific vocabulary, orgasm as a certain mode of corporeal pleasure was firstly defined as an indication of the sexual (in its protoform as a manifestation of genitality), to be then redefined in terms of the pathological. In other words, what was sexual became medical: the sexual as a notion was de-sexualized, sanitized, made compatible to the prevailing male order of scientific rationality, culminating in what Foucault (1990k: 53–73) calls scientia sexualis, a linguistic-political order articulated and manifested by the scientification of the sexual (cf. Smart 2002 [1985]: 93–100; Schneider 2004: 136–148, for the discourse of Sexualwissenschaft, see, for example, West 2005: 174–178; Schmersahl 1998; Walter 2004; for a comprehensive history, see Sigusch 2008). Since in massage, “no penetration was involved, believers in the hypothesis that only penetration was sexually gratifying to women could argue that nothing sexual could be occurring when their patients experienced the hysterical paroxysm during treatment” (Maines 1999: 10). Thus, an apparatic manipulation of the female genital organs until orgasm...
was not regarded as sexual gratification, although the procedure resulted in a similar sensation – sexual pleasure – as in masturbation or in intercourse.

In this sense, as Maines sums up the idea of female genital massage by means of new technological inventions, “[m]echanized treatments for hysteria offered a number of benefits to users of technology – doctors, patients and patients’ husbands” (ibid.: 11):

Not only did the clinical production of the “hysterical paroxysm” provide a palliative for female complaints and make patients feel better, at least temporarily, it resolved the dissonance of reality with the androcentric sexual model. And since mechanical and electromechanical devices could produce multiple orgasm in women in a relatively short period, innovations in the instrumentation of massage permitted women a richer exploration of their physiological powers. Although manual, hydriatic, and steam-powered mechanical massage offered some of these advantages, the electromechanical vibrator was less fatiguing and required less skill than manual massage, was less capital intensive than either hydriatic or steam-powered technologies, and was more reliable, portable, and decentralizing than any previous physical therapy for hysteria. Within fifteen years of the introduction of the first Weiss model in the late 1880s, more than a dozen manufacturers were producing both battery-powered vibrators and models operated with line electricity. Some physicians even had vibratory “operating theatres.” (ibid.: 11)

Of course, this kind of radical technologization of human corporeality, in this case of the female body in its most sensitive area, is not a universal idea; rather, to perceive the body in terms of technology, as a biological machine, is a particular American conception, although the notion of l’homme machine as such has its origin in French Enlightenment thought, most explicitly formulated by Julien Offray de La Mettrie (1912 [1747/1748]: 89, 93, 95, 128, 141, 143; for a historical contextualization, see, for example, Baruzzi 1968b: 21–62; Glaser 1988: 69–73; Pfister & Zweifel 2002: 102–116; Irrgang 2005: 28, 33–36; Wellman 1992; Christensen 1996; Jauch 1998; Benesch 2002). In this sense, the scientific-technological conceptualization of the female body in the American context of neurasthenia, electrotherapy and electromechanical massage of the female genitalia follows the discursive line that begins with the Cartesian idea of the body as a machine (see, Descartes 1984 [1641/1642/1647]: 10, 58, 75–76, 97, 161, 188, 1985a [1647]: 315–316, 1985b [1637]: 139–140, 1985c [1644]: 198–199, 279, 289, 1985d [1664]: 99–101; cf., for example, Cottingham 1986: 107–132; Rabinbach 1990: 51–52; Judovitz 2001: 67–82, 133–146; Shanker 1996; Bast 1997; Des Chene 2001) and ends with the Harawayan mythopoetic figure of the cyborg (see Haraway 1991a; cf., for example, Gray et al. 1995b; Zylinska 2002b; in terms of “cyborgology,” cf. Gray et al. 1995a).

In a world in which, as Haraway (1991f: 249) says, “prosthesis becomes a fundamental category for understanding our most intimate selves,” the human body is no longer anything other than a scientific-technological abstraction (cf. Sheets-Johnstone 1994: 65–67); that is, literally, a “free-floating signifier,” a re-entry figure reiterable in ever-new contexts.
Fig. 37–38. The vibrator as an electromechanical home appliance, following the sewing machine, fan, teakettle and toaster, but preceding the vacuum cleaner: “Dr. John Butler’s Electro-Massage Machine” for “orgasmic therapy,” 1888 (see Maines 1999: 5, 14). “Electrotherapeutic devices sold to consumers for self-treatment seem to have enjoyed significant popularity between about 1880 and the late 1910s” (ibid.: 85). One of these devices was Butler’s Electro-Massage Machine, “which combined roller massage with a mild electrical shock” (ibid.). “For uterine diseases, the roller was to be used ‘over lower abdomen, from 10 to 15 minutes. Change the treatment every other day, using the vaginal sponge-electrode, and applying roller over lower abdomen ten minutes, and lower spine five minutes.’ Butler expressed his conviction that three-quarters of the female population suffered from conditions for which his massage device was indicated. Among the many testimonials that appear in his advertising is one from a grateful husband, who reports that his wife treated herself for ‘female weakness, and general debility of the system, with the most gratifying results.’” (ibid.; cf. Maines 2001: 228–233; in terms of “the mainstreaming of masturbation” as a form of sex therapy, see Juffer 1998: 69–103).

The medicalization of female sexuality implied by the “technology of orgasm,” as Maines (1999) aptly sums up the electromechanical genital massage of women in the late nineteenth century in America, manifested for its part precisely what Foucault (1990k: 104, 120–121) calls the “hystericization of women’s bodies” (cf. Sheridan 1990: 190–193). In these terms, female vibrator-massage as an discursive-technological assemblage of medical ideas, technological appliances, corporeal practices and technical terms (cf. Haraway 1991a, 1997) was constructed as a normal cure for hysteria by “putting into discourse” (Foucault 1990k: 11, 104) what was defined to be distinctive about “the sexual” in female sexuality. This was the politics of words that conceived of the female sex as a gender identity implying certain forms of corporeal desires and pleasures intrinsic to women, thus manifesting, as it was assumed, in, by and through their very corporeality, the “other” of reason, the opposite of male rationality (cf. Irigaray 1985a [1974]; Rohde-Dachser 1997 [1991]; Schiebinger 2003). As a result, by means of certain linguistic figurations and discursive practices, the female was not only defined by, but also reduced to, the genital: woman “was” her sex understood as the function of her genitals (cf. Jordanova 1989, 1999; Duden 1991 [1987], 1994 [1991]; Honegger 1991; von Braun 1994 [1985]; Bergmann 1998 [1989/1992]).

In a world in which science and reason amounted to male authority, this kind of reductionism was an institutionalized scientific “language game” (cf. Lyotard 1984 [1979]; Smart 1998: 51–54; Malpas 2003: 21–33, 53–64), a linguistic configuration functioning as a normalizing discourse that, in its peculiar manner, mobilized the words “hysteria,” “vagina,” “clitoris,” “penis,” “penetration” and “orgasm” into a play of signifiers for which this discourse contrived specific sig-
nifieds; each of these signifiers as such being an extremely significant signifier in the nineteenth century, each charged with a heavy load of suggestive power (cf. Foucault 1990k: 154–157; Laqueur 1992a: 1–24; for language as precondition of theory, cf. Weeks 1995b [1985]: 129–131, 159–160, 170–172, 177–180). In other words, female genital massage was conceived of as a “normality” in order to manage the assumed pathological excess of female sexuality defined in terms of genitality: a conception that was intelligible in the context of a specific scientific discourse constituting the female as a sexual being sui generis distinct from the male (see, for example, Gallagher & Laqueur 1987; Russett 1989; Laqueur 1992a; Shorter 1997 [1991]; MacCormack & Strathern 1998 [1980]).

This was the discursive universe of hysteria, a scientifically constructed linguistic realm, that supplied the scientific means for a specific form of body management to regulate sexuality and gender relations in a world in which the male was the measure of all things, the very embodiment of reason (in terms of primatology, cf. Haraway 1990).

In this sense, in the nineteenth century world of science (science as a science of nature), what was understood as a “woman” was seen as part of “nature,” as a “natural fact,” and it was precisely for this reason that “she was taken as a creature defined by her biology and as the feminine natural object of masculine science” (Jordanova 1980: 57; cf. Schiebinger 1991 [1989], 2004 [1993]). In this configuration, female genitality in its particularity – postulated by scientific insights of the most advanced physicians of the time – was conceptualized as the synecdoche for “the sexual” in women. As an uncontrollable corporeal disorder, female sexuality was thus constructed as a grave cultural problem for which the inventions of science and technology were to deliver an efficient solution.

Fig. 39. A vibrator for home use at the end of the nineteenth century. At the turn of the twentieth century, the vibrator had become a popular home appliance; thus, “more than a dozen medical vibratory devices were available for examination at the Paris Exposition of 1900” (Maines 1999: 15).

In 1904, the number of vibratory apparatuses had doubled and their variety had increased, including also new kinds of applications, for example, “musical vibro-massage, counterweighted types, tissue oscillators, vibratory forks, hand- or foot-powered massage devices, simple concussors and muscle beaters, vibratiles (vibrating wire apparatuses), combination cautery and pneumatic equipment with vibratory massage attachments, and vibrators powered by air pressure, water turbines, gas engines, batteries, and street current through lamp-socket plugs” (ibid.: 16–17).

In the end, as a result of a general enthusiasm for “vibrotherapy” (ibid: 94), physicians were even “advised to purchase professional-looking equipment, which could not be confused with consumer goods” (ibid.: 95; for the connections between neurasthenia, hysteria and electricity, see Sc cone 2000: 28–62; Caplan 2001: 45–60; Kneeland & Warren 2002: 30–42; Gosling 1987; Killen 2006; for the body reconceptualized in the context of electricity in the late nineteenth century, see Marvin 1990: 109–151; for the “body electric” and “strange machines” giving birth to “the modern American,” see de la Peña 2003).
“A number of incentives made it more appealing for consumers to purchase vibrators for self-treatment at home than to visit a doctor’s office regularly. The most obvious was cost: even a very good vibrator cost no more than four or five office visits, and it was available at all times, with no additional expenditure other than for electrical power. Consumers could use the device in privacy as often as they desired, and control it themselves, and the daring, knowledgeable, or shameless could involve their lovers or husbands. Water-powered vibrators, briefly popular in the first decades of this century, would have been poorly adapted to this purpose, but electromechanical devices, especially those with batteries, could be used anywhere. Increasing availability of home electricity must also have contributed to the popularity of the electromechanical vibrator.” (Maines 1999: 100)

This was the origin of the vibrator that, for almost half of a century, from the 1880s to the 1920s, was an essential constituent for the definition of the specific “sexual” in the female (Maines 1999: 89–122); the vibrator both as an apparatus and a discursive figure playing an important role in the scientific conception of “the sexual” as an enigmatic “natural force” to be tamed by means of science and technology.
3.1.2 Sexual Cybernetics in the Machine Park of the Postmodern

At the level of techno-futuristic theory-fictions, *mutatis mutandis*, this kind of discursification, or, as Foucault (1990k: 11) says, “putting into discourse,” of desires and pleasures in terms of “the sexual” is the genealogy of cybersex, of course, not as a manifestation of pathology, but as an emblem of a New Age inaugurated by all that is “cyber” in the discursive configuration of the “post.” In the discourse matrix of the cyborg, cybersex is a linguistic construction, a phantasmatic theory object, based on a politics of words effected by the “cyber,” a mythopoetic wish-image typical of the great promises of technological millennialism, as Haraway (1991a: 150) says, in the “late twentieth century, our time, a mythic time” (cf., for example, Lykke & Braidotti 1996a; Wolmark 1999a; Kirkup et al. 2000; Zylinska 2002b; Jahshan 2007). This is a theory-poetical constellation in which theory-fictions have taken the place of theory and theory in itself has turned into post-theory, a mode of theory that practices “politics” in and by “poetic language” (cf. Kristeva 1984 [1974]) by means of linguistic figuration constitutive of the “post” (see, for example, Booth & Flanagan 2002; Diocaretz & Herbrechter 2006; Smith & Morra 2006; Kroker & Kroker 2008; for a critical discussion, Zammito 2004); in other words, the world of an academic avantgarde that celebrates the pleasures of what I call *theme park thinking*, a mode of theoretical fabulation typical of the *Disneyland of Theory*.

While *onanism* and *hysteria*, as scientific concepts of their own time, formed a severe challenge to Enlightenment reason and nineteenth century scientific rationalism, *cybersex*, as a fantasy and theory-fiction emblematic of the techno-imaginary of the postmodern, is a paramount example of the reason of the “post,” the rationality of post-reason inherent to the paradigm of the postmodern: in cybersex, *what is rational is libidinal, and what is libidinal is rational*. Consequently, if there is something Baudrillard (1990g [1979]: 129) calls “sexual reason,” this is the reason of post-sex, “sex” in the order of the postmodern: “sex” as the *jouissance* of the surrational. While in the archaic, premodern world of Saint Augustine, as we saw above, abstinence was the only way to avoid the allurements of the libido, and while the modern invented scientific-medical methods to control and regulate the sexual, in the postmodern, “the libidinal,” “the sexual” and “the theoretical,” mutually intertwined into a maelstrom of figures pertaining to corporeal desires and pleasures, are relentlessly produced and proliferated by means of linguistic figuration that manifests the liquid libido of the “post.” That is, *the order of the “post” is informed by the libidinal*.

“Sex” with Prosthetic Organs in Virtual Reality

In this sense, the postmodern is an absolute opposite of the Augustinian world, a world dedicated to the struggle against the evil power of the libido (see, for example, Bonner 2002 [1963]: 375–378, 398–401; Pagels 1991 [1988]: 229–232; Rist 1994: 319–320). Yet, in its own way, the postmodern lives under the sign of the “rebel” (Foucault in Foucault & Sennett 1982 [1981]: 15; cf. Bernauer 1987: 49.
51; Mahon 1992: 168; Falk 1994: 196) defined by Augustine in his Christian moral theology of original sin (for a theological contextualization, see, for example, Wiley 2002: 56–67). But this is not a world in which the wilful penis stands for life in sin; no, this is a world in which “penisthetics” (Miller 1998: 129–132) manifests the ethos of the rebel, though modified in the manner of the “cyber”: in the mode of the presence of the absent. In the name of the ego-politics of pleasure, the “post” celebrates a post-Augustinian revolt against self-denial in the name of God. In the world of the “post,” it is under the regime of the post-Freudian, postmodern “prosthetic God” that technology takes on a libidinal meaning liberating the subject from the constraints of the human (cf., for example, Grosz 1994c: 38–39, 79–80; Wills 1995: 101–102, 125–126; Graham 2002: 185–186; Waters 2006: 36–37, 42–43, 50–53, 61–63, 73–74, 78, 121; Toffoletti 2007: 123–124; Deane-Drummond & Scott 2006; Smith & Morra 2006).

Technological body design as a means of self-empowerment, obeying the imperative of the enhancement of the performance capacities of the post-subject in the maelstrom of productive consumption under the disciplinary regime of neo-Fordism, the order of the political economy of neoliberalism (cf. Comaroff & Comaroff 2001; McKenzie 2001), this is the idea of the Freudian Prothesengott in the constellation of technoscience, the idea of posthuman omnipotence as a result of science and technology (see Freud 1972a [1930]: 451; cf., for example, Kittler 2000: 209–213; Ellrich 2003: 256–258; Hartmann 2008: 40–41; for the similarities between Freud’s “prosthetic God” and McLuhan’s idea of the media as the “extensions of man,” see Levinson 1999: 60–61; Cavell 2003: 45–46, 82–83); an idea that, in the sense of technological modernization, is the basic motive of the modern, and as such, constitutive of the postmodern; the postmodern understood as the discursive framework of technoculture. In this constellation, the cyborg, as the emblem of the posthuman, is the postmodern reincarnation of the Freudian “prosthetic God,” an omnipotent being that is capable of creating itself in and through a continuous recreation, in the process of unending “becoming” (see Deleuze & Guattari 2000 [1980]: 232–309; cf. Goodchild 1996: 150–172; Braidotti 2006).

In the world of the cyborg, the body, in its continuous “becoming,” becomes an embodiment of technoscientific reason, an instrument of its own rationality: the rationality of the body as the survival machine the post-subject. If the postmodern is a continuation of the modern by other means, this is the triumph of the reason of the modern: desires and pleasures are no longer the opposite of reason; instead, as the very incorporation of reason, they now form the constitutive moment of the rational: the desires and pleasures of the body are an essential economic factor in the political economy of neoliberalism, in the disciplinary regime of neo-Fordism that rules the accumulation of capital in the cultural condition of productive consumption. At last the manifestations of the sexual as an embodiment of unreason have been elevated from the lower levels of the flesh to the higher spheres of the rational, the level of instrumental reason (see Horkheimer 1967 [1947]; Horkheimer & Adorno 1994 [1944]; cf. Held 1980: 65–70, 148–174;
Steenblock 2000: 205–209; Gane 2002: 21–27, 40–51, 59–63, 68–70, 151–154), as such as it is reconfigured in the postmodern, in the order of surrational reason.

This is the reason permeating technoculture, and a fortiori, cyberculture, a postmodern discourse formation considering itself as the avantgarde of the transformation of the human into the posthuman (see, for example, Penley & Ross 1992c; Robins & Webster 1999; Cooper 2002; Shaw 2008). In this new world, ruled by scientific-technological rationalism in the form of postmodern linguistic games, a new form of the libidinal redefines not only the terms of body politics, but also the terms of theory: desires and pleasures intensify each other in a post-cybernetic circular-causal manner of mutual enhancement (for the origin of the idea in terms of classical cybernetics, see von Foerster 1950, 2003a [1979], 2003b [1974]; cf., for example, Jerison & Stroock 1997: 15–15; Gerovitch 2002a: 83–84; Bousquet 2009: 107–119; Wiener 1961 [1948], 1968 [1950]; Pias 2003, 2004; for the historical situation in terms of the Cold War, see Light 2005); that is, where there is pleasure, there is desire; where there is desire, there is pleasure, and in their reciprocal proliferation both of them obey the imperative of reason manifested by the surrational, the reason of the postmodern. This is the allure of what John Johnston (2008) calls “machinic life,” in other words “life in the service of the machine” (Cooper 2002: 1–17).


I’d like to think (and the sooner the better!)
of a cybernetic meadow
where mammals and computers
live together in mutually
programming harmony
like pure water
touching clear sky.

I like to think (right now, please!)
of a cybernetic forest
filled with pines and electronics
where deer stroll peacefully past computers
as if they were flowers
with spinning blossoms.
I like to think
(it has to be!)
of a cybernetic ecology
where we are free of our labors
and joined back to nature,
returned to our mammal
brothers and sisters,
and all watched over
by machines of loving grace.

A “cybernetic meadow,” a “cybernetic forest,” an entire “cybernetic ecology”
habited by cybernetic beings, “all watched over by machines of loving grace”
68–70), a post-utopian techno-habitat based on an intimate and harmonious
human-machine symbiosis in which the “human,” the “machinic” and the “animal”
no longer can be separated from one another. What Brautigan dreamed of
in the 1960s we can live now in the world of the cyborg, a postmodern techno-
paradise envisioned by Haraway (1991a: 150) in her “Cyborg Manifesto”: a “post-
gender world,” in which “nothing really convincingly settles the separation of
human and animal” (ibid.: 152), a world of “lived social and bodily realities in
which people are not afraid of their joint kinship with animals and machines, not
afraid of permanently partial identities and contradictory standpoints” (ibid.:
154). As cyborgs, “creatures simultaneously animal and machine, who populate
worlds ambiguously natural and crafted” (ibid.: 149), we can enjoy the pleasures
of something that is not just sex, but something essentially more: “Cyborg ‘sex’
restores some of the lovely replicative baroque of ferns and invertebrates (such
nice organic prophylactics against heterosexism)” (ibid.: 150).

A comprehensive rationalization of desires and pleasures – that is the logic of the
libido under the regime of the surrational. This is the triumph of the sexual rea-
son of the postmodern. This is the realm of the liquid libido. In this new world,
the driving force of the sexual, that enigmatic force which has been a challenge
of reason since the Enlightenment, has now, along with everything else, reached
its terminal state. In terms of the “cyber,” this is the beginning of, as Arthur and
Marilouise Kroker (1993b) say, the “next sex” which is going to be the “last sex,”
a mode of “sex” that is enabled by “virtual sex,” various “intersex states,” acts,
practices and encounters of “post-male” and “post-female” (ibid.: 18–19) post-
subjects in their constitutive ambiguity, a radical heterotopia of desires and plea-
sures that can be perceived only when we approach “the sexual” in the mode of
anamorphosis (ibid.: 18), that is, “[o]ne must ‘look awry’ to see” (Kauffman 2002:
121). What was once sex in the flesh is from now on “sex” in the realm of artifi-
cial corporeality, “sex” by means of the prosthetic organs of the cyborg in virtual
reality, artificial organs that in their very artificiality deconstruct and subvert the

To understand the radicality of the metamorphosis of the sexual in terms of
“next sex” it is appropriate to recall the Krokers’s definition of “recombinant sex”:
A floating world of sexual software that can be massaged, mirrored, uplinked and downloaded into a body that always knew it didn’t have to be content with the obsolete carcerals of nature, discourse, and ideology. In the galaxy of sexual software, morphing is the only rule: the quick mutation of all the binary signs into their opposites. Recombinant sex is the next sex, the last sex. If there can be such an explosion today of sexual aesthetics, it is because we now live in the age of genetic engineering, a time of radical experimentation where all the old gender signs have been deleted and replaced by sex without secretions. Recombinant sex is an art of sex that keeps pace with evolutionary shifts in the scientia sexualis, translating the language of the bio-apparatus – cloning, sequencing, transcription – into an aesthetics of sexual play, into an ecstasy of sexual perversion. A time of flash-meetings between the cold seduction of cyberspace and the primitive libido of trash sex. (Kroker & Kroker 1993b: 15; cf. Stenslie 2000b)

This is the seduction of the “cyber.” In the world of the “cyber” – in the world of the cyborg – everything is possible because nothing is impossible in a world in which the possibility of the impossible has made the impossible impossible: nothing can stop the movement of signification, the movement dissemination, the movement of supplementation (see Derrida 1997 [1967]: 141–164, 1978b [1967/1963], 1981b [1972/1969]). This is the condition of possibility as the very condition of impossible impossibility in a world in which, as Haraway (1991a: 149) says, “the boundary between science fiction and social reality is an optical illusion.”

If there is any logic in cyber discourse, it is the logic of the “post,” the logic of desire, constitutive of the logic of the “cyber”: it is about a politics of words in which the “incessant sliding of the signified under the signifier” (Lacan 1977d [1966/1957]: 154; cf. Bowie 1991: 64–67, 72–76; Lemaire 1991 [1970]: 45, 61; Lucy 1997: 23–26) has resulted in a situation in which the excess of meaning is the only meaning, “meaning,” of course, understood as signification. In this way, the “galaxy of sexual software,” “recombinant sex,” “primitive libido” and “trash sex” belong to the same linguistic register as the Harawayan figures of the cyborg: what for the Krokers is the “cold seduction of cyberspace” is for Haraway (1991a: 150) “cyborg ‘sex’” as an excessive mode of “sex” that “restores some of the lovely replicative baroque of ferns and invertebrates,” an anamorphic form of “sex” that is able to exceed the limits of the very “sexual” in itself time and time again: “sex” as post-Freudian “polymorphous perversity” (cf. Freud 1981c [1905]: 91, 136, 1986d [1915–1917]: 213), “sex” as the disruption of the entire order of “the sexual”; as Haraway (1991a: 151) says, the “cyborg is resolutely committed to partiality, irony, intimacy, and perversity.”

All this implies that in the world of the “cyber,” enabled by the logic of the “post,” we have the possibility to enjoy post-metaphysical sex, “sex” as an enactment of jouissance in the matrix of signifiers in which the signifiers in themselves are “polymorphous perverse” through and through, promiscuous agents of libidinal language that in their radical “otherness” are able to subvert all the rules outside their own rule of signifying anarchy, signifiers that are autonomous in their libidinal polyvalence, in their intertextual polyvocality. In this sense, “sex” in terms of the “cyber” is always already, before the act, a manifestation of the intersexual: “sex” as an unending play of intertextuality.
This is the linguistic matrix of the imaginary under the sign of the “cyber,” the discursive configuration of the surrational enabled by the linguistic delirium of the “post” – the phantasmatic world of the libidinal, the libidinal power of language liberated from the burden of meaning. If, in the discourses on onanism and hysteria symptoms were not indexes, that is, indications of the real, but effects of the imaginary in the form of supplements referring to other supplements, in cyber discourse all the signifiers are “free-floating signifiers” circulating and proliferating in the imaginary universe of the “cyber”; a universe in which there are neither indexes nor symptoms but only linguistic figurations, entities without any referentiality – except the self-referentiality constitutive of cyber discourse in itself as a discourse following the logic of the “post.”

In this sense, “sex” and the “cyber” are congenial figures: they are libidinal signifiers that play with the supplements of supplements produced by the imaginary constitutive of the linguistic of language in its intrinsic libertinage, the copulative liberty of signifiers.

The “Logic of the Supplement”

From the Derridean perspective, cyber discourse is a libidinal language that consists of a complex structure of “weaving” and “interlacing” that permits “different threads and different lines of meaning” (Derrida 1984a [1972/1968]: 3; cf. Protevi 2001: 60–65; Wolfreys 2007) to become imbricated in figurations that signify by an excess of signification, a mode of signification in which meaning is not only destabilized, but, more fundamentally, in which meaning is no longer possible at all: meaning evaporates in the excess of “free-floating signifiers” which signify by unending “supplementation” and “dissemination” (Derrida 1973 [1967]: 88–89, 1997 [1967]: 141–164, 195–200, 1978b [1967/1963], 1981b [1972/1969]; cf. Ormiston 1988: 43–44; Hobson 1998: 70–76). In these terms, the “cyber” is based on the force of the l-e-t-t-e-r (cf. Derrida 1984a: 4, 27): all that is “cyber” consists of the letters c-y-b-e-r, articulated into the code word cyber, an iterative-additive particle functioning as the linguistic prosthesis of cyber discourse, that in itself means nothing, but precisely as such an empty signifier allows an endless process of signification. As such a meaningless linguistic unit pregnant of “meaning” without meaning, the compound of letters “c,” “y,” “b,” “e,” “r” is a predicative prefix that as an attributive attribute attributes an open “meaning” to the words following it – a linguistic carte blanche – that is not pre-established, but instituted over and over again through its own iterability (cf. Derrida 2000 [1988]: 43–48, 52–53, 62–63, 99–100; cf. Wolfreys 2004: 121–125).

Thus, as a product of the letters c-y-b-e-r, the “cyber” enables a production of signification that proliferates, in ever-new contexts in the postmodern mode of recycling, the very “cyber” on, through and by which it is constituted in the first place.

This is what I call the letterism of cyber discourse, a mode of letteral scripturality in its post-foundational letterality (cf. Marcus 1990 [1989]: 248–268; in theo-
logical terms, cf. Loughlin 1995); that is, letteral figurativity as the highest form of the tropological in the sense of the “post” constitutive of post-theory after the implosion of meaning and the beginning of theory by means of writerly reading.

In other words, in the world of the “cyber,” enabled by the postality of the “post” in its radical postness, writing theory in the mode of writerly textuality follows what Derrida (1997 [1967]: 7, 165, 187) calls the “logic of the supplement”; at the same time, this is the logic of the libidinal, the imaginary and the sexual, in one word, the logic of auto-affection (ibid.: 165–167, 187, 250); this is the very logic of masturbation and hysteria, the logic of the “post” that rules the discourse of the “cyber” by its radical indeterminacy: the logic of the undecidable as the logic of irresolvable ambiguity, the ambiguity of unending signifying chains that constitute the very “meaning” of the “cyber.”

Accordingly, as an imaginary technology, cybersex manifests linguistic hysteria in the form of theoretical masturbation (cf. Derrida 1997: 150–157; cf. Norris 1987: 117–118; Hart 2000: 126–127): while masturbation and hysteria, as corporeal experiences, are based on imaginary corporeality effected by the movement of supplementarity, “the sexual” in cybersex takes place in a supplementary sphere of the virtual, in a virtual reality of language in which everything is possible except the impossible: a libidinal realm in which all signification occurs through the play of the supplements of supplements, in their ceaseless supplementation, in the endless dissemination of all that is “cyber” under the meta-code of the “post,” the code that rules the imaginary of the postmodern by means of post-representational language. It is precisely in this manner that cyber discourse is a post-referential discourse, a discourse that refers only to itself (in terms of the American “closed world discourse” during the Cold War, cf. Edwards 1996).

This is the world in which cybersex is perfectly intelligible: cybersex is theory-sex in the universe of post-Derridean supplements.

technological, a faith in the emancipatory potential of the “cyber” as the true embodiment of the “post”: an agent of subversion able to disrupt the regime of reason by means the surrational.

This is the way the technological works as an effect of the imaginary, as the manifestation of the “God principle” constitutive of the world of the cyborg, the technological as the driving force of the ego-politics of pleasure peculiar to the postmodern.

Yet, there is a difference that indicates a profound change of times in terms of “the sexual”: while the “anti-onanism apparatus” and the “genital vibrator” represented the idea of a technologization of the sexual, the cybersex bodysuit manifests a sexualization of the technological. Instead of the body, what is at issue in cybersex is a cathexis of technology (for the idea of Besetzung or cathexis, see, for example, Freud 1972f [1926]: 120, 204–205, 1977d [1893]: 54, 1987d [1900]: 572, 600, 604–612, 622; Breuer & Freud 1977 [1895]: 92, 107; cf. Laplanche & Pontalis 1998 [1967]: 92–96), a libidinal investment of the technological by the power of the imaginary, the power of desire, dwelling in the libidinal language of the “cyber,” the most avantgardist discursive agent in the linguistic matrix of the “post.” This is the realm of the techno-imaginary, a discursive realm of postmodern technoculture, the linguistic universe of the “cyber,” the most sublime sphere of the technological sublime celebrated by post-theory in the ecstasy of “free-floating signifiers.”

This is the seduction of the “cyber”: the jouissance of the technological: desires and pleasures in the virtual reality of language, the libidinal language of cyber discourse in which everything is possible because in the world of the “post” nothing is impossible. For this reason, the potential is always actual in the “paraspace” (Bukatman 1996 [1993]: 157–187) of the “cyber,” the realm of the techno-imaginary ruled by the logic of the “post.”
3.2 The Consensual Hallucination of the “Cyber”

At any event, the opening section of *Neuromancer*, with its introduction of cyberspace, is the kind of revelation – of a possible but previously unimagined future – that occurs perhaps once a generation. Charles Babbage’s and Ada Lovelace’s anticipation of a programmable computer in the 1820s, Friedrich Engel’s 1880s prophecy of a mechanized world war and H. G. Well’s prevision of the atomic bomb in 1900 are comparable examples.

Mike Davis (1993: 10)

European and eastern bohemians could never really embrace the psychedelic experience. It’s not history that haunts them so much as the toilet training of classical education – the structures of credibility. California – INCredible home of Disneyland, Hollywood, Silicon Valley, and LSD culture hasn’t merely UNmade history, it’s flattened time. From our vantage point, we look forward as easily as we look backwards.

R. U. Sirius (1997: 12)

There is no doubt that the “cyber” can signify, even excessively, regardless of whether all that is signified makes sense or not: sense is not an issue in the world of the “cyber”; what counts is signification. In this manner, cyber discourse is pregnant with “nothingness,” overwhelmingly “meaningful” in its apparent “meaninglessness.” Like the “post,” in its unending “postality” enabled by the “postness” of the “post,” signifies by “posting” one “post” after another, the “cyber,” as an effect of the endless “cybering” of “cybernness” in its very “cyberality,” signifies by supplementing one “cyber” for another, each generated by the imaginary of “cyberdelia” resulting from the actual potentiality of “cyberia” based on its potential actuality. This is the post-logical logic of the “cyber” in its post-cybernetic circular-causal relationship to the logic of the “post”: *nothing is impossible in the world of the “cyber” since everything is possible in terms of the “post.”* Academic cyber theory alone, as such, in its scholastic sophistication, in its post-poetic heteroglossia (cf. Bakhtin 1981 [1934–1935]: 263–335, 354–399; in terms of parody, cf. Rose 1993: 130–137, 156–157; in the context of feminism and Haraway’s cyborg, cf. Woods 1999: 39; from the perspective of “political theory as textual practice,” cf. Shapiro 1992: 84–85), is an impressive testimony for the extreme linguistic productivity of the “cyber” (for paradigmatic examples, see Benedikt 1994 [1991]; Featherstone & Burrows 1995b; Gray et al. 1995b; Wolmark 1999a; Bell & Kennedy 2000; Kirkup et al. 2000; Flanagan & Booth 2002).

It is precisely in its signifying “emptiness,” its eloquent “nonsense” (cf. Menninghaus 1995; Rapaport 1994, 2001; Ulmer 1994; Zurbrugg 2000a), that cyber discourse is a Lacanian mirror not only of contemporary theory, but of the cultural condition of the postmodern in general (cf. Lacan 1977f [1966/1949]). It is not for nothing that the figure of the sublime is often used as the signifier of the postmodern (see, for example Jay 1993a: 543–592; Bertens 1995: 131–134, 169–172; Hartley 2003; for the origin of the idea, see Lyotard 1991 [1988]: 89–118, 135–143), and by extension, of technoculture under the sign of the “post,” the
linguistic matrix of the “cyber” (cf. Jameson 1991: 34–38; Tabbi 1996: 1–29; Nye 1996; for a historical contextualization, see Shaw 2006). In the world of post-theory, all that escapes reason attracts rational explanation which, in the last instance, is possible only by means of the surrational. This is exactly why the ruses of non-reason seduce reason to the enchanted world of theory, a world of words, a world in which all that is said exists by the force of language.\footnote{It is absolutely important to make a distinction between unreason and non-reason; although non-reason can manifest unreason, and vice versa, there is a significant difference between them: while unreason implies (although not equals) the irrational, non-reason refers to the realm of the non-rational, a realm of thought in which things happen without any rational explanation, being, nevertheless quite rational from the perspective of the imaginary, the perspective of the intelligible. From Hölderlin to Artaud, from Nietzsche to Lacan, from Heidegger to Deleuze and Guattari, the poetic of non-reason has been an unending source of post-theory, not only as an inspiring impulse, but the very reason of theory, its intrinsic rationale (cf. Megill 1985; Merquior 1986). This specific mode of reason is enabled by the excess of signification constitutive of language in general and the language of post-theory in particular: the “post” is the epiphany of the linguistic of language that is the driving force of theory in terms of non-reason. From this perspective, the world of the “cyber” appears entirely rational: the “cyber” manifests the reason of the surrational, the reason of the imaginary.} Just at the moment when reason fails, imagination, through the language of the imaginary, appears – like a revelation – as the redemption of reason; this is the soteriological perspective of the “post” (cf. Bolz & van Reijen 1998; Sherry 2003).

In these terms, cyber discourse, the linguistic world of the “cyber,” is a consensual hallucination enabled by the excessive mode of signification peculiar to the “post.”

This is the logic of the “post” as the fons et origo of the coming into being of post-theory, and by extension, the origin of cyber discourse: what you write is what you get. Just as there is no postmodern neither poststructuralism, and all their derivatives up to post-theory, without the “post,” there is no cyber discourse without the “cyber,” as there is no “cyber” without the play of language effected and affected by the “post,” the most signifying signifier in contemporary theory.

### 3.2.1 The “Cyber” as a Linguistic Prosthesis

In view of the previous discussion, cybersex is a theoretical conundrum, a “Freudian word” (see, for example, Freud 1961 [1905], 1976d [1908], 1986b [1919], 1990e [1910], 1990h [1901]; cf. Gay 1995 [1988]: 267–369; Wollheim 1991 [1971]: 65–106): a signifier that behaves according to the logic of the joke, a ludic signifier manifesting the “seriously” of “the theoretical” in post-theory by way of postmodern playfulness (cf. Haraway 1997), thus to be read with Freudian wit and jocularity (see Freud 1961 [1905]); an extremely “meaningful” signifier effected by the metaphorization of meaning specific to the postmodern in terms of poststructuralism, the ever-present subtext of post-theory, the historical source of the “post” (see, for example, Sturrock 1986: 136–165; Harland 1987: 121–186; Eagleton 1997 [1983]: 110–130; Merquior 1986; Bannet 1989; Callinicos 1989; Rapaport 2001; Dews 2007 [1987]).
As such a “theoretical” figure, cybersex is a techno-erotic instantiation of the post-Barthesian “pleasure of the text” (see Barthes 1975 [1973]) constitutive of the theory-euphoria prevailing in postmodern academia; a technophilic mode of pleasure in the economy of signification of cyber discourse as a post-poetic language of desire (cf. Kristeva 1980 [1969], 1984 [1974]). As a linguistic-libidinal object, cybersex has the ability not only of enticing and alluring, but also of exciting and arousing in the mode of “erotic play” understood in terms of the postmodern: cybersex is “sex with the “cyber” in the ecstasy of the “post”; that is, the ecstatic pleasure of “cybering” in the “cyberality” of “cyberia,” in its elevated state of “cyberdelia” (for a paradigmatic example, see Leary 1994a). In this sense, cybersex originates from the seductive potentiality of the “cyber,” a textual space of post-theory in which epistemology is equivalent to aesthetics and both amount to an ontology in and through which the non-existent becomes existent.

Thus, cybersex is about a specific postmodern eroticism of theory: driven by a desire for theory, post/cyber-theorists enjoy the pleasure of being seduced by a libidinal language promising the jouissance of the “post” in the orgy of “free-floating signifiers” circulating around all that is “cyber.”

The “Primal Act of Pop Poetics”

The shift from cybernetics to cyber discourse, that is, from a scientific theory to the postmodern mythopoetics around the spectral figures of cyberspace and the cyborg, occurred when cyberpunk demonstrated that you must not necessarily be a cybernetician to live cybernetically, provided, of course, that you have correctly understood the logic constitutive of the paradigm of the “cyber” (see, for example, Sterling 1986a; Sirius 1990a, 1990b; Leary 1994b [1989], 1994d [1988], 1994f [1989]; Brande 1996; Fisher 1997; Cavallaro 2000). This is the beginning of the spectacular triumphal procession of the “cyber.” As a generative code word, the “cyber” became the “dominant” of cyber discourse in Roman Jakobson’s sense. According to Jakobson (1987b [1935]: 41), “the dominant” is “the forming component of a work of art: it rules, determines, and transforms the remaining components”; in this manner, the dominant “guarantees the integrity of the structure”: the “dominant specifies the work” (ibid.; emphasis mine; cf. Selden & Widdowson 1993: 37–38).10

This is the idea of the “cyber” as the dominant of cyber discourse: although the origin of the paradigm of the “cyber” is evidently in William Gibson’s Neuromancer, in terms of the “post,” it is not related to some specific “work,” a distinct

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10 In the German translation: “Ich definiere die Dominante als die Leitkomponente eines Werks, eine Komponente also, die alle anderen Komponenten steuert, beeinflusst, transformiert. Es ist die Dominante, die die strukturelle Einheit garantiert. Die Dominante gibt dem Werk das Besondere.” (Jakobson 1987a [1935]: 258; emphasis mine) Similarly, for Jameson (1991: 4, 1984: 131), what he calls “postmodernism” is not to be understood as a “style but rather as a cultural dominant: a conception which allows for the presence and coexistence of a range of very different, yet subordinate, features.” What is “postmodernism” for Jameson is for me the “cyber” of cyber discourse, and similarly, the “post” of post-theory: it is about a dominant that creates coherence in randomness – “coherence,” of course, in the sense of the contingent.
text, but to the universe of postmodern textuality, or, in Foucault’s (1992a [1969]: 130) idiom, the “archive” as “the general system of the formation of statements” (emphasis in the original), constitutive of all that is effected by this very same “cyber”: the “cyber,” precisely as the dominant, as a *linguistic prosthesis*, that gives cyber discourse its discursive particularity, that which *specifies* it, is the very condition of possibility of cyber discourse – and precisely because it does not mean anything in itself it functions as the enabling linguistic catalyst of cyber discourse, as its originating point of departure in its meaningless meaningfulness, unlike the “post” that has “a meaning,” although it is highly cryptic what it is exactly that the “post,” in its excessive “postness” in the mode of “postality,” “means.”


But, in fact, where, precisely, is the originary origin (in Derridean sense, see Derrida 1997 [1967]: 19–25, 61–71) of cyber discourse: where does the “cyber” originate? To answer this question, it is necessary to go *ad fontes*, to find the Freudian *caput Nili* (see Freud 1977h [1896]: 439; cf. Sulloway 1979: 94) of all that is “cyber,” in order to apprehend the idea of *contingency* as the decisive factor for the discourse formation constitutive of cyber discourse. Paradoxically, the “cyber” is not an effect, a result of, but the very condition of possibility of the idea or concept in which it appears or arises from: similarly to the “post,” the “cyber” functions as a linguistic “key,” a codifying signifier, that *re-signifies* and *re-contextualizes* the statements, texts and discourses in which it is applied. “Cyberspace,” the *literary* invention of Gibson, is the very source of all that is “cyber,” its linguistic fountainhead, the origin of the vocabulary and the configuration of ideas and images based on it.

In his visionary novel *Neuromancer*, Gibson had the gift of grace to see the light at the right moment, to invent this suggestive neologism, cyberspace: a non-metaphoric metaphor around which, similarly to Haraway’s cyborg, a post-modern mythopoetic para-reality has emerged. Thus, in the beginning there was a word, as Gibson says:

As Roger Burrows (1997: 237), in his article tellingly entitled “Cyberpunk as Social Theory: William Gibson and the Sociological Imagination,” remarks, “[cyberspace began life as a word without any concrete referent” (emphasis mine), that is, as an empty word, a signifier without a signified. This notwithstanding—and this is precisely specific to the logic of the “post” ruling the discursive constellation of the “cyber”—it is not only that in the 1990s Gibson’s cyberspace, as Mark Nunes (2001: 57) sums up, “became a powerful cultural trope—first in America and then spreading virally elsewhere,” but, more fundamentally, Gibson’s “primal act of pop poetics” was the constitutive moment of a new postmodern discourse, the techno-imaginary discourse around the “cyber” (cf. Kellner 1995: 297–327; Bukatman 1996 [1993]: 167–168; Robins 1996: 83–103; Stallabrass 1996: 41–43; Wolmark 1999b: 6–9); that is, cyber discourse as a millennial saga, a post-utopian, messianic vision of redemption: a technophilic Genesis.

It is in this manner that “the term and the way cyberspace was depicted in Neuromancer have had a profound influence upon its development and its representation” (Bell 2007: 3). Thus, “the setting loose such neologisms” like cyberspace and the cyborg tellingly demonstrates “how terms and concepts take on their own life, and spread and mutate, like a virus or a ‘meme’ (a kind of thought or idea virus that spreads through culture)” (ibid.). This is the virality of the “cyber” (cf. Baudrillard 1998a [1997]: 46–47), its linguistic, techno-affective contagiousness, its infectious delirium in terms of pop-poetic theory-euphoria.

In other words, the “cyber” is a linguistic-theoretical virus proliferating in the discursive matrix of what Jussi Parikka (2007: 96–100) calls “viral capitalism.”

What is specific to Gibson’s Neuromancer as a science fiction narrative, as Maren Hartmann (2004: 1) says, is that it “portrays a hallucinatory near-future infused with technologies” that has now become “part of everyday life.” As a “term,” Gibson’s “cyberspace” has “come to fill an existing void exactly because it managed to capture and portray these near-future developments in one single word” (ibid.). In this sense, cyberspace, according to Hartmann, is both an “object of study” and a “conceptual-analytics framework” (ibid.). Similarly, for Anne Friedberg (1993: 145), cyberspace belongs to “cybernetic neologisms” that redefine “new technologies” in a specific manner: while, according to Wittgenstein (referred to by Friedberg), “the limits our language are the limits of our world, these new technologies have expanded the ontological boundaries of our current language and a new lexicon is needed to describe the frontiers beyond” (emphasis mine).

In the early 1990s, this “new lexicon,” indeed, emerged: a phantasmatic cyberspeak arose from the “figments of a (sub)cultural imagination” in the form of “popular cultural discourses” (Hayward 1993: 182) surrounding Gibson’s cyberspace as a science fiction vision and virtual reality as a new technology in its experimental stage. These discourses, then, “served to fix cyberspace in the popular imagination in particular configurations” (ibid.); along with the “Techno-Futurist aesthetic” typical of the time, the most influential of these
discourses were “science fiction, rock culture, psychedelia and ‘New Age’ mysticism” (ibid.) – and, as result, suddenly everything was “cyber.”

What is important in this context, as Philip Hayward argues, is that these discourses “shaped both consumer desire and the perceptions and agenda” of those who were developing virtual reality understood in terms of cyberspace (ibid.). In this sense, “in a particular ironic twist of what must now perhaps be considered ‘Late Postmodernism,’” the discourses around virtual reality created “a simulacrum of the medium in advance” (ibid.), thus defining it from the very beginning from the perspective of the techno-imaginary typical of American culture in which science fiction essentially contributes to the understanding of science. It is in this manner that Gibson’s “neologic spasm” is the originary origin of all that is “cyber” (in terms of postmodern spasmodics, cf. Kroker 1993): Gibson formulated the neo-futuristic, techno-utopian language in which virtual reality as an experimental technology became intelligible in terms of cyberspace; intelligible, of course, as a manifestation of the techno-imaginary in a new literary form that emerged from Gibson’s Neuromancer.

As important for the promotion of cyberspace as a visionary technology promising an entirely new mode of existence was the manner in which it was perceived as a psychedelic experience. According to Hayward, this perception was based on several factors that supported one another:

> The first of these concerns the cyberspace user’s immersion in an interactive environment. Transcending traditional spectatorship or the limited interaction possible with computer games, the closest analogy to the cyberspace user’s interaction with an (illusionary) cybernetic “world” has been seen as the hallucinatory experience of drug use. While this analogy does not stand up to sustained scrutiny, other aspects, such as the suspension of “the real” in favour of disorientating fantasy worlds, and different perceptions of bodily capacity and control, have contributed to the comparison. The analogy has been strengthened by its discussion in popular cultural circles where its most significant uses have been perceived as either recreational escapism, or else as some more supposedly profound “consciousness expanding” experience. (Hayward 1993: 182)


For this reason, what is decisive in this connection is that the discursive eruption around the “cyber” would not have been possible without the linguistic universe envisioned by Timothy Leary, the great poet of the psychedelic and the Ur-shaman of the cyberdelic since the early 1960s. In other words, if Gibson is the point of origin of the “cyber,” Leary is its condition of possibility (see Leary 1994b
what happens in Gibson’s *Neuromancer* is the metamorphosis of Leary’s *psychedelia* into the *cyberdelia* that gave the literary form to *cyberpunk*, the techno-avantgardist subculture of the early 1980s (see, for example, Sterling 1986b; Ross 1991a; Nixon 1992; Porush 1992; Kadrey & McCaffery 1994 [1991]; McCaffery 1994b [1991]; Balsamo 1996b; Hafner & Markoff 1995 [1991]; McCarron 1995; Michaud 2008), and, through that, created the vocabulary, thematics and world-view of all that soon became a new techno-imaginary discourse under the sign of the “cyber,” the code word of cyber discourse.

But, in the final analysis, the catalyst of both Leary’s and Gibson’s visions is William S. Burroughs: much of what swirled around the “cyber” in the early 1980s comes from Burroughs, catalyzed by his hallucinogenic language, the whole urban, paranoid phantasmagoria manifested by his writing, attitude and way of life (see, for example, Sobchack 1994: 12–13; Bukatman 1996 [1993]: 9–21, 45–46; Dery 1996: 298; Balsamo 1996: 117–120; Cavallaro 2000: 10; Dinello 2005: 151; ). This is an essential origin of cyber discourse, the visionary origin in terms of *hallucinogenic writing* in the sense of what Avital Ronell calls “hallucinogenre” (see Wolf 1990; Slawney 1994).

**The Euphoria of the “Cyber”: The Technological Sublime**

From this perspective, the epochal meaning of Gibson’s “neologic spasm” becomes understandable: it is something similar, though entirely different, compared with what André Breton (1960 [1928]: 160, 1978a [1937]: 160–162) called *la beauté convulsive*, “convulsive beauty” (cf., for example, Krauss 1985b [1981]: 97, 112–113; Orban 1997: 151; Caws 1996 [1971]: 38, 52–55, 1999 [1997]: 194, 214, 239). Unlike Breton’s imaginary world emerging from his surrealist reconception of reality in terms of dream as an intellectual and aesthetic parareality generating poetic visions, the imaginary world stemming from Gibson’s *Neuromancer* is not a literary effect of the surreal, but, instead, the whole post-modern phantasmagoria of the “cyber” is an epiphenomenon of the technological sublime produced by neoliberal capitalism (cf. Jameson 1991: 32–38, 321; Nye 1996; Tabbi 1996; Mosco 2004); that is, the “cyber” is a paradigmatic manifestation of what I refer to as the surrational.

The difference is that, while Breton’s Surrealism reflects the new understanding of the psyche and the psychic ensuing from Freud’s psychoanalysis, mediated by the specific features of the French literary and artistic avantgarde in the 1920s, in contrast, Gibson’s cyberspace reflects not only American techno-capitalism, mediated by the literary tropes of the New Wave science fiction of the 1980s,

For this reason, in Gibson’s simple but analytically precise sentences cited above, every single signer is significant in its full significance; significant in the sense of the literary that creates its specific literalness as a mode of literariness (in terms of Russian Formalism, cf. Hawkes 1977: 59–73; Merquior 1986: 19–33; Sturrock 1986: 105–112; Eagleton 1997 [1983]: 2–5, 85–87; Erlich 1980 [1955]; Striedter 1994 [1969]). A creative moment of postmodern linguistic alchemy: a \textit{neologic spasm}, a \textit{primal act of pop poetics}, a word put together, \textit{assembled}, from small and readily available components of language. A linguistic assemblage that \textit{preceded any concept whatever}. “Cyberspace”: a notion \textit{slick and hollow – awaiting received meanings}. And in the manner of a genuine post-theorist, in fact, even exceeding the limits of post-theory, Gibson did just the right thing: “All I did: \textit{folded words as taught},” and, as a consequence, “[n]ow other words \textit{accrete in the interstices}.” Here, again, each word is pregnant of suggestive significance, of meaning beyond meaning: \textit{folding words} is a literary act that creates space for \textit{other words} that \textit{accrete} in the imaginary realm of \textit{interstices}, a linguistic double-space calling forth one lacuna after another to be filled with signifiers that are always supplemented by other signifiers, each opening ever-new spaces for meaning beyond meaning (cf. Derrida 1981a [1972], 1984b [1972], 1997 [1967]).

That is the way it happened. From the very moment of the origin, the \textit{annis mirabilis} 1984, the year of the “cyber,” innumerable other words, indeed, have accreted the “interstices” in the texture of textuality interlaced by Gibson in his epochal work. Since Gibson’s “primal act of pop poetics,” myriads of new words, an unending flow of ever-new signifiers, have intermingled with Gibson’s \textit{Ur}-word, with his originating vocabulary that has initiated even \textit{a second order language} in its enigmatic suggestiveness, a hermeneutic metatextuality, a new academic discipline studying postmodern phenomena under the denomination “cybercultures” (see, for example, Bell & Kennedy 2000; Bell 2001a, 2001b, 2004, 2007; Ricardo 2009a; Nayar 2010); a new form of postmodern theory in the mode of writing, a new intellectual exercise consisting of “folding” of words “as taught,” a new method of generating theory \textit{à la} Derridean \textit{écriture} (cf., for example, Derrida 1978c [1967/1966], 1984e [1972/1971], 2000 [1988]; Silverman 2002: 112–114; Irwin 2010) – in short, an extraordinary mode of linguistic delirium turned into an extravagant theory in its figurative excess (cf. Deleuze & Guattari 1998 [1972], 2000 [1980]).

Without any exaggeration – or, then again, exaggerating in the mode of postmodern hyperization – one can say that since Gibson’s “primal act of pop poetics” the world has no longer been the same.
Under the sign of the “cyber,” we live now in a Gibsonian world – one would even venture to wager, recalling Foucault’s (1977d [1970]: 165) prophecy in 1970 with regard to the twentieth century, that “perhaps one day, this century will be known as Deleuzian,” we live in the twenty-first century in a Gibsonian century, the New Age of the “cyber,” an era in which cyberspace, the cyborg and the posthuman will radically redefine the parameters of our existence; an era in which, as Haraway (1991f: 249) says, “prosthesis becomes a fundamental category for understanding our most intimate selves.” Indeed, as Jameson (1991: ix) reminds us of the essential transformation towards which we are heading, in Gibson’s words: the postmodern is the epochal moment “[w]hen-it-all-changed” (for a discussion in detail, see Chapter 3.3). According to Jameson, cyberpunk, a “new type of science fiction” (ibid.: 38), initiated by Gibson in his Neuromancer, is about decisively more than just a literary genre: it is “fully as much an expression of transnational corporate realities as it is of global paranoia itself” (ibid.). Thus, it is only logical that, according to Jameson, Gibson’s third work, Mona Lisa Overdrive (1988), is the “supreme literary expression if not of postmodernism, then of late capitalism itself” (Jameson 1991: 419).

This is the Gibsonian world we are now approaching: a world in which the very notion of the “real” will be understood only in the sense of the virtual, and our bodies will be intelligible only in terms of the artificial; a world in which Jameson’s “literary” will be replaced by “the theoretical,” the very substance of the “post.”

With regard to theory, what is important is that cyberpunk, originating from Gibson’s literary world, is, for Jameson (1991: 321), precisely the mode of “new writing” necessary for understanding the reality of postmodern capitalism (cf. Schweighauser 2007: 228–229; Longhurst et al. 2008 [1999]: 187–189; in terms of “hyperreality,” cf. Perry 1998); yet, one has “not grasped the spirit” of this new order which in cyberpunk “determines” an orgy of language and representation, an excess of representational consumption, if this heightened intensity is not grasped as sheer compensation, as a way of talking yourself into it and making, more than a virtue, a genuine pleasure and jouissance out of necessity, turning resignation into excitement and the baleful persistence of the past and its prose into a high and a addiction. (Jameson 1991: 321; emphasis mine)

In my reading, the “cyber” is exactly about this “high” and “addiction,” about the thrill of the libidinal language of cyber discourse, about the excess of all that is “post” in terms of the techno-imaginary, in a mutual discursive game of high theory and popular culture. The “cyber,” as a signer functioning as a linguistic agency, as a prosthesis of self-replicating textuality, like for Burroughs (1986: 47, 51) language in general, is a “virus,” though coming not from outer space (see, for example, Turner 1993: 183–186; Bukatman 1996 [1993]: 74–78; Ingram 1996: 103–106; Shaviro 2003: 19; for Burroughs “virology” as a metaphor for American Cold War culture, see Wald 2008: 159–161, 183–203, 214–215), but originating from Gibson’s cyberspace, that is dwelling and proliferating in the immanence of the libidinal language of cyber discourse as a configuration of
“free-floating signifiers”; a linguistic “virus” that has infected the Western academic world to the extent that what the Krokers (1997a) call “digital delirium” has become the predominant mode of writing theory. As an extremely cunning virus, the “cyber” is able to effect textual mutations that manifest the logic of spectrality: as soon as the “cyber” has befallen a new host, it reprograms its linguistic code so that it begins to replicate textual figures that function in the mode of the surrational. What is specific to the “cyber” is that it has an extraordinary ability to produce spasmodic writing, excessively signifying linguistic spasmodics, which drives the “post” to its logical conclusion – if there is any “conclusion,” to say nothing of the “logical,” in the world of the “post.”

Thus, the “cyber” is not only extremely contagious, but, more fundamentally, it is extraordinarily insidious in its effects: instead of negative consequences it engenders an overwhelming euphoria under the spell of which reality becomes virtual. Once infected by the “cyber,” one is no longer able to think clearly: one is fallen in the delirium of the libidinal language of cyber discourse.

This is the “high” of the “cyber”: this is the jouissance of the “post” in terms of the “cyber”: the bliss of being beyond reason, in the unlimited realm of the techno-imaginary, the realm of the technological sublime (cf. Carey 1989: 120–124; Morley 2007: 235–272; Marx 1970 [1964]; Nye 1996; Tabbi 1996).

It is in this sense that Gibson set the scene of writing in terms of the “cyber” (cf. Derrida 1978c [1967/1966]); a phantasmatic mode of writing in which the written is a writerly effect of the writing itself; an effect that reflects its own spectrality (see Derrida 1994 [1993]; cf. Spivak 2000: 8–10, 19–31; Tatum 2007: 14–28).

But, from the very beginning, the “cyber” has had its own peculiar irony; as Gibson himself says of his cyberspace trilogy (Neuromancer, 1984, Count Zero, 1986, Mona Lisa Overdrive, 1988): “it never occurred to me that it would be possible for anyone to read these books and ignore the levels of irony” (Brown 1990: 238; cf., for example, Stallabrass 1996: 67–68). While Gibson’s irony is one thing, that is, a literary mode idiosyncratic to Gibson’s writing, in contrast to that, cyber discourse manifests another mode of irony that Baudrillard (1988b [1987]: 41–42, 1990b [1983]: 182, 1994b [1992]: 16–17, 51–52, 1996 [1995]: 70–73, 127, 1997c: 13, 2000b: 54, 77–78) calls “objective irony”; an irony in which things ironize themselves, provided that we take these things seriously, in their own irony (cf. Roberts 1991: 226–228; for the origin of the idea of objective irony in Schlegel and Benjamin, see Hanssen 2002: 143–148; Menninghaus 2002: 45–49; in terms of “nuclear discourse,” cf. Chaloupka 1992: 97–113).

This is the way I consider all that is “cyber.” That is, in the constellation of the postmodern, in terms of language, we live in the world of “cyberspace textuality” (Ryan 1999); a world in which the textual generated by the “cyber” has become an important, even a constitutive, determinant of both the epistemological and the ontological in the language games of postmodern academia.
In this sense, cyber discourse is not a latter-day derivation of cybernetics, but a manifestation of the libidinalization of language constitutive of all that is “post.” Thus, under the sign of the “cyber,” a radical virtualization of language determines the parameters of epistemology and ontology.

Towards the Virtual Reality of Language

Of course, this kind of unique moment of original creativity finding its expression in the literary world written into existence by Gibson has, if not predecessors, at least parallels. One only needs to recall Marcel Duchamp and his artistic invention of the readymade (see, for example, Judovitz 1995: 75–119; Joselit 1998: 71–109; Henderson 1998), or the Surrealists and their poetic whims in the mode of écriture automatique (see, for example, Browder 1967: 74–88; Specter 1997: 34–45; Bohn 2002: 133–146), or Lacan, the last Surrealist, and his extraordinary ability to let language poeticize all by itself (see Lacan 1977b [1966]; cf. Bowie 1998: 145–148; Goux 1991), or the post-theoretical delirium effected by the Deleuze-Guattarian language of desire (see, Deleuze & Guattari 1998 [1972]; cf., for example, Massumi 1992). In all these cases, we see a new world order, a new theoretico-poetic paradigm coming into being, the paradigm of phantasmatic theory enabled by what I designate as the virtual reality of language that we can now see in operation in post-theory. Thus, we are witnessing a new way to apprehend the world, to make the being of being intelligible in its very being-ness, rewritten in terms of counter-reason, the terms of the imaginary, finally culminating in the surrational constitutive of the “post” (in contrast, for a world in which the being of being was still das Sein in its philosophical richness, see, for example, Heidegger 1976d [1955], 1977d [1927], 1989a [1936–1938]).

But, in fact, if one wants to name – in poetic terms – an adequate equivalent for Gibson’s literary invention it is to be found in the originary locus classicus of Surrealism, in the Sixth Canto of Lautréamont’s Maldoror (1870), in its highly suggestive literary vision: Beau comme la rencontre fortuite sur une table de dissection d’une machine à coudre et d’un parapluie, “beautiful as the chance encounter of a sewing machine and an umbrella on a dissecting table” (Spector 1997: 211); an “eroticized umbrella” (ibid.: 36; cf. Foucault 1989 [1966]: xv–xvi) the full significance and consequences of which can still today be noticed in the linguistic universe of the “post”: a linguistic universe in which meaning has lost its meaning and has been replaced by the unending movement of signification, the auto-affective self-reflection inherent to the surrational (cf. Clough & Halley 2007).

In these terms, indeed, we do not think in language, instead, language thinks in us, or even, language thinks us (cf. Lévi-Strauss 1983 [1964]: 12), or, as Heidegger (1985 [1959]: 243, 251, 254, 1985d [1950]: 10–11, 12–13, 17–18) says: Die sprache spricht. But if Gibson’s “cyberspace” is a linguistic assemblage, a product of postmodern bricolage (see Lévi-Strauss 1966 [1962]: 17–35; Hebdige 1988: 45–46), what is its constitutive particle, the prefix cyber, in its linguistic modality;
a linguistic prosthesis that has an astounding ability to thoroughly change the meaning of words it is attached to; in other words, what is the linguistic *differentia specifica* that makes language under the influence of the “cyber” to a *mesmerizing medium*, to an experience of an elevated state of mind, indeed, to an experience of the sublime? How is it possible that, for example, such a quite “ordinary” word as “space” – of course, in itself already very suggestive in terms of new horizons – turns into an unending source of high-flying visions of entirely unparalleled dimensions when connected with this compound of letters, this linguistic prosthesis “cyber” (see, for example, Benedikt 1994 [1991]; Featherstone & Burrows 1995b; Holmes 1997b; Loader 1997; Toulouse & Luke 1998; Harcourt 1999; Jordan 1999; Smith & Kollock 1999; Dodge & Kitchin 2001; Gunkel 2001; Armitage & Roberts 2002b; Miah & Rich 2008)?

Thus, to understand the “cyber” of cyberspace, it is important first to ask: what is the *cyber* of the “cyber” – where does it come from?

Whatever all that is “cyber” is it is important to notice that it has nothing to do with cybernetics in the sense it was introduced by Norbert Wiener and his associates in the late 1940s in America (see, for example, Heims 1980, 1993 [1991]; Jerison et al. 1997; Gerovitch 2002a; Pias 2003, 2004).

Norbert Wiener, a prominent American mathematician, who founded cybernetics in 1948 (see Wiener 1961 [1948]; Masani 1990; Conway & Siegelman 2006), a new interdisciplinary science of control and communication in the animal, the machine and the human being, could hardly imagine at that time what would finally become of the Greek word *kybernētēs*, meaning “steersman,” “governor” or “pilot,” by which he chose to describe the main idea of his scientific discipline: control and regulation processes in organisms and machines based on information and *feedback*, responses of a system to its internal or external changes (see, for example, Halbach 1994: 16–18, 140–156; Edwards 1996: 1–2, 187–207; Brick 1998: 126–132; Gerovitch 2002a: 189–203; Galison 1994; Cordeschi 2004; Pias 2003, 2004; Andrew 2009). What was about mathematics for Wiener, is metaphorism in the world of the “cyber,” a discursive universe the con-
dition of possibility of which is the linguistic matrix of the "post"; that is, a world of the postmodern techno-imaginary in which metaphors are hypostatized to real-existent entities. In other words, whereas Wiener’s cybernetics was a scientific discipline that had real entities – organisms and machines – as its objects of study, cyber discourse is *a post-theoretical para-literary language that plays with imaginary objects constituted by its own literary figuration.*


In the light of the above considerations, it is clear that the “cyber” does not come from Wienerian cybernetics because the designation which Wiener chose for his science is not an “act of pop poetics,” but a derivation of the Greek word *kybernētēs*, meaning steersman, the very meaning of which precisely describes the idea of Wiener’s scientific innovation, the idea of *governance*, the process of homeostatic control, the constitutive principle of feedback (see Wiener 1961 [1948]: 95–115, 1968 [1950]: 19–27, 2003a [1954], 2003b [1949]; Rosenblueth et al. 2004 [1943]; cf. Heims 1980: 301–303; 1993 [1991]: 63–66). In contrast, in the Gibsonian world, and by extension, in the world of post-theory and cyber discourse, the “cyber” is not only a prefix, but an attribute, a linguistic device, that gives an entirely new meaning not only to words, terms and concepts to which it is attached, but even to entire texts in which it appears. In other words, while Wiener’s conception of a new science is not a pop-poetic gag, but a recontextualization of the idea implied by the Greek word *kybernētēs* in the context of an emerging scientific discipline, the “cyber” of cyber discourse, extracted and abstracted from Gibson’s “cyberspace,” is a linguistic prosthesis, a codify-
ing marker, that constitutes a linguistic matrix *sui generis*: a postmodern discourse formation operating by the libidinal language of the “post,” a language of desire in terms of the techno-imaginary.

In this sense, Gibson’s cyberspace, the *originary* origin of all that is “cyber,” is a neologism, a linguistic compound (*cyber* and *space*), that brought a new literary concept, topos and theme into being, a genuinely idiosyncratic notion in terms of literary innovation, that created a metaphorical world of its own making, a world as a science fiction fantasy reflecting both the tradition of American science fiction and the reality of American capitalism; a neologism that, as a result of the following cultural concatenation, turned from a pure fiction into the *fictional reality* of cyber discourse, the reality of the “cyber”: a *virtual reality of language* that finally became a playground for the American academic avantgarde fascinated with both technological and theoretical novelties in the manner typical of the postification of theory in postmodern academia. In these terms, the “cyber” is a signifier that has the ability to suggest things that are there in the imaginary space effected by the linguistic of language constitutive of the “post,” a postmodern realm of phantasmatic fabulation; things that exist in the theory-fictional “paraspace” (Bukatman 1996 [1993]: 157–187) of cyber discourse that both mirrors the science-fictional world created by Gibson, the universe of “cyberspace,” and the para-reality of post-theory based on the linguistic figuration of “French theory,” the Americanized version of the theory radicalism of the Parisian theory avantgarde around the *Tel Quel* circle in the 1960s (see, for example, Ffrench 1995; ffrrench & Lack 1998c; Brandt 2000; Marx-Scouras 2004; for a theory-historical contextualization in terms of sociogenesis and intellectual environment, see Kauppi 1996: 109–126, 2010: 17–27, 47–57. 74–83, 89–102, 1994).

But what actually is “cyberspace,” the phantasmatic, spectral realm constitutive of the “cyber,” in itself? To understand the specificity of cyberspace, it is appropriate again to go *ad fontes*, to recall William Gibson’s conception of cyberspace in terms of science fiction. According to Gibson’s literary *metaphor*, a metaphor that in cyber discourse has become canonized to an “official” definition:

*Cyberspace. A consensual hallucination* experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts … A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the *nonspace of the mind*, clusters and constellations of data. Like city lights, receding… (Gibson 1995 [1984]: 67; emphasis mine)

Here, the key question, of course, is where exactly is this “space”? By now, there should be no doubt that it is to be found nowhere else than in Gibson’s novel, in his science fiction story, *Neuromancer*. From the very beginning, however, Gibson’s “cyberspace” moved from the realm of literary fiction to the world of theory-fictions produced by post-theorists in postmodern academia celebrating the linguistic liberty effected by the “free-floating signifiers” following the logic of the “post.” It is precisely in this way that “French theory” (the
world of the “post”) and cyber discourse (the world of the “cyber”) meet one another in the virtual reality of language constitutive of post-theory as a post-modern paraliterary discourse (cf., for example, Kellner 1995: 297–327; Gunkel 2001; Mosco 2004; Armitage & Roberts 2002b; Boler 2010; from a critical standpoint with regard to the real, cf. Higham 2001; in terms of “thinking about the unthinkable” enabled by “the virtual as a place of utopia,” cf. Pias 2005b).

In this manner, what was a literary metaphor for Gibson turned into a reality of theory in postmodern theory writing, into a world “we live in” (Robins 1996: 126–151) in the mind-set of the “post” – a world we “live in” in terms of cyber discourse that in itself has become a “consensual hallucination” in the world of post-theory.

The Virtual Presence of the Present Future

From the perspective outlined above, it becomes clear what Haraway (1991a: 149) means by saying that “the boundary between science fiction and social reality is an optical illusion.”

The “consensual hallucination” of cyber discourse is based on a conceptual delusion in which science fiction, post-theory, utopian thinking and the empirical reality of real-existing technologies intertwine with one another in an inseparable manner from the first moment on; this is the mode of linguistic-theoretical conflation constitutive of all that is “cyber” in terms of the “post.” That is, as a result of hyperbolic theorization in the sense of postmodern hyperization, a science fiction vision turned into a mythopoetic phantasm in the world of the “cyber,” in a discursive configuration ruled by the reason of the surrational constitutive of the “post.” This is especially shown in the way in which Gibson’s literary fantasy of cyberspace and technological experiments purporting to create an inhabitable computer simulation system designated as virtual reality were immediately conflated (for a paradigmatic example, see Benedikt 1994 [1991]). Typically, for example, Allucquère Rosanne Stone (1994b [1991]: 84–85) speaks of “‘virtual reality’ environments” or “VR,” just about being available “online,” as “one of a class of interactive spaces that are coming to be known by the general term cyberspace,” to be experienced as a “three-dimensional consensual locus,” or a “consensual hallucination.”

The discursive escalation of metaphorization concerning cyberspace as virtual reality proceeded in a cultural constellation in which science fiction, techn-utopian enthusiasm, New Age ego-politics, media art, marketing and advertising hype and “French theory” intertwined and thus camouflaged the reality of technology in terms of hardware design and engineering applications: the flight simulators of civilian and military aviation, the interests of NASA in simulation technologies applicable to space programmes, and, finally, behind the scenes, the research and development enterprises of the U.S. military in order to create new training and combat systems (see, for example, Aukstakalnis & Blatner 1992: 181–258; Biocca & Delaney 1995: 105–120; Schroeder 1996: 45–68; Grau 2003:
161–173; Durlach & Mavor 1995). In this sense, cyberspace is a complicated and multidimensional discursive construction, a *virtual reality of language*, and, in its most sophisticated form, a post-theoretical theory-fiction, an auras appearance in terms of revelation: a neo-religious *Offenbarung*; that is, intellectual populism in the form of high-theory based on the figurative language of popular culture.

In other words, the “consensual hallucination” of cyber discourse paradigmatically exemplifies the *derealization of reality* specific to the postmodern (cf. Welsch 1996: 289–326; Porombka & Scharnowski 1999) in the manner of what I call the Disneyland of Theory enabled by the virtualization of language typical of the “post.”

This is the world of popular “cybernetics” in the cultural constellation of American postmodern culture (in terms of “cybernetic bodies” in the context of “American bodies,” see Johnston 2001a: 73–77); a cultural constellation that, as a result of globalization, has become a dominant cultural environment all over the world promoted by what are called “cultural studies” (see, for example, Grossberg et al. 1992; During 1999 [1993]; Barker 2001; Milner 2002; Storey 2006 [1997]). In this canonical context, in which Marxism, psychoanalysis and poststructuralism in the form of “French theory” constitute the conceptual and metaphoric framework, Gibson’s science fiction world has turned into the theory world of “cyber studies” (for a paradigmatic example, see Bell & Kennedy 2000), a mode of postmodern theory in which new technologies, deriving from and based on computer technology, are reinterpreted in the light of the techno-imaginary, that is, *rewritten* in terms of the “cyber.”

This is the context in which virtual reality (an experimental technology) turned into cyberspace (a phantasmatic universe existing in the virtual reality of language) and thus became the “lived reality,” in the sense of a *techno-imaginary habitat as a fantasized world*, of techno-avantgardist cyber-theorists during the 1990s (for a cultural-historical background in terms of a spiritual itinerary “from counterculture to cyberculture, see Turner 2006). That is, what began as a science fiction fantasy in Gibson’s *Neuromancer* in 1984, soon thereafter not only appeared but was experienced as a present future in the world of cyber discourse, a postmodern *hybrid discourse* as both popular and academic neo-futuristic language. The mixing up of linguistic registers constitutive of all that is “cyber” is paradigmatically exemplified by the way Stone in her seminal text – which, indeed, should be read as a text in its very textuality – not only described virtual reality or cyberspace in techno-euphoric terms as something that is inevitable, being just in the process of becoming, but, moreover, presented this new technology as an entirely new social and cultural reality:

> While high-resolution images of the human body in cyberspace are years away, *when they arrive* they will take “computer crossdressing” even further. In this version of VR a man may be seen, and perhaps touched, as a woman and vice versa – or as anything else. There is talk of renting prepackaged body forms complete with voice and touch… multiple personality as commodity fetish! (Stone 1994b: 84–85; emphasis mine)
For Stone, this new “reality” in which genders and identities happily intermingle and create new life forms even introduces an anthropological transformation (cf. Haraway 1991a: 149–151, 178–181; in terms of “anthropological exodus” enabled by the post-political radicalism of “new barbarians,” cf. Hardt & Negri 2000: 214–218): It is interesting that at just about the time the last of the untouched “real-world” anthropological field sites are disappearing, a new and unexpected kind of “field” is opening up – incontrovertibly social spaces in which people still meet face-to-face, but under new definitions of both “meet” and “face.” These new spaces instantiate the collapse of the boundaries between the social and the technological, biology and machine, natural and artificial that are part of the postmodern imaginary. They are part of the growing imbrication of humans and machines in new social forms that I call virtual systems. (Stone 1994b: 85)

In this manner, Gibson’s literary fantasy as pure science fiction turned into a futuristic social fiction manifesting theory-fictions typical of the postmodern (cf. Haraway 1991a: 149; Roberts 2000: 82–83; Murphie & Potts 2003: 116–118; McGowan 2007: 137–139). In short, cyberspace as virtual reality and virtual reality as cyberspace became a lived myth, an enticing narrative expressing wishful thinking: a mythopoetic saga in terms of technological millennialism.

This postmodern saga, in turn, was only corroborated and proliferated by its becoming embedded in the story world of computer games, a flourishing sub-culture propagating virtual reality and concomitant cyberspace enthusiasm (see, for example, Kramarae 1995: 37–40; Lister et al. 2003: 166–172, 253–266; White 2006: 35–55; Reid 1995, 1996 [1994]; Bromberg 1994; Bassett 1997; Curtis 1996 [1992], 2001 [1998]; for confusing virtual reality with reality, see, for example, Goldsmith & Wu 2006: 14–17; for an overview of computer games and gaming culture, see, for example, Williams & Smith 2007; Wolf 2008). It was most notably two game worlds, SIMNET and Habitat, that created the appropriate cultural and discursive environment that vigorously promoted the VR/cyberspace mythology finally amounting to the imaginary world of cyber discourse.

SIMNET was a non-immersive computer-image interactive system in which the interface was similar to arcade games and flight simulators; that is, a high-resolution visual display based on animated graphics (see, for example, Durlach & Mavor 1995: 63–64; Schroeder 1996: 21–22, 40–41, 54–55; Burdea & Coiffet 2003: 332–341; for a critical contextualization in terms of technology, culture and marketing, see Kline et al. 2003). Initially, SIMNET was a military simulation system in which the interests of, on the one hand, the US Army, and, on the other, university research, found a common ground in the development of computer technology (for the early history of the modelling and simulation in the SIMNET system, see Banks 2009: 7–15; for advanced virtual reality military training emerging from the Gulf War or “Operation Desert Storm,” see Neyland 1997; for “virtual battlefields” as digital games, see Werning 2009; for a “modernist avant-garde aesthetics” in the context of the military, see Bishop & Phillips 2010; for “the military-industrial-media-entertainment network,” see Der Derian 2009 [2001]). In this enterprise, a mediating role came to DARPA
(Defence Advanced Research Projects Agency), a government organization coordinating American military research (see, for example, Edwards 1996: 259–270; for DARPA, Strategic Defence Initiative or “Star Wars” and artificial intelligence, see Athanasiou 1989: 113–120; Mosco 1989: 103–105; for an overview, see Roland & Shiman 2002) which arranged the resources for creating a “200-tank cyberspace simulation” (Stone 1994b: 92), a real-time, interactive “playground” for combat training in “virtually real” situations.

SIMNET came about because DARPA was beginning to worry about whether the Army could continue to stage large-scale military practice exercises in Germany. With the rapid and unpredictable changes that were taking place in Europe in the late 1980s, the army wanted to have a backup – some other place where they could stage practice maneuvers without posing difficult political questions. As one of the developers of SIMNET put it, “World War III in Central Europe is at the moment an unfashionable anxiety.” In view of the price of land and fuel, and of the escalating cost of staging practice maneuvers, the armed forces felt that if a large-scale consensual simulation could be made practical they could realize an immediate and useful financial advantage. (ibid.; emphasis mine)

As a “two-dimensional cyberspace”, SIMNET presented a “computer-generated terrain over which the tanks will manoeuvre” in a manner that enabled the crews taking part in the training to “hear and see the vehicles and planes shooting at each other and at them” (ibid.). War as a video game – that idea became reality a few years later in the first Gulf War and later all over the world where American interests were at issue; a mode of war in which digital imaging, computer simulation and virtual reality constitute the new reality of war (see, for example, Robins 1996: 44–56, 63–66; Nayar 2004: 62–63, 206–209; for a concise overview of the emergence of simulation and virtual reality technologies, see Ronchi 2009: 119–132; for combat actions translated into video game imagery, see, for example, Nitsche 2008: 9–10, 149–151; in the context of “the military-entertainment complex,” see Lenoir 2000; Thomas & Virchow 2006; in terms of the “militarization of thinking,” see Weber 2005; from the perspective of Baudrillardian radical irony, cf. Baudrillard 1995 [1991]).

It is also in this way that through the deployment of new media technologies the conflation of the virtual and the real has become inscribed into all that is “cyber.”

The Solipsism of Virtual Textuality

While SIMNET is one of the computer games that constitute the origin of the conflation of virtual reality with cyberspace, another one is the computer-generated interactive game environment called Habitat designed by Chip Morningstar and Randal Farmer, two computer development pioneers (see Morningstar & Farmer 1994 [1991]; cf. Mitchell 1995: 119–120). In contrast to SIMNET, Habitat was developed not as a derivation of military simulation technology, but right from the beginning it was conceived of as a “large-scale social experiment” accessible through common telephone-line computer networks, functioning as a “completely decentralized, connectionist system” that was able to be operated by a conventional Commodore home computer, the most popular
Habitat is inhabitable in that, when the user signs on, he or she has a window into the ongoing social life of the cyberspace – the community “inside” the computer. The social space itself is represented by a cartoonlike frame. The virtual person who is the user’s delegated agency is represented by a cartoon figure that may be customized from a menu of body parts. When the user wishes his/her character to speak, s/he types out the words on the Commodore’s keyboard, and these appear in a speech balloon over the head of the user’s character. The speech balloon is visible to any other user nearby in the virtual space. The user sees whatever other people are in the immediate vicinity in the form of other figures. (Stone 1994b: 94)

According to Stone, Habitat is a “two-dimensional example” of Gibson’s “consensual hallucination” (ibid.). What “consensual” means here is, “among cyberspace engineers,” “well-known protocols for encoding and exchanging information”; in turn, the “simulation software” transforming information to “simulate environment,” means “hallucination” (ibid.). What is most important, for Stone, in Habitat is that it has “proved to be incontrovertibly social in character” (ibid.). Already on the initial test run,

there were marriages and divorces, a church (complete with a real-world Greek Orthodox minister), a loose guild of thieves, an elected sheriff (to combat the thieves), a newspaper with a rather eccentric editor, and before long two lawyers hung up their shingles to sort out claims. (ibid.)

If at the beginning “only 150 people” were engaged in the game world of Habitat, Stone’s vision of its future encompassed “tens of thousands of simultaneous participants” (ibid.). This was a vision that, of course, soon became reality – the reality of a virtual world that cyber theorists, however, confused from the very beginning with social reality.12

It is precisely here, in this very conflation of the real with the virtual, that Gibson’s Neuromancer with its fantasy vision of “cyberspace” became mixed up not only with virtual reality, but also with social reality. According to Stone, Gibson’s cyberspace “crystallized a new community,” it represented a new form of social reality that Stone calls “virtual communities” (ibid.: 95; for the origin of the idea, see Rheingold 1993; cf. McLaughlin et al. 1995: 90–106; Mitchell 1995: 165–173; Bromberg 1996: 147–149; Dietrich 1997: 178–182; Fernback 1997: 36–47; McLaughlin et al. 1997: 146–149, 153–160; Bell 2001a: 92–111; Holmes 1997b; Smith & Kollock 1999; for a critical analysis of the term, see Graham 1999: 144–150, 158–166). It is in this manner that

*Neuromancer* reached the hackers who had been radicalized by George Luca’s powerful cinematic evocation of humanity and technology infinitely extended,

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12 To avoid misunderstandings, it is appropriate to emphasize that a game world, of course, is a social reality in its own way, a real-existing fantasy world that is a common reality for the players invested with meanings, emotions and social relations that are experienced as real. But this is not the same as the social reality that exists outside the game world; a reality that is not, like the game world, a representation in the form of computer-simulation, but a material reality with its own laws.
and it reached the technologically literate and socially disaffected who were searching for social forms that could transform the fragmented anomie that characterized life in Silicon Valley and all electronic industrial ghettos. In a single stroke, Gibson’s powerful vision provided for them the imaginal public sphere and refigured discursive community that established the grounding for the possibility of a new kind of social interaction. (Stone 1994b: 95)

Thus, “in the time of Reagan and DARPA,” *Neuromancer* became a “massive intertextual presence not only in other literary productions of the 1980s, but in technical publications, conference topics, hardware design, and scientific and technological discourses in the large” (ibid.). In this manner, although – as Stone clearly stated – the “three-dimensional inhabitable cyberspace described in *Neuromancer* does not yet exist” (implying, though, that it will exist some day), nevertheless, the “groundwork for it can be found in a series of experiments in both the military and private sectors” (ibid.).

It is in this manner that through a double conceptual conflation – cyberspace with virtual reality, and, virtual reality with social reality – Gibson’s science fiction fantasy turned into a *cyberspace* as a “really” existing *virtual reality*. Of course, Stone was not alone here: this imaginary reality, the *idea* of cyberspace as virtual reality, indeed, became a “consensual hallucination,” not in Gibson’s sense, but in the sense that it appeared as a shared fantasy world that was *taken as reality* among the working communities of computer engineers and developers, as a collective dream of a *present future*. As Stone says, “when *Neuromancer* was published, ‘virtual reality’ acquired a new name and a suddenly prominent social identity as ‘cyberspace’” (ibid.: 98).

The critical importance of Gibson’s book was partly due to the way that it triggered a conceptual revolution among the scattered workers who had been doing virtual reality research for years: As task groups coalesced and dissolved, as the fortunes of companies and projects and laboratories rose and fell, the existence of Gibson’s novel and the technological and social imaginary that it articulated enabled the researchers in virtual – or, under the new dispensation, cyberspace – to recognize and organize themselves as a community. (ibid.: 98–99)

In other words, the science fiction world of *Neuromancer* was an identification model for these communities, a literary fantasy presenting a unifying narrative for researchers working on the development of virtual reality technology (cf. Robins 1995: 137–152). But what was it, in fact, that the computer engineers, developers and programmers of Silicon Valley identified with? In Stone’s words:

Gibson’s cowboys were outlaws in a military-industrial fairyland dominated by supercomputers, artificial intelligence devices, and data banks. Humans were present, but their effect was minimal. There is no reason to believe that the cyberspaces being designed at NASA or Florida will be any different. (ibid.: 99)

Facing this “military-industrial fairyland,” the question arises: how was it possible that such a bleak view of the destiny of humanity could become the model of a new mode of being human in terms of cyberspace and virtual reality? In other words, if, as Julian Stallabrass (1996: 42) remarks with regard to the cyber-
space euphoria in the mid-1990s, “what has been taken up so enthusiastically is not so much a technical proposal as a dystopian vision of the future,” what was it that nevertheless made cyberspace appear as the salvation of humanity?

In his incisive analysis entitled tellingly “Cyberbabble. Virtual Textuality” Scott Bukatman gives one answer:

Creations of VR de-emphasize language to evoke a kinetic, phenomenologically heightened field of bodily movement and metamorphosis. This deprecation of the linguistic is easily aligned with an all-too-prevalent discourse (I call it cyberdrool) that imagines cyberspace as a site of Dionysian antirationalist liberation. (For a brief but memorable period, cyberdrool was easily locatable in the magazine Mondo 2000). In this version of the future, VR actually poses itself against language, and ultimately, in its solipsistic focus on a solitary disembodied subject [emphasis mine] adrift in the cyberdelic fields, against culture and history as well. (Bukatman 1994a: 13–14).

That is, virtual reality, in technical terms a computer-generated, three-dimensional and interactive image-space, appeared to VT-enthusiasts and cyber-theorists, paradoxically, at the same time as a new phenomenological “reality” beyond language and as a new mode to speak about this “reality”: as a specific techno-euphoric language (cf. Wilson 1992) or “cyberbabble,” as Bukatman calls this visionary, utopian linguistic figuration; in short, a post-futuristic, neo-futurological newspeak that had its origin in science fiction, in Gibson’s Neuromancer (in terms of the techno-euphoria of Futurism, cf., for example, Perloff 1986; Berghaus 2009; Poggi 2009; for the pseudoscientific visioning built in futurological jargon, cf. Toffler 1970, 1980).

3.2.2 “Cyberplatonism”: “The Bodiless Exultation of Cyberspace”


Cyberspace was a neo-religious revelation, it was a techno-spiritual experience of conversion (for a contextualization, see, for example, Hanegraff 1996; Sutcliffe 2003; Partridge 2004, 2005); it was what Norbert Bolz and Willem van Reijen (1998) call Heilsversprechen, a “promise of salvation,” a new form of the eso-
teric implying a redemption for the illuminated (cf. Böhme 1996a, 1996b, 2002; Rötzer 1998a). Cyberspace signalled a beginning of a new age, an era of which the greatest promise was the pleasure of disembodiment, an ascent from the "grave of the soma" to the sphere of pure being, a neo-Platonic vision of a realm of ideas as a new mode of existence appearing as a hypertechnological ideal (see List 1995, 1997a, 1997b). In this manner, Gibson’s “cyberspace” was greeted by post-theorists as what Elisabeth List (1996: 83) calls “cyberplatonism,” that is, a “new metaphysics and ontology of ‘cyberspace’” entailing a “speculative-fantastic superstructure of a new cultural paradigm” (ibid.; cf. Nusselder 2009: 57–58; Stallabrass 1995; Fuller 1998), a digital transcendence beyond the burden of materiality, beyond the shackles of the flesh (see Graham 2004: 6–7; Krueger 2004, 2005; in terms of “technospirituality,” see Müller 2005).

The key idea of “cyberplatonism,” in Mark Dery’s words (1996: 135), is a “body loathing,” a radical rejection of the corporeal existence of the human being. This contempt and disdain towards the human flesh, turned into a high theory of disembodiment (for various aspects of the desire for disembodiment in cyber discourse, see Hayles 1993b, 1993c, 1996b, 2004a), is graphically described by Gibson in his Neuromancer, the protagonist of which, Case, a “console cowboy,” or a hacker and virtual reality addict, experiences a personal catastrophe when he is forced to return to life in the flesh:

For Case, who’d lived for the bodiless exultation of cyberspace, it was the Fall. In the bars he’d frequented as a cowboy hotshot, the elite stance involved a certain relaxed contempt for the flesh. The body was meat. Case fell into the prison of his own flesh. (Gibson 1995 [1984]: 12; emphasis mine)

In its origin, this is a Christian vision, an idea that comprised the entire view of the world in early Christianity based on the conception of earthly life only as a short preliminary phase, as a preparation for eternal life in the heaven (see, for example, Moreland & Craig 2003: 547–550; Brown 1988; Pagels 1991 [1988]; for a classical treatise, see Bunyan 1984 [1678/1684]; in terms of cyberspace religiosity, see Reinders 2006). In this sense, for Christians the body was meat, and, accordingly, the only hope of the pious soul was to escape the mortal clay, to experience the bliss of redemption in the Day of Judgement, and finally, the bodiless exultation in the heavenly paradise, a realm of being in which the carnal body, with its dangerous passions and temptations, is left behind and a new life as an angel begins (see, for example, Bloesch 2006).

**Telenoia as a “Planetary Vision”**

In a similar manner, cyberspace is hailed as the final redemption in cyber discourse, as the ultimate deliverance from the corruption of the flesh, the mortal materiality of meat (cf., for example, Benedikt 1994 [1991]: 1–4; Stenger 1994 [1991]: 54–55; Heim 1994 [1991]: 62–64). This same vision, in its full Biblical meaning, is a recurrent idea not only in cyber texts recapitulating the Gibsonian mantra of cyberspace and all that is “cyber” time and time again, but also,
mutatis mutandis, in texts circulating in the context of media art, in visions of virtuality, immateriality and telepresence (see, for example, Moser & MacLeod 1996; Grau 2003; Giannachi 2004; Vesna 2007); in other words, in cyber discourse, spirituality has turned into information and digitality, and the angelic body in cyberspace has taken the place of the soul in the heaven.

In a typical manner, Roy Ascott, a prolific pioneer of media art since the 1970s whose speciality has been what he calls “telematic art” (see Ascott 2006: 70–75, 2000a, 2003; cf., for example, Whitelaw 2004: 185–193; Sharir 2006: 98–101; Sommerer & Mignonneau 1998; Weibel & Druckrey 2001; Kac 2005), dreams in his seminal article “Connectivity: Art and Interactive Telecommunications” (Ascott 1991) of a new world in which human beings are interconnecting by way of a global technological consciousness. While, according to Ascott, the Enlightenment of the eighteenth century presented a kind of view of a virtual reality as a “world of certainty and determinacy in which subject and object, mind and matter, art and science were all quite clearly defined, separated out and neatly categorized,” in contrast to that, “telematic systems” of contemporary technoculture “have brought us to the edge of another virtual reality” (ibid.: 115), the new reality of telematics: the presence of the absent. While the “dream of reason,” constitutive of the Enlightenment, created a world in which the “real was virtual after all,” we now have a “different paradox to deal with – actually to celebrate: the virtual is becoming real” (ibid.; emphasis mine; cf., for example, Doel & Clarke 1999: 262–281; Nayar 2004: 176–177; Shields 2003).

“With computer-mediated systems of perception, memory, intelligence and communication, we are redescribing and reconstructing the world: we increasingly inhabit what is essentially a dataspace, a telematic environment, a virtual reality” (Ascott 1991: 115). What is specific here is that “we live its reality” because telematic technology is a “language before anything else”: “[i]t speaks us – that is, gives us a new language” (ibid.; emphasis mine). And this new language is “not a monologue but conversation” that “empowers the individual to connect with others” (ibid.). “Virtual as real, real as virtual” (ibid.) – that is the new ontological and epistemological principle of the telematic world; a world that, according to Ascott, was anticipated, though with “angst,” by Husserl and Heidegger (ibid.).

As we can see, it is not only, as List (1996) has shown, that Plato has resurrected in the form of the celestial visions of “cyberplatonism,” but with Ascott we can now also celebrate cyber-poetic revival of Husserl and Heidegger (cf. Riley 1998: 288; for a paradigmatic example, see Heim 1993: 7–8, 15, 55–70; cf. Downes 2005: 35; in terms of “hyper-Heidegger,” cf. Kroker 2004a; for a critical view, see Radloff 2007: 55).

In the world of the “cyber,” a radical change pertains not only to global interpersonal communication and connections, but first and foremost to a “new, felt quality of human presence, a fascination with presence, an eroticism of presence” (Ascott 1991: 115). This is brought about by a new mode of being: “being both here, at this place, and also there, in many other places, at one and the same
time,” in order to “meet others in dataspace, mind to mind, virtually face to face” (ibid.; cf., for example, Mitchell 1995: 107–133; Boyer 1996: 14–38; Wilson 2002: 482–484; Vasseleu 1997 [1994], 1999). The era of telepresent interconnectivity as an age of transition from the shackles of materiality to the freedom of immateriality began, according to Ascott, with a communicational mode of being, “mediated by computer networks, interactive video, slow-scan television, fax, digital image transfer, videotex, teleconference, videophone or online communications by means of telephone, cable or satellite link,” and finally led to virtual reality, our ultimate deliverance, understood as a three-dimensional simulation appearing as an immersive space enclosing the subject within, not as a spectator but as an interactive participant (see Ascott 2003: 115; cf. Popper 2007: 77–80).

In Ascott’s vision, through the logic of telematics, the subject of virtual reality becomes a dispersed, distributed and multidimensional entity experiencing the world in a constant state of alteration and fluctuation (cf. Stone 1992, 1996a, 1996b; Leary 1994a; Rushkoff 1994; Turkle 1995). Thus, according to Ascott, telematics creates a dynamic, liberatory environment.

It celebrates process, embodies system, embraces chaos. The technology of these transformative systems fulfills a profound human desire: to transcend the limitations of body, time and space; to escape language, to defeat metaphors of self and identity that alienate and isolate, that imprison mind in solipsistic systems. Our need is to fly, to reach out, to touch, to connect – to expand our consciousness by a dissemination of our presence, to distribute self into a larger society of mind. That is the future of art […]. (Ascott 1991: 116; emphasis mine; cf. Moravec 1988; in terms of the “death of the subject” celebrated by poststructuralism, cf., for example, Terada 2001)

In this manner, by means of telematic connectivity, media art opened up a “doorway to an infinitely transformable reality, the threshold to a variable world” in which “behaviour is virtualized so as to constitute a presence” (Ascott 1991: 116; emphasis mine; in terms of drugs as an experience of “the doors of perception,” cf. Huxley 1994b [1954/1956]; for LSD as a way to an “instant and total involvement, both all-at-oneness and all-at-oneness,” cf. McLuhan 1995 [1969]: 253; Taylor 1999: 116–121). From now on, according to Ascott, we are embraced by a “collective imagination in which individual sensibility is heightened, perception extended (often remotely), thought amplified and consciousness widened – a global vision” (Ascott 1991: 117). This is the opposite of the “banal context of an ‘information society’ dominated by military, industrial and commercial interests” (ibid.). Against this narrow-minded banality, as Ascott proclaims, in the virtual world there are “planetary interconnections between creative individuals exploiting the new technologies of computerized telecommunication, a rich transpersonal, multi-cultural perspective” (ibid.) opened up by telematics (cf. Lyotard 1984 [1979]: 3–6, 48–51, 62–64; Feenberg 1995: 131–135, 147–165; Kumar 1995: 49–50; Wilson 2002: 482–484; Stiegler 2008 [1996]: 103–106; Baudrillard 1988d [1987], 2002; Bogard 1996; for the origin of the idea, see Nora & Minc 1978; for a historical contextualization in terms of “the control revolution,” see Beniger 1986).

If there is still any salvation, according to Ascott (2003: 260), it will only come through the “non-linear, intuitional, fast-as-lightning distributed mind of networks” because “[n]etworking is a subversive activity of extreme potency.” “The network creativity” emerging from “worldwide initiatives is not only ignoring the boundaries of geography and region, and of culture and gender, but contributes, along with new scientific and philosophical insights, to the erasure of the established boundaries of the material body – established, that is, within a Cartesian, medical orthodoxy specific to Western cultures” (ibid.: 263; emphasis mine; cf. Haraway 1991a: 178; Candy & Edmonds 2002: 115–124; Ess 2004a: 79–81; Vint 2007: 23, 103–123; in terms of cyberfeminism, cf. Galloway 2004: 188–192). This “erasure” entails a “human being made ready to fly,” it opens up a new perspective, a shift “away from the earth, out into the cosmos” (Ascott 2003: 260).

The longing to escape the earth, to escape the body, to reframe ourselves, to recontextualize our lives. This longing has brought us not simply to a point of cultural transition but to an enormous rupture from the past, indeed from history itself. The same longing brought forth the very technologies that have provoked this rupture. Telematic technology is the technology of consciousness; it is spiritual before it is in any way utilitarian. (ibid.: 264)

According to Ascott, this break with the past, “this erasure of the old models of mind, body, and world,” is marked by “three cardinal factors” (ibid.):

- the growing together of minds, witnessed in the exponential growth of the technology of communication, that is, of telematic connectivity;
- the fragmentation and dispersal of the body, witnessed in the technologies of presence, that is, of telepresence;
- and the extension of the environment, witnessed in the ascendancy of artificial life and the technology of space exploration. (ibid.)

What is fundamental to this whole cultural transition is the “displacement of the body” (ibid.). In the world of “telematic embrace,” as Ascott says, our “telemological prostheses” extend the body, “amplify it, enrich it” (ibid.; emphasis

The individual human presence of the individual human self, a unitary and undivided personality, has become the multiple, distributed presences of a set of many selves, of multileveled, complex, diverse personalities – *l'homme éclaté*, as Paul Virilio has called it. The explosion of the one and the connectivity of the many is perhaps the single most important effect of the telematisation of our culture. It could be argued that the appearance of the zero in Western thought has been equalled in importance only by the disappearance of the one, the single and solitary, whose boundary and isolation was hermetically complete. Our impulse is that of connectivity. (Ascott 2003: 264–265; cf. Haraway 1991a: 176–179)

In this new world, “we can no longer accept death”; our salvation is an “art that joins forces with the poets and visionaries of advanced robotics, artificial life, nano-technology, and born-again bionics” (Ascott 2003: 265; cf. Lykke & Braidotti 1996a; Plant 1997b; Flanagan & Booth 2002; Braidotti 2006; Smelik & Lykke 2008). The truth of our time is that “human presence is now a technological matter” that, among other things, enables being “in the telepresence of another, of others who in turn feel your own telepresence close to themselves” (Ascott 2003: 265). This is the idea of “[i]love in the telematic embrace,” and hence, it is just consequent that “[c]ybersex and virtual affection are qualities of human relationship we are only beginning to define” (ibid.; cf. Stenslie 1994d, 1996, 1997, 2000b).

“Telenoia is thus set to replace the paranoia of the isolated, alienated self of the old industrial society” (Ascott 2003: 265). Accordingly, our task is to liberate ourselves from the “cult of the individual” that has always been accompanied by the “cult of the unified, indivisible human being, one body, one soul, one self” (ibid.). Our future is to “inhabit a new corporeality, which is almost totally artificial, bionic, prosthetic” (ibid.: 267; cf. Haraway 1991a: 177–178, 1991f: 249). This is the ethos of prosthetic love in terms of Ascott’s telenoia, a techno-euphoric vision of the annihilation of the Western subject, that is, the subject as the very origin of all evil, according to the theory-mantra typical of post-theory (with regard to “the liberal humanist subject,” see Hayles 1999: 3–7, 85–92, 100–112; Kember 2003: 6, 143–144; Haney 2006: 58–59; in terms of postmodern theology, cf. Waters 2006: 43–44).

13 As one can notice, Ascott’s vision of global consciousness in the form of “telenoia” is essentially indebted to similar ideas elaborated on by Pierre Teilhard de Chardin and Peter Russell. According to Edward Shanken, Ascott’s view that “networks could help to build a global spiritual interchange, as expressed in his article ‘Is There Love in the Telematic Embrace?’” (Wilson 2002: 483) is “akin to the ideas of global consciousness expounded by French paleontologist and theologian Teilhard de Chardin, who theorized the ‘noosphere,’ and by futurologist Peter Russell, who theorized the ‘global brain.’” “Ideas like these were invaluable to Ascott in his quest to imagine a parallel development through the visual language of art” (ibid.; cf. Ascott 2003: 232–247).

14 According to Haraway (1991a: 177): “To be One is to be autonomous, to be powerful, to be God; but to be One is to be an illusion, and so to be involved in a dialectic of apocalypse with the other. Yet to be other is to be multiple, without clear boundary, frayed, insubstantial. One is too few, but two are too many.” (emphasis mine)
By the beginning of the twenty-first century, we have now crossed the borderline between the residual form of simple bio-life and the emergent form of post-biological life, a complex, hybrid and multimodal mode of life that Ascott (2000b) calls “Edge-Life” enabled by “Moistmedia”; that is, an entirely new form of life that can only flourish if artists take the role of the Creator:

The artist’s role at the larger planetary level of self-organising, self-aware systems, will be to plant, grow and cultivate new forms, new structures and new meanings. The notion of cyberbotany extends from the wise application of plant technology, in the technoetic context, to the creative employment of horticultural metaphor in envisioning outcomes at the material level of construction. In developing the hyperculture the artist can learn from horticulture: the creative challenge being to create a Moist synthesis of artificial and natural systems. Visionary pragmatism can guide the artist’s participation in building worlds that we would want to live in. Visionary pragmatism can take the love inherent in the telematic embrace and create new relationships, new societies, and new culture. Just as art in the next hundred years will be not only interactive, but also psychoactive and proactive, so human affairs will benefit from closer connectivity, distributed intelligence, and spiritual solidarity. As the unfolding years of this new century will show, the media best employed to effect these changes will be Moistmedia, the networks that sustain them will be technoetic, and the cyberception of the planetary society as a whole will reflect a growing sense of optimism and telenoia. (ibid.: 6)

Love – that is the keyword of our future. Love in the form of “telematic embrace,” love as the ethos of the “planetary society” that is based on global networks of “telenoia.” In other words, love your prosthesis as yourself – that is the wisdom of salvation in the emergent world of the posthuman.

Virtual Sex: Suturing the Body in Cyberspace

“Is There Love in the Telematic Embrace?” – while that is the question that inspires the media artist Ascott to neo-religious speculations of “telenoia” as a world-wide “eroticism of presence” that will finally lead to the pleasures of “cybersex and virtual affection,” in a world constructed by the feminist theorist Catherine Waldby, we can enjoy the post-corporeal thrills of virtual sex. In her article “Circuits of Desire: Internet Erotics and the Problem of Bodily Location” (Waldby 1998), Waldby elaborates on an idea of new kinds of affections in which a dematerialization of pleasure and a virtualization of desire intertwine with one another; that is, desires and pleasures experienced in the digital realm of imaginary bodies (cf., for example, Jordan 1999: 181–196; Kennedy 2000a: 474–475; Bell et al. 2004: 8–9; Gatens 1996; Nusselder 2009).

In spite of similarities in their visions, Ascott and Waldby, however, do not inhabit the same world. While Ascott’s context is technologically reworked artistic utopianism based on, paradoxically, a humanistic hope of a better world (cf. Wilson 2002: 484; Shanken 2003: 47, 74–75), Waldby’s framework is the theory discourse of poststructuralism and posthumanism elaborated on by postmodern feminism or postfeminism (cf. Waldby 2000: 24–50, 157–162; Bell 2001a: 156–160). Due to this difference, it is obvious that “sex” and “erotics” are
not the same for Waldby as for Ascott. In the spirit of all that is “post,” Waldby understands by the “sexual” and the “erotic,” of course, something subversive, something that disrupts the conventional conceptions of the body, subjectivity and identity (cf., for example, Grosz & Probyn 1995; Waldby 1996; Potts 2002; Parisi 2004). And it is precisely here that for Waldby, in contrast to Ascott, “Internet erotics” is not about art that changes the world, but about an entirely new paradigm of sex, sexuality and eroticism brought about by new technology.


Like money, sexuality is succumbing to digital dematerialisation. Just as economic exchange is now less a matter of the transaction of palpable objects (notes and coins) and more the electronic circulation of debt and credit data, so now certain domains of erotic experience are less a matter of bodily proximity and tactility, and more to do with electronically mediated communication between partners separated in space. (Waldby 1998; cf. Livant 1989: 34; Dixon 2007: 445; Nelson 2002 [1999])

While, for Waldby, “net sex” and “phone sex” are “minority practices, and the latter is more associated with the sex industry,” there are indications that a “growing number of net users have some erotic experience” associated with the Internet use (Waldby 1998; emphasis mine; it is appropriate to notice that one of Waldby’s sources is Turkle 1995). According to Waldby, “emerging forms of online sexuality” include “(1) e-mail affairs, where the sexual encounter is conducted through talk programs which allow simultaneous exchange of written messages, through more random sexual fantasies played out in MOOs (Multi-User Dimensions, Object-Oriented), (2) the use of surrogate figures in on-line environments like ‘Habitat’ which enact the sexual desires of their authors on-screen, (3) and as yet purely theoretical virtual reality erotic encounters where participants are equipped with data bodysuits which allow the simulation of transmitted erotic stimulation” (Waldby 1998; cf. Rheingold 1991: 345–353; Stenslie 1996; Vasseleu 1997 [1994]; Plant 1998).

Empowered by feminist theory, a mode of theory that is entirely purified from “phallogocentrism” and is thus situated beyond the terror regime of the phallus (in terms of “post-phallic culture,” see Barr 2000), Waldby constructs an opposition not only between “sex industry” and “Internet erotics,” but also – and this is the main point of Waldby’s presentation – between the “usual” (or non-
poststructuralist) and her own (poststructuralist) conceptions of sexuality and eroticism in terms of technological embodiment provided by virtual reality and prosthetics (cf., for example, Terry & Calvert 1997: 8; Livingston 1997: 99–100; Foster 2002: 470–471; Plummer 2007: 25; Vint 2007: 134–137; Senft & Horn 1996a). To make her position clear, Waldby dismisses in contemptuous words the “usual” view according to which “utilisation of screen-mediated digital communication as the basis for written or simulated forms of erotic exchange seems like a particularly perverse aspect of informatic culture, given that the domain of sexuality, like the domains of birth, illness and death, is usually understood to most implicate our materiality, our bodilyness” (Waldby 1998; emphasis mine). That is, the carnal body, the body embodied in the flesh, in its very materiality, is only a delusion that becomes revealed as soon as one sets about reading body theory written in terms of the “post,” a mode of theory of which Waldby’s own writing is a paradigmatic example.

To emphasize that her idea of “Internet erotics” has nothing to do with the naive view of corporeal presence as a precondition for sex, sexuality and eroticism, Waldby ridicules the carnal intimacy of ordinary sex.

For the couple, sexual exchange is usually understood to involve the greatest engagement of each body for the other, the most intense reciprocity of caresses, the intensification of each other’s sensory acuteness. Eroticism in these terms is precisely the celebration of proximity and presence-for-the-other, of the sense of touch and skin to skin contact, and the complexity of relatedness which arises out of this proximity. (ibid.; cf., for example, Norbert Bolz in Getty & Winkelman 1996: 71–85; Plant 1998)

Against this “celebration of presence” (the idea of presence, for Waldby, in a Derridean manner, of course, is only something pitifully illusionary), “virtual erotics can be readily represented as a sterile practice of disembodiment and absence, growing perhaps out of the terror of overwhelming presence” (Waldby 1998). As a paradigmatic view of the naive understanding of corporeal presence as the preconditions of “authentic” erotic and sexual experience, Waldby cites Peter Lamborn Wilson’s (1996: 224) idea of commercial phone-sex as a kind of anticipation of cybersex or virtual sex, according to which “the un-cyberspace of phoneland” (Wilson’s formulation that Waldby quotes incorrectly) implies a “soundscape of bodiless voices” (emphasis mine) that, in Wilson’s words:

must be invested with all the sexuality we cannot share with other bodies, or with “real-time” persons with real personalities and desires. The deep purpose of phone sex is probably not really the client’s masturbation or his credit card number, but the actual ectoplasmic meeting of two ghosts in the “other” world of sheer nothingness, a poor parodic rendering of the phone company’s slogan, “Reach out and touch someone,” which is so sadly, so finally, what we cannot do in cyberspace (Waldby 1998; cf. Wilson 1996: 224; in terms of teledildonics, cf. Rheingold 1991: 345–353; in the context of phone sex, cf. Stone 1995c).

According to Waldby, “Wilson clearly understands virtual erotics as a dystopian practice which substitutes the negativity and anonymity of bodily absence for the positivity and intimacy of presence,” a position typical of commenta-
tors “who associate digital technologies with opportunities to escape from the bodily realm into the dataflow” (Waldby 1998). For these kinds of theorists, as Waldby points out, there is a “continuity between this technologically augmented desire and the older theological and Cartesian desire to transcend the flesh, with its associations with femininity and mortality, and life in a state of pure, disembodied rationality” (ibid.). In other words, Waldby suggests that, on the one hand, cyberspace enthusiasts and critics of virtual visions, for both of whom disembodiment, whether in negative or positive terms, is the essence of cyberspace, and, on the other, Descartes with his philosophical conception of body-mind dualism (see Descartes 1985b [1637]: 127–141, 1985d [1664]: 101–107; cf. Cottingham 1986: 119–122; Baker & Morris 1996; Rozemond 1998; Blackman 2008), belong to the same school of transcendentalism.

Against all that, Waldby presents her conception of virtual sex as being diametrically opposite to the fear or celebration of virtuality and technological simulation, views that confuse the virtual with disembodiment, and at the same time imply either a nostalgia for or a disdain of carnal presence as a guarantee of genuine sexual and/or erotic pleasure.

After dismissing these kinds of views as poor mistakes, Waldby explains that her interest is in what she calls the “erotic potentialities” of virtual reality. Although Rheingold’s (1991: 345–353) notion of “teledildonics” as a designation for virtual sex is, for Waldby, a “phallic term,”15 she nevertheless considers it “more understandable” in comparison to the “usual” ideas, given that Rheingold conceives of virtual reality as a “kind of ‘full’ telepresence” (Waldby 1998; emphasis mine; cf. Barber 2004: 326–335; Foster 2005: 84–89, 117–121; Ferguson 2010: 60–64; Skalski et al. 2010: 169–179; Creed 1997; Vasilev 1997 [1994]; Sheppard & Walker 1999). Thus, “Rheingold proffers VR technologies as able, sometime in the future, to transmit full sensory effects, not only the sight and sound of another telepresence but also tactile data, telecaresses which can be sent and received by participants wearing datasuits” (Waldby 1998; cf. Stenslie 1994b, 1996, 1997, 2000a, 2000b, 2004a [1996], 2004b [1996]). In Rheingold’s vision, this would allow “suited participants to engage in simulated sexual relations with each other’s telepresence which would have all the effects of actual proximity” (Waldby 1998; emphasis mine; cf. Rheingold 1991: 346–347; Wiener 1969, 1989 [1988]; Benthen 1999, 2001).

In comparison to this “fantasy” in which an “entire sexual sensorium is transmitted” (Waldby 1998; emphasis mine), what Waldby calls “Internet erotics” is based on textual communication which enables only the “most abstract trace of the other, their writing” (ibid.; emphasis mine; cf. Derrida 1997 [1967]: 46–47, 61–73). But, for Waldby (1998), it is precisely this “abstract trace,” this fragment

15 What is specifically “phallic” in Rheingold’s vision of “teledildonics” remains, typically, without explanation (cf. Vasilev 1997 [1994]: 54). When, for example, Sadie Plant (1998) celebrates a similar idea, only in different words, it is not a “phallic” but, instead, a “cyberfeminist” term. For me this simply shows that whatever feminist theorists write it is per definitionem “non-phallic,” and conversely, all statements made by other theorists are per se “phallic.”
of written information on the computer screen, that, miraculously, constitutes a “new kind of corporeal space” (ibid.; emphasis mine).

This space comes about through particular conjunctions of body and digital technology, which in turn enables new forms of intersubjective space. To engage in sexualised exchange at the screen interface is to suture the body’s capacities for pleasure into the interactive space of the network, to use that network as the medium for pleasuring and being pleasured at a distance. It both substitutes for the face-to-face negotiation of proximate sexuality and simulates certain aspects of that proximate relationship, involving the projection of a limited kind of telepresence through the simultaneous and interactive production of pleasure in the other’s body. (Ibid.; emphasis mine)

The keyword here is “to suture,” a metaphoric term deriving from psychosemiotic film theory of the 1970s and 1980s, better known as “Screen Theory,” according to which cinema, as an “ideological apparatus” (see de Lauretis & Heath 1980; Rosen 1986), was thought to be able literally to tie and bind the spectator to the narrative through a psycho-semiotic process of “suturing” which turned the cinematic subject into a subject in the Althusserian sense: a subject of its own subjectification, of its voluntary subjugation (see, for example, Silverman 1983: 194–236; Hietala 1990: 88–110). For Waldby, however, “suturing” no longer means an incorporation of ideology, but an embodied experience of a specific “eroticisation” of computer writing that, as previously stated, is actually not about writing but about a space that one comes to inhabit through the act of erotic exchange at the computer interface, that is, by writing on the screen (cf., for example, Kirby 1997: 129–148; Reid 1995, 1996 [1994]; Turkle 1995; Bruckman 1996 [1993], 2001 [1998]; O’Brien 1996, 1999; Gillis 2004; Ryan 1999; Jahshan 2007; in terms of “cyborg writing,” cf. Haraway 1991a: 175–177; Graham 2002: 200–220; Yaszek 2002: 13–15; Schneider 2005: 61–62).

According to Waldby, this “eroticisation” of interactive computer communication is a “means of playing out and playing with the instabilities of bodily location which comes about through the growing bio-political demand that bodies find ways to intersect with and inhabit forms of cyberspace, and conform themselves with the burgeoning digital economies of informatic culture” (Waldby 1998; emphasis mine). Yet, in her enthusiasm about the new form of the erotic at the interface, Waldby fails to see that what she calls “suturation” is, at the same time, a new form of power: the “suturation” of the subject to the computer screen is not only a potential act of liberation, but also an insidious act of adaptation through which the subject is made to comply with the interests of global capital (cf. Markley 1996a: 73–74; Nusselder 2009: 135–136; Zuboff 1988; Hands 2004). That is, what I call the imperative of economism as the power regime of contemporary capitalism is a mode of power that, among other things, instrumentalizes even erotic sensations and affections (cf. Posner 1992: 239–240; Singer 1993: 34–61; Lowe 1995: 132–136; Eagleton 1996: 25–28, 61–75).

For Waldby, however, this metamorphosis of the subject into a computer subject through “suturation” implies an act of empowerment (for feminist theories
concerning the liberatory potential of the empowerment enabled by technology, see, for example, Cutting Edge 1999, 2000; Wolmark 1999a; Kirkup et al. 2000; Green & Adam 2001; Wajcman 2004; Wyer 2008 (2001)). In Hayles’ words, cited by Waldby, “the growing pressure on bodies to ‘live themselves as code,’ to take on forms of agency which further secure the reciprocity between corporeal and cybernetic systems” (Waldby 1998; emphasis mine; cf. Hayles 1993a, 1993b, 1993c) appears, for Waldby, as an entirely new form of eroticism: a new sexual subject celebrates its birth at the computer interface (cf. Heims 1992, 1994b [1991], 1998; Springer 1996; Plant 1998; Foster 2005); a subject that has the ability to sublimate the lust of the flesh into the jouissance of the technological sublime; a mode of pleasure enabled by the transformative power of the “cyber.”

According to Waldby (1998), the “force of this bio-political pressure is generated at numerous points, most obviously in contemporary medicine and molecular genetics, and in the constellation of cybernetic discourses and practices generated around new digital technologies.” What is at issue here is an effort to find “new and more seamless ways to interface body and computer” in order “to refi gure the body as code which is compatible with cybernetic technical ensembles” (ibid.; emphasis mine; in terms of “digital Darwinism,” cf. Terranova 1996a). This refi guration of the corporeal subject – which I consider to be a process of biopolitical subjectification under the regime of economism constitutive of contemporary capitalism producing what Foucault (1991a [1975]: 135–169) calls “docile bodies” – means, in Waldby’s view, a radical transformation of the experience of the self as an erotic subject, or, rather, a self as a subject of one’s own erotic experience.

As the interpenetration of bodies with digital technologies becomes more seamless and pervasive, new domains of experience and being-in-the-world become colonised by this demand. It seems to me that the practice of internet erotics puts the locatedness of the erotic relation, and thus the locatedness of the bodies of the participants, profoundly into question, dramatising tensions between the body experienced as material, specific and located, and hence desired in terms of sexual proximity, and the body experienced as materially implicated in digital communication, to the extent that this serves as a prosthetic for presence, a transmissibility of proximity. (Waldby 1998; emphasis mine)

Prosthetics – in a typical manner of the “post,” this is the origin of a new sexual and erotic culture in the era of computer simulation and virtual reality. For this reason, Waldby immediately dismisses the “usual” idea that “virtual erotic exchanges must be considered to be disembodied in the sense that the bodies of the participants do not meet in proximate, actual space” (ibid.). What is incorrect here, according to Waldby, is that “this lack of proximity counts as absolute absence” (ibid.; emphasis mine). “This logic fails to appreciate the kinds of disturbances that electronic communications have introduced into the terms of presence and absence” (ibid.); “disturbances” that are precisely the key to the new sexual and erotic experiences provided by cyberspace in Waldby’s techno-erotic vision.
The Pleasure of the “Pornological”

The problem, according to Waldby, is that the transcendental school of cyberspace is not able to acknowledge what is constitutive of computer-mediated communication, namely, that it enables a mode of embodiment in which both “experience” and “agency” become “distributed” (ibid.; cf. Stone 1992, 1994b; Turkle 1995, 1997; Plant 1998). That is, the “redistribution of sensory experience and agency implies that bodies are not the excluded term” (Waldby 1998). In this sense, as Waldby says in Vasseleu’s words, “cyberspace” is a “medium of participatory orientation between bodies and objects in different spaces” (ibid.; cf. Vasseleu 1997: 46). Therefore, a “participant’s body is the medium in this interface,” and, accordingly, cyberspace, embracing an “interactive simultaneity,” opens “new kinds of intersubjective practice and desire,” which depend on “active, imaginative occupation of technical space as embodied space” (Waldby 1998; emphasis mine).

All this is included in the key term “telepresence”; a cyber term that promises to sublate the opposition between presence and absence in a post-Hegelian manner (cf. Hegel 1986c [1807]: 150, 1986e [1812–1816]: 113–115; in terms of deconstruction, cf. Derrida 1984a [1972/1968]: 19–20). This is the idea of “redistribution,” the idea of the presence of the absent: it “enables the projection of the body into cyberspace as interface between actual and virtual space”; a “mode of being” that can “interact with other avatars, traces/figures which mark other forms of telepresence in that space” (Waldby 1998).

Eroticised use of text-based digital communication involves a related setting up of ways to embody and inhabit cyberspace, an experimentation with modes of telepresence and the transmissibility of sensation. It does this in a much less literal-minded and cumbersome fashion than that employed in VR (virtual reality), relying on certain practices of language reworked in the interactive real-time medium of the net to generate its effects. In doing so it also plays on a tension between desire generated through the absence of the proximate, locatable body of the lover and the real pleasure possible in imaginary, unlocatable encounters. (ibid.; emphasis mine)

This, indeed, is a new form of the erotic, to say nothing of the sexual. And moreover, “Internet erotics” also enables the overcoming of the possessive character which makes up “conventional” erotic and sexual relations: instead of the desire to possess the body of the other, in cyberspace “[p]articipants allow each other real time access” which, in Hayles’ words quoted by Waldby, “substitutes for the relations of possession which characterise forms of presence” (ibid.; emphasis mine). This is the basic idea of “Internet erotics”: no longer corporeal presence, but a “real time access” constituting an erotic/sexual rendezvous and the very experience of it as a prosthetically distributed virtual encounter in its absent presence; and thus, as Hayles says:

Whereas possession implies the existence of private life based on physical exclusion or inclusion, access implies the existence of credentialing practices that use patterns rather than presences to distinguish between those who do and do not have the right to enter (ibid.: cf. Hayles 1993c: 84; see also Hayles 1999: 247–251).
What happens when corporeal presence (the conventional view of sexual pleasure) is replaced by a “real time access” (the idea of virtual erotics) is that the “mutual and simultaneous interaction,” constitutive of cyberspace, “effectively implicates the bodies of both participants in a particular kind of shared space,” a “complex techno-social space produced by the digital assemblage and its embodiment by the user” (Waldby 1998; emphasis mine).

This is the point of departure for the new sexual paradigm enabled by the presence of the absent, the body in cyberspace; a body that comes into being by the logic of “trace” (in Derridean terms, cf., for example, Derrida 1982 [1972]: 8, 14, 26, 32–33, 40, 52, 54, 57, 65, 79, 1984a: 13, 18, 21–25, 1984d [1968]: 65–66, 1997 [1967]: 9–10, 18, 23, 46–47, 51, 57, 61–68, 70–75, 93, 97, 167).

To engage in eroticised exchange in this context is to elaborate upon the bodily aspect of this trace, to substitute in writing for the absent referent which is the pleasure-able body of the author. Any notion of “erotic exchange” is clearly variable, but in this instance I am referring to what can count as a sexual encounter under these conditions, an encounter in which participants explicitly designate their exchange as a form of sexual practice, involving the evocation of fantasies around caressing, touching, kissing, access to erotogenic zones of the other’s body, penetration and so on. (Waldby 1998; emphasis mine; cf. Gillis 2004)

Miraculously, through the “trace,” a linguistic entity, the carnal body transubstantiates, like in the Biblical world, into a symbolic form (cf. Kirby 1997: 51–81, 129–147; Haraway 2002a: 86; Briggs 2006: 157–158; Stockton 1992; in the context of the dildo and “teledildonics,” cf. Foster 2005: 118–119). No longer are there the constraints of the flesh, but, instead, what we now have are the limitless pleasures of virtuality – the pleasures of bodies in their absent presence.

Yet, this notwithstanding – and this is the real miracle of “Internet erotics” – although all that there is left over from the body in the virtual reality of cyberspace is just a phantom, a “trace,” a linguistic figure effected by writing, you can, nevertheless, enjoy the pleasures of the carnal body. According to Waldby (1998), in virtual erotics the “participants engage in, or strive for, a kind of eroticised presence-for-the-other which is brought into being through a performative use of the exchange medium” (emphasis mine; cf. Butler 1990, 1993; Birringer 1998; McKenzie 2001; Giannachi 2004; Dixon 2007). “The content of the message is the eroticised body of the sender, a kind of writing which tries to enact what it describes, to act for the absent lover by creating (some of) the pleasurable effects of proximity and surface-to-surface meeting” (Waldby 1998; emphasis mine).

To describe these “forms of exchange,” Waldby employs Deleuze’s term the “pornological” (ibid.; see Deleuze 1989 [1967]: 18–22; cf. Chisholm 1995: 25–34; Bogue 2003: 20–21; MacKendrick 1999); a term that, of course, has nothing to do with pornography, but is a specific theoretical designation for a “particular performative modality of obscene writing, characterised not by its deployment of illicit sexuality but rather by the setting up of a certain constitutive relationship between bodies and language” (Waldby 1998) – a mode of obscenity which, in order to be enjoyed, necessitates that one commands an appropriate theoreti-
cal approach to bodies and their desires and pleasures. As Waldby explains, the “pornological,” according to Deleuze, is about certain kinds of “sexual description” which assumes

a linguistic function: being no longer a question of speaking of bodies such as they are prior to or outside of language, they form, on the contrary, with words a “glorious body” for pure minds [...] [For this reason] the obscene is not the intrusion of bodies into language, but rather their mutual reflection and the act of language which fabricates a body for the mind (ibid.; emphasis mine; cf. Deleuze 1990 [1969]: 281; Rheingold 1991: 346–348; Vasseleu 1997: 53).

The secret of the “pornological” is an “operation of obscenity” through which one has to “find a language which imitates the choreography of erotised bodies,” a mode of writing which “produces sexual effects through enunciation” (Waldby 1998) – an operation that, of course, is light years away from the banalities of the “common” Internet world with its unending supply of “conventional” pornography and other forms of computer sex (see, for example, Waskul 2004a). No, this is definitely not Waldby’s world; what, for her, is “pornological” takes place in the sublime spheres of theory, in the exclusive realm of techno-textual/sexual connoisseurship of the subtleties of subversive eroticism in its transgressive radicality defined by radical transgressivity pertaining to the virtualization of corporeality (cf. Suleiman 1986a, 1990; Prosser 1995; Sargisson 1996; Wolfreys 2008; Donnan & Magowan 2009b; with regard to Lyotard, cf. Plant 1992: 115–116; in terms of “counterpleasures,” cf. MacKendrick 1999); that is, “sex” in the mode of the “post”: theory-sex as a post-literary, writerly form of jouissance.

To elucidate the art of “pornological” writing engendering sex and eroticism in terms of the virtual, Waldby refers to feminist/queer theorist Dianne Chisholm’s Lacanian interpretation of Deleuze’s idea: the “pornological” is a “form of language which enacts the original moment in which desire is generated, the desire which only comes into being when the object (mother/breast) is lost and infantile sexuality finds satisfaction first in hallucination or fantasy, and later in the manipulations of language” (Waldby 1998). According to Chisholm, the “pornological” is about “desublimated sex-talk which does not veil the cause of desire, but acts as outspoken cause and which claims to effect total satisfaction” by means of the “simultaneous verbalising and corporealising” of “fantasy” constituting thus a linguistic sex act (ibid.; emphasis mine; cf. Chisholm 1995: 29).

In these terms, according to Waldby (1998), “net erotics” involves a specific “deployment of language” implying an “exchange of writing which devotes itself to the miming of bodily intimacy between the writers.” Thus, the “purpose of the writing is to create material, reciprocated effects of arousal in the body of the receiver” (ibid.). It is about “certain writerly practices” which, however, “are, no doubt, largely absent from the average net-sex exchange” (ibid.; emphasis mine), the poor and pitiful world of ordinary people who are not able to enjoy the pleasures of the “high” effected by post-theory. What is needed, are special intellectual skills to orchestrate the sexual act as a virtual encounter, an experience of the presence in its absence: “[n]et sex writing is simultaneous,
collaborative and interactive, working through a back and forth sharing of scenarios, an exchange in real time which involves lag and anticipation, hesitation and invention, an ebb and flow of excitation which maps itself on to the ebb and flow of writing” (ibid.; cf. Stone 1994b, 1995c, 1995e; Wiley 1995; McRae 1996, 1997; Case 1996, 1999).

Netsex is only possible, can only approximate a pornological deployment of language, because this rhythm lends itself to the mimicry of bodily exchanges. Simultaneous writing acts as a fantasised caress, the transmission of a kind of imaginary tactility which effectively acts out the fantasy of tele-touch promised in “teledildonics” discourse, without resort to the cumbersome literal-mindedness of the datasuit. (Waldby 1998; emphasis mine)

If one is able to reach this high level of sophistication, one is able to enjoy a specific “libidinal economy” generated through the interface, so that the “libido, the medium of sexuality, maps itself onto the digital medium and utilises its transmission capacities” (ibid.). In generating such a “circuit” the “user” is engaged in a “libidinal relation with the technology itself” (ibid.; emphasis mine; cf. Nichols 1988: 32). Within this “circuit,” as Vasseleu (referred to by Waldby) points out, “the technology substitutes for another human body” (Waldby 1998). In this manner, “net sex” enables the “projection of new kinds of erotic efficacy through the employment of cyberspace as a theatre for intersubjective acts which are simultaneously carnal and textual” (ibid.; emphasis mine).

These kinds of “prosthetic practices” (ibid.) create a “consensual (erotic) hallucination,” as Waldby, paraphrasing Gibson’s (1995 [1984]: 67) definition of cyberspace as a “consensual hallucination,” summarises the idea of “Internet erotics” or “net sex” (Waldby 1998) as a form of “the sexual” and “the erotic” that exceeds all the limits of heteronormality. What is at issue here is a “libidinal investment” that involves “at least as much an investment in and desire for this new space as it is an investment in the other person” (ibid.). Waldby is again referring here to Vasseleu according to whom, “because bodies are increasingly understood on the model of digital systems, such systems are also readily understood as bodies, able to act as objects of desire” (ibid.; emphasis mine). For Vasseleu, “characterising the technology in corporeal terms,” it is these kinds of digital systems that establish the “means by which intimacy with virtual environment technology can be substituted for relations with a different body” (ibid.; emphasis mine; cf. Vassleu 1997: 55; Gillis 2004: 96–98; Plant 1998).

In these terms, the distinction between the “elsewhere body of a netsex lover” and the “body of the system” becomes obsolete, and, as a result, it is precisely the computer interface that replaces the corporeal presence in the “libidinal circuit” of “netsex” (Waldby 1998). For Waldby, such a “eroticisation of cyberspace” generated by “netsex” signifies “ways in which bodies are being worked over in the interests of the new informatic economies” (ibid.; emphasis mine). Referring to Foucault’s idea in his “history of sexuality” according to which “power relations are productive of pleasure,” Waldby believes that the “transformative potentials of the new digital and bio-technologies produce new
forms of sexual pleasure and practice as well as new modes of resistance” (ibid.; cf. Foucault 1990k [1976]: 157–159; Parisi 2004; Perniola 2004 [2000]).

As we can see here, the more we are “sutured,” that is, engaged, literally connected, if not enchained, both to computer technology and the high-flying theory discourse of the “post,” the more we are free to experiment with and experience new forms of sexual pleasure – and to resist the pressures of low-minded sexual and erotic “normality” ruling the poor world of heterosexuality. Thus, a “body which serves the interests of the new informational economies, taking on the demand to ‘live itself as code’” (Waldby 1998; emphasis mine; cf. Haraway 1991a: 150, 163), is the “new” body necessitated by – as Waldby says above – “digital dematerialization,” a process similar to “economic exchange.”

In my reading, however, this is a body that embodies the logic of postmodern capitalism: enjoy your subjugation as your freedom and you are free to choose the ways you are subjugated. This is a body that is made, by means of productive consumption constitutive of the economic order of neo-Fordism, compatible with the disciplinary regime of the political economy of neoliberalism, a body that can find its final liberation only in the virtual reality of language peculiar to post-theory exemplified here by Waldby’s conception of “digital dematerialization.”
3.3 Timothy Leary: When It All Changed, or, At the Origins of the “Cyber”

On screens
With cybernetic tools
From countercultural perspectives
With informational chemicals (Chaos drugs)
While delighting in cyberotics
As guerrilla artists
Who explore de-animation alternatives
While surfing the waves of millennium madness
to glimpse the glorious wild impossibilities and improbabilities
of the century to come.
Enjoy it! It’s ours to be played with!

Timothy Leary (1994a: xv)

“That was When It Changed” (Gibson 1988: 257). In the early 1980s, an epochal change, indeed, occurred: the era of the “cyber” began. However, rather than being a separate occurrence, the emergence of the “cyber” manifested, in its own way, a wider and more fundamental transition in the Western world, the coming into being of what Fredric Jameson (1984, 1991) calls “postmodernism” as a new historical constellation ruled by the “cultural logic of late capitalism.” The inception of postmodernism, according to Jameson (1991: ix), was the moment “When-it-all-changed” (ibid.), as he puts it referring to William Gibson’s Mona Lisa Overdrive.

In Jameson’s reading, Gibson’s “When-it-all-changed” signifies “shifts and irreparable changes in the representation of things and of the way they change” (ibid.); in this sense, “cyberpunk,” as Jameson says, is “the supreme literary expression if not of postmodernism, then of late capitalism itself” (ibid.: 419). That is, as “a new type of science fiction,” cyberpunk “is fully as much an expression of transnational corporate realities as it is of global paranoia itself” (ibid.: 38). As “high-tech paranoia” (ibid.), implying “the spirit and the impulse of the imagination of the multinationals in postmodernism,” cyberpunk manifests “an orgy of language and representation, an excess of representational consumption” (ibid.: 321). As a mode of “new writing,” cyberpunk expresses the “heightened intensity” of postmodern capitalism, and, as such, it is part of “the most crucial terrain of ideological struggle today, which has migrated from concepts to representation” (ibid.; emphasis mine; cf. Csicsery-Ronay 1994 [1988]; for Gibson’s phrase “When It Changed” in terms of queer theory, cf. Murphy 2008: 131–133; for a “spectrological” reading of the postmodern as a “phantom project,” see Toth 2010; cf. Punday 2003; Rutmoko 2006).

From this perspective, the “post” and the “cyber” are genealogically coterminous: both of them indicate a radical transformation in terms of ontology and epistemology; that is, while the “post” refers to the end of the modern, the “cyber” signifies a specific way of apprehending the futural moment of the postmodern in its radical futurity: the very idea of the “post.”
As stated before, if Gibson is the point of origin of the "cyber," then its linguistic condition of possibility, its discursive precondition as a specific mode of speaking and writing, is Timothy Leary, the great poet of the psychedelic and the Ur-shaman of the cyberdelic since the early 1960s (see, for example, Bukatman 1996 [1993]: 139, 189; Dery 1996: 22–23, 27–28, 32, 35; Kennedy 1999: 131; Gere 2002: 138–145; Heuser 2003: 20–25, 71; Turner 2006: 163–165; Jahshan 2007: 12, 79–80, 100; Sheff 1990; Lyttle 1999).

In this sense, it was in 1983 when it all changed; the year when Leary got his first personal computer, his personal reality engine that was to liberate him from the constraints of the material once and for all (see Leary 1994a: 5; cf. Biocca & Levy 1995a: 129, 136; Lanier & Biocca 1992; for a contextualization from the perspective of “technocratic futurism,” see Graham 2002: 155–175). For Leary, it was immediately clear that the “PC is the LSD of the 1990s” (Dery 1996: 22; emphasis mine; cf., for example, Rheingold 1991: 353–357; Misztal 2000: 177; Dinello 2005: 151; Aupers & Houtman 2010: 18–19; Zandbergen 2010: 178–179; with regard to nineties “space age” visions, cf. Lavery 1992: 30, 43; in the context of sixties media euphoria, cf. McLuhan 1995 [1969]: 253; for the drug culture of the 1960s as “the great stoned age” in the American counterculture, see Torgoff 2004; for a historical contextualization in terms of “cyberspirituality,” see Partridge 2005: 135–164). This was the year, this was the event, this was the moment, when it all changed: the real became virtual. From then on, all that has followed in the world of cyber discourse constituting the linguistic matrix of cyberculture as a manifestation of the sensibility of the 1990s under the sign of the “post” is a consequence and a continuation of this turning point of the times, the turn from the psychedelic to the cyberdelic (for an overview, see Spiller 2002; for the prehistory of cyberculture in the context of industrial automation and cybernation in America in the 1960s and 1970s, see, for example, Stanley 1978: 136–137; Bell 1991 [1980]: 43–50; Michael 1962; Winthrop 1966, 1968).

That is, not only the entire œuvre of Leary, manifested by his writings and public performances, but Leary himself as a living Gesamtkunstwerk, as the very embodiment of the American psychedelic avantgarde, is the primal source of cyberculture, its multifaceted idea reservoir and linguistic generator, and finally an impressive and inspiring monument of the times when it all changed (for Leary’s biography, see, for example, Higgs 2006; Greenfield 2007). Thus, Leary’s cybertext is a virtual hypertext of the 1990s, a generative “soft machine” (cf. Bukatman 1996 [1993]: 194–195; Porush 1985) that has produced one of the basic textures of cyber discourse: the textual universe of the cyberdelic as a revival of the psychedelic (see Leary 1995 [1968], 1997 [1966], 1998 [1980], 1999a [1965], 2000a [1988], 2001 [1988], 2002 [1988], 2003 [1988], 2004 [1979], 2005 [1965]; for a posthumous summary of Leary’s “politics of self-determination,” see Leary 2000b; for the “Harvard Psychedelic Club” and Leary’s psychedelic experiments at Harvard University in the 1960s and their far-reaching consequences for American culture, see Lattin 2011; for the social history of LSD, see Lee & Shlain 1992 [1985]; in terms of LSD and biotechnology, see Doyle 2004: 113–119; with regard to “psychedelic psychiatry,” cf. Dyck 2008: 102, 107–113, 131–133).
3.3.1 A Trip through the Psychedelic to the Cyberdelic and Back

From the standpoint outlined above, what I am arguing is that cyber discourse is not possible to be understood in its origin without taking into account that all that is “cyber” is ultimately a derivation of the psychedelic, the mode of being in altered states of mind induced by LSD (see, for example, Pellerin 1998; Joy & Cloud 1999; Stafford 2003 [1978]; for a prehistory of psychedelia, see Devereux 1997), a neo-religious experience of “cybergnosis” constitutive of Leary’s exalted visions (see Aupers et al. 2008: 687–700; for connections between LSD, social protest, religious conversion and the mental consequences of the Vietnam War, see Kent 2001: 7–23).

For Leary, LSD opened up a new “frontier,” a “limitless” internal world of “space-time dimensions” to be explored by “LSD frontiersmen” like the new land by the settlers and rangers during the conquest of America, only that mountains, forests and plains were now replaced by a new “geography” suggested by “the hallucinogenic trip” (Cavallio 2001: 80; for the import of the frontier metaphor in American history, see Dean 2002b: 87–88; Miller 1995). If, as Leary (1994a: 97) says, the psychedelic moment was something that “had happened before,” the coming into being of the “cyber” was a revival of the 1960s, not as a reiteration, but as a postmodern appropriation (cf., for example, Bertens 1995: 90–94; Best & Kellner 1997: 180–186; Evans 2009), as a hilarious assemblage of citation, reworking and adaptation in a new cultural constellation brought about by the Reagan era, the era of offensive power politics with its technological pathos, epitomized by the Strategic Defense Initiative or “Star Wars” scenario in its most spectacular manner (see, for example, Reiss 1992: 153–164; Mosco 1989; Duric 2003). As Leary says:

This had happened before. At similar moments in history when cultures reached similar states of national security, economic prosperity, and imperial confidence, the inevitable next step has been to look within. (Leary 1994a: 97; emphasis mine)

“To look within” – that is the key idea of the “millennium madness” (ibid.: xv) propagated by Leary as a way to the “glorious wild impossibilities and improbabilities of the century to come” (ibid.); that is, the century we are now enjoying as a postmodern New Age, a millennial experience of the “cyber,” of course, not in everyday reality, but in the a-temporal futurity of cyber discourse following the logic of the “post” (cf., for example, Groothuis 1997: 105–108; Gunkel 2007: 82–102; in terms of “fantastic modernity,” cf. Wang 2000: 182–188; for a continuation of the techno-imaginary implied by the psychedelic/cyberdelic by means of “French theory,” cf. Ronell 1991 [1989], 1993).

Cyberdelese: The Newspeak of a Great Transmutation

“To look within” – once again this is the order of the day, an immersive experience enabled now by the libidinal language of cyber discourse, a postmodern language that manifests the technological sublime of the political economy of neoliberalism (cf. Ryle & Soper 2002); in Jameson’s (1991: 321) words, “the spirit
and the impulse of the imagination of the multinationals in postmodernism,”
that is, the “heightened intensity” (ibid.) of postmodern capitalism.

What was the counterculture of the 1960s, under the sign of the psychedelic,
embracing the experience of LSD, the trip and an inner exploration (see, for
2007: 132–143; from a neoreligious perspective, see Partridge 2005: 94–135;
for a political and intellectual contextualization, see Stephens 1998; DeKoven
2004), turned into the consensual hallucination of “cyberia” in the 1980s (see
Rushkoff 1994), the search for the expansion of the mind by means of the
for the psychedelic as an esoteric experience of “techgnosis,” see Davis 1998:
145–170, 191–192). What is common, however, to both of these cultural forma-
tions – the configurations of the psychedelic and the cyberdelic – is hedonism
as a highly individualistic ethos, an ego-centric view of the enjoyment of life
practiced in the form of what I call the ego-politics of pleasure. Yet, in cybercul-
ture, in a curious manner, this is about a hedonism for which the body is more a
problem than an unalienable, self-evident source and vehicle of the joys of life.

Disembodiment, and its reverse side, the prostheticization of the body, are
the two complementary great wish-images of cyber discourse, a postmodern
discourse that celebrates virtual reality as the embodiment of the mind. What is
cyberdelic is psychedelic deep down: not the body but, as Gibson (1995 [1984]:
12) says, the “bodiless exultation of cyberspace,” is the supreme pleasure of all
that is “cyber.”

It is in this manner that the cyberdelic counterculture of the nineties, indeed,
succeeded, as Mark C. Taylor and Esa Saarinen (1994: “Ad-Diction,” 9), the most
avantgardist media philosophers of the era, say, “to transform the chemico-
religious prosthesis into the electronic prosthesis,” that is, to transform LSD
into virtual reality, the most spectacular reality of postmodern technocultucre.
In other words, if, in the sixties, during the great era of the psychedelic, Leary’s
message was “Turn On, Tune In, Drop Out,” the message for the nineties, the
great era of the cyberdelic, became “Turn On, Boot Up, Jack In” (Leary 1990

16 There are many interpretations of the meaning of Leary’s epochal admonition “Turn On,
Tune In, Drop Out,” but to avoid misunderstandings it is appropriate to go ad fontes, to Leary’s own
definition: “‘Turn on’ meant go within to activate your neural and genetic equipment. Become
sensitive to the many and various levels of consciousness and the specific triggers that engage
them. Drugs were one way to accomplish this end. ‘Tune in’ meant interact harmoniously with the
world around you – externalize, materialize, express your new internal perspectives. ‘Drop out’
suggested an active, selective, graceful process of detachment from involuntary or unconscious
commitments. ‘Drop Out’ meant self-reliance, a discovery of one’s singularity, a commitment to
mobility, choice, and change. Unhappily my explanations of this sequence of personal develop-
ment were often misinterpreted to mean ‘Get stoned and abandon all constructive activity.’”
(Leary 1990 [1983]: 253)
As we can see, what happened in the 1990s, the decade of triumphal postmodernism, was that, through Leary’s suggestive politics of language, a spectacular transubstantiation occurred: Gibson’s (1995 [1984]: 67) science fiction fantasy of cyberspace as a “consensual hallucination” turned into reality, a virtual reality of language — a post-Heideggerian Ereignis with far-reaching consequences (cf. Heidegger 1989a [1936–1938]; cf. Loscerbo 1981: 242–245, 250–263; Radloff 2007: 292–315; Jünger 1980 [1930], 1982 [1932]). This is the materiality of the “post,” the materiality of the signifier, hypostatized by the “cyber” into its most sublime form: the reality of the surrational, the rational of the imaginary. That is, what Derrida (1994 [1993]: 10–11, 17–18, 30–45, 54–58, 129–132) calls the “spectral” and “spectrality” has found its most spectral materialization in the world of the “cyber.”

In this sense, cyber discourse arises from Leary’s hallucinogenic, techno-euphoric, eschatological language like, as they say, the Russian novel comes out of Gogol’s hat. In the beginning was Leary, the rest is history.

To get an idea of a postmodern form of the New Age emerging from this decisive moment, Leary’s cyberdelic illumination as the establishing moment of subsequent cyberculture in terms of neoreligious ego-politics, calls one to learn to speak “cyber,” to at least possess knowledge of the basic vocabulary of this newspeak, the mode of linguistic figuration constitutive of the technosublime of cyberdelia (see Dery 1996: 21–72; cf. Orwell 1989 [1949]: 312–326; Gerovitch 2002a). This mythopoietic language, comparable to the technophilic argot around the Harawayan cyborg, is to be found in a collection of Leary’s writings, Chaos & Cyber Culture, the single most important source of what I call cyberdelese as a postmodern modification of what Leary (1997 [1966]: 38) called “psychedelese” in the 1960s (cf. Doyle 2004: 115); that is, a neo-psychedelic form of technolese, the true language of the “cyber,” the futuristic newspeak shaping and expressing the life on the New Edge (see Rucker et al. 1992; cf. Calcutt 1998: 19–27; Botting 2000: 98–101; Lunenfeld 2000a: 7–9; Bell 2001a: 122–135; Graham 2002: 157–158; Sobchack 1994; Tofts & McKeich 1997; for the sacred in Leary’s cyberdelic visions and New Edge cyber-spirituality, see Zandbergen 2010: 162–164, 174–184; from the perspective of the “altered states” of “ecstasy culture,” see Collin 2009 [1997]: 251–252; for cyberspeak as a literary style in feminism playing with the idea of the “incurably informed,” see Balsamo 2000 [1993]: 219–229; Cadigan 1991; for a contextualization in terms of “technoromanticism,” see Coyne 1999: 28–33, 77–79).


As a hallucinogenic newspeak deriving from the psychedelic or mind-expanding experience of the 1960s, cyberdelese is a techno-euphoric, visionary and utopian language, manifesting the message of a Great Transmutation,
the final transition to a new world in which everything will be different, in which nothing remains the same: a language that manifests what Mark Dery (1996) calls “escape velocity” peculiar to cyberculture (cf., for example, Heim 1993; Stone 1995e; Plant 1995, 1996b, 1998; Tofts & McKeich 1997; Dyer-Witheford 1999; Wolmark 1999a; Bell & Kennedy 2000; Kirkup et al. 2000; Zylinska 2001; Sundén 2002a, 2003; Kroker & Kroker 2008). It is a neoreligious, postmodern-sacral techno-millennial language under the sign of the “cyber”; a language spoken by cyber-theorists from Leary to Haraway and beyond: a newspeak that celebrates altered states of mind induced by the ecstatic experience of technology as an escape from the prison-house of the carnal body; that is, the redemption of the body in the virtual reality of language.

**Leary, LSD and “Chaos Engineering”**

In this sense, the world of the “cyber,” the virtual reality of language embracing cyber discourse, is a prolonged footnote to Timothy Leary’s Scriptures (in addition to the texts referred to above, see also Leary et al. 1964; Leary et al. 1977; Leary et al. 1988).

millennialism, constitutive of the idea matrix of cyber discourse. It is precisely in this manner that the Learyan world is in itself a hypertext that works as a cybertext, in which everything signifies something without meaning anything specific: an opera aperta (see Eco 1989 [1962]) without a closure; a fractal, fragmentary and kaleidoscopic textual space one can enter from any point at will, but nevertheless, always having an impression of being “in,” in its vertigo of signifiers (cf. von Braun 2001), in its extremely accelerated whirl of speed-writing as a linguistic version of Virilioan vitesse (see Virilio 1997 [1995], 2001).

To give a true meaning to a worn-out saying, if Timothy Leary would not have existed, he would have to be invented – or else we would have never had the amazing world of the “cyber.”

In this sense, all that is “cyber” is coming, in one way or another, from Leary, originating in Leary’s cyberdelic universe constitutive of the linguistic hyperreality of the “cyber” (cf., for example, Baudrillard 1983b [1981]: 2–13, 23–26, 43–49, 138–152, 1993b [1976]: 50–84). And at the same time, Leary’s hypertext, in its very textuality, shows how cybertexts function, the manner in which cyber discourse works.

Like Learyan language, cyber discourse is a linguistic universe in which things are made of words which, time and again, under the master code of the “cyber,” cluster around certain code words, certain hot spots or power points that function in the manner of a post-Lacanian point de capiton, “anchoring point,” and become thus “articulated” at a point (whatever it happens to be) at which the signifiers stop “the otherwise endless movement (glissement) of the signification” (Lacan 1977h [1966/1960]: 303; cf. Bowie 1991: 74; in terms of “the political,” cf. Stavrakakis 1999: 59–61, 78–82). These code words, in themselves effects of articulating clustering (or clustering articulation), have a diffuse but highly suggesting meaning; that is, they are evocative signifiers that engender affective associations (as we see in the texts I am considering in the present study).

If this is the linguistic mechanism of cyber discourse in general, how, in particular, does the linguistic clustering work? An illuminating example is the manner in which Leary “defines,” as if with “scientific” precision, some keywords in his “quantum theory”; a manner of definition reminiscent of how Haraway (1991a: 149–151) defines the cyborg (cf. Wilson 1996; Sofoulis 2002, 2003).

Quantum: The quantity or amount of something; an indivisible unit of energy; the particle mediating a specific type of elemental interaction.
Quantum jump: Any abrupt change or step, especially in knowledge or information.
Chaos: The basic state of the universe and the human brain.
Personal computer: A philosophic digital appliance that allows the individual to operate and communicate in the quantum-information age. (Leary 1994a: 44)

In a similar manner, cybernetics is “chaos engineering” (ibid.: 21) for Leary (cf. Deleuze & Guattari 2000 [1980]: 70–71, 313–345; Goodchild 1996: 67–72; Kroker
From this perspective, what follows, then, is not an “account” of “what” Leary is “saying” (for the problem with Lacan’s psycho-texts, cf., for example, Bowie 1998); instead, my focus is on Leary’s language, its specific sound: the sound of the “cyber.” With a sample of quotations from Leary’s *Chaos & Cyber Culture*, the great primer into the wonderful world of the “cyber,” my purpose is to show how the “cybernetic” still works as a textual device decades after the invention and heyday of Wiener’s scientific cybernetics from the late-1940s to the end of the 1960s (see Pias 2003, 2004; Heims 1980, 1993 [1991]; Masani 1990; Gerovitch 2002a; Hagner & Hörl 2008), as a linguistic figure, in an entirely different context, the context of both the psychedelic, “system-critical” counterculture of the 1960s and the early 1970s, and later, cyberpunk and the cyberdelic, technomillennial New Edge of the 1980s and 1990s.

In this respect, Leary has a central position because, with his writings and his spectacular public role as the spokesman – or, rather, as the prophet, guru and shaman – of both the psychedelic and cyberdelic movements, he has significantly contributed to the popularity of the “cybernetic” and later of the “cyber.” But, what is important in this respect is that the “cybernetic” and the “cyber” have in Leary’s world a specific meaning: at issue is not some political programme to change the world, but, as Leary (2000b) says, “the politics of self-determination,” in other words, what I call the ego-politics of the postmodern subject, a mode of politics that focuses on the personal autonomy of the individual; that is, a psychedelic modification of the principle “the personal is political” propagated by radical feminism in the 1960s and the 1970s (see, for example, Jaggar 1983: 7, 101, 143–151; de Lauretis 1987: 138–139; Giroux 1991: 36–37; Nicholson 1981; in terms of “life politics” in contrast to “emancipatory politics,” cf. Giddens 1991: 214–216; in the context of neoreligious spirituality, cf. Kent 2001: 13–17, 32–35, 104–110).

To understand Leary’s position as a manifestation of charisma in the true Weberian sense, as something außeralltäglich (see Weber 1972 [1921]: 140–142), it is

17 With regard to the academic strand of cyber discourse, Leary, for his part, is its “secret” source because all academic cyber-theorists are not necessarily inclined to admit that they have been influenced – to say nothing about being “infected” – by Leary’s enticing visions of a new world in which the computer and new technologies constitute the very basis of all being, while they, at the same time, promote exactly this idea (see, for example, Gray et al. 1995b; Stone 1995e; Plant 1997b; Wolmark 1999a; Bell & Kennedy 2000; Kirkup et al. 2000; Gray 2001; Flanagan & Booth 2002; Zylinska 2002b): for academia, according to the rules of its Bourdieuan distinction games (see 1984 [1979]), Leary is simply too “New Age” in his style; that is, the New Age is the repressed “other” of academic cyber discourse, its hidden double and, as such, its true mirror.
appropriate to recall how Leary appeared to those who had the opportunity to experience him live.

A religious fervour had gripped him; religious imagery informed all he felt about LSD. He was a priest of the God Acid; there was a message to preach, souls to be saved, bibles and tracts to be written. (Shapiro 1988: 131–132)

It is evident that without Leary there would be neither cyber discourse and cyberculture in general nor the cyborg and cyberfeminism in particular, as we know them today (see Bell & Kennedy 2000; Gray et al. 1995b; Wolmark 1999a; Kirkup et al. 2000). In his own way, during the decisive years of the counterculture of the 1960s (see Roszak 1969; Hamilton 1997; Braunstein & Doyle 2002; Turner 2006; Gair 2007) Leary was always in the right place at the right time when it all changed: by creating post-surrealist champs magnetiques, “magnetic fields” (cf. Spector 1997: 42–43; Chénieux-Gendron 1990 [1984]: 58–59), he was a medium mediating the movement of thought between Wiener, Gibson and cyberpunk, between science, science fiction and postmodern theory. In this sense, Leary was a mover and shaker of all that became “cyber.”

The Brain, Quantum Politics and the Pioneers of Cyberspace

With these introductory remarks I will now leave Timothy Leary himself to open his textual Pandora’s box, a very personal treasury in terms of the “cybernetic” as the preform of the “cyber.”

We are mutating into another species – from Aquaria to the Terrarium, and now we’re moving into Cyberia. We are creatures crawling to the center of the cybernetic world. But cybernetics are the stuff of which the world is made. Matter is simply frozen information. … Never before has the individual been so empowered. But in the information age you do have to get the signals out. … Today the role of philosophers is to personalize, popularize, and humanize computer ideas so that people feel comfortable with them. … The fact is that a few of us saw what was happening and we wrestled the power of LSD away from the CIA, and now the power of computers away from IBM, just as we rescued psychology away from the doctors and analysts. In every generation I’ve been part of a group of people who, like Prometheus, have wrestled with the power in order to hand it back to the individual. (vii; originally published in Pataphysics Magazine [1990])

18 Leary’s collected writings (1984–1993) entitled Chaos & Cyber Culture (Leary 1994a), similarly to Mondo. A User’s Guide to the New Edge by Rudy Rucker, R. U. Sirius & Queen Mu (1992), is an all-time source book of the origins of all that is “cyber.” In my sample of citations, the page numbers are given in parentheses at the end of each sequence; all emphases are mine, if not indicated by the initials of Leary in brackets ([TL]). My purpose is to provide an introduction to the linguistic world of the “cyber” in its original (in both senses of the word) form, the idiomatic Learyan diction, the originating origin of cyberdelese. At the same time, it should be noticed that in my comments following Leary’s text I in no way try to emulate or mimic Leary’s unique language and style; I merely wish to point out its idiosyncrasies, and, at the same time, to suggest that, in his literary language, Gibson is a true heir of Leary (in addition to Leary 1994b [1989], 1994d [1988], 1994f [1989], see Bukatman 1996 [1993]: 19, 139, 186–187, 189; Rushkoff 1994: 73–74, 222–230, 268–269, 290–291; for the work and times of Leary, see Higgs 2006; Greenfield 2007).
The Eternal Philosophy of Chaos

This book [Chaos & Cyber Culture] is about designing chaos and fashioning your personal disorders on screens with cybernetic tools from countercultural perspectives with informational chemicals (chaos drugs) while delighting in cyberotics as guerrilla artists who explore de-animation alternatives while surfing the waves of millenium madness to glimpse the glorious wild impossibilities and improbabilities of the century to come. (xiii)

The Chaos Within

In the last decades of the 20th Century, scientists began to study the complexity within the human brain.

Talk about Chaos!

It turns out that the brain is a galactic network of a hundred billion neurons. Each neuron is an information system as complex as a mainframe computer. Each neuron is connected to ten thousand other neurons. Each of us is equipped with a universe of neurocomplexity that is inscrutable to our alphanumeric minds.

This brain power is at once the most humiliating fact about our current ignorance, and the most thrilling prospect of our potential divinity – once we start learning how to operate our brains. (xv)

Humanism: The Navigational Game Plan

Chaos theory allows us to appreciate our assignment: the understanding, enjoyment, and celebration of the delightful nature of the whole universe – including the totally mad paradox within our brains.

Activating the so-called right brain eliminates one of the last taboos against understanding Chaos and provides a hands-on scientific basis for the philosophy of humanism – encouraging us to team up with others to design our own personal versions of Chaos. (xv)

How I Became an Amphibian

In 1980 Ronald Reagan, a screen person, became the president of the United States. At the same time, the screen image of an Iranian mullah, the leader of a notoriously irritable fundamentalist sect, became the rallying point of the Islamic world. In the same year, surveys showed that the average American spent more than four hours a day neuronarctized by the artificial realities and fake news-dramas on television screens – more time than is spent on any other waking activity in the flesh-material reality.

It was about then that I too found myself mutating gradually, imperceptibly, into an amphibious form. (The word “amphibian” comes from the Greek apmhi [double] and bios [life]).

I began spending around four hours a day producing and scripting and directing the images on my personal screen.

In this way I learned how to file, process, organize, clarify, store, retrieve, and transmit my digitized thoughts in the form of words and icons.

These exercises in translating thoughts to digital codes and screen images have helped me understand how my brain works, how the universe evolves in terms of information algorithms. And, in the most practical mode, to understand:
1. How we can avoid television dictatorship, and 
2. How we can democratize the cyberscreen politics of the future.

My experiences, far from being original or unique, seem to be part of an enormous cultural metamorphosis. Like millions of others, I have come to feel as comfortable over there in Cyberia, Tubeland, on the other side of my electronic-reality window, as I do operating in the closed-in Terrarium of the material world. My brain, like yours, needs to be clothed in cyberwear and to swim, float, navigate through the ocean of electronic data. (3)

From Aquaria to Terrarium to Cyberia
In our early marine forms, we lived under water. In the Devonian period (400 million years ago) we started developing the technology needed to migrate to the shoreline. During the Triassic period we evolved to the mammalian stage and lost our ability to inhabit Aquaria. Then, during the last million or so years, human beings developed enormous brains that we did not know how to operate. And for thousands of years, the more poetic or neurologically advanced among us have gazed upward on starry nights, beginning to realize that another universe exists in space and that we are trapped in the Terrarium of Earth’s surface. Or what’s a heaven for?
Around 1900, physicists (Einstein, Heisenberg, etc.) demonstrated that the elements of all energy matter in the universe, out there or down here, consist of quanta of information. Light. During the Roaring 20th Century, the equations of quantum physics led to the development of quantum appliances that allowed humans to receive, process, and transmit electronic images … suddenly humans were creating digital realities that were accessed on living-room screens. This universe of electronic signals, in which we now spend so much time, has been called Cyberia. Just as the fish brain had to don dry-skin terra-suits to inhabit the Terrarium, so do our primate brains to don Canaveral space suits in order to migrate into outer space. And use digital appliances in order to inhabit cyberspace. (3)

The Brain as a Digital Transmitter
As our brains evolves, it develops new vehicles and information-processing devices in order to feed its insatiable hunger for stimulation. Like any adolescent organ, the human brain requires an enormous, continual supply of chemical and electronic data to keep growing toward maturity. My brain seems to require a daily input of several billion bytes of digital (light-speed) information. My brain also requires regular diets of chemical foods. But my Very Personal Computer has transformed my brain into an output organ emitting, discharging digital information through the Terrarium window into ScreenLand. Just as the heart is programmed to pump blood, my sinewy brain is now programmed to fire, launch, transmit, beam thoughts through the electronic window into Cyberia. The screen is the revolving glass door through which my brain both receives and emits her signals. We are learning how to enter and locomote in Cyberia. Our brains are learning
Many humans will be trapped by gene-pool geography or compelled by repressive societies or seduced by material rewards and thus reside in the material-flesh world of mammalian bipeds. Oh yeah. To escape from the boredom and to rest after their onerous, mech-flesh labors, they will torpidly ingest electronic realities oozing from their screens. But they will not don cybersuits and zoom into ScreenLand.

We tri-brains who learn to construct and inhabit auto-realities spend some time in the cyberworld and some in the material-organic world.

On the skin-tissue plane, our left brains are limited to mechanical-material forms. But in ScreenLand our right brains are free to imagineer digital dreams, visions, fictions, concoctions, hallucinatory adventures. All these screen scenes are as real as a kick-in-the-pants as far as our brains are concerned. Our brains have no sense organs and no muscles. Our brains command our bodies and send spaceships to the Moon by sending signals in only one linguistic: the quantum language of zeros and ones.

We tri-brain creatures seem to be resolving that most ancient philosophic problem. Forget the quaint, mammalian dualism of mind versus body. The interplay of life now involves digital brain – body matter – digital screen.

Everything – animal, vegetable, mineral, tangible, invisible, electric – is converted to digital food for the info-starved brain. And now, using the new digital appliances, everything that the brain-mind can conceive can be realized in electronic patterns.

To be registered in consciousness, to be “realized,” every sensory stimulation must be deconstructed, minimalized, digitalized. The brain converts every pressure signal from our skins, tickles from our genitals, delectables from our tongues, photons from our eyes, sound waves from our ears, and, best of all, electronic buzziness from our screens into quantum realities, into directories and files of 0/1 signals.

We tri-brain amphibians are learning how to use cyberware (computer suits) to navigate around our ScreenLands the way we use the hardware of our bodies to navigate around the material-mechanical world, and the way we use spacehips and space suits to navigate around the outer space. (4)

A Definition of “Spiritual” Could Be “Digital”

Recite to yourself some of the traditional attributes of the word “spiritual”: mythic, magical, ethereal, incorporeal, intangible, nonmaterial, disembodied, ideal, platonic [TL]. Is that not a definition of the electronic-digital? (5)

Can We Engineer Our Souls?

Can we pilot our souls?

The quantum-electronic universe of information defines the new spiritual state. These “spiritual” realms, over centuries imagined, may, perhaps, now be realized! The more philosophic among us find this philosophically intoxicating. (5)

Amphibians Will Not Neglect the Body

Those of us who choose the amphibian option will spend some of our waking hours suited up and moving around in the cybernetic-psybernetic ScreenLand. But please don’t fret about our neglecting the wonderful body.
The first point to register is this: We tri-brains should not use our precarious fleshware to work. Is it not a sacrilegious desecration to waste our precious sensory equipment on toil, chore, drudgery? We are not pack animals, or serfs, or executive robots garbed in uniforms rushing around lugging briefcases to offices. Why should we use our priceless, irreplaceable bodies to do work that can be done better by assembly-line machines?

When we finish our work, we will take off our cybersuits, our brain clothing, and don body clothes. When we platonic migrants sweat, it will be in athletic or sensual pleasure. When we exert elbow grease, it will be in some form of painterly flourish or musical riff. When we operate oil-gulping machines, we will joyride for pleasure. The only mechanical vehicles we will actually climb into and operate by hand will be sport cars. Trains, planes, boats will be used only for pleasure cruising, and will transport our bodies for aesthetic, artistic, recreational purposes only. Our bodily postures will thus be graceful and proud, our body movements delightful, slow, sensual, lush, erotic, carnal vacations from the accelerated, jazzy cyberrealities of cyberspace, where the brain work is done. (5)

Personal Appearance in the Precious Flesh

Face-to-face interactions will be reserved for special, intimate, precious, sacramentalized events. Flesh encounters will be rare and thrilling. In the future each of us will be linked in thrilling cyberexchanges with many others whom we may never meet in person and who do not speak our phonetic-literal language. Most of our important creations will take place in ScreenLand. Taking off our cyberwear to confront another with naked eyeballs will be a precious personal appearance. And the quality of our “personal appearances” will be raised to a level of mythic drama. (5)

Common-Sense Quantum Psychology

Until 1983, when I acquired a personal computer, the principles of quantum physics always seemed, to my immature material mind, to be incomprehensible, bizarre, abstract, and totally impractical. Now that my digital brain lobes have been activated, quantum physics seems to make common sense and define a practical psychology of everyday life in the tri-brain mode.

Einstein’s theories of relativity, for example, suggest that realities depend on points of view. Instead of the static absolutes of space-time defined by material reality, quantum-brain realities are changing fields defined by quick feedback interchanges with other information sources. Our computer brainware allows us to perform Einsteinian-spiritual transformations on our laptops. (5)

Werner Heisenberg’s principle states that there is a limit to objective determinacy. If everyone has a singular viewpoint, constantly changing, then everyone creates his or her own version of reality. This gives the responsibility for reality construction not to a bad-natured biblical God, or to an impersonal, mechanical process of entropic devolution, or to an omniscient Marxist state, but to individual brains. Subjective determinacy operates in ScreenLand. Our brains create our spiritual worlds, as they say along the Ganges. We get the realities we deserve. Or preserve. Or construct. (5–6)

And now our interactivated brains can project wonderland realities onto our screens and hurl them around the globe at light speed. Notice the political implications. Quantum psychology stressing singularity of viewpoint is the ultimate democratic perspective. The screen is the window to the new
world. Who controls our screens programs the realities we inhabit. Therefore it behoves us to control our own reality screens.

These two notions, of relativity and self-determinacy, are street-smart common sense. But Einstein and Heisenberg and Max Planck and Niels Bohr lost the crowd when they said that the basic elements of the universe were bits of off/on (yin/yang) information. And that solid matter is temporary clusters of frozen information. And that when material structures are fissioned, they release energy: \( E=mc^2 \).

These brilliant physicists were explaining electronic ideas by using their hands to write with paleolithic chalk on a slab of black slate! (6)

During the next twenty to eighty years, quantum appliances became household items. The application of quantum physics to engineering produced vacuum tubes, transistors, integrated circuits, lasers, radio, television, computers. These gadgets are not intended to move “matter-energy” around. Instead, they move information. Data-buzzes. Electronic means “informational.” (6–7)

So it becomes clear that the basic “particles” that make up matter are bits of “information.” Matter is frozen information. Energy is just the dumb smoke and sweat that matter releases in its lumbering transformations. The famous formula changes to: \( I=mc^2 \), where \( I=information \).

The universe is an intelligence system, and the elements of intelligence are quanta. And suddenly we understand that the brain is an organ designed to metabolize digital information. (7)

The Popularization and Personalization of Quantum Psychology in the Roaring 20th Century

The philosophy of our century, since Peirce and Saussure, is linguistic, semiotic, semantic. So is the psychology, and the politics. Modern art, modern writing, modern music made us feel comfortable in the quantum atmosphere. The great artists dissolved representational structure, freed elements to create new forms, word patterns, sounds, and accepted the responsibility of subjective reality-formation. As Walt Disney demonstrated, the brain loves to be electronized.

And now we have interpersonal computers, Nintendo power gloves, Sega CD-ROMs, electronic bulletin boards. All of these relatively inexpensive gadgets place the power to create platonic, electronic realities in the hands of interacting individuals. (7)

The Discovery and Exploration of the Brain

The advent of psychedelic (mind opening) drugs (1960–1980) produced a widespread fascination with consciousness alteration, mind exploration, inner searching, brain-stimulation gadgets, oriental yoga – all based on quantum principles. The advent of personal and interpersonal computers, digitals editors, and audio-video gear (1976–1990) turned the average American home into an electronic-information center. At the same time, neurologists were publishing their discoveries about how neurotransmitter chemicals and electrical nets move information around the brain.

The convergence of these waves of information, the inner psychedelic and the ScreenLand cybernetic, made it possible for the first time for human beings to understand how the brain operates.
The human brain is, by auto-definition, the most powerful control communication unit in the known universe. A constellation of a hundred billion cells floating in an ocean of info-gel. The brain has no muscles and no sense organs. It is a shimmering sea swarming with microchip molecules packaged in enormous hardware neurons, all linked by chemical-electrical signals. We could not understand how the brain operates until our electrical engineers had built computers. And now we are learning how to beam our brain waves into the Cyberia of electronic reality, to think and play and work and communicate and create at this basic (0/1) level.

Our hundred-billion-neuron computers are designed to process digital signals at the rate of a hundred fifty million per second. Each neuron can unfold as many as ten thousand dendrite receptors to pick up information from its neighbors. Talk about local-area networks! Talk about Central Intelligence Activity! More information is probably exchanged per second at the site of one synapse than in the CIA headquarters in a day. If any.

This is the reality field that Plato described in the 4th Century B.C., that quantum mechanics intuited in 1900, and that we tri-brains have begun to inhabit at the end of this Roaring 20th Century. (7)

Quantum Politics: Power to the Singularities

In the 1980s the nature of the quantum politics of thought processing and the human-computer interaction was dramatically changed by the introduction and marketing of digital home appliances.

We can now create electronic realities on the other side of the screen not just with a keyboard or a joystick or a mouse. We wear the interface. We don cybergloves, cybergoggles, cybercaps, cybervests. Cybershorts! Our bodily movements create the images on our screens. We walk, talk, dance, swim, float around in digital worlds, and we interact on screens with others who are linked in our nets.

Cyberwear is a mutational technology that allows individual’s brains to experience O.O.B (out-of-body) experiences just as landware like legs and lungs permitted the fish to escape the water (O.O.W. experiences). Cyberwear will make it possible for individual Americans to cross the Merlin Wall and to meet and interact in cyberspace. (7)

The Pioneers of Cyberspace

The basic notion of O.O.B. artificial-reality appliances was introduced by Myron Kreuger and Ted Nelson in the 1970s. The nitty-gritty realities of creating and inhabiting digital universe were described in 1985 [sic] by William Gibson in his brilliant, epic trilogy Neuromancer, Count Zero, and Mona Lisa Overdrive. Gibson described the “matrix,” the dataworlds created by human digital communication. By 1989 cybernauts like Jaron Lanier, Eric Gullichsen, Joi Ito, Brenda Laurel, and Rebecca Allen were developing cyberspace realities built for two. Or more. (8)

Realities Built for Two

Many people are understandably disturbed by the idea that in the future human beings will be spending more time in PlatoLand than in Flesh Play; piloting their brain-selves inside electronic realities, interacting with other electronic humans.

Like adolescent whose hormones suddenly awaken the unused sexual cir-
cuits of the brains, we tri-brains are just now discovering that the brain is an info-organ wired, fired, and inspired to process and emit electronic signals. The main function of a computer is interpersonal communication.

Within ten years many of us will be spending almost all our screen time actively zooming around digital oceans interacting and re-creating with other tri-brains.

In ten years most of our daily operations – occupational, educational, recreational – will transpire in ScreenLands. Common sense suggests that we are more likely to find compatible brainmates if we are not restricted to local geography. (8)

The Marketing Message from the Producers of the Tribal-Culture Show

Wines, fermented grains, brain-change vines, roots, leaves, flowers containing the precious neurotransmitters prepared and administered by alchemical shamans produced the “high,” the verable, sacred, precarious transcendental state of chaotics, ecstasy, possession, revelation, trance – the mythic-genetic right-brain vision. The Holy Confusion.

You know what I’m talking about. What orgasm is to the body, this shuddering psychedelic experience is to the brain.

These intense communications, brain exchanges which Catholics call “Holy Communion,” we call the Holy Confusion. (9)

Bigger Is Apparently No Longer Better

The basic elements of the youniverse, according to quantum-digital physics, can be understood as consisting of quanta of information, bits of compressed digital programs. These elements of pure (0/1) information contain incredibly detailed algorithms to program potential sequences for fifteen billion years – and still running. These information-jammed units have only one hardware-external function. All they do is flash off/on when the immediate environment triggers a complex array of “if-if-if-if … THEN!” algorithms.

The almost invisible DNA code keeps programming and constructing improved organic computing appliances, i.e., generation after generation of better and more portable brains. A billion-year-old DNA megaprogram of invisible molecular size is much smarter than the shudderingly fragile, here-and-now brain!

The Cybernetic Brain Expects More Data in Much Less Time

This appetite for digital data, more and faster, can now be recognized as a species need. The brain needs electrons and psychoactive chemicals like the body needs oxygen. Just as body nutritionists list our daily requirements for vitamins, so will our brain-psyberneticians soon be listing our daily requirements for various classes of digital information. (14)

By the year 2000, the poorest kid in the inner city will have a thumbnail-size chip (costing a dollar) with the storage and processing power of a billion transistors. He/she will also have an optic-fiber wall socket that will input a million times more signals than the current television set. Inexpensive virtual-reality suits and goggles will allow this youngster to interact with people all over the world in any environment he or she chooses to fabricate. (14–15)

Imageneering

Now, we can don cybersuits, clip on cybergoggles, and move around in the elec-
tronic reality on the other side of the screen. Working, playing, creating, exploring with basic particles of reality – electrons.

For example, within ten years many of us will not have to “go” to work. We will get up in the morning, shower, dress in our cyberwear suits, and “beam” our brains to work.

Tomorrow our brains will soar on the wings of electrons into the offices of friends in Tokyo, then beam at light speed to a restaurant in Paris for a flirtatious lunch, pay a quick, ten-minute visit to our folks in Seattle – all without physically leaving our living rooms. In three hours of electronic, global house calls we can accomplish what would have taken three days or three weeks of lugging our brain-carrying bodies like slabs of inert flesh.

This is the information age, and the generator-producers of information are our delightful, surprise-packed brains. Just as the enormously powerful machines of the industrial age moved our bodies around, so, tomorrow, will our cybernetic appliances zoom our brains around the world at light speed. (17)

Our Brain

The best way to understand the evolution of the human race is in terms of how well we have learned to operate our brain. If you think about it, we’re basically brains. Our bodies are here to move our brains around. Our bodies are equipped with all these sensory inputs and output ports to bring information into the neurocomputer. In just the last ten years, our species has multiplied the ability to use our brain by a thousandfold.

There is the ability to boot up or add new directories. To activate the brain is called yogic or psychedelic. To transmit what’s in the brain is cybernetic. The brain, we are told by neurologists, has between seventy and a hundred buttons known receptor sites that can imprint different circuits. Certain biochemical (usually botanical) products activate those particular parts of the brain. (35)

Around 1900 Einstein came up with the idea that space and time only exist in an interactive field, and Max Planck devised a theory that the basic elements of the universe are particles of information. Then came Heisenberg’s proof that you create your own reality. And a new philosophy emerged called quantum physics, which suggests that the individual’s function is to inform and be informed. You really exist only when you’re in a field sharing and exchanging information. You create the realities you inhabit.

What’s the brain for? Why do we have this incredible instrument? Our brains want to be hooked up with other brains. My brain is only in operation when she’s slamming back and forth bytes and bits of information. Multimedia intercommunication.

The original basic dream of humanity is that the individual has divinity within.

There is this enormous power within our bio-computer brains. We are going to have to learn how to use this power, how to boot it up. (38)

How to Boot up Your Bio-Computer

The human brain, we are told, is galaxy of over a hundred billion neurons, any two of which can organize and communicate as much complex information as a mainframe computer.

Many cognitive psychologists now see the brain as a universe of information
processors. Our minds, according to this metaphor, serve as the software that programs the neural hardware (or wetware). Most of the classic psychological terms can now be redefined in terms of computer concepts. Cognitive functions like memory, forgetting, learning, creativity, and logical thinking are now studied as methods by which the mind forms “data bases” and stores, processes, shuffles, and retrieves information. Noncognitive functions such as emotions, moods, sensory perceptions, hallucinations, obsessions, phobias, altered states, possession-trance experiences, glossolalias, intoxications, visionary images, and psychedelic perspectives can now be viewed in terms of ROM brain circuits or autonomous-sympathetic-mid-brain sectors that are usually not accessed by left-brain or forebrain conscious decisions. […] The pop term “turn on” carries the fascinating cybernetic implication that one can selectively dial up or access brain sectors that process specific channels of information signals normally unavailable.

These concepts could emerge only in an electronic culture. The mystics and altered-state philosophers of the past, like the Buddha or St. John of the Cross or William James or Aldous Huxley, could not describe their visions and illuminations and ecstasies and enlightenments in terms of “turning on” electronic appliances.

There is no naïve assumption here that the brain is a computer. However, by using cybernetic terminology to describe mind and brain functions, we can add to our knowledge about the varieties of thought-processing experiences. (39)

Those young, bright baby-boom Americans, who had been dialing and tuning television screens since infancy, and who had learned how to activate and turn on their brains using chaotic drugs in serious introspective experiments, were uniquely prepared to engineer the interface between the computer and cybernetic organ known as the human brain. (40)

By 1980 millions of young Americans had become facile in digital thought-processing using inexpensive home computers. Most of them intuitively understood the best model for understanding and operating the mind came from the mix of the psychedelic and cybernetic cultures. (40–41)

Hundreds of New-Age pop psychologists, like Werner Erhard and Shirley MacLaine, taught folks how to re-program their minds, write the scripts of their lives, upgrade thought-processing. (41)

If the brain is viewed as bio-hardware, and psychedelic drugs become “neurotransmitters,” and if you can reprogram your mind, for better or for worse, by “turning on,” then new concepts and techniques of instantaneous psychological change become possible. (41)

Personal Computers, Personal Freedom

I know now that our research with psychedelic drugs and, in fact, the drug culture itself was a forecast of, or preparation for, the personal-computer age. […] Psychedelic drugs expose one to the raw experience of chaotic brain function, with the protections of the mind temporarily suspended. We are talking here about the tremendous accelerating of images, the crumbling of analog perceptions into vapor trails of neuron off-on flashes, the multiplication of disorderly mind programs slipping in and out of awareness like floppy disks.

The seven million Americans who experienced the awesome potentialities of the brain via LSD certainly paved the way for computer society. (42)
Evolution/Revolution

Digital-graphic appliances are developing a partnership between human brains and computers. In evolving to more physiological complexity, our bodies formed symbioses with armies of digestive bacteria necessary for survival. In similar fashion, our brains are forming neural-electronic symbiotic linkups with solid-state computers. (42)

Childhood’s End?

It seems clear that we are facing one of those genetic crossroads that have occurred so frequently in the history of primates. The members of the human gene pool who form symbiotic links with solid-state computers will be characterized by extremely high individual intelligence and will settle in geographic niches that encourage individual access to knowledge-information-processing software.

New associations of individuals linked by computers will surely emerge. Informations nets will encourage a swift, free interchange among individuals. Feedback peripherals will dramatically expand the mode of exchange from keyboard punching to neurophysiological interaction. The key word is, of course, “interaction.” The intoxicating power of interactive software is that it eliminates dependence on the enormous bureaucracy of knowledge professionals that flourished in the industrial age.

It is not exaggerated to speculate about the development of very different postindustrial societies. […] If we are to stay free, we must see to it that the right to own digital data processors becomes as inalienable as the constitutional guarantees of free speech and a free press. (43)

A Universe of User-Friendly Bits and Bytes

The great philosophic achievement of the 20th Century was the discovery, made by nuclear and quantum physicists around 1900, that the visible-tangible reality is written in BASIC. We seem to inhabit a universe made up of a small number of elements-particles-bits that swirl in chaotic clouds, occasionally clustering together in geometrically logical temporary configurations.

In 1989 we navigate in a reality of which Niels Bohr and Werner Heisenberg could only dream, and which Marshall McLuhan predicted. It turns out that the universe described in their psychedelic equations is best understood as a super mainframe constellation of information processor with subprograms and temporary ROM states, macros called galaxies, stars; minis called planets; micros called organisms; metamicros known as molecules, atoms, particles; and, last, but not least, micros called Macintosh.

It seems to follow that the great technological challenge of the 20th Century was to produce an inexpensive appliance that would make the chaotic universe “user friendly,” which would allow the individual human to digitize, store, process, and reflect the subprograms that make up his/her own personal realities. (44)

Murmur the word “Einstein,” put your hand reverently on your mouse, and give it an admiring pat. Your modest, faithful, devoted Mac is an evolutionary celebrity! It may be an advance as important as the opposable thumb, face-to-face lovemaking, the Model-T Ford, the printing press! Owning it defines you as member of a new breed – postindustrial, postbiological, post-human – because your humble VM (Volks-Mac) permits you to think and act in terms of
clusters of electrons. It allows you to cruise around in the chaotic post-Newtonian information ocean, to think and communicate in the lingua franca of the universe, the binary dialect of galaxies and atoms. Light. (45)

A Philosophical Appliance Conceived by Quantum Physicists
Quantum physics is quite literally a wild trip! It postulates a hallucinatory Alice-in-Wonderland universe in which everything is changing. (45)

In retrospect we see that the first seventy-five years of the 20th Century were devoted to preparing, training, and initiating human beings to communicate in quantum-speak, i.e., to think and act at an entirely different level – in terms of digital clusters.” (44–46)

The Role of the Free Agent in the Computer Culture
Those who like to think for themselves (let’s call them free agents) tend to see computers as thought-appliances. “Appliance” defines a device that individuals use in the home for their own comfort, entertainment, or education. (49)


Free agents use their minds not to perform authorized duties for the Soviet state or the International Bureaucracy Machine, but for anything that damn well suits their fancies as Americans. In the old industrial civilization you called yourself a worker, but in the information age you’re a free agent. As you develop your agency, you develop your skills in communication.

Personal Computer owners are discovering that the brain is:

– the ultimate organ for pleasure and awareness;
– an array of a hundred billion microcomputers waiting to be booted up, activated, stimulated, and programmed;
– waiting impatiently for software, headware, thoughtware that pays respect to its awesome potential and makes possible electronic internet linkage with other brains. (50)

The Cyberpunk: The Individual as Reality Pilot
“Cyber” means “pilot.”

A “cyberperson” is one who pilots his/her own life. By definition, the cyberperson is fascinated by navigational information – especially maps, charts, labels, guides, manuals that help pilot one through life. The cyberperson continually searches for theories, models, paradigms, metaphors, images, icons that help chart and define the realities that we inhabit.


“Cyberpolitics” introduces the Foucault notions of the use of language and linguistic-tech by the ruling classes in feudal and industrial societies to control children, the uneducated, and the under classes. The word “governor” or “steersman” or “G-man” are used to describe those who manipulate words and communication devices in order to control, to bolster authority – feudal, management, government – and to discourage innovative thought and free exchange. (62)
Who is the Cyberpunk?

Cyberpunks use all available data-input to think for themselves. (62)

Every stage of history has produced names and heroic legends for the strong, stubborn, creative individuals who explore some future frontier, collect and bring back new information, and offer to guide the human gene pool to the next stage. Typically, these time mavericks combine bravery, and high curiosity, with super self-esteem. These three characteristics are considered necessary for those engaged in the profession of genetic guide, aka counterculture philosopher. (62–63)

The classical Olde Westworld model for the cyberpunk is Prometheus, a technological genius who “stole” fire from the Gods and gave it to humanity.

Self-assured singularities of the cyberbreed have been called mavericks, ronin, freelancers, independents, self-starters, nonconformists, oddballs, troublemakers, kooks, visionaries, iconoclasts, insurgents, blue-sky thinkers, loners, smart alecks. Before Gorbachev, the Soviets scornfully called them hooligans. Religious organizations have always called them heretics. Bureaucrats call them disloyal dissidents, traitors, or worse. In the old days, even sensible people called them mad.

They have been variously labelled clever, creative, entrepreneurial, imaginative, enterprising, fertile, ingenious, inventive, resourceful, talented, eccentric. (63)

The cyberpunk person, the pilot who thinks clearly and creatively, using quantum-electronic appliances and brain know-how, is the newest, updated, top-of-the-line model of the 21st Century: Homo sapiens cyberneticus [TL]. (64)

The Greek Word for “Pilot”

The term “cybernetics” comes from Greek word kubernetes [TL], “pilot.”

The Hellenic origin of this word is important in that it reflects the Socratic-Platonic traditions of independence and individual self-reliance which, we are told, derived from geography. The proud little Greek city-states were perched on peninsular fingers wiggling down into the fertile Mediterranean Sea, protected by mountains from the land-mass armies of Asia.

Mariners of those ancient days had to be bold and resourceful. Sailing the seven seas without maps or navigational equipment, they were forced to develop independence of thought. The self-reliance that these Hellenic pilots developed in their voyages probably carried over to the democratic, inquiring, questioning nature of their land life.

The Athenian cyberpunks, the pilots made their own navigational decisions.

These psychogeographical factors may have contributed to the humanism of the Hellenic religions that emphasized freedom, pagan joy, celebration of life, and speculative thought. The humanist and polytheistic religions of ancient Greece are often compared with the austere morality of monotheistic Judaism, the fierce, dogmatic polarities of Persian-Arab dogma, and the imperial authority of Roman (Christian) culture. (64)

The Roman Concept of Director, Governor, Steersman

The Greek word kubernetes [TL], when translated to Latin, comes out as gubernates [TL]. This basic verb gubernare [TL] means to control the actions or behavior, to direct, to exercise sovereign authority, to regulate, to keep under, to restrain, to steer. This roman concept is obviously very different
from the Hellenic notion of “pilot.” (64)

Cyberpunk Pilots Replace Governetics-Controllers
The word “cybernetics” was coined in 1948 by Norbert Wiener, who wrote, “We have decided to call the entire field of control and communication theory, whether in the machine or in the animal, by the name of Cybernetics, which we form from the Greek for steersman.

The word “cyber” has been redefined (in the American Heritage Dictionary) as “the theoretical study of control processes in electronic, mechanical, and biological systems, especially the flow of information in such systems.” The derivative word “cybernate” means “to control automatically by computer or to be so controlled.”

An even more ominous interpretation defines cybernetics as “the study of human control mechanisms and their replacement by mechanical or electronic systems.”

Note how Wiener and the Romanesque engineers have corrupted the meaning of “cyber.” The Greek “pilot” becomes “governor” or “director”; the term “to steer” becomes “to control.”

Now we are liberating the term, teasing it free from serfdom to represent the autopoetic, self-directed principle of organization that arises in the universe in many systems of widely varying sizes, in people, societies, and atoms. (65)

Our Oppressive Birthright: The Politics of Literacy
The etymological distinctions between Greek and Roman terms are quite relevant to the pragmatics of the culture surrounding their usage. French philosophy, for example, has recently stressed the importance of language and semiotics in determining human behaviour and social structures. (65)

Orwell and Wittgenstein and McLuhan agree. To remove the means of expressing dissent is to remove the possibility of dissent. “Whereof one cannot speak, thereof must one remain silent.” In this light the difference between the Greek word “pilot” and the Roman translation “governor” becomes a most significant semantic manipulation, and the flexibility granted to the symbol systems of all kinds by their representation in digital computers becomes dramatically liberating. (65–66)

Do we pride ourselves for becoming ingenious “pilots” or dutiful “controllers”? (66)

Who, What, and Why is Governetics
The word “governetics” refers to an attitude of obedience-control in relationship to self and others.

Pilots, those who navigate on the seven seas or in the sky, have to devise and execute course changes continually in response to the changing environment. They respond continually to feedback, information about the environment. Dynamic. Alert. Alive.

The Latinate “steersman,” by contrast, is in the situation of following orders. The Romans, we recall, were great organizers, road-builders, administrators. The galleys, the chariots must be controlled. The legions of soldiers must be directed.

The Hellenic concept of the individual navigating his/her own course was an island of humanism in the raging see of totalitarian empires. (66)
Cyberpunks: Pilots of the Species.
The terms “cybernetic person” or “cybernaut” return us to the original meaning of “pilot” and puts the self-reliant person back in the loop. These words (and the more pop term “cyberpunk”) refer to the personalization (and thus the popularization) of knowledge-information technology, to innovative thinking on the part of the individual.

“Cyberpunk” is, admittedly, a risky term. Like all linguistic innovations, it must be used with a tolerant sense of high-tech humor. It’s a stopgap, transitional meaning-grenade thrown over the language barricades to describe the resourceful, skilful individual who accesses and steers knowledge-communication technology toward his/her own private goals, for personal pleasure, profit, principle, or growth. (67)

The Cyberpunk Code: TFYQA

*War Games* is an electronic quantum signal, a movie about high-tech computers and human evolution that illustrates and condemns the use of quantum-electronic knowledge technology by governors to control. The film celebrates the independence and skill of cyberpunks who think for themselves and innovate from within the static system. The Captain and his wife use high-tech agriculture methods to enhance the potency of unauthorized botanical neuroactivators. The Captain makes an unauthorized decision to abort World War III. In both instances the Captain follows the cyberpunk code: Think for yourself; question authority (TFYQA) [TL]. (69)

The Cyberpunk as Role Model for the 21st Century

The tradition of the “individual who thinks for him/herself” extends to the beginnings of recorded human history. Indeed, the very label of our species, *Homo sapiens* [TL], defines us as the animals who think.

If our genetic function is *computare* [TL] (“to think”), then it follows that the ages and stages of human history, so far, have been larval or preparatory. After the insectoid phases of submission to gene pools, the mature stage of the human life cycle is the individual who thinks for him/herself. Now, at the beginning of the information age, are we ready to assume our genetic function?

The “good persons” in the cybernetic society are the intelligent ones who can think for themselves. The “problem person” in the cybernetic society of the 21st Century is the one who automatically obeys, who never questions authority, who acts to protect his/her official status, who placates and politics rather than thinks independently. (69)

The New Breed

*The postpolitical information society*, which we are now developing, does not operate on the basis of obedience and conformity to dogma. It is based on individual thinking, scientific know-how, quick exchange of facts around feedback networks, high-tech ingenuity, and practical, front-line creativity. The society of the future no longer grudgingly tolerates a few open-minded innovators. The cybernetic society is totally dependent on a large pool of such people, communicating at light speed with each other across state lines and national boundaries. Electrified thoughts invite fast feedback, creating new global societies that require a higher level of electronic know-how, psychological sophistication, and open-minded intelligence.

This cybercommunication process is accelerating so rapidly that to compete
on the world information market of the 21st Century, nations, companies, even families must be composed of change-oriented, innovative individuals who are adepts in communicating via the new cyberelectronic technologies. The new breeds are simply much smarter than the old guard. They inhale new information the way they breathe oxygen. They stimulate each other to continually upgrade and reformat their minds. People who use cybertechnology to make fast decisions on their jobs are not going to go home and passively let aging, closed-minded white, male politicians make decisions about their lives.

The emergence of this new open-minded caste in different countries around the world is the central historical issue of the last forty years. The beats stood for the ecstatic vision and for individual freedom in revolt against all bureaucratic, closed-minded systems. They saw themselves as citizens of the world. They met with Russian poets to denounce the Gold War. They practiced oriental yoga. They experimented, as artists have for centuries, with mind-opening foods and sexual practices. Most important, with their minds turning like satellite dishes to other cultures, they had a historical sense of what they were doing. They saw themselves as heirs to the long tradition of intellectual and artistic individualism that goes beyond national boundaries. (74–75)

3.3.2 Leary, Cybernetics and the Ecstasy of the “Cyber”

As we can see, Leary stands between Wienerian cybernetics and the post-Gibsonian “cyber.” While cybernetics, as it was conceived of by Wiener in his interdisciplinary research projects, was a proto-posthuman endeavour to translate living organisms (human beings included) into the terms of the machine, and, by that, turn them into objects of information, communication and control engineering, and while in Gibson’s science-fictional cyber-world we are moving in the virtual reality of cyberspace by means of prosthetic technologies, what we have in the case of Leary is semi-fictional life politics in the name of neuroscience, brain studies and drug experimentation in which science, science fiction and psychedelic language amalgamate into a New Age vision of a present future.

Of course, Leary's cyberdelic world is not equal with Haraway’s (1997: 22) “family romance, or a scholarly soap opera, set in a kind of critical General Hospital or theoretical Dallas,” but, nevertheless, they belong to the same continuum, the discursive lineage between science fiction and postmodern scientism (cf. Teilhard de Chardin 1959). In both of them we can enjoy the extraordinary pleasure of what David J. Gunkel (2007) calls “thinking otherwise.” That is, the serendipity of linguistic figuration in the mode of whimsical, hyperbolic and extravagant writing as a techno-euphoric variation of writing in the mode of écriture constitutive of post-theory is what cyber discourse has inherited from Leary, the single most important cyberist before the post-Gibsonian cyber-mantra. In other words, in the world of the “cyber,” we are on a trip.
From Leary to Haraway: From the Pilot to the Cyborg

In his very person, Leary is an embodied interface, a multimodal mediator, between people and ideas, indeed, between worlds, in a cultural constellation that emerged after the Second World War when science, scientism and science fiction finally and irreversibly lost their constitutive differences, their intrinsic boundary lines; that is, the technoscientific constellation constitutive of American culture as the Ur-form of the postmodern in the Jamesonian sense (see Jameson 1991; cf., for example, Seidman 1994a: 13–15; Jagodzinski 1997: 11–58; Zammito 2004: 183–231). In this sense, Leary, in his idiosyncratic mode of existence, is an emblematic figure embodying the postmodernization of scientific thought characteristic of American technoculture (from the perspective of language, literature and technology, see, for example, Hassan 1975: 49, 54–56, 151–176, 1977: 212–216, 1982 [1971]: 267–272; Porush 1985; McHale 1987, 1992; Cahoone 1996; Tabbi 1996; Lucy 1997; Tabbi & Wutz 1997; Bertens & Natoli 2002; Conte 2002; for the historical background of this development in terms of modernization theory in Cold War America, see Gilman 2003; for the political culture of Cold War America, see Appy 2000).

Having acquired a scientific education, Leary had, of course, a comprehensive understanding of biology, psychology, physics, and also of cybernetic thought that was a kind of lingua franca in America at the time in the field of information and communication sciences and engineering, as well as in burgeoning computer science, and later artificial intelligence research (see, for example, Edwards 1996: 239–274; Heims 1993 [1991]; Hughes & Hughes 2000; Gerovitch 2002a; Hammond 2003; Pias 2003, 2004; Franchi & Güzeldere 2005a; Pickering 2005, 2009; Ramage & Shipp 2009; for feedback, control and computing before cybernetics, see Mindell 2002). The scientific experimentation with LSD and other psychedelic substances, intensively pursued for several years by Leary during his career as a professor of psychology at Harvard University in the 1960s (see, for example, Stevens 1987: 121–170, 180–215; Lee & Shlain 1992 [1985]: 73–88; Farber 2002: 21–23; Dyck 2008: 107–113; Lattin 2011), gave Leary important insights into the operation of the mind and the brain (see Greenfield 2007: 178–205). American psychology, generally oriented according to the principles of behaviorism and a machine-like understanding of the human being (see, for example, Boden 2006: 51–233; Schwitzgebel & Schwitzgebel 1973;
Heims 1975; Smith & Woodward 1996), was, by and large, the scientific framework of Leary’s research work (for the connections between LSD, CIA and the Macy conferences of cybernetics, see Heims 1993 [1991]: 167–168).

Thus, what for Haraway is the cyborg is for Leary the “pilot”: the “cyberperson” as the model of the post-biological rebirth of the subject as an independent and self-reliant individual empowered by means of new technology constituting the origin of a new “breed” (cf. Jahshan 2007: 79–80). Conversely, like Leary’s pilot, Haraway’s cyborg implies a techno-sociobiological vision of a higher form of the living being; in other words, the idea of the posthuman. For both of them, this vision is based on a neo-religious conversion experience; that is: *I have seen the light, I am the prophet of New Life, the messenger of redemption*. In this sense, like Haraway, Leary speaks the language of the future – a language that, similar to Haraway’s cyborg gospel, has the message in its linguistic mode, in its mythopoetic fabulation, in its exulted diction, in its evangelistic rhetorics. For both of them, an idiosyncratic language means a political programme – a post-Nietzschean politics of ecstasy, a Dionysian vision of New Life as a post-Darwinian, technologically enhanced *Übermensch* (see Nietzsche 1968a [1883–1885]: 8–10, 143–145, 1968b [1886]: 21–22, 31–33, 1968c [1887]: 332, 1973a [1882/1887]: 267–268; cf. Gebauer 2001b), a technoscientific super-human promising an all-encompassing increase of the forces of life (see, for example, Ansell Pearson 1997: 9–22, 85–122; Conway 1997: 18–25; Ivanceanu & Schweikhardt 1997: 202–209; Gray 2005: 140–141; Irrgang 2005: 9–10, 23–26; Dixon 2008: 445–470; Früchtl 2009: 181–209; for a historical contextualization, see, for example, Febel & Bauer-Funke 2004; Kormann et al. 2006).

In its own way, Leary’s vision of the pilot is his self-portrait, just as the cyborg is the mirror of Haraway. For both of them, what is at issue is a postmodern ego-politics; that is: as a technologically enhanced post-subject, absorbed by the idea of my own perfectibility, I am the opposite of Dorian Gray, the positive negation of this personification of degeneration, the obsession of nineteenth-century scientific rationalism. Instead of becoming a little worse every day, I am becoming better and better all the time, step by step I am constantly nearing the ideal, the pilot as the guide and governor of my own life; a new life as a personal project, a project of writerly self-creation (cf. Foucault 1990a [1984]; in terms of Harawayan “cyborg writing,” cf. Haraway 1991a: 175; Graham 2002: 200–220; Yaszek 2002: 14–15; Schneider 2005: 61–62, 73–75; in the context of *écriture féminine*, cf., for example, Osinski 1998: 151–167); life as one’s own *Bildungsroman*. This is the ideology of the ego-politics of the postmodern subject in terms of cyber discourse: in my rationally organized project of scientific-technological self-management, I am a cyberperson able to control myself and my environment to become more stronger and intelligent, to achieve a better performance capacity, to have more pleasure in life – to exceed the limits of my biological constitution (from the perspective of New Age “self-enhancement,” cf., for example, Heelas 1996: 30–31, 87–88, 93–96, 1999: 54–62; Ziguras 2004:

This is the ethos of both the Learyan and Harawayan ego-politics of becoming, a curious variation of Deleuze-Guattarian incantation of infinite becoming (cf. Deleuze & Guattari 2000 [1980]: 232–309; Braidotti 1994a, 1994b, 2002, 2006; Brassett 1997), the post-political imperative of the becoming of becoming, the Eros of ultra-individualism: a pop-Nietzschean vision of the self as its own raison d’être, its own foundation and legitimation (cf. Ross 1991a: 162–164); paradoxically, a strong and self-centred self in the era of the postmodern “decen

Leary, Neuropolitics and the Way to Illumination

The key to Leary’s vision is his techno-euphoric, hallucinogenic language, his psyche/cyberdelic mantra, a language of narcissistic self-affirmation: the world is the self is the world, the world is my world made by myself. This is, similarly to the self-absorbed, obsessive self-management pursued by the New Age movement (see, for example, Hanegraaff 1996; Heelas 1996; Heelas et al. 1998; Sutcliffe 2003), the auto-poetics of the subject in the mode of the New Edge (see Rucker et al. 1992; for an incisive critique, see Sobchack 1994), the liturgy of self-becoming based on the principle: you are what you say you are: you say what you are: I am a master of the universe: the universe of myself. This is the politics of the cyborg avant la lettre: I am God: I am the God of myself, I am the God of my own becoming. Let there be no other gods.

This is the idea inscribed in Leary’s idiosyncratic language: by means of linguistic incantation, an incessant repetition of the magic word “the cybernetic,” Leary purports to bring the forces of cosmos on his side (for instances of the cyborg mantra, cf., for example, Gray et al. 1995a, Wolmark 1999a; Bell & Kennedy 2000; Gray 2001; Flanagan & Booth 2002).

The constitutive onto-epistemological rationale of cybernetics is control: there is nothing cybernetic without control. In this sense, the cyborg, as a postmodern cybernetic organism, is a paradigmatic embodiment of the control principle inscribed in the very idea of cybernetics: the cyborg is the very paragon of control. As the prosthetic “Other” of the human, the cyborg is the post-Christian “body and soul” of the posthuman. That is, the self-otherness of the posthuman is its non-identitarian identity, the technoscientific post-identity of the cyborg.

As we can see, there is a way from the Learyan pilot to the Harawayan cyborg. The cyborg is the ultimate consummation of the pilot, its intrinsic telos, its post-logical finality. Thus, in the name of Leary, the master-pilot of technometamorphosis: only the cyborg can save us now.

The self-programming under the trinity of biology-technology-language (cf. Foucault 1989 [1966]: 250–302) is a quasi-Deleuze-Guattarian “line of flight” in Leary’s cosmogony (cf. Deleuze & Guattari 2000: 108–138, 188–231, 275–341). This is the line of “argumentation” attempting to enact a post-biological evolution by way of a self-referential linguistic mantra: a self-construction by discursive self-suggestion similar to Haraway’s cyborg politics in the mode of “cyborg writing” as a techno-biological vision of the future; a vision that suggests a post-evolutionary evolution as a technological process: from the human being to a post-biological body-machine hybrid in the same manner as Stelarc enacts the posthuman in and by his performances (see, for example, Stelarc 1991, 1992, 1997, 1998, 2002a, 2002b, 2002c), which cyber/post-theorists like to see as manifestations of the idea of “the cybernetic,” of course, in its postmodern form (see, for example, Clarke 2002: 37–38, 44; Scheer 2002: 85–86, 88–89, 91, 97; Murphie & Potts 2003: 131–137; Munster 2006: 132–135; Goodall 2000; Zurbuegg 2000b; Appleby 2002; Farnell 2002a, 2002b; Poster 2002; Smith 2005; Salter 2010). All this is recapitulated, time and again, in the mesmerizing politics of language typical of cyber discourse, the technophilic mantra of ego-empowerment conjuring up a post-biological self-creation in the name of the “cyber,” a post-futuristic gospel of technoscientific redemption of the human by the advent of the posthuman.

Leary’s vision of the pilot is basically a cerebral conception of existence: the brain is the “central organ” of the self (cf. Davis 1998; from the perspective of science history, cf. Hagner 2008 [1997]; in the historical context concerning the idea of the cybernetic, cf. Hagner & Hörl 2008); that is, you are what your brain is: the brain is your “bio-computer” controlling and regulating your becoming, your “being” as the becoming of your brain-ego. In this respect, Learyan language is a cerebral language, the language of the brain that presents neuropsy-
chole at as the politics of the self. This is the idea of what Leary calls “neuropolitics,” the idea of the brain as the central point of the universe (see Leary et al. 1977; Leary et al. 1988; cf., for example, White 1993; Connolly 2002; in the context of “transhumanism,” cf. Young 2006; in terms of “escaping death” by way of a “lift-off” into space, cf. Romanyszyn 1992 [1989]: 27–28). While, for McLuhan (1964), technology means an externalization of the central nervous system, for Leary the pilot implies an internalization of brain/psycho-technologies, a pharmaceutical-technological enhancement of brain capacities, a prosthetic extension of the brain as a global network of the body. In other words, Leary’s pilot politics implies a postmodern reading of cybernetics: Wiener re-read through McLuhan’s universe, that is, cybernetics “enlightened” by LSD (in terms of “narcotic” writing as a “hallucinogenre” in the context of postmodern theory, cf. Ronell 1993: 61–65; Wolf 1990; Slawney 1994).

Choose your brain, choose yourself – that is the techno-futuristic ethos of Leary’s pilot, the post-ethical imperative of the neuropolitical reorganization of the world in the name of technoscientific ego-politics. From here, it is only a small step to the postmodern politics of the cyborg, the politics of the posthuman self-transformation of one’s self into a cyborgian post-subject.

In this manner, the idea of the psychedelic is inscribed in the cyberdelic, the cyberdelic in the mode of LSD-cybernetics: a visionary way of seeing things, a kind of post/pop-Husserlian Wesensschau (cf. Husserl 1980 [1913]; Kockelmans 1994: 139–143): instead of analysis and argumentation, a “direct seeing” of “truth,” an imaginative process of “ideation” or “eidetic reduction” understood as linguistic figuration. In other words, a neo-religious language of revelation in the manner of pop-religious experience that turns the psychedelic experience into a continuous initiation rite, a psychopolitical rite de passage, the key to the becoming a higher form of being (cf. van Gennep 1960 [1909]). This is the idea of “the cybernetic” in the techno-imaginary of the “cyber,” a realm of the surrational hovering between Wiener and Haraway; that is, a way of speculation in the form of being on the trip away from scientific stringency to mythopoetic chaos thinking; a subversive deconstruction of the “authoritarian” language of the hard sciences; a thrust towards a visionary manner of understanding: a postmodern way of being “illuminated.”

To sum up, the Learyan politics of language is a postmodern newspeak (cf. Orwell 1989 [1949]: 312–326), a libidinal language of “the cybernetic,” and, as such, a central source of all that is “cyber” in cyber discourse.
3.4 Words as Deeds, or, Sex and Gender in Cyberspace

In cyberspace we are all cyborgs released from social convention and free to behave badly. Just as the technology is regarded as being out of control, so are the post-humans who inhabit it.

Sarah Kember (1996: 254)

While the notion that technologies are prostheses, expanding existing organs and fulfilling desires, continues to legitimize vast swathes of technical development, the digital machines of the late twentieth century are not add-on parts which serve to augment an existing human form. Quite beyond their own perceptions and control, bodies are continually engineered by the processes in which they are engaged.

Sadie Plant (1997b: 182)

If gender is a cultural construction (see, for example, Buttler 1990, 1993; von Braun & Stephan 2000, 2005; Villa 2003, 2006 [2000]; Degele 2008; from a historical perspective, see Bublitz 1998; Bublitz et a. 2000; in terms of primatology, see Haraway 1990; for a critical discussion, see Hacking 1999), what, then, is sex? In other words, is orgasm an effect of discourse?

What is it that is asked in these questions? These questions, in fact, presuppose what they ask: “cultural construction” and “discursive effect” are both as such, in themselves, cultural constructions and discursive effects; namely, to say that something is “culturally constructed” or “effected by a discourse” implies that there is a world in which something, whatever it happens to be, can become “culturally constructed” or “discursively effected” (cf. Stein 1990b: 5–7). There is such a world, indeed. It is the world of language. In the world of language, everything is possible; it is a nominalistic world: you name a thing and you have it. Language does not have boundaries; naming is a manifestation of a position, an act denomination. As a corollary, a question, as a linguistic device, always implying a focus or perspective, defines the frame in which an answer becomes possible; “impossible” answers – answers that are “beside the point” – do not follow the rules set by the frame (cf. Wittgenstein 1995a [1953]: 248–251, 254, 2002 [1922]: 186–187; Goeres 2000: 41–42). Such questions not only call the framing question into question, but they also question the frame itself.

In these terms, the question here is whether both gender and sex, precisely as cultural constructions and discursive effects, are not only constructed and

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20 It is appropriate to recollect here that to conceive of all reality as a “construction” already has traditions in sociology; at least from Simmel on, the very idea of the social is something that exists only as a result of a kind of cultural agreement: we are never “constructed” as social beings alone but in and through relationships to others (see Simmel 1968 [1908]). In cultural studies, however, since what is called the “linguistic turn” (Rorty 1992a [1967]: 3–39; Bonnell & Hunt 1999b: 8–9; Taylor 2000: 39–47; Rajan 2002a: 4–8, 34–39, 123–136; Chow 2006: 1–24; for a historical articulation of “linguistic turns in modern philosophy,” see Losonsky 2006), the emphasis has shifted to language: not the social, but the linguistic is now what determines how we are “culturally constructed” and/or in which way our mode of being is a “discursive effect” (cf., for example, Butler 1993: 1–22; Dean 2000: 75; Booth & Flanagan 2002: 15; Blackman 2008: 72–76).
effected by the very theory that postulates them as “cultural constructions” and “discursive effects”; but, more fundamentally, the question is whether gender and sex are always already cultural constructions and effects of discourse, provided that they are named in such a way – as gender or sex – in the first place (cf. Caplan 1987; Stein 1990a; Seidman 2003)? That is, similarly to “gender” and “sex,” “cultural construction” and “discursive effect” are specific terms enabled by language. In language, there is nothing natural. Language is predicated upon culture which, conversely, is predicated upon language.

If this is the way sex and gender as “sex” and “gender,” among other things, are not only constituted, but become intelligible in what we innocently call “real life” – “RL” in cyberspace jargon – how are they to be understood in terms of the “cyber”?

3.4.1 “Sexual Congress” as an “Exchange of Signifiers”

If, indeed, “RL is just one more window,” as an interviewee in Sherry Turkle’s (1995: 13) study concerning “life on the screen” tells her, adding that “it’s not usually my best one,” then, what happens in this context to sex and gender, these contested corporeal attributes that – as stated above – are always already coded culturally and discursively in a double way? In short, what are sex and gender in cyberspace – provided, of course, that we know where exactly what we call “cyberspace” is?

“The use of the term ‘cyberspace’ to describe virtual worlds grew out of science fiction,” Turkle remarks, “but for many of us, cyberspace is now part of the routines of everyday life” (ibid.: 9; cf., for example, Dery 1996: 55–56, 82–86, 280–281; Hillis 1996: 86–92; Lajoie 1996: 164–166; Cheser 1997: 80–81; Cooper 1997: 96–100; Bell 2001a: 21–26; Benedikt 1994 [1991]). Not only that, according to Turkle, “we are in cyberspace” when “we read our electronic mail or send postings to an electronic bulletin board or make an airline reservation over a computer network” (Turkle 1995: 9; emphasis mine); more importantly, in cyberspace “we can talk, exchange ideas, and assume personae of our creation” (ibid.; emphasis mine; cf., for example, Stone 1994b [1991]: 99–111, 1995e: 65–81; Wakeford 1999: 182–188; Žižek 1999c: 110–116). This is a world in which we can dream up for us not only “a second and a third body” (Rötzler 1998c), but a multitude of ever-new bodies everyday. In this manner, according to Turkle (1995: 9), cyberspace is a realm in which we have an “opportunity to build new kinds of communities, virtual communities, in which we participate with people all over the world, people with whom we converse daily, people with whom we may have fairly intimate relationships but whom we may never physically meet” (emphasis mine; cf. Rheingold 1993; Bruckman 1996 [1993], 2001 [1998]; Bruckman & Resnick 1996 [1995]; for a critical discussion, see Willson 2006).

This is the way in which we are “learning to live in virtual worlds” (Turkle 1995: 9). In this sense, according to Turkle, the computer today is not only a “tool”;

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it also offers us “both new models of mind and a new medium on which to project our ideas and fantasies,” and now the “computer has become even more than tool and mirror”: we are “able to step through the looking glass” (ibid.; emphasis mine; cf. Lacan 1977f [1966/1949]; Coyne 1999: 221–235) – whereto? In cyberspace, of course. But if “sex” and “gender” are “cultural constructions” and, as such, “discursive effects,” what else is “cyberspace” if not yet another “cultural construction” and, as such, a “discursive effect” in the same manner as “sex” and “gender”?

How Did Postmodernism Find Its Objects?

To step through the looking glass – as we remember, that is how Alice, whom we know from her “adventures in Wonderland” (Carroll 1994a [1865]), experienced another world beyond the mirror, precisely by stepping “through the looking glass” (Carroll 1994b [1872]; cf. Pister 2003: 107–134; in terms of literary language, cf. Schwab 1994; from the perspective of postmodern philosophy, cf. Davis 2010; in the Deleuzian context, cf. Lampert 2006: 98–112). There, in the “Looking-glass House” (Turkle 1995: 18), everything was different, although, oddly enough, quite similar: “there’s the room you can see through the glass that’s just the same as our drawing-room, only the things go the other way” (ibid.: 18–19). But, as Alice assumes, “that may be only pretence,” just to make things “look as if” (ibid.; emphasis mine).

Now, the question here, in my reading, is whether it is reality in itself that is as if, or whether the theory that is referring to this “reality” is in itself as if, only without stating that expressis verbis. In other words, what is at issue in Turkle’s construction of cyberspace as a “looking glass” in terms of the fantasy world created by Lewis Carroll is a typical problem of post-theory: an as-if-world is taken as a reality, not as a fictional reality, an imaginative creation, but as our everyday reality which we are living in; a world in which a looking glass is a looking glass, not a gate to an enchanted world (except, of course, in imagination). That is, in the world of post-theory, a story world is conflated with the real world. Thus, the question is: if, as Turkle says above, in “virtual worlds,” being there in cyberspace, we can “assume personae of our creation,” are these “our creations” us, or is that precisely the classical problem which Freud encountered concerning the question as to whether the “unconscious” is more than just une façon de parler (Freud 1993a [1925/1924]: 61), that is, something real in terms of psychic reality having somatic effects. In other words, do we really become other persons when entering cyberspace, or is this only a way to speak about cyberspace, an idiomatic expression peculiar to cyber discourse?

For Turkle, this question does not exist. Why? Because her own discourse has set the frame in which such a question is not possible. That is, in Turkle’s theory, as a theory which she does not thematize as a theory, epistemology implode onto ontology. As a result, “cyberspace,” the constitutive premise of Turkle’s theory, turns into an ontological existence, which, in turn, is discussed in theo-
retical terms in a manner that conceals its own premises as a theory. Accordingly, “cyberspace,” a metaphor that is the necessary condition of Turkle’s para-world becomes a reality sui generis which is presented as real reality.

It is in this manner that, for Turkle, science fiction has, indeed, become reality. This is the reality of cyber discourse: the virtual reality of language, a reality in which nothing is impossible because everything is possible virtually, in theory. Cyber discourse, the idea matrix of Turkle’s theory, is as a post-theoretical theory discourse from the very beginning: a world of as if, both in terms of theory and the objects of this theory; they both – the theory and the objects created by it – are there in the virtual reality of language that is the condition of possibility of all that is “cyber.”

What Turkle (1995: 10) calls a “culture of simulation,” a new cultural constellation emerging from the computer, which is “affecting our ideas about mind, body, self, and machine,” is for her a result of her “French lessons” (ibid.: 14–15; for Turkle’s “French lessons” in Paris during the transition from structuralism to poststructuralism, see Turkle 1992 [1978]; cf. Bell 2001a: 74–75; Wolin 2010: 233–287; in terms of the événements of May 1968 in Paris, see Bourg 2007: 108–111; Starr 1995; Ross 2002; Seidman 2004). These lessons made it possible for her to construct a “story of constructing identity in the culture of simulation” (Turkle 1995: 10; emphasis mine); a “story of the eroding boundaries between the real and the virtual, the animate and the inanimate, the unitary and the multiple self” (ibid.); in short, a typically postmodern theory-fiction of “fundamental shifts in the way we create and experience human identity,” “inventing ourselves as we go along” (ibid.; cf., for example, Agger 2004: 100–101; Bell et al. 2004: 110–112; Jahshan 2007: 168–170). In other words, a fiction that conceals its own fictionality by means of theory. To see the world in that way, as a fiction turned into “reality,” Turkle needed her “French lessons” – in addition to the later lessons she drew from science fiction, William Gibson’s Neuromancer, back at home in America.

In the late 1960s and early 1970s, I lived in a culture that taught that the self is constituted by and through language, that sexual congress is the exchange of signifiers, and that each of us is a multiplicity of parts, fragments, and desiring connections. This was the hothouse of Paris intellectual culture whose gurus included Jacques Lacan, Michel Foucault, Gilles Deleuze, and Félix Guattari. But despite such ideal conditions for learning my “French lessons” remained merely abstract exercises. These theorists of poststructuralism and what would come to be called postmodernism spoke words that addressed the relationship between mind and body but, from my point of view, had little or nothing to do with my own. (Turkle 1995: 14–13, see also ibid.: 208–209; cf. Turkle 1992: 78–86).

What was the problem, for Turkle, was that the theories of the French “gurus,” in spite of their suggestive manner of speech, were not bodily facts, embodied truths, corporeal realities, in a word, views incorporated by her body-self; they were not become part of her thinking and sensing self as a mind-body existence – until, all of a sudden, with a stroke of a genius, Gibson, with his science fiction vision of “cyberspace” brought “postmodernism down to earth” (ibid.:
17). But, paradoxically, in the light of “French theory,” cyberspace became re-
enchanted: it turned into a celestial vision of redemption, a promise of libera-
tion and a new life in the vastness of virtuality. This was a moment of revela-
 tion, indeed, in the sense of the German *Offenbarung* (in critical terms, see, for
example, Böhme 1996a, 1996b; Rötzer 1998a), not only for Turkle, but also for
the American academic intelligentsia living under the sign of the “post” (for a
paradigmatic example, see Kellner 1995: 297–330; for incisive critique, see Rob-
is 1996: 83–104; Stallabrass 1995). Here, the fiction of cyberspace turned into
a secular evangel, a salvation narrative in terms of the “cyber”; that is, the lin-
guistic universe of cyber discourse became a reality for Turkle in a manner that
is typical of a conversion experience: *the word took on the reality of the world.*

That is, in Biblical terms, “in the beginning was the word”: the word *cyberspace*
constituted a new world in a postmodern manner: it created a universe of many
worlds. From now on, everyone had the liberty to inhabit his or her own world:
there are no limits in cyberspace – except the limits of one’s imagination.

In 1984, William Gibson’s novel *Neuromancer* celebrated its approach to com-
puting’s brave new worlds. *Neuromancer* was a cultural landmark. In the popu-
lar imagination it represented the satisfactions of navigating simulation space.
Its futuristic hacker hero moved through a matrix that represented connec-
tions among social, commercial, and political institutions. *Neuromancer*’s hero
yearned to fully inhabit, indeed to become with, the digital forms of life. He
was a virtuoso, a cowboy of information space, and thus for *many a postmodern
Everyman.* (Turkle 1995: 42; emphasis)

As an American academic, having grown up in the mindset of what she calls
“American optimism” (Turkle 1992: xxiii), Turkle had no choice: she became
a “postmodern Everyman,” of course, as a female incarnation of this new all-
American ideal. Referring to Jameson, Turkle points out that after Gibson’s
constitutive idea of cyberspace, “postmodernism has found its objects”: “Pre-
figured by *Neuromancer*’s matrix of informational space, postmodernism’s
objects now exist outside science fiction” (ibid.: 45; emphasis mine). For Turkle,
they are objects that embrace “life on the screen” (existing in the imaginary
space of the computer display), and with these objects, the “abstract ideas in
Jameson’s account of postmodernism become newly accessible, even con-
sumable” (ibid.; for Jameson’s views on postmodernism, technology and sci-
& Roberts 2002b). This is the way in which the virtual, in Turkle’s postmodern
world, turned into reality: a theory world (the world of “French theory”) amal-
gamated with a science fiction world (Gibson’s *Neuromancer* and its enthusi-
astic reception in American academia) and resulted in a phantasmatic world of
post-theory that appeared as a lived reality, the reality of everyday experience.

And it is precisely here that Turkle’s “French lessons” began to make sense (for
a historical contextualization, see Merquior 1986; Ferry & Renaut 1990 [1985];
Kauppi 1994, 1996, 2010). Not only did the objects on the screen now appear
as “postmodern objects,” but, more fundamentally, Gibson’s cyberspace in itself became a “postmodern object,” an “object-to-think-with” (Turkle 1995: 47–49). Cyberspace was no longer science fiction for Turkle: it was now a factual world in its actuality, not only in terms of theory but as lived experience (cf., for example, Bell 2001a: 74–75; Jordan 1999: 85–90, 100–141; Holmes 1997b; Loader 1997; Kitchin 1998; Tolouse & Luke 1998; Crang et al. 1999; Smith & Kollock 1999; Dodge & Kitchin 2001; Crampton 2003).

Thus, more than twenty years after meeting the ideas of Lacan, Foucault, Deleuze, and Guattari, I am meeting them again in my new life on the screen. But this time, the Gallic abstractions are more concrete. In my computer-mediated worlds, the self is multiple, fluid, and constituted in interaction with machine connections; it is made and transformed by language; sexual congress is an exchange of signifiers; and understanding follows from navigation and tinkering rather than analysis. And in the machine-generated world of MUDs, I meet characters who put me in a new relationship with my own identity. (Turkle 1995: 15; emphasis mine; cf. Heim 1993; in terms of “the digital self,” cf. Poster 2006b: 41–42, 87–181)

In this new world in which sex and sexuality are no longer something that presupposes a carnal body, the experiences of the flesh, but in which “sexual congress is an exchange of signifiers,” gender and identity, all the parameters that define the subject as something one can call a self, are no longer real but virtual, the virtual experienced as real: “real things” that belong, as Turkle says above, to the “culture of simulation” – in other words, the “real” of as if in terms of the postmodern is no longer as if, but, instead, the as if of theory has become a lived reality. The emblem of this new world is the realm of “MUDs,” the virtual space of “Multi-User Domains,” or, “with greater historical accuracy,” “multi-User Dungeons,” a computer-simulated space of fantasy role-playing; a “new kind of virtual parlor game and a new form of community” (Turkle 1995: 11; cf. Rheingold 1993: 145–175; Bell 2001a: 174–176; Cavallaro 2000: 33–34; Danet 1998; Smith & Kollock 1999).

It is precisely in this post-identitarian paraspace of the “cyber” that the post-subject can encounter its true self: a “self” that is its own avatar, a ghost, a phantom being, that lives in the phantasmatic realm of post-theory.

On the Internet, Nobody Knows You’re Sherry Turkle

In this new world, everything is, literally, possible, even unexpected and curious occurrences that normally take place in the fiction world of books and films. “One day on a MUD, I came across a reference to a character named Dr. Sherry, a cyberpsychologist with an office in the rambling house that constituted this MUD’s virtual geography” (Turkle 1995: 15). This “Dr. Sherry” was, as if hinting at RL Sherry Turkle, “administering questionnaires and conducting interviews about the psychology of MUDs” (ibid.: 16). This virtual person, consisting of descriptive words, specific signifiers, that is, letters on the screen, was, as Turkle says, a “derivative of me, but she was not mine” (ibid.). It was not Turkle’s Doppelgänger, neither was it an imitation of her person. Nevertheless, for Turkle
it was a disquieting encounter: “I was experiencing her as a little piece of my history *spinning out of control*” (ibid.). “Dr. Sherry” was a “virtual appropriation” (ibid.) of the RL Dr. Sherry Turkle, a combination of personal characteristics living its own “life” in the virtual worlds of MUDs; that is, an *as if* Sherry Turkle as an avatar named “Dr. Sherry.”

But why bother? That is the way cyberspace works anyhow – or is Turkle an exception of her own theory? As Turkle herself says: “[o]n MUDs, the one can be many and the many can be one” (ibid.: 17; cf. Haraway 1991a: 177) – so, what is the problem? If you are really a postmodern, *decentered* subject, a *multiple* self (see, for example, Smith 1988: 117–120; Poster 1995b: 32, 35, 57, 77, 88, 90–91, 93; Barvosa 2008: 5–17, 84–89, 194–203), how could you suppose that you are, *at the same time*, an integrated person, a person that is a one and a whole, and can as such become “disquiet” when encountering your double? In other words, as Turkle herself assures us:

> So not only are MUDs places where the self is multiple and constructed by language, they are places where people and machines are in a new relation to each other, indeed can be mistaken for each other. In such ways, MUDs are evocative objects for thinking about human identity and, more generally, about a set of ideas that have come to be known as “postmodernism.” (Turkle 1995: 17)

This was now the world of the postmodern, for Turkle a world that – after her “French lessons” – began to take shape with Baudrillard, Jameson and Gibson, all finding their embodiment in the new cultural paradigm, a new universe as a virtual world, brought about by Apple Macintosh (ibid. 44–45) as it was experienced through the “looking glass” of “French theory” (cf. Starr 1995; Lotringer & Cohen 2001a; Cusset 2008 [2003]; for a sociological overview of its genesis in the 1960s, see Kauppi 2010); a world in which the modern subject is disintegrated and fragmented into a postmodern “self,” a “multiple” person “characterized by such terms a ‘decentered,’ ‘fluid,’ ‘non-linear,’ and ‘opac’”; a diametrical opposite of the modern subject described by “such terms as ‘linear,’ ‘logical,’ hierarchical,’ and by having ‘depths’” (Turkle 1995: 17; cf. Poster 1995b: 57, 77, 90–91; Jordan 1999: 65–79; in critical terms, cf. Willson 2006: 5, 42, 60–63, 167–168, 177). All these attributes of the modern were now definitely over: a new age had begun, the era of the postmodern “decentered” subject (cf., for

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21 Haraway’s cyborg mythology, in a typical manner of poststructuralism, glorifies what is variously called the “fragmentation of the subject,” the “split of the subject” or even the “death of the subject” constitutive of the postmodern (see, for example, Jameson 1991: 14–5; Rose 1991: 71–74, 83–84; Stone 1995b; Sarup 1996: 34–36, 46, 95–101; Weiss 1999: 39–63; Gromala 2000 [1996]: 600–601; Downes 2005: 34; Dixon 2007: 154–155; for a theoretical overview, see Terada 2001; for a historical contextualization, see Ferry & Renault 1990 [1985]: 97–108). As Haraway (1991a: 177) says: “To be One is to be autonomous, to be powerful, to be God; but to be One is to be an illusion, and so to be involved in a dialectic of apocalypse with the other. Yet to be other is to be multiple, without clear boundary, frayed, insubstantial. One is too few, but two are too many.” Yes, of course, Haraway’s cryptic, post-Catholic view is an elegant summary of the promise of salvation, the promise of liberation, implied by the “post,” but what else is the celebration of the cyborg and cyberspace if not a reaffirmation of the subject in the form of a prosthetically enhanced and empowered self: an omnipotent subject as the creator of itself?

If we are taking Turkle at her word, one of the conclusions to be drawn from this, of course, is that there is no such a person as Sherry Turkle; instead, what there is is only a combine of postmodern signifiers that somehow manage to suggest – even to the “person” who calls herself “Sherry Turkle” – that there is a Sherry Turkle, a psychologist who has written a book with the title *Life on the Screen. Identity in the Age of the Internet.* But, if we take Turkle seriously, indeed, at her word, the person called “Sherry Turkle” is a decentered, fluid, nonlinear and opaque “person” who has somehow managed to suggest to “herself” that there is an integrated person named Sherry Turkle who is able to carry out such a concentrated act as writing a book with the title *Life on the Screen. Identity in the Age of the Internet* – which, of course, is nothing but simulation: by her own criteria Turkle, as a coherent subject, cannot exist. The book, no doubt, exists but the “person” behind it is a “cultural construction,” a “discourse effect” in terms of the virtual: in the unending flow of affective information constitutive of the “life on the screen,” “Sherry Turkle” is a digital simulacrum, an imaginary being, a “free-floating signifier,” that is as ephemeral as the effects it produces (cf., for example, Gatens 1996: 60–88; Kirby 1997: 129–148; Barker 2001: 165–192; from the perspective of gender performance, cf. Nayar 2010: 189–191; Butler 1990, 1993).

In short, according to Turkle’s own theory, Sherry Turkle cannot be but one of the many incarnations of “Dr. Sherry.”

It is in this way that we can see how all that is “cyber” has brought “postmodernism down the earth.”

Now, presuming that I would like to have sex – I mean, of course, “sexual congress” as an “exchange of signifiers” – with “Dr. Sherry” what would be the right approach, that is, what would I have to do in order to experience a “sexual congress” with “Dr. Sherry”?

In cyberspace, to interact with a “person” – an act which, no doubt, can in “real life” also include an act that is called sexual intercourse – has several possibilities, depending on what we understand by a “person.” And this is a problem, indeed. If, in the postmodern, the subject as a self, an individual having an identity, is always already a “decentered,” “multiple” entity, with whom are we supposed to interact, and, accordingly, to have such an act with, an act that,

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22 The mantra of a “postmodern,” “decentered” subject, adopted by Turkle, appears in a canonical, reified form, for example, in Mark Poster’s (1995b) constantly repeated formula according to which a transition from the modern to a postmodern subject has taken place: whereas the “modern subject” is “rational, autonomous, centered, and stable” (ibid.: 24), what we have in the postmodern is a disintegrated subject, a subject as a “multiplied, disseminated and decentered, continuously interpellated as an unstable identity” (ibid.: 57), a “self as multiple, changeable, fragmented,” “as making a project of its own constitution” (ibid.: 77); in this sense, the “second media age” (as Poster suggests in his title) is characterized as a constellation in which the “subject as coherent, stable, rational center is refuted by heterogeneity, dispersion, instability, multiplicity” (ibid.: 90–91); for Poster, this is the “postmodern” in what has been called the “postmodern condition” since Lyotard’s (1984 [1979]) *constitutive linguistic act.*
as an act, is somehow to be understood as “sexual intercourse”? And as if that were not problematic enough, we have the additional problem that in cyberspace a “person” can be a human being, an animal or a machine – or a fairy-tale figure living in a virtual Never-Never Land of the “cyber.” Moreover, this “person” has an equal chance of being either of different or of the same gender as you, or without any gender whatsoever, even without your knowing it (cf., for example, Reid 1995, 1996 [1994], 1999; Bruckman 1996 [1993], 2001 [1998]; Bruckman & Resnik 1996 [1995]; O’Brien 1996, 1999; Bruckman & Jensen 2002).

All these aspects, taken together, imply that it is almost impossible to find out with whom we are interacting in cyberspace – impossible at least from the point of view of real life in which we meet people face-to-face and are thus able to estimate quite unambiguously who or what it is for a person we have encountered. Of course, if two schizophrenics meet one another this, perhaps, is not so clear.

But, in fact, mutatis mutandis, this is the problem in cyberspace: in order to have a successful encounter (whatever it is such happens to be) with someone or somebody in cyberspace, we have to be a schizophrenic that is able to communicate with another schizophrenic about whom, however, we can never be sure as to whether this person really is a schizophrenic or is just simulating one. That is, as Turkle says above, in cyberspace, even more than in real life, all people are postmodern subjects, in other words, anonymous, non-personal “characters” or “figures” that are ‘decentered,’ ‘fluid,’ ‘non-linear,’ and ‘opac.’” In cyberspace, we witness a “reality” similar to the “reality” of the Internet; a “reality” that is entirely ambiguous, as in the famous caricature published in the early 1990s in the New Yorker with the caption: “On the Internet, nobody knows you’re a dog” (see, for example, Jordan 1999: 65–67; Nakamura 2001: 226–227; Anderson 2005: 227–230).

In the case of her quasi-Doppelgänger, Turkle’s (1995: 16) first assumption was that “Dr. Sherry may have been a character someone else created as an efficient way of communicating an interest in questions about technology and the self,” and she tried, in a manner typical of a narcissist, to convince herself that “this virtual appropriation was a form of flattery.” Moreover, entirely against her own theory of the postmodern subject as a decentered subject, Turkle tried to believe that “Dr. Sherry, after all, was not an inanimate book but a person, or at least a person behind a character who was meeting with others in the MUD world” (ibid.; emphasis mine; cf. Danet 1998). But Turkle came to see things in another light after a friend of hers suggested that maybe “Dr. Sherry” was a “bot,” one of those “computer programs that are able to roam cyberspace and interact with characters there” (ibid.). In this way, “characters” played by people are “sometimes mistaken for these little artificial intelligences” – a mistake that Turkle had made several times the other way round by “assuming that a person was a program” because it responded “too machine-like” (ibid.; emphasis mine; cf., for example, Brummett 1999: 10–11, 28–29; Hayles 1999; in terms of classical cybernetics, cf. Wiener 1968 [1950]).
After these preliminaries, we can now come back to my question as to what would be the right approach if I was supposed to have sex with “Dr. Sherry” – only to notice that all the problems encountered by Turkle in her confrontation with her “Dr. Sherry” are but aggravated in the case I am trying to come to terms with here. While, as Turkle says, “I found myself confronted with a double that could be a person or a program” (ibid.: 16), in addition to this, my problem is, firstly, what is it precisely that should be understood here as “having sex”? Further, if “Dr. Sherry” can be a person but also a program, and a female but also a male, or some genderless being altogether, how am I supposed to tell the difference – I mean, if I happen not to be polysexual in a manner of an omnisexual enjoying the pleasures of “the sexual” in the mode of ambisexual? And finally, assuming that “Dr. Sherry” would herself (himself? itself?) inform me in plain language of all this, how should I believe that it is really “Dr. Sherry” whom I am encountering, and not someone or something else: an animal, a machine, or whatever (in terms of the “Turing test,” cf. Turing 2004a [1950]: 441–443; with regard to the interactive computer programme ELIZA, cf. Weizenbaum 1966)?

Taking all these complications into account, I am not so sure whether I would still be interested in having sex with “Dr. Sherry” – or, rather, whether I would have desire for a sexual encounter in the mode of “sexual congress” as an “exchange of signifiers” with a contingent entity who is only an effect of “French lessons” instead of a carnal body, which for me – as my real me living in a carnal body, not in an imaginary “body” consisting of signifiers – is the minimal condition for sexual pleasure in a body that I am.

Of course, my problems with “Dr. Sherry” are entirely hypothetical, so to speak purely an academic question. Therefore, to get closer to what “the sexual” of sex in this context is, it is more appropriate to return to Turkle’s own world, the world of what Turkle designates as “TinySex” (cf. Grosz 1995c: 184; Dery 1996: 205–206; Bartle 2004: 543–546), or, as William J. Mitchell (1995: 119) calls it, “the one-handed keyboard equivalent of phone sex.”

How Do “We Have Learned to Take Things at Interface Value“?

According to Turkle (1995: 20), if, at the beginning of the 1980s, “people were just getting used to the idea that computers could project and extend a person’s intellect,” in the mid-1990s “people are embracing the notion that computers may “extend an individual’s physical presence” (cf. McLuhan 1964; Genosko 1999; Levinson 1999; Theall 2001; Cavell 2003). There are now people who “use computers to extend their physical presence via real-time video links and shared virtual conference rooms,” and others who “use computer-mediated screen communication for sexual encounters” (Turkle 1995: 20). This latter “activity” is “known as netsex, cybersex, and (in MUDs) TinySex” (ibid.; cf. Dibbell 1994: 243); in other words, “as people typing messages with erotic content to each other, ‘sometimes with one hand on the keyset, sometimes with two’” (Turkle 1995: 20; cf. Rheingold 1993: 148–150; Žižek 1997b: 139–140; Gray 2001:}
This one-hand part, as one can easily understand, is the most physical aspect of this “activity.” How this specific part is to be “extended” by computer technology, is not, however, discussed at all by Turkle, neither in which manner a sexual act “with one hand on the keyset” is a “sexual encounter,” except an encounter with oneself. Instead, Turkle assures us that “[m]any people who engage in netsex say that they are constantly surprised by how emotionally and physically powerful it can be”; these people insist that it “demonstrates the truth of the adage that ninety percent of sex takes place in the mind” (Turkle 1995: 21; emphasis mine; cf. Leary 1994a: 147–154) – what happens with the rest, the ten percent, also remains unclear here.

But, in fact, what is “sex” in this context is something that happens not only in the head; it is, at the same time, something that does not exist at all without technology. This has essential consequences not just in terms of being a sexual subject, but being human in general, as Turkle says:

As human beings become increasingly intertwined with technology and with each other via the technology, old distinctions between what is specifically human and specifically technological become more complex. Are we living life on the screen or life in the screen? Our new technologically enmeshed relationships oblige us to ask to what extent we ourselves have become cyborgs, transgressive mixtures of biology, technology, and code. The traditional distance between people and machines has become harder to maintain. (Turkle 1995: 21; emphasis mine)

Turkle is drawing on Haraway’s cyborg here (see Haraway 1991a), though without going into the question as to what it is that makes us cyborgs in general and sexual cyborgs in particular. Instead, referring to Emerson, Freud and Darwin, she speculates about “dreams,” “beasts” and “computers” as “test objects” for “boundary negotiations” (Turkle 1995: 22). While “dreams and beasts” were the “test objects for modernism,” the “computer has become the test object for postmodernism” (ibid.). “The computer takes us beyond a world of dreams and beasts because it enables us to contemplate mental life that exists apart from bodies” (ibid.; emphasis mine; cf. Lyotard 1988–1989) – and obviously also vice versa, bodies apart from mental life; and it even “enables us to contemplate dreams that do not need beasts” (Turkle 1995: 21). Indeed, the “computer is an evocative object that causes old boundaries to be renegotiated” (ibid.).

That is just fantastic, one is tempted to exclaim aloud after reading such intelligent observations of “dreams,” “beasts” and “computers.”

The computer, for Turkle, of course, is the Macintosh 1984 because its “iconic style” with “simulations,” and its implied admonition to “stay on the surface” (ibid.: 23). In this sense, Turkle has literalized what Jameson (1991: 6) calls a “new depthlessness” which, among other things, is a “constitutive feature of the postmodern.” Staying “on the surface,” means for Turkle (1995: 23) that “[w]e have learned to take things at interface value,” things in general, and not
just things that we face at the interface, on the surface of the computer screen or the display. “Stay on the surface,” according to Turkle, is the very ethos of the postmodern (cf., for example, Jameson 1991: 12–14, 37, 1979, 1984, 1989 [1983], 1998; Nash 2001: 15, 24–25, 95; DeKoven 2004: 15, 24, 87, 92; Sim 2005b [1998]).

The surface – that is also the keyword to understanding “sex” and “gender” in “cyberspace.” But, although we have now “learned to take things at interface value,” as soon as we encounter “sex” and “gender” at the interface, we have time and again a confusing experience: a surface is not always what it suggests itself to be when it is, indeed, taken at interface value. That is, one never knows for sure what it is that is there behind the face that appears at the interface, a face that never can be taken at its interface value since, even according to Turkle’s own theory, anything can be anything at the interface.

What Turkle, referring to Judith Butler, calls a “gender trouble” (see Butler 1990), is, at the first glance, not a trouble in this context, because “[f]or a man to present himself as female in a chat room, on an IRC channel, or in a MUD, only requires writing a description” (Turkle 1995: 212). Writing a description – that is what Turkle calls “virtual gender-swapping,” and, “on one level,” it is, indeed, “easier than doing it in real life” (ibid.; cf. Sundén 2002b: 295–301; Toffoletti: 2007: 29–30; Bruckman 1996 [1993]; O’Brien 1996, 1999). Virtual gender-swapping, that is, changing gender in cyberspace as an essential part of netsex or tinysex, as one male MUD-player interviewed by Turkle says, is not at all problematic: “When I play a woman I don’t really take it too seriously”; it is “just a game” (Turkle 1995: 212). Because there are many men who are not able in “RL” to make a gender change they are “willing to give virtual cross-dressing a try” (ibid.). But then again, once “they are online as female, they soon find that maintaining this fiction is difficult” (ibid.).

In other words, contra Turkle, behind the surface of the interface there is, indeed, in real life, something one cannot take just at interface value. There is the reality of sex and gender – and somehow it is not only about the surface, or else there would be no problems to maintain the “fiction” at the interface. That is, the difference between the real person and the appearance, or, rather, the apparition, appearing at the interface, is what makes “virtual gender-swapping” and concomitant sexual encounters difficult, except, of course, in the case that one is having sex with oneself, whereupon the sexual fantasies experienced in and by one’s own body constitute the sexual act, the pleasure of self-sex – which, as such, is the most usual mode of sexual pleasure in general.

In the context of the sexual act in terms of “virtual gender-swapping” discussed by Turkle, however, the problem is what is called “passing” (ibid.) in contemporary sex/gender theory (cf., for example, Bornstein 1994, 1998; Halberstam 1998a [1991]; Ferreday 2009; from a historical perspective, cf. Friedli 1987; Mounsey 2001). The problem consists of the difficulty of convincing not so much oneself as others that one is not just “playing,” “putting on,” a gender that one is nevertheless just playing, or only “putting on” a “gender” that is not
one’s own. Thus, the problem of the “gender trouble” in cyberspace is the difficulty of showing something one is not: to pass as a woman one has to show that one is not a man. In other words, for a man to be able to be a female, he must not only deconstruct himself as a male, but, more fundamentally, both deconstruct and construct the characteristics of being female. And, in cyberspace, all this has to happen through writing, by linguistic description: by means of signifiers one believes are constituting the “gender” and the “sexual” one purports to be “passing.” As Turkle (1995: 212) says, for a man, to “pass as a woman for any length of time requires understanding how gender inflects speech, manner, the interpretation of experience”; and vice versa, women “attempting to pass as men face the same kind of challenge.”

In these terms, gender, in fact, is a character mask which is not a personal matter, not an individual invention, but a social issue, an expression of social convention; in this sense, indeed, a cultural construction (cf., for example, Ortner & Whitehead 1986; Butler 1990, 1993; Stein 1990a; for a critical discussion, see, for example, Hacking 1999: 7–12, 17–28, 39–40).

This implies that gender is not something merely on the surface, something you just “put on” only “putting on” something else to what you are in real life, something one can play with now and then, at will, like a party attire. In contrast to that, gender is a deep dimension of a person, of an individual identity: it is a manifestation of male and female characteristics that as social features of these categories are constructed historically, and, at the same time, a set of personal character traits one has adopted, and continually adopts, in one’s own life-history by appropriating the prevailing gender model; that is, by “performing” gender in an appropriate way. It is possible, as Turkle (1995: 214) says, referring to Shakespeare, that “all the world’s a stage,” but to have a role on this stage it is not enough just to invent something that pleases oneself; the task is to play something that becomes accepted by the others: one has precisely to pass as something that one has not chosen oneself; thus, passing is not a fictional act, it is a social act in the strong sense of the term: a social fact (cf. Rafanell 2009: 64–73).

Thus, contra Turkle, gender is not a surface you can take at face value; even less is it just facing things at the interface at interface value.

Although it is possible, as Turkle (1995: 214) says, that “gender-swapping” on the MUDs provides “proving grounds for an action-based philosophical practice that can serve as a form of consciousness-raising about gender issues,” gender is not just a game, neither a role you can choose; instead, gender is a reality one can only to try to make the best of.

Is Masturbation Real in Virtual Reality?

If this is the gender problem in real life in which things are not just “writing a description,” how does it relate to what Turkle calls “virtual sex” (ibid.: 223), sex in
cyberspace? In other words, what is “the sexual” in sex that, “whether in MUDs or in a private room on a commercial online service, consists of two or more players typing descriptions of physical actions, verbal statements, and emotional reactions for their characters” (ibid.)? To specify, if, in one way or another, sex is about desires and pleasures that have *something* to do with the body, with corporeal experiences between real existing material bodies that, precisely in their materiality, are simultaneously something phantasmatic (cf. Freud 1987a [1923]: 252–253; Schaufler 2002: 57–58; Früh 2005: 105–106), what, then, is sex that takes place at the interface, between bodies that exist only virtually, in cyberspace, and moreover, only as writing, in the mode of written descriptions on the screen?

Here we can see that what Turkle calls “TinySex” (or netsex or cybersex) is about a form of “sexual encounter” in which sex and gender relate to one another in ways that are not easily, or cannot at all, be experienced in real life: although a real body can be a virtual body in the sense of the phantasmatic and the imaginary, a virtual body can be a real body *only if it is experienced as real in the real body, embodied by a real body-subject in its real corporeality*. That is, a virtual body always remains virtual in the same sense as virtual reality never becomes real: what is simulation is nothing but simulation – of course, with all its cultural, social, economic and political, and, in the last instance, theoretical, consequences which are real, also when they happen to be simulation (cf. Baudrillard 1994a [1981]; Cubitt 2001; in terms of the “cyber,” cf. Wolmark 1997, 2002).

This notwithstanding, in Turkle’s world in which bodies and their desires and pleasures are not subordinated to the logic of the real world, there are several possibilities of having virtual sex:

On MUDs, some people have sex as characters of their own gender. Others have sex as characters of the other gender. Some men play female personae to have netsex with men. And in the “fake-lesbian syndrome,” men adopt online female personae in order to have netsex with women. (Turkle 1995: 223)

It is obvious that all these people, of whatever gender they happen to be whether “in RL” or “on the MUD,” “have” something when they “have sex,” but what is it precisely that they are having? The problem is: what is “the sexual” in virtual sex that is experienced as configurations of signifiers appearing as a flow of writing at the interface, *on the computer screen*? Clearly, sex is somehow a gender issue here, but in a different way than in sexual encounter offline. Both sexual orientation and gender identity cross one another in virtual sex in a manner that is not possible at all in real life. As Turkle says:

I have met several women who say they present as male characters in order to have netsex with men. Some people have sex as nonhuman characters, for example, as animals on FurryMUDs. Some enjoy sex with one partner. Some use virtual reality as a place to experiment with group situations. In real life, such behavior (where possible) can create enormous practical and emotional confusion. Virtual adventures may be easier to undertake, but they can also result in significant complications. Different people and different couples deal with them in very different ways. (ibid.: 224; cf. McRae 1996, 1997)
Turkle explains with examples that there are many ways of maintaining “MUD sex life,” to have “sexual relationships on MUDs” or lead “sex life in cyberspace,” but what finally comes out is only that these people are doing something that amounts to “writing real-time erotica with another persona in cyberspace” (Turkle 1995: 224–225; cf. Danet 1998: 138–140). So, this is “sex” in cyberspace, according to Turkle: a specific practice of writing as a practice of fantasizing sexual experiences in an imaginary space constituted by the text on the computer display. But what precisely is it all about in terms of sex that takes place as writing: what is the sexual in this kind of sex, “sex” as words on the screen? This fundamental question remains open in Turkle’s presentation of virtual sex: what we are left with at the end are only words upon words that circulate around “the sexual” which, in itself, remains beyond explanation. “And beyond this,” as Turkle (1995: 225) says, she herself seems to be perplexed with regard to the question as to what it is that constitutes “sex” in “netsex,” that is, in virtual sex (in an exemplary case of a young married couple), when she adds:

should it make a difference if unbeknownst to the husband his cyberspace mistress turns out to be a nineteen-year-old male college freshman? What if “she” is an infirm eighty-year-old man in a nursing home? And even more disturbing, what if she is a twelve-year-old girl? Or a twelve-year-old boy? (ibid.)

Confusing questions, indeed. And if we think that tinysex is sex in cyberspace not only with human beings whose sexual orientation and gender identity remain unclear (without saying one word about whether they are real or just fantasy), but also sex with computer programs, animals and machines, then it is clear that, yes, as Turkle says, “sexual congress is an exchange of signifiers” (ibid.: 15; emphasis mine), “sex” in the mode that Turkle came to understand in the light of her “French lessons.” But then again, if, as Turkle says, in cyberspace “words are deeds” (ibid.), in which way, then, computers “extend an individual’s physical presence” in tinysex (ibid.: 20; emphasis mine)? What is the “physical” in this context? Here we come back to Turkle’s definition of tinysex (or netsex or cybersex) as an “activity” in which people are “typing messages with erotic content to each other, ‘sometime with one hand on the keyset, sometimes with two” (ibid.: 21; emphasis mine); or, in plain language, as Turkle passingly mentions, tinysex is about “masturbation” (ibid.). At last we have something concrete, something, literally, at hand: cybersex in the mode of tinysex is about masturbation.

Masturbation, as such, of course, is not a problem; as it is well known, masturbation is an essential part of sex and sexuality, a form of sexual pleasure in its own right: sex with oneself, self-sex experienced at one’s own body is the most common way to experience sexual pleasure. However, with regard to Turkle’s enthusiastic description of tinysex as a computer-assisted postmodern sex practice in which one can experiment with one’s gender identity and sexual orientation, two questions remain: firstly, why people are, as Turkle says, “constantly surprised by how emotionally and physically powerful it can be” (ibid.), and secondly, why is it that as a result of tinysex “we ourselves have become cyborgs, transgressive mixtures of biology, technology, and code” (ibid.)?
In other words, *how does masturbation in front of the computer, as an act of self-sex at the interface, turn one into a cyborg*, a human-machine hybrid that is able to enjoy emotional and physical pleasure in a mode that is not only different from, but even “better” or “more exciting” than the pleasure experienced by the non-tecnologized, “normal” biological body, be it in masturbation or sexual intercourse (see, for example, McRae 1996: 243–254; Bell 2001a: 126–128; Wolmark 2003: 229–232; White 2006: 49–52, 139–142; cf. Juffer 1998: 101–103)? To specify, apart from the fact that masturbation takes place as a solitary act in a virtually shared space, what is it that turns tinysex as “one-hand writing” into a “trangressive” form of sex; to emphasize, to something that disrupts the constraints of gender and sexual orientation, in short, constitutes “tinysex” as a subversive sexual act, implied, if only implicitly, by Turkle (cf. Bell 2000a: 391–392; Slade 2001: 411–415; Žižek 2001a: 252; from a historical perspective in terms of “the secret history of domesticity,” cf. McKeon 2005: 283–301)?

These questions are relevant not only as far as Turkle’s enthusiasm of “life on the screen” is concerned; they are also relevant when considering cybersex and all that is “cyber” in general. Turkle’s “tinysex” is an illuminating example of the manner in which language in the postmodern condition has become a world in itself, a world in which everything is possible since, as Turkle’s mode of argumentation shows, nothing is impossible in terms of the “cyber.” This is the world in which cybersex becomes intelligible: the world of the “cyber” effected by the libidinal language peculiar to the “post.”


### 3.4.2 Virtual Sex, or, Buy Yourself New Genitals (Gender Does Not Matter)

If sex, to be sex at all, is something real, real as an experience and expression of corporeality as a cultural form, including, of course, sexual fantasies that are an essential part of the reality of all that is sexual, what is virtual sex, and, as corollary, what is the real of sex that is virtual?

In her article “Virtually Embodied. The Reality of Fantasy in Multi-User Dungeon,” Mizuko Ito (1997) describes what she calls a “MUDder subjectivity” as a “cyborg” constituting a “techno-organic machine” within which the division between the symbolic and the material is blurred in a fluid dance of partially determinate rationality” (ibid.: 91; emphasis mine). Drawing in her description on Haraway’s “image of the cyborg that is never whole” (ibid.), Ito defines the MUD cyborg as
a compound of the “organic, technical, mythic, textual and political,” resulting in what she calls a “cyborg subjectivity” (ibid.); a mode of subjectivity that is a construction, an assemblage of disparate modalities of being, in a radical sense of the term (cf. Ito 1998). For Ito, the cyborg, according to Haraway’s paradigmatic definition, is a “hybrid of machine and organism,” and as such, a “metaphor to describe the late twentieth century’s imploding boundaries between human and animal, organism and machine, and the physical and non-physical” (ibid.: 87; cf. Haraway 1991a: 149–150; Jordan 1999: 187–188; Zammito 2004: 212–213; Melzer 2006: 23–25; Muri 2007: 19–22; Pritsch 2007: 394–447; Gray et al. 1995a; Wolmark 1999a; Gray 2001; Appleby 2002; Zylinska 2001, 2002b).

**Open Your Windows and Enjoy Yourself!**

In these terms, what is important in Haraway’s cyborg, for Ito, is that it is a “story” according to which the “technological” and the “biological” are thoroughly intertwined in contemporary culture in the context of what she calls “postmodern politics” (Ito 1997: 87). In Haraway’s “story,” according to Ito, both “communication technologies” and “biotechnologies” appear, in Haraway’s words, as “crucial tools for recrafting our bodies” (ibid.; emphasis mine), and, in this sense, both are “key players in a move towards,” as Haraway says, the “translation of the world into a problem of coding” (ibid.; emphasis mine; cf. Haraway 1991a: 164; cf. Jordan 1999: 195–196; Wood 2000: 66–74; Haney 2006: 3–5; Crewe 1997; in terms of “postmodern aesthetics” manifesting “a biotechnological utopia,” cf. Stafford 1994).

If the world today, indeed, is a “problem of coding,” what does this mean in terms of the sexual; to specify, in terms of the sexual subject as an *embodied self* defined by the parameters of gender identity and sexual orientation manifested by desire that, in one way or another, can be understood as “sexual” – provided, of course, that this historical term as a specific, conceptually defined category still has an intelligible meaning in the post-historical world of the postmodern, the world of the posthuman in which concepts, categories and terms are there only to be deconstructed, and, in which, in this sense, to be living is to be a cyborg, as Haraway (1991a: 163) says, “a kind of disassembled and reassembled, postmodern collective and personal self” (cf. Howell 1995: 199–202; Thornham 2005: 32–34).23 This question pertains to what Ito calls “MUD-sex” (in terms of “tinysex,” cf. Turkle above).

To understand the specificity of “MUDsex” one must first understand its condition of possibility, the mode of being in the world defined by the term “MUD.”

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23 One should, of course, already notice here that in contemporary culture the term the “sexual” is in and of itself a problem; if there ever was something that one could, in a kind of Cartesian way, “clearly and distinctly” (Descartes 1985b [1637]: 121, 1985c [1644]: 199, 207, 216), posit as “sexual,” today, indeed, it is quite difficult to say what sex and sexuality are all about. In the postmodern, the “sexual” has an increasingly metaphorical meaning, or it is as such a metaphor – only, that one can never exactly determine what it is a metaphor for (for the “postmodernization” of sex, see Simon 1996; for the ambiguities of sex and sexuality in the postmodern, see, for example, Bhattacharyya 2002; Potts 2002; Sigusch 2005).

By reading this definition, one should be attentive to each word because all of them count here – and have their consequences in terms of the sexual (if we take Ito seriously, at her word). This implies that as a MUD player, “what you see on your computer monitor is text that describes the environment and other characters in the environment, as well as the actions that you and others perform” (Ito 1997: 90; emphasis mine). In other words, what you write is what you get, this constitutive principle of the “post” counts also in the MUD world. Thus, entering a MUD, “you are asked to choose a character name, a gender (usually male or female), and a race (such as elf, dwarf, human etc.)” (ibid.: 90), and after this postmodern initiation, a kind of rite de passage (cf. van Gennep 1960 [1909]; Turner 1995 [1969]), in which you choose yourself, you can begin playing as a “first level player” at the start, and then, like a novice striving after mastery, you can work yourself towards higher levels, finally reaching a level at which you are the Master of the Universe of your own creation, an omnipotent ruler of a private Artificial Paradise.

In these terms, understandably, sex in the mode of a MUD cyborg in the boundless MUD universe is not only limitless pleasure in terms of writing; sex in this technological environment is also hard work on your virtual self, and through it, on the “Other” (whatever it is) as your virtual sex object that is working on its own virtual subjectivity in and by itself: there is no sexual subject, and hence no sexual pleasure, in terms of the MUD without a permanent construction of identities, subjectivities and sexualities in their ephemeral form, as contingent constellations of signifiers able to signify “sex” as a specific MUD experience. In other words, the experience of sex (whatever it is) in the MUD universe is a performative construction all the time threatened by disintegration: fantasies are of a fragile substance not able to sustain the brutality of reality, the horror of the real (cf. Ward 2000: 149–150; Žižek 2005b: 210, 2006: 155–156, 174, 190–191; Gutmair & Flor 1998); that is, a MUD universe holds together just as long as MUD cyborgs are able to work upon it. In this constellation, sex work takes on a new meaning: sex is now work on one’s own MUD character, the avatar of the self as the sexual subject proper in the MUD world.

What is constitutive of MUDs is that they “involve inert and physically isolated bodies interacting with vividly immersive fantasy texts” (Ito 1997: 93; emphasis mine) – that, according to Ito, is the “reality of the virtual,” and here, in Arjun Appadurai’s words as quoted by Ito, we are dealing with the “imagination as a social practice” (ibid.; cf. Appadurai 1996: 31). In these terms, what the MUDders call “real life” (quotation marks in the original) is a “denaturalized category” that refers to an “existence that is not computational contingent” (Ito 1997: 93), although it is contingent as a signifying construction. Thus, in a MUD world,
real life, as a MUD dictionary defines, is the “stuff that interrupts your mudding” (ibid.) – an interesting definition of reality, to say the least (cf. Turkle above: “RL is just one more window,” and “it’s not usually my best one”).

As we can see, it is not only MUD sex in itself that is a fragile construction: the same also pertains to Ito’s description of it that holds together only as long as we believe, in Ito’s words, that inert and physically isolated bodies are able of interacting with vividly immersive fantasy texts; if we do not believe this, Ito’s construction disintegrates, and, accordingly, there is no MUD sex. This is an entirely new condition of the sexual: a cultural constellation beyond any kind of disciplinary regime, a post-utopian ideal society, a form of free community that is even beyond the Marcusean “repressive desublimation” (Marcuse 2002 [1964]: 59–86), celebrating a mode of the sexual that can persist only in cursory, ephemeral and transient moments, as volatile and elusive moments consisting of random figures of arbitrary and casual desires and pleasures. Then again, precisely as such a mode of the sexual, MUD sex epitomizes the new sexual subject constructed by post-theory, a “subject” that as a non-subject does not recognize the Alhusserian “policeman” (“Hey, you there!”) (see Althusser 1971 [1970]: 163; cf., for example, Gearhart 2004: 180–186; McQuillan 1999; Callus & Herbrechter 2004b; Herbrechter 2006). That is, as a polyvalent mode of ambisexuality, even as its polysexual potentialization, MUD sex is the apotheosis of post-sex translated into the terms of the cyborg.

After these preliminaries, we have now come to the question proper concerning the sexual as a “problem of coding” constitutive of the cyborg. As stated above, MUD environments consist of “immersive fantasy texts” that embrace “virtual worlds.” “Immersion in the MUD context,” as Ito (1997: 94) says, “requires partial bracketing of ‘real life,’” that is, a “stilling of the physical body, and turning one’s attention to the text on the screen” (emphasis mine).24 Not only, if one wants to get married or enjoy wedding parties in the MUD world, can one “find a chapel, a priest, and heterosexual newlyweds, provided with familiar props such as rings, wedding dresses, and bouquets” (ibid.: 94), but, moreover, the MUD on which Ito is personally playing has a “simple but bizarre concretization of sexuality” (ibid.: 95):

To be sexually active, one must first purchase genitalia, after which it will be noted in your character description that you are sexually mature. A simple command will enable you to have sex with another character of the opposite gen-

24 One of the keywords in the discussions in the 1990s revolving around virtual reality and cyberspace (which, as terms, are, unfortunately, not always separated conceptually, and have caused much confusion for this reason) is the term immersive. The assumption is that the view one perceives in an interface relationship to the computer or equipped with specific goggles and a glove is not just a visual representation on the screen, but a three-dimensional “space” in which one can “immerse,” like in an immaterial universe behind the screen. The source of this idea is Gibson’s (1995 [1984]: 67) science fiction vision of cyberspace as a “consensual hallucination”; peculiarly to cyber discourse, this figure has become a predominant metaphor for both virtual reality and cyberspace; a metaphor elaborated on and speculated about especially in the context of media art (see, for example, Dyson 2009: 124–131; Huhtamo 1992, 1994, 1995a, 1995b, 1995c, 1996a, 1996b, 2000; Biocca & Delaney 1995; Moser & MacLeod 1996; Grau 2003; Morse 2003; McRobert 2007; Sommerer et al. 2008a; Stocker et al. 2009; Bracken & Skalski 2010a).
der, providing that they too are sexually mature, and frequent sexual acts may eventually lead to pregnancy of the female character. After a period of time she will have a child, described by the system as a slave with its mother’s attributes and pre-programmed to obey and follow her around. (ibid.)

This, indeed, is fantastic (in the both senses of the word): if you are not happy with your genitals you can buy new ones (cf. Hamming 2001: 331; Gray 2001: 151–154). As liberating as this may be, why stop here: why enjoy sex only with someone of the opposite gender (and why should it be “opposite”?), and, if in the MUD worlds everything is possible, why it is only females that can become pregnant (cf. Farquhar 1996; Davis-Floyd & Dumit 1998; in terms of “prosthetic bodies,” cf. van der Ploeg 2001; in the context of “next sex” in the sense of new reproductive technologies, cf. Stocker & Schöpf 2000b)? And, further more, why be content with human beings when you can have sex not only with animals and machines, but all kinds of non-human creatures (cf. Haraway 1991a: 150–155)? As Ito herself argues at the beginning of her article, MUD sex is cyborg sex, and the cyborgs, as she specifies, are about “imploding boundaries between human and animal, organism and machine, and the physical and non-physical.” The question, then, is: why does Ito not take her own definition seriously?

Sex, Gender and the Pleasure of MUD

In fact, the forms of sex described in the quotation above imply, as Ito says, a “simple reinscription of hegemonic notions of gender, kinship, and sexuality,” and “to end there would be to miss the peculiarities of MUD materiality, reducing MUDs to merely a commentary on or reflection of real life, rather than as an alternative space with its own unique networks of accountability” (Ito 1997: 95; emphasis mine). Therefore:

To read a MUD as a text about real life ignores the travel that takes place through the prostheses of networking technologies and the profoundly embodied nature of experience in virtual worlds. (ibid.; emphasis mine)

Now, this is the basic issue in which we have to believe in order to get along at all in the MUD environment: we are prosthetic beings who are embodied virtually; in other words, as Haraway (1991f: 249) says, in “the era of techno-biopolitics” we live in an entirely new condition of the corporeal in which “prosthesis becomes a fundamental category for understanding our most intimate selves.” Accordingly, if we do not take this seriously we are not able to have MUD sex.

Although one’s own real body, the physical-material body as an actual embodiment of one’s own self, is situated in real life, that is, sitting quite concretely in front of the computer and manipulating with the keyboard the figures on the screen, Ito claims that “[o]ne is not ‘in’ real life reading the MUD,” but, instead, one is, as Ito, referring to Stone, says, “elsewhere” (ibid.; emphasis mine; cf. Stone 1994b: 99–111; Amato 1997: 14–16). This is the effect of the prosthetic body: it is a body that is able to be simultaneously here and there, present and absent, a body that exists by means of its extensions. And although, in Ito’s own words above, “immersion in the MUD context,” requires “partial bracketing of ‘real
life,” entailing a “stilling of the physical body, and turning one’s attention to the text on the screen,” one can nevertheless somehow “have sex” in the virtual worlds of MUDs. Only that the “reality” of “MUD sex,” as Ito (1997: 95) maintains, is a “bit more complex,” that is, more complex than in real life – or, rather, “real live” as it should be understood in the world of the “post” (cf. Dibbell 1994; Turkle 1995; Bruckman 1996 [1993], 2001 [1998]; McRae 1996, 1997; Kendall 1996, 1998; Reid 1995, 1996 [1994], 1999). This, of course, raises the question, how? In other words, what is actually the difference of MUD sex to sex in real life? Ito explains:

For example, my partner in real life often eyes me suspiciously as I sit in front of my terminal – “You’re not MUDmarried are you?” “Are you having netsex?” We both laugh, and yet I scrupulously avoid MUD romance because of a sort of uncomfortable guilty twinge; clearly a result of his only partially serious questions. My bracketing of the two worlds is apparently incomplete. (Ito 1997: 95; emphasis mine)

Why is it that Ito has a “sort of uncomfortable guilty twinge,” if she is just sitting in front of her terminal and writing words on the screen? Then again, if she, indeed, is “having netsex,” what precisely is it she is “having”? In short, what is MUD sex as sex? Ito only scrupulously avoids answers as it is typical of cyber theorists who are not so keen to answer simple questions because they are preoccupied with big issues such as prosthetics and virtuality. Instead, she reports of one of her “MUD friends” who, “despite protestations from her jealous real-life mate, is married to a number of different MUDders on different MUDs” (ibid.).

Though her real-life mate is also a MUDder, Tenar, or Melissa in real life, refuses to MUDmarry him, or even to have virtual sex with him. She is a powerful and well-like figure on a number of different MUDs, and no doubt has little trouble in maintaining numerous romantic Internet liaisons. She describes virtual sex as akin to an interactive romance novel. The metaphor is crucial. The fantasy “text” is paramount, the real bodies nonexistent. (ibid.: 95–96; emphasis mine)

Again, if sex is about a textual fantasy (like reading, say, a Harlequin novel; cf. Radway 1991: 39–89), and there are no real bodies, what is it as sex – or is virtual sex just reading and writing fantasy stories on the computer screen? Ito only lets her MUD friend explain that “[i]t is how you describe yourself and how you act” that makes up your “real you,” and so, “to me there is no real body” (Ito 1997: 96; emphasis mine). And, once again, the question concerning what is specifically “sexual” in MUD sex evaporates into nothingness in Ito’s enthusiastic talk about the pleasures of virtuality – a term that is as ambiguous as it is suggestive, and as suggestive as it is ambiguous, as always in these kinds of theories (see, for example, Wolmark 1999a; Bell & Kennedy 2000; Kirkup et al. 2000; Flanagan & Booth 2002). For the friend of Ito, the “appeal of the virtual world lies in the relative invisibility of real life consequences and relationships,” and therefore, as Ito’s friend says: “Too much reality in virtual reality kills it all” (Ito 1997: 96; cf. Žižek 2005b: 210, 2006: 155–156, 174, 190–191).
That is all that Ito has to say about the sexual in MUD sex: empty words, or, in terms of the “post,” “free-floating signifiers” that create the objects they are signifiers of, signifiers that have their “signifieds” in the virtual reality of language.

In this way, the words by which Ito describes “MUDsex” are signifiers that have the ability to signify without signifying anything distinctive and unique, and, accordingly, the sexual in Ito’s MUD theory is a lacuna, a significant absence, that signifies by and through its absent presence: excited sex talk the substance of which consists of excited sex talk, talk about “sex” as self-referential linguistic play in which “the sexual” is something that “matters” by way of its imaginary presence. In other words, “MUDsex” is a prosthetic signifier the signified of which is a phantom, a linguistic object that is significant in its absent presence (cf. Derrida 1984a [1972/1968]: 6, 1984d [1968]: 62, 65, 1984e [1972/1971]: 313–315, 1978b [1967/1963], 1978c [1967/1966], 1997 [1967]).

But, this absent presence has, in fact, a referent, an indirect referent that looms behind the self-iterating sex talk that constitutes “the sexual” in “MUDsex.” Thus, the referent of Ito’s sex talk is not so much sex as gender; a category that in itself, of course, is an essential aspect of MUD subjectivity, sexuality included (whatever it is). This, of course, is understandable, because in contemporary American culture, a culture that is obsessed with the problems concerning the presentation of the self in the marketplace of personal success, especially in terms of the sexual and its bodily markers (see, for example, Lowe 1995; Johnston 2001b; Gimlin 2002; Pronger 2002), gender is pronouncedly a matter of identity politics, first and foremost with regard to what the “personal” is in personality. For this reason, the appeal of the virtual has a specific meaning in the American context: it is part of postmodern identity play. As Ito points out:

This is not to say that the virtual body lacks substance. Tenar is a unique, well-developed, and profoundly real partial embodiment of Melissa. She describes herself as constructing an online description of herself that recalls her svelte eighteen-year-old body. And she tells me, with disarming honesty, “I don’t bring Melissa into the game, but I bring Tenar back with me.” In other words, Melissa is invisible from the point of view of Tenar, but Melissa sees Tenar as a more positive self image that animates her real life. (Ito 1997: 96; emphasis mine)

What is important here, for Ito, is that Melissa and she “fully participate in an online reality that is not reducible to experiences localized by our biological bodies” (ibid.). For both of them, MUD worlds constitute a “reality that matters”; and, according to Ito, both of them are able “to occupy unique subject positions within the MUD universe that are related in partial and shifting ways to identities localized by biological bodies” (ibid.; emphasis mine). Instead of us hearing more about the “unique subject positions” – in which way they are unique, in comparison to what? – Ito only returns to these two all-explaining, axiomatic, terms that in themselves need no explanation: the virtual and the prosthetic; terms that have been increasingly circulated and recycled in postmodern techno-discourse since the 1990s (see, for example, Brahm & Driscoll 1995; Heim 1998; Dixon & Cassidy 1998; Shields 2003; Smith & Morra 2002b).
In an unexplained, mysterious way, reminiscent of McLuhan’s (1964) enthusiastic visions of media as “extensions of man,” that is, media as an empowering enhancement and amplification of the human body by technological supplements to expand it to global dimensions, “the prosthetic” and “the virtual” that constitute MUD cyborgs in Ito’s scenario promise to augment their corporeal faculties in order to expand them to ever-new worlds present in their absence, thus allowing for sexual experiences impossible in this poor mode of human existence known as “real life,” life in the flesh, or, in terms of the “cyber,” meat (see Dery 1996: 91, 116, 247–253; cf., for example, Morse 1994: 157–158; Sobchak 1995: 211–212; Wilson 1996: 224; Plant 1998: 33; Botting 1999: 8, 17, 150–153, 158–169, 181–186; Cavallaro 2001: 147–150; Adam 2002: 159–160; Bell et al. 2004: 8–9; Haney 2006: 94; 2000 [1997]; in the context of “medical ethics and feminism,” cf. Rothfield 1995: 168–169). So, to get rid of the profanities of the mundane reality let us return to the sublime world of virtuality.

In considering the complex couplings and decouplings of MUDders from and between fantasy worlds, virtual identities emerge as extensible and malleable, but also particular, contingent, and embodied through the prosthetic technologies of computers and computer networks. These virtual characters can be seen as alternative reembodiments in a partially disjunctive world, with complex mechanism for handling connection and accountability that are absolutely contingent on the technosocial apparatuses that produce their effects. (Ito 1997: 96; cf. Stone 1992, 1994b, 1995d, 1995e)

“Virtual” and “prosthetic” forms of “reembodiment” – here we have it, reformulated and actualized, McLuhan’s (1964: 56) vision in the 1960s that in the “electric age we wear all mankind as our skin,” or then again, Leary’s (1994a: 17) psychedelic scenario of re-engineering the human being, enabling us to “don cybersuits, clip on cybergoggles, and move around in the electronic reality on the other side of the screen.” The only difference is that Ito is speaking in terms of poststructuralist theory recasted in terms of cyber discourse; that is, the “post” seen through the “cyber.” All the same, there is no use asking what she means because in the world of the virtual and the prosthetic a rose is a rose is a rose, or, virtual sex is sex in virtual reality, in other words, virtual sex, that is, sex in virtuality. In this world, thinking is made simple, provided, of course, that there is thinking at all: you ask something the answer to which is implied by your question, and therefore, if you do not know the answer, you do not know what you are asking.

That is the logic of the “cyber” in terms of the “post”; the logic of cyber discourse as a mode of post-theory.

How to Couple with “Prosthetic Devices”?

Cyber discourse, however, is not a self-fulfilling prophecy, but a self-repeating and self-replicating linguistic game in which what you write is what you get. Thus, it does not come as a surprise that some pages later we once again hear:

MUDder subjectivity, then, is both enabled and policed by sociotechnical structures of extension and control that are distributed through global computer net-
works. They are neither disconnected from nor reducible to subjectivity localized by the biological body in a fixed locale, but are concretely re-embodied through computational prostheses. (Ito 1997: 99; cf. Stone 1992, 1995e; Poster 2002, 2004)

Instead of explaining what exactly “sociotechnical structures” and “computational prostheses,” or, as above, “technosocial apparatuses,” are, Ito only adds that she might “suggest an understanding of the virtual as the computationally embodied, rather than as the dematerialized” (Ito 1997: 100; emphasis mine). Here, the circle closes, and we are back at the beginning, at the Harawayan cyborg. The question is again about “machine bodies”; a question that “returns us to the issue of the boundary between the physical and the non-physical in computers and computer networks” (ibid.); in other words, a rose is a rose is a rose. And then the conclusion:

From the point of view of the human user, online worlds provide opportunities for creative bodily forgetting, where the user is plunged into a sort of magical realm of the digital. The machine, in this scenario, is a faithful extension of user agency, its bodily processes rendered invisible to maintain an ideally seamless fantasy abstraction. In the discourses around the Internet, machine bodies are similarly rendered homogeneous and invisible, silent and faithful enactors of a global web of seamless information. What this picture leaves out, and what social and cultural studies of science and technology draw attention to, are heterogeneities, the concreteness, and the local particularities – in short, the material – of information. (ibid.: 100–101)

Exactly, that is the problem, indeed. Ito’s own account is a telling example of it. The “machine body,” the “cyborg”, the “virtual”, the “prosthetic,” and last but not least “MUD sex” – what else are these cryptic terms but fashionable words that help us to forget our embodied existence, that is, our corporeal and carnal embodiment that is the very condition of possibility of our existence in the real world? In my reading, this is precisely “creative bodily forgetting” typical of cyber discourse (cf. Sobchack 1994, 1995, 2004, 2006).

All these self-important terms in Ito’s presentation are suggestive buzz words without any substance: they are “free-floating signifiers,” game tokens in a postmodern linguistic game that I call cyber discourse. For Ito (1997: 101), the “heterogeneous materialities and localities,” referred to above, are “excruciatingly difficult to see, since the technically naive ethnographer participates in the same systems of erasure.” That is clear. But is it, in fact, Ito’s own technoeuphoric verbiage that effects this erasure? Thus, after the confession of her own powerlessness, how should one understand her comment upon it that this is “not to say that these systems of erasure are not powerful and enabling; they are the very basis of our successful couplings with prosthetic devices” (ibid.).

What on earth are these “couplings with prosthetic devices” – if not compounds of self-referential signifiers, equivocal and evasive linguistic figures that by their suggestive polysemy facilitate forgetting our real life bodily existence, camouflaging it by what I call prosthetic writing, writing resorting to linguistic prostheses: the prostheses of the “post” and the “cyber”? 
In the end, Ito only returns (once again) to Haraway’s cyborg which, for her, “suggests translocal networks and relations that are never disembodied or deterritorialized into a homogenized global imagination” (ibid.; emphasis mine). Indeed, all this is suggestive, but what else? Of course, Haraway’s cyborg is a theory-totem for Ito, as for so many other cyber-theorists. I have nothing against it; neither have I anything against people finding their pleasure by playing text sex in MUD worlds or wherever else, and whatever sex might be here. There are in the world so many forms of pleasure, be it sexual or whatever else, and that is as it should be: enjoying pleasure according to our own personal proclivities is an essential part of our freedom as individuals. But the question is: why is the real world so difficult to see in contemporary cultural theory, especially in its most postmodern form, in post-theory? My answer is: simply because there are, in terms of the “post,” so many fantasies that obfuscate the world in its reality, that prevent us from seeing reality in its heterogeneity, concreteness, particularity and materiality.

An abundant source of these kinds of delusive fantasies is the virtual reality of language that constitutes cyber discourse, the linguistic universe of the “cyber” in which everything is possible because in terms of the “cyber” nothing is impossible.

3.4.3 How to Grow a Penis in a Few Minutes?

As we know, “In the beginning was the Word, and the Word was with God, and the Word was God” (John 1:1); “And the Word became flesh and dwelt among us, full of grace and truth” (John 1:14; cf. Haraway 1991a: 149–155, 1991d; for Haraway’s “cyborg myth” as a postmodern origin story in terms of “cyborg theology,” cf. O’Leary & Brasher 1996: 263–264; Waters 2006; Cole-Turner 2011). If this initial transformation of the immaterial into the material, the spiritual into the carnal, is the very origin of the human being, the origin of a being that has come into the world as a creation of the divine logos, an omnipotent word (for the idea of the logos as “the Word of God” in Christian theology, see Lawson 1986 [1980]: 48–49), what will happen if the created emulates the creator in a reversed act of creation by turning the flesh into the word of its own making?25

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25 *Genesis*, the Creation of the world, is retold by St. John (The Gospel according to St. John, 1, 1–8). At the origin of all being is the Word, the logos, and the coming of the human being into the world takes place through a metamorphosis. According to the German Luther-Bibel (Johannes 1, 1–2), *Das Wort ward Fleisch*; this is the divine genesis of the human being, the becoming of the word into the flesh, *Fleischwerdung des Wortes: Im Anfang war das Wort, und das Wort war bei Gott, und Gott war das Wort.* All that is thus given in God’s Word; this is the origin of the human being: *Und das Wort ward Fleisch und wohnte unter uns* (ibid.: 1, 14). What is important here is, firstly, that the “flesh” is the expression for the earthly existence of human being, a worldly, mortal being, in contrast to the immortal, everlasting existence of God; and, secondly, while God’s Word, the logos, as the origin, reason and ground of all being, is spirit, and as such immaterial, the human flesh, sarx, as a material substance, is the very symbol of the alienation of the human being from God, the emblem of the irrevocable corruption and depravity, in a word, the sinfulness, of the human. For this reason, the carnal body is the hotbed of all evil, the source of death, in the Western tradition: the flesh is the origin of perdition. In this light, what follows in this subchapter is, at the same time, an apotheosis of human arrogance, and a manifestation of blasphemy.
The Bible, of course, opens up an important perspective to this question. There is, however, also another perspective, referred to, for example, by Haraway (1991e: 71); a perspective of linguistic philosophy discussed by Lewis Carroll (1994b [1872]), as we saw in the introduction to the present study. To recall: “When I use a word,” we hear Humpty Dumpty say, “it means just what I choose it to mean – neither more nor less” (ibid.: 100). “The question is,” Alice responds, “whether you can make words mean so many different things” (ibid.). “The question is,” Humpty Dumpty retorts, “which is to be master – that’s all” (ibid.; cf. Deleuze 1990 [1969]: 17–22, 80–92); that is, at issue is, in Lacan’s (1977e [1966/1953]: 81) words, who is “the master of the signifier” (emphasis mine). Indeed, there are as many worlds as there are speakers: your words define your world. Or, as Ludwig Wittgenstein (1995b [1922]: 67) says: Die Grenzen meiner Sprache bedeuten die Grenzen meiner Welt, “The limits of my language mean the limits of my world” (Wittgenstein 2002 [1922]: 149; cf. Goeres 2000: 45–52; Nelson 2002). Or, as Lacan (1977e: 65) teaches us, “[i]t is the world of words that creates the world of things” (cf. Heidegger 1985a [1957/1958], 1985b [1958], 1985c [1959]).

While, for Haraway (1991e: 71), as it is to be concluded from her way of contextualizing the dispute between Alice and Humpty Dumpty, at issue is who is the master, for me, in contrast, the question is about the way we use words: in what sense do we make a world by words?

Virtual Sex with “Gleeful Cyborgs”

In her discussion on the new, unparalleled manifestations of sexuality in cyberspace, entitled “Flesh Made Word,” with an equally telling subtitle, “Sex, Text and the Virtual Body,” Shannon McRae (1997) argues that Gibson’s science fiction vision of cyberspace as a “consensual hallucination” has now “become a significant reality” (ibid.: 73; cf. Thurtle & Mitchell 2002; Mitchell & Thurtle 2004; in terms of “informatics” and “the informatics of domination,” cf. Haraway 1991a: 161–164, 1997: 2, 129, 132, 170; in the context of “the posthuman,” cf. Hayles 1999; for a critical discussion, see Ebert 1996: 105–115). In other words, in some miraculous way writing, a fictional text, has turned into material reality, into the world we are currently living in. Indeed, if this is really the case, the language of the “cyber” implies a new Genesis, and not only as a temporally limited act of creation (the six days God needed to create the world), but as an unlimited process of continuous recreation: by the force of the “cyber,” one is able to create the world anew every day. That is, the “cyber” is the code word, the shibboleth, opening the way to a mode of being in which, by means of linguistic figuration that follows the logic of the “post,” one is able to write one’s own world into being as a self-generating act of performative writing (cf. Butler 1991, 1993; Haraway 1991f, 1997; in terms of écriture féminine, cf. Cixous 1976 [1975], 1980 [1975], 1981 [1977], 2000; for an overview, cf. Osinski 1998: 151–167; Cavallaro 2003; in terms of the “cyber,” cf. Plant 1995, 1996b, 1997b).
Actually, this is the very ability we desperately need to get along in “the postmodern condition” (Lyotard 1984 [1979]), in the maze of “free-floating signifiers” effected by the “post”; the more we need it in order to participate in the multifarious activities going on in the world Gibson (1994 [1991]: 27) created by his “neologic spasm,” the “primal act of pop poetics,” the primordially creative act of the “cyber” that constituted the world we are now living in according to McRae.

Gibson’s paranoiac vision of a world rendered nearly uninhabitable by warring multinational corporations whose hegemony is enabled by means of a vast, interlinked information network mirrors current reality with considerable accuracy. Late capitalism is characterized by the growth of multinationals that render political and cultural boundaries obsolete, and whose nexus of control is as intangible as it is total: an electronic network that encompasses the entire world. (McRae 1997: 73; emphasis mine)

Now, if we are supposed to take McRae at her word, we could only say that the Bible is right: the fate of the human being is perdition. What was once Providence is now our self-inflicted destiny: a self-fulfilling prophesy in the form of a science fiction scenario.

This is the Derridean force of the letter (see, for example, Derrida 1978d [1967/1965]: 178–179, 1981c [1972/1968]: 121, 128, 141–142, 158–165, 1984a [1972/1968]: 3–4; cf. Wolfreys 1998; Howells 1999), the potency of the word: writing as the immanent teleology of the written word, writing as an act of signification, writing as a world-constituting act enabling the presence of the absent, writing as the materiality of the immaterial. In this sense, Gibson’s “paranoiac vision,” precisely as a self-fulfilling prophesy, is a text that, for the acolytes, has a superhuman power to materialize in the real world, a world inhabited by beings that are burdened by their carnality, all of them thirsting for a vital word, a word of redemption, a word of ultimate deliverance (see McRae 1996). Of course, we can say that these are just words, and specify that what Gibson, the master mind of all that is “cyber,” has written, and what McRae, spellbound by Gibson’s magic language as the language of world-creation, is rewriting after him, is nothing but a specific way of using language. But this is the very point: the virtual reality of language created by the linguistic figuration constitutive of cyber discourse as a libidinal language enabled by the “post,” by its extraordinary force as the condition of possibility of the “cyber,” its suggestive power emanating from the magic combination of the letters c-y-b-e-r, is the non-essential essence of the post-Gibsonian world we are now living in, its non-foundational foundation (cf. Robins 1996: 83–103; Stallabrass 1995; Brande 1996; for the origin of the Gibsonian world, see Bukatman 1994b; Leary 1994b [1989], 1994d [1988], 1994f [1989]; McCaffery 1994a [1991]; Rapatzikou 2004; Schweighauser 2007).

But what if this were the very problem? If the problem, indeed, is the suggestive power of the word, of course, a suggestive power in a post-Biblical sense: in the sense of the postmodern, engendered by the theory matrix of poststructuralism (cf., for example, Culler 1982; Krauss 1985a [1980]; Johnson 1987, 1995 [1990]; Lawson & Appignanesi 1989; Norris 1992; Sim 1992; Wolin 1992; Dillon...
2000), a theory discourse that has brought about the linguistic universe of post-
theory, and its most spectacular achievement, the world of the “cyber”?

This brings us back to McRae’s theme proper: the idea of “the flesh made
word,” a metamorphosis made possible in a world in which, as McRae (1997: 74)
says, “virtual reality has come to be not so much a fiction as a condition” (ibid.;
emphasis mine; cf. Lyotard 1984 [1979]); that is, an “alternate way of relating
with the world and with other human beings,” to such an extent that “[v]irtual
existence has become so immediate that what constitutes ‘the real’ is called into
specifies that, in Haraway’s words, “our time” is a “mythic time”: “we are all chi-
meras, theorized and fabricated hybrids of machine and organism”; in a word,
“we are cyborgs.” And as in the case of Gibson’s cyberspace, the Harawayan
cyborg is “no longer,” as McRae emphasizes, a “fiction mapping our social and
bodily reality,” but the “lived experience of millions of people who spend most
of their time working and playing in digital space” (ibid.; cf. Kellner 1995: 297–
327; Sloane 2000); that is, in the realm of computer-generated simulation (cf.
Cubitt 2001; Shields 2003), a world that exists in the form of digitality, as an
effect of digital information.

In this context, digitality is not just an epistemological issue; it is the very ontol-
ogy of all being in the world of the “cyber,” a world in which McRae’s “flesh
made word” constitutes an entirely new mode of existence that has once and
for all left behind the Heideggerian world, a world in which das Sein was still
the ultimate condition of possibility of all being (see Heidegger 1976d [1955],

These “millions of people” living in the world of the “cyber” are now, as McRae
(1997: 74) says, “gleeful cyborgs,” the “illegitimate offspring of militarism and
patriarchal capitalism,” “shape-shifters,” discovering everywhere other similar
beings, who “gaze into other eyes, glowing, opaque and shining phosphor-
bright.” Contrary to how it sounds, this is not about a fictional world of a sci-
ence fiction film; this, according to McRae, is our real reality today – although,
as she argues, it is precisely the “real” that has been called into question by the
digital metamorphosis of all being.

If this, indeed, is our world, that is, if we all are now “gleeful cyborgs” who live
most of the time in cyberspace, what does it imply in terms of the sexual?

Virtual sex, including phone sex, erotic email exchanges and encounters on
chatlines, BBSs and virtual communities, enable erotic interactions between
individuals whose bodies may never touch, who may never even see each oth-
 ers’ faces or exchange real names. Popular discussion of virtual sex (or, less
appealingly, “teleedidronics”) has tended to classify it with the type of fleeting,
anonymous erotic experience that can be obtained in sex clubs, pick-up bars or
by calling professional phone-sex lines. This type of discussion tends to analyze
the phenomenon as the result of technologically mediated alienation, moti-
vated by fear – of AIDS, of strangers, or of the fact that the body is rapidly becom-
ing redundant in an age of progressive denaturation. Certainly remote sexual
interaction has come to the fore at the same point in history that various practices that drastically refigure the human body have become popular – bodybuilding, dieting, working out, piercing, tattooing, plastic surgery. All of these can be read as efforts to exert control over the one medium individuals feel they still can control. (ibid.: 74–75; emphasis mine)

This is our fate in the post-Gibsonian world that has come into being after Gibson’s “primal act of pop poetics”; according to McRae, the real world of today: through the “progressive denaturation” of all being, our bodies are “rapidly becoming redundant,” but, as astonishing as it may sound, at the same time our bodies are now the “one medium” we as individuals still feel we are able to control. That is, in the contemporary world, the body, in spite of its superfluousness (see, for example, Stelarc 1991, 1997, 1998; Appleby 2002; Hall 2002; Scheer 2002; Farnell 2000a, 2000b), is not only ours, and as such, our immeasurably valuable property, but, miraculously, it is the very medium of our survival in a post-Darwinian struggle for life. Of course, not the natural body, but the thoroughly technologically redesigned body: the techno-body of the cyborg (see, for example, Hayles 1993a, 1993b, 1993c; Gray et al. 1995b; Gray 2001; Brassett 1997; Angerer 1999; Becker & Schneider 2000; Angerer et al. 2002; Zylinska 2002b). If we can no longer save the world, our paramount hope is that we can at least save our most precious property, our bodies; the bodies that are obsolete and which precisely therefore are to be redesigned and reconstructed as our personal survival machines. This is the optimistic perspective opened up by Stelarc (1991: 591) with his apodictic dictum that “the body is obsolete,” the perspective of the posthuman.

What is at issue here is not only the Krokerian “panic body” (Kroker & Kroker 2988c: 22; Kroker et al. 1989: 203; cf. Lupton 1994a: 35, 1994b; Balsamo 1995a: 218–220; Springer 1996: 40; Williams & Bendelow 1998: 71–72; Dyens 2001: 83–84), but first and foremost the body hysteria typical of the postmodern; a mode of discursive hysteria constitutive of post-theory. In this constellation, it is not difficult to understand the enormous value attached to all that is sexual in the postmodern. This is the meaning of what I call “sex,” the idea of post-sex, at its most sublime level: a hysterical theorization around sexual desires and pleasures, also manifested by the hysterization of the language in which “the sexual” has become an excitating and alluring linguistic figure, a seductive theoretical phantasm, in the manner of the “post” (see, for example, Potts 2002; Parisi 2004; Perniola 2004 [2000]).

From this perspective, it is only consequent that for McRae “virtual sex” now belongs to the affective economy of the postmodern subject, a self only interested in its own survival; survival in terms of the ego-politics of the subject as the maximization of affective experiences (cf. Hardt & Negri 2000: 214–218). The hard reality of the Gibsonian world, the all-consuming, omnipotent superiority of global capitalism, has dictated living conditions under which the maximal use, the high-rate performance, of one’s own body is the vital interest of each and every one who wants to cope with the everyday challenges of life. “Dem-
onstrating an adaptability admirably in keeping with the seemingly endless evolutionary permutations of capitalism,” these survival subjects have “turned the machinery of power into sources of pleasure,” thus resisting, as McRae (1997: 75), appropriating Foucault for her purposes, says, the “grips of power with the claims of bodies, pleasures and knowledges, in their multiplicity and their possibility of resistance” (cf. Foucault 1990k [1976]: 157; McWhorter 1999: 107–116, 123–135).26

While for Foucault (1990k: 154–159), the “possibility of resistance” is not given by sex and sexuality, but on the contrary, by the forces of the body liberated from the constraints of all that is sexual, McRae strives for an excessive sexualization of the body as the vehicle for the liberation of the subject. This is the context of what McRae calls “virtual sex.”

In the framework of “virtual socialization,” one can now experiment with “sexual interaction” (McRae 1997: 75); that is, in the realm of digital simulation, “sex” has turned into a personal laboratory of desires and pleasures. But, at the same time, in the midst of excessive sexualization of Western culture (see, for example, Seidman 1992: 87; Sigusch 2000, 2005; Guillebaud 2001 [1998]; Attwood 2006, 2010), under the pressure of “hypersexualization” of the contemporary way of life (Poulin & Claude 2010), “the sexual” in “sex” goes through an inflation, an implosion of meaning. In this situation, there are now even people for whom, according to McRae (1997: 75), virtual sex is no more “interesting or personally transformative than any other kind of semi-anonymous erotic encounter” since it is “no more immersive” than an “interactive Penthouse Forum.” And, as always when new technologies are introduced, there are contradicting fears and hopes.

While some may well find technologically facilitated eroticism to be a disembodied, alienating and ultimately meaningless experience, others, however, have discovered that it can be as involving, intense and transformative as the best kinds embodied erotic encounters, and that furthermore, its virtuality enhances rather than detracts from the experience. (ibid.; emphasis mine)

What is it in “virtual sex” that makes it sexually “involving, intense and transformative” – what is it, specifically, as sex? “Virtual sex,” McRae argues, “allows for a certain freedom of expression, of physical presentation and of experimentation beyond one’s own real-time limits” (ibid.). In these terms, virtual sex, for McRae, is part of the anti-metaphysical project promoted by all that “post.” “At its best,” as McRae asserts, “it not only complicates but drastically unsettles the

26 It should be noticed, however, that as it is typical of postmodern theory, McRae turns Foucault’s idea upside down here. For Foucault (1990k: 157), the point is expressly, as he says, that “[i]t is the agency of sex that we must break away from, if we aim – through a tactical reversal of the various mechanisms of sexuality” (emphasis mine), and it is only after this setting of the objective that Foucault continues with the passage quoted by McRae, namely, “to counter the grips of power with the claims of bodies, pleasures, and knowledges, in their multiplicity and their possibility of resistance.” For Foucault, the point is to find out and release the forces of the body itself that constitutes the “rallying point for the counterattack against the deployment of sexuality” (ibid.; emphasis mine), and the hard core of this attack “ought not to be sex-desire, but bodies and pleasures” (ibid.; emphasis mine).
division between mind, body and self that has become a comfortable truism in Western metaphysics” (ibid.). The keyword here is precisely “virtuality” – which, however, in a typical manner, remains undefined.27 While in non-virtual reality, we take “mind,” “body” and “self” as integral aspects of our corporeal existence, of being people as independent, autonomous and unique individuals, in contrast to that, when “projected in to virtuality” these dimensions of our subjectivity turn into “consciously manufactured constructs through which individuals interact with each other” (ibid.; emphasis mine).

It is this radical transformation of our corporeality and subjectivity in virtual reality that gives us, according to McRae, an opportunity never seen before: the opportunity to invent and experiment entirely new forms of sex and sexuality (cf., for example, Sundén 2002b: 302–307; Mey 2007: 148–150; Plant 1998; Parisi 2004; Perniola 2004 [2000]).

A Centaur with a “Really Huge Cock”

Where exactly is this “virtuality” into which we can “project” our minds, bodies and selves? It turns out that what are actually at issue here are MUDs or Multi-User Dimensions (or Dungeons), that is, interactive computer games. These “networked, multi-participant, user extensible systems” are “commonly found on the Internet” (McRae 1997: 76; cf. Turkle 1995: 151–170; Bruckman 1996 [1993], 2001 [1998]; Bruckman & Resnick 1996 [1995]; Bruckman & Jensen 2002; for an overview, see Williams & Smith 2007). “MUDs are text-based virtual worlds” providing, as McRae (1997: 76), referring to Elizabeth Reid’s (1996 [1994]) seminal study of MUD worlds, says, “highly complex, extremely vivid environments in which the user experiences a feeling of actual presence”; as such, MUDs are “communities, imaginary environments that allow for very real emotional and social interactions” (cf. Curtis 1996 [1992]: 347–350; Kollock & Smith 1999: 7–15; O’Brien 1999: 86–101; Reid 1999: 107–132; Ivory 2009: 15–19). In these environments, according to McRae (1997: 76), the players “interact with other players with bodies that they construct.” It is here that we are approaching the idea of virtual sex:

The feeling of being embodied in actual space is often sufficiently “real” that the senses are engaged in a complex interchange of experience between a physical and a prosthetic body. Players similarly engage with each other in meaning-

27 While McRae (1997: 75) leaves the term virtuality undefined, she finds it “useful to clarify what ‘virtual reality’ actually is”; McRae then gives a definition quoting Elizabeth Reid, for whom “virtual reality” involves “systems that offer users visual, auditory and tactile information about an environment which exists as data in a computer system rather than as physical objects and locations” (ibid.). This is “the virtual reality depicted in The Lawnmower Man and approximated by the Virtuality arcade games marketed by Horizon Entertainment” (ibid.). As we can see, virtual reality for McRae means, firstly, science fiction visions and, secondly, game worlds. Moreover, by virtual reality McRae refers to a wide spectrum of technocultural phenomena, from the “technology that was used in the Gulf War” to “various telephone and online chatlines, bulletin board systems, newsgroups,” and “commercial service providers” (ibid.: 76). In addition to that, the “richest, complex and most comprehensively elaborate environments are MUDs” (ibid.; cf. Reid 1995, 1996 [1994]; O’Brien 1996, 1999); in the rest of the article virtual reality means simply interactive texts on the computer screen. Accordingly, “virtual sex,” for McRae, is all kinds of sexual expressions enabled by new technologies. But, after all, what the virtual in itself is remains unanswered here.
ful, complex and frequently intense ways, in the absence of the conventions of nuance, gesture and tone that facilitate human interaction. (ibid.; emphasis mine)

Taking into account the mystification that surrounds the idea of “the virtual” in the context of computer-generated interactive environments, it is appropriate to recall here that, as McRae says above, “MUDs are text-based virtual worlds” (emphasis mine); in other words, the sensation of “being embodied” between a “physical” and a “prosthetic” body is entirely a textual experience: the body on the screen is a writerly body, a body that is suggested by appropriate descriptions pertaining to the characters which, in themselves, are fictive creations, game figures that, though experimental in their intention, reflect in their own way conventional role and behaviour models (cf., for example, Sloane 2000: 168–173; Giannachi 2004: 89–94; for an overview, see, for example, Schaap 2002; Rutter & Bryce 2006). That is, in the MUD worlds, how suggestive as the figures and their actions ever are, they consist of textuality: what you write is what you get.

The idea of the “prosthetic body” is an issue in itself; what is important here is the question as to how one has sex with “bodies” that are only words on the screen; to emphasize: sex in the sense of sex with somebody, sex with someone else, not in the sense of sex with oneself which, of course, is always possible in front of a computer screen, at the interface: sex in the form of masturbation. Firstly, though, it is illuminating to consider what a MUD experience is. Quoting once again Reid, McRae explains:

Despite the absence of the familiar channels of interpersonal meaning, players do not fail to make sense of each other. On the contrary, MUD environments are extremely culturally rich, and communication between MUD players is often highly emotionally charged. Although they cannot see, hear or touch one another, MUD players have developed ways to convey shades of expression that would usually be transmitted through these senses. […] On MUDs, text replaces gesture, an even becomes gestural itself. (McRae 1997: 76–77; emphasis mine; cf. Stone 1995c; Reid 1996 [1994])

After choosing a gender and describing himself or herself, a MUD player is ready to enjoy sexual pleasures in the virtual reality of textuality. Players communicate with one another by the commands called “the ‘say’” and “the ‘emote’” (McRae 1997: 77). Especially through the “emoting,” that is, gesturing, making facial expressions or striking a pose by means of linguistic figures, the players are able, as McRae argues, to convey a “richness and variety of communicative nuances” which are not possible in other electronically mediated environments. “For this reason, sexual engagement takes on a dimension quite different from other virtual encounters such as phone sex, email or bulletin board systems” (ibid.; cf. Stone 1992, 1995c, 1998).

According to McRae (1997: 77), it is precisely this “lack of physical presence combined with the infinite malleability of bodies on MUDs” that “complicates sexual interaction in interesting ways,” and even allows for “erotic experiences that would be painful, difficult or simply impossible in real life.” In particular, by appearing as “anthropomorphized animals” and engaging in various “unique
sexual practices” MUD players can enjoy pleasures that are otherwise not possible (ibid). One of the “classic forms of animal sex is predator/prey S & M” in which the “submissive partner is eaten at climax” (ibid.: 78).

Understandably, there are players who “are quite zoophilic and don’t like having sex with a human” (ibid.). As one player relates about his experiences:

I met a bear in a bar once, and followed him home. That lead to an S & M scene where he was dominant. [...] He bit me and threatened me with his teeth and claws. [...] Some players sort of invent new kinds of sex organs. For example, there was a centaur that had a really HUGE cock. But he was submissive, and what he liked was for people to fuck his cock. It was like a vagina on the end of a giant penis. (ibid.; emphasis mine)

What is the idea here is sexual experimentation, in such “primal” forms that are only possible on MUDs, for example, experiments that include the “sensual and psychic effects” of “predation, claws, teeth, size and strength parameters” (McRae 1997: 78). According to one player:

Some players are small. Like an ermine who likes me always wants to be taken home and used like a sex toy. The ermine would climb up my pants leg, etc. I didn’t really get into it. Too silly for me. (ibid.; emphasis mine)

But if you do not like the proposals made by your virtual sex partner appearing on your computer display in the form of textual description, no problem, you can always change the site. You have an absolute freedom of choice, and, conversely, an absolutely unlimited choice of freedoms you like; everything depends on your ability to give your desires and fantasies a textual form, a writerly presence.

For gender-benders, MUD worlds are, of course, a paradise. Here, gender, indeed, is a “body option” (cf. Angerer 1999a). According to McRae (1997: 79), this allows for “gender as a primary marker of identity to be subverted.” In these terms, also sexual orientations, desires and acts turn into something that has no name. For example, if in a game girls are actually boys, “what occurs is not a heterosexual experience at all, but either an enactment of a lesbian experience or two boys making love while one or both are assuming female bodies” (ibid.; cf. Kendall 1996, 1998; Bassett 1997; Livingston 1997; Danet 1998; Sofoulis 1998; Turkle 1998; O’Farrell & Vallone 1999; Sundén 2002a, 2002b; Volkart 2005; Emig 2006).

For McRae, this is not just gaming in the manner of the postmodern (cf. Lyotard 1991); here the game suddenly takes a serious turn: it becomes theory.

If boys can be girls and straights can be queers and dykes can be fags and two lesbian lovers can turn out to both be men in real life, then “straight” or “queer,” “male” or “female” become unreliable as markers of identity. It is not so much that gender roles or sexual preferences actually change as that cross-gender role play troubles the link between gender and desire, from which we, usually unquestioningly, construct our identities as sexual beings. Gender becomes a verb, not a noun, a position to occupy rather than a fixed role. In many cases, gender becomes the effect that one individual can have upon another. (McRae 1997: 79–80; emphasis mine)
As we can see, sex, gender and desire no longer belong to the same continuum here (cf. Butler 1990, 1993); as “markers” of identity, they are similar to post-modern “free-floating signifiers”; that is, signifiers without a signified. In these terms, sexual pleasure (whatever it is) is not a fixed form of corporeal – or, spiritual or whatever – sensations and affections, but a highly volatile, and, as such, idiosyncratic mode of experiencing one’s own “body,” a textual body imagined by means of writing, a body that is present in its absence. To what extent this is possible in real life depends on the conceptual optics one chooses: gender identity and sexual orientation do not follow given categories, because all categories are generalisations that are simply too narrow to express the multifariousness of individual modes of existence (cf., for example, Kipnis 1993; Bornstein 1994; Queen & Schimmel 1997; Ainley 1998; Bromley 2004; from a historical perspective, see, for example, Friedli 1987; Herdt 1994; Abrams & Harvey 1997; Laqueur 1992a [1990]; Jordanova 1999; Mounsey 2001; Harvey 2004; Vidal 2004a; Timm & Sanborn 2007). However, it is another matter altogether whether virtual sex as text-sex in the form of a computer game in MUD worlds can subvert real gender categories that are not just words, but concrete facts of lived reality (cf. Fausto-Sterling 1992 [1985], 2000). And, as we very well know, this reality is certainly not virtual: it is real.

It is also another matter altogether whether virtual sex – to recall, sex as textual descriptions of desires, acts and pleasures – can be a sexual experience as an experience, an experience that is experienced corporeally, in the body in its carnal existence. Certainly, whatever one experiences sexual is sexual for oneself, no question. As a straight male player playing female, interviewed by McRae (1997: 82), related how he had “found playing female to be intensely transformative,” and, without ever having a “male lover in reality,” how intense it was for “her” to “experience herself as female while engaged in sex with a male-presenting player”:

> When you’re getting fucked by a man there’s this amazing thing […] you realize you’re being given all this energy and power […] it courses through you and you can channel it, throw it back, turn up the voltage, make it explode, shoot it out your fingertips […] Or just surf it like a wave […] only it’s both inside and outside you, dissolving. […] God only knows what weird stuff I’m saying about femaleness and […] [maleness] and myself and who knows what, but I feel it strongly. (ibid.)

This is a description of a sexual experience in real life (of course, in so far as it is rendered adequately), not virtual sex, but a real experience that is effected by a virtual experience in the sense of textual simulation (cf., for example, Kroker & Kroker 1993b: 15–18, 1995; Burnett 1995: 221–222; Juffer 1998: 100–103; Hayles 1999: 256–258; Kurzweil 1999: 184–187; Burdea & Coiffet 2003: 277–279; Bartle 2004: 508–555; Parisi 2004: 5–41; Wajcman 2006: 102–105; Williams 2008: 313–325). What, however, remains unclear is whether this experience took place as an imaginary act in front of the mind’s eye, or, in one way or another, as a corporeal enactment, an act of self-sex, whether corporeally felt imagining or through masturbation or a combination of both.
Things get even more complicated with regard to what is called the “Spivak” gender available on LambdaMOO, with its invented gender pronouns to replace the ordinary “he” and “she” with markers like: “e,” “em,” “eir,” “eirs,” “eirself” (McRae 1997: 82; Danet 1998: 139–150; cf. Kendall 1996; McRae 1996). In the game reality of virtual games, this playful gender system has not only enabled gender-bending, but also allowed “to sidestep the restrictions of human anatomy,” because a “Spivak” being can have “any morphological form and genital structure” (McRae 1997: 82). Interviewed by McRae, a female player described “her experience of a Spivak body with an imaginative richness and sensuality that pale the erotic potential offered by unexamined enactments of female or maleness” (ibid.):

For me, spivak is able to transform very quickly […] well maybe gradually […] say, grow a penis in a few minutes […] And two spivaks means that one could shape the other, as well […] if the other allows the suggestions […] and for me there’s also these little extensions […] like very fine root hairs on a tree root […] anyway […] They are very sensitive […] and as love-making progresses […] they stroke, penetrate, and even fuse. Also, spivak sex, for me, involved musical tones from deep inside the chest, much like cat’s purring […] and little chiming sounds from those tentacles. (ibid.: 82–83; emphasis mine)

Here, once again, we have a real life sexual experience (of course, provided again that the rendition is correct) that is based on an imaginary act. But this is exactly the way “the sexual” in sex functions in general, whatever it as sexual is: “the sexual” in sex is always already a fantasy product (see, for example, Creed 1997: 26–31; Laplanche & Pontalis 1989 [1964]). In this respect, a MUD game is only a technologically advanced way to orchestrate sexual fantasies that as such, in their origins, are not dependent on technology. In other words, what the MUD player encounters on the computer screen and experiences as corporeal sensations and affections are his or her own projections given a form by computer technology, nothing more, but nothing less either. Sexual fantasies are sexual fantasies, not computer fantasies – unless the object of the fantasy happens to be the computer as computer, as a fetishistic object.

How can you “grow a penis in a few minutes”? This question pertains to the faculty of imagination, not the capacity of computer imaging. This difference has lost its relevance in the world of cyber discourse in which the subtle distinctions between the imaginary and imagery make sense as little as the differences between fantasy and reality.

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28 The “Spivak” gender system was invented by Michael Spivak, a mathematics professor, and explained in his book The Joy of TEX: A Gourmet Guide to Typesetting with the AMS-TEX Macro Package (1990). It was adopted by LambdaMOO and other similar game worlds to enable a gender flexibility in MUD worlds beyond the real life restrictions. Of course, one can participate in a MUD without gender indication, but it has occurred again and again that one is repeatedly disturbed by requests by other players to define one’s gender with the available markers; in this sense, “Spivak” gender system allows for an anonymity that is nevertheless defined by a “gender” (see, for example, Danet 1998: 140–143; Bell 2001a: 124–125; Green & Adam 2001: 148); that is, against theories proclaiming the abolition of gender in cyberspace, gender is a constant coordinate in the game world, regardless what exactly it happens to be.
The Art of “Eroticizing Technology”

For McRae, the *differentia specifica* of virtual sex is that – precisely in the manner of postmodern theory – it is able to disintegrate, to “decenter,” the subject (see, for example, Smith 1988: 117–120; Featherstone 1991a: 101–102; Poster 1995b: 32, 35, 57, 77, 88, 90–91, 93; Best & Kellner 1997: 9; Barvosa 2008: 5–17, 84–89, 194–203). And it is in this connection that the hard core of virtual sex, as it is conceived of by McRae, comes to the fore: virtual sex is subversive because it disrupts the conventional heterosexual notions of sex, gender and sexuality, the entire paradigm of the “heterosexual matrix” or “compulsory heterosexuality” (see, for example, Emig 2006: 193–206; for the origin of the idea, see Rich 1980; Butler 1990; Wittig 1992 [1976/1982]). It is exactly here that one can see why McRae (at the beginning of her presentation) mobilizes Foucault as her Patron Saint: for McRae, virtual sex is ultimately about Foucauldian “bodies and pleasures” (see Foucault 1990k: 157–159; cf. McWhorter 1999) that can be enjoyed now beyond the prevailing sexual order, in the free zone of virtual reality of computer games; that is, in this constellation, “sex” is a game token with a variable value, in other words, a “free-floating signifier” in the mode of the “post.”

As a counter paradigm to “compulsory heterosexuality,” virtual sex, projected by McRae in the spirit of Foucault’s “bodies and pleasures,” is a post-utopian utopia of free-flowing sexuality that is liberated from gender identity and sexual orientation; a utopia that, in terms of the sexual, breaks away from the idea of the subject, the idea of an integral self.

As is also true in drama, ritual, liturgy and certain sexual practices, a role within the context of a given scene can be enacted with such focus and intensity of purpose that the “I” becomes meaningless, standing outside the self in a state of ekstasis, quite literally a being put out of its place, enraptured, seized by force, bursting, smitten. When intense erotic union is accomplished in a void, in which bodies are simultaneously acutely imagined, vividly felt and utterly absent, the resultant sense of seizure, of scattering, of self-loss can be experienced as a violent mingling of pleasure and pain. (McRae 1997: 83; emphasis mine)

It is clear that McRae is here “enraptured, seized by force”: entranced by what I call the *ecstasy of theory* typical of all that is “post.”

Of course, what McRae is evoking by her ecstatic words has a counterpart in real life. This kind of *ecstatic non-sexual sexual experiences of subversive sex* (whatever it is) is a recurrent topic in descriptions of various sex practices that have set themselves apart from heterosexuality, in their sexual fantasies lived and acted out in real life corporeal acts, as well as reflected in texts promoting and legitimating non-heterosexual forms of desires and pleasures (see, for example, Kroker & Kroker 1993a; Bornstein 1994; Califia 1994, Case 1996; Matthews 1997; Dean 2000; Weiss 2006; Donnan & Magowan 2009b). This is literally palpable sexual reality of homosexual, lesbian and queer sex practices as it is lived daily all over the world (see, for example, Warner 1993; Bell & Binnie 2000; Boone et al. 2000; Halberstam 2005): subversive sexual activities practiced in real life (from a historical perspective, see Maccubbin 1987; Rousseau & Porter
An entirely different matter, however, is the virtual reality of computer games theorized by McRae – if we for a moment put aside the complex question as to what it is exactly that is *virtual* in virtual reality (cf., for example, Cubitt 2001: 118–122, 132–134; Grau 2003; Woolgar 2002; Shields 2003). What happens on the computer screen in the form of textual descriptions is real only as textual descriptions, as the imaginary world suggested by sexually explicit language, exactly in the manner McRae illustrates by her examples which reflect, in one way or another, the sexual reality of those involved. But these *textual-sexual acts*, of course, do not happen in real life: they take place in the *virtual reality of language*, in the same virtual realm that is the condition of possibility of cyber discourse, the discursive world in which also McRae’s theory of virtual sex is located.

For McRae (1997: 83), the best way of experiencing sexual ecstasy as “self-loss,” described by her above, implying a true *ekstasis*, a state of “being outside oneself” (see, for example, Dillon 1995: 157, 162–163; Vannini & Waskul 2006: 188–195), is the “pleasurable-unpleasurable tension of sexuality,” understood as the “pain of a self-shattering excitement,” as McRae (1997: 83) argues quoting Leo Bersani (1990: 36). In this sense, as McRae (1997: 83) says, referring to Bersani’s conception of the sexual body before and beyond the constraints of sex/gender categories, the “human subject is *originally shattered into sexuality*” (see Bersani 1986: 37–38, 1996: 94, 99, 101; cf. Thomas 1996: 20–21; Dean 2000: 164); for McRae (1997: 83); the “self-shattering” of the subject in the MUD environment implies, as she reads Bersani, that “human sexual pleasure may well be inextricably linked with masochism” (cf. Bersani 1990: 36). Accordingly, McRae (1997: 84) claims that in order “to fully engage in virtual sex, an individual must construct an *imaginary body*, transfer her sense-awareness into it as well as onto the body of the imagined other who is similarly focused, and simultaneously double and displace her embodied sense of self” (emphasis mine). And when all this is done, the “intensity of pleasure results from precisely this kind of sustained self-shattering” (ibid.).

What Bersani says is certainly an apposite way to describe sexuality, not only pertaining to sexual practices that are beyond the heterosexual matrix, but the *sexual* in sexuality in general. Yet, Bersani’s *real life* masochism, of course, has nothing to do with McRae’s *textual fantasies* in terms of virtual sex in the realm of computer games, her fairy tale figures, “spivak sex” and “cat’s purring,” for the simple reason that Bersani does not speak of MUD worlds in his discussion of sexuality and homosexuality (cf. Bersani 1987, 1996, 2010; Dollimore 1991, 1998; Hocquenghem 1993 [1972]; Goldberg 1994). When McRae (1997: 84) concludes that “Bersani’s discussion of masochism might be one useful model to account for the kind of intensity that some individuals experience during virtual sex,” she has taken a big leap into the virtual world of theory enabled by the virtual reality of language constitutive of post-theory; that is, McRae’s fan-
tasy sex takes places in what I call the *Disneyland of Theory*, a post-Baudrillardian fantasy world in which theory has turned into simulation and the imaginary has taken the place of the real.

In *real* reality, masochism and virtual sex exclude one another. While masochism is about real bodies that experience real pain, virtual sex, as described by McRae, is about virtual bodies, bodies constructed in writing, bodies existing only as words on the computer screen. These bodies cannot feel pleasure or pain any more than they can feel letters in a text: the living body is not the same as letters on the screen. What a MUD player, as an embodied person in real life, sitting in front of his or her computer, experiences are fantasies that are created interactively during a game session; imagined experiences that are the opposite of the reality of masochism, the palpable reality of corporeal pain achieved by a physical act: real bodies inflicting real pain upon one another, physical pain in its actual corporeality (see, for example, Henkin & Holiday 2003 [1996]; Kleinplatz & Moser 2006).

Then, what about McRae’s second attempt to explain virtual sex? “Another, perhaps slightly less perverse model,” as she says, “is the tradition of Courtly Love” (McRae 1997: 84). According to McRae, like the courtly lover, the “virtual sex partner imagines love scenes” between herself and her beloved that take on an intensity and a reality of their own precisely because actual, physical bodies never meet” (ibid.; emphasis mine; cf. Žižek 1999b: 155–157, 160–162, 168–169, 2002a: 214–215; for the history of courtly love, see, for example, O’Neil 2006; Schultz 2006). Another similarity, according to McRae (1997: 84), is that “nearly all the exchange is enacted in the exchange of words: poetry, music or conversation.” The good side of this explanation, of course, is that it disproves the first one, the model of masochism. The bad side is that while the setting in historical courtly love was real, in contrast to that, virtual sex is by definition virtual, not real, and accordingly: you cannot have both of them at the same time.

McRae’s last resort to try to legitimate her idea of virtual sex in terms of theory is to call Roland Barthes to testify. According to McRae’s (1997: 84) reading, in his *The Pleasure of the Text*, Barthes was interested in the “split” between the writing I and the written text, a highly charged space as the “delirious, lacerating edge between the apprehension of language and the implicit, the imminent death of language (of the speaking ‘I’)” (cf. Barthes 1975 [1973]: 62–66). For McRae, this provides the final explanation for the pleasure effected by virtual sex.

> Paradoxically, the more intensely individuals experienced in virtual sex feel pleasure, the better able they are to evoke bodily intensities in words, leaping onto the gap between utterance and experience, simultaneously enacting the rush of bodily sensation and the writer’s ecstasy at producing text, being-in-text and being-in-body. (McRae 1997: 84)

Sounds fantastic – but what does this mean, what is it that is being said here? In my reading, it is post-theory that speaks here, a writerly mode of theory enabled by the “post”; in Barthes’ words: the “pleasure of the text” typical of...
post-theory in which thinking is replaced by free-flowing linguistic figuration; in other words, the pleasure of auto-suggestion, a specific ability of post-theorists to hypnotize themselves into the ecstasy of theory. Indulging in this pleasure, in the “rush” of, as McRae says, “eroticizing our technology,” it is possible to give free rein to the “pleasures of corporeality that renders meaningless the arbitrary divisions of animal, spirit and machine” (ibid.: 85; cf. Haraway 1991a: 149–155). This is the final truth of virtual sex: your body is an animal-machine driven by the spirit of the “cyber,” a textual-machinic assemblage constituted by the libidinal language of cyber discourse, a post-body that enjoys post-sexual pleasures made possible by the logic of the “post,” the logic of “free-floating signifiers.”

Those who understand this truth have no difficulties in finding out how to “grow a penis in a few minutes” – regardless of whether they are male, female or “spivak.”
Excursus 3: War, Prosthetics and the Emergence of the Modern Body

Sometime, fairly recently, after “the cyborg” became somewhat tired and tiresome from academic overuse, we started to hear and read about “the prosthetic” – less as a specific material replacement of a missing limb or body part than as a sexy, new metaphor that, whether noun or (more frequently) adjective, has become tropological currency for describing a vague and shifting constellation of relationships among bodies, technologies, and subjectivities.

Vivian Sobchack (2006: 19)

For us, in imagination and in other practice, machines can be prosthetic devices, intimate components, friendly selves.

Donna Haraway (1985: 97)

Eine Generation, die noch mit der Pferdebahn zur Schule gefahren war, stand unter freiem Himmel in einer Landschaft, in der nichts unverändert geblieben war als die Wolken, und in der Mitte, in einem Kraftfeld zerstörender Ströme und Explosionen, der winzige gebrechliche Menschenkörper.

Walter Benjamin (1991c [1933]: 214)

If the body is the precondition, the very *sine qua non*, of the subject, how much does the human being need a body to be a subject, a human subject in a human body (cf. von Randow 2001; Orland 2005b; in terms of postmodern body theory, cf. Becker & Schneider 2000; Gieselbrecht & Hafner 2001; Barkhaus & Fleig 2002; Bath et al. 2005)? In other words, what does it imply, if, as Haraway (1991f: 249) claims, that in “the era of techno-biopolitics” we live in an entirely new condition of the corporeal in which “prosthesis becomes a fundamental category for understanding our most intimate selves”? And, if, as Michael Menser and Stanley Aronowitz (1996: 25), commenting Haraway’s contention, state that “[h]ere technology appears in its *most social sense*, in that it acts as relations and mediators among human bodies, which permit sociability, whether it be linguistic, mythological, tools or technologies” (emphasis mine), what, then, is the “social” in prosthesis?

Obviously, these questions are literally existential: they pertain to our very beingness in the world as *bodily beings* in our concrete corporeality incorporating our embodiment in its mundane materiality, the reality of the flesh as our fundamental mode of being: the factuality of human carnality (in Heideggerian terms, cf. Schalow 2006; from the perspective of Early Christianity, cf. Brown 1988). That is, embodiment is not only the precondition of our existence, it is our existence.

In fact, if we are living in a world in which, as Stelarc (1991: 591) proclaims, “prosthetics, robotics and remote existence” determine our “postevolutionary strategies,” is it expressly our duty towards ourselves finally to give up all delusions and face the truth: “the body is obsolete” (ibid.; Farnell 2000a: 114, 121–129, 2000b: 129–133, 140–141; Goodall 2000: 151–152; Nayar 2004: 122–125, 227–228, 255–256; Zylinska 2002b)?


In these terms, then, the question is: what, in fact, was the twentieth century, the “age of extremes” (Hobsbawm 1994) that is still present in our time, at the beginning of the twenty-first century? It was an era of an enforced and accelerated rationalization of the body implying the most colossal irrationality unleashed by scientific-technological rationalism, the reason of the modern (cf. Hüppauf 2001; Misa et al. 2004). In Hal Foster’s (1996: 210) words, it is “a history of world war and military mutilation, of industrial discipline and mechanistic fragmentation, of mercenary murder and political terror”; it is in this “traumatic relation to such military-industrial events that the modern subject becomes \textit{armored}” (emphasis
mine; cf. Spilker & Ulrich 1998; for a comprehensive historical overview of the rationalization of warfare in the form of “war machine,” see Pick 1993).

**Armored?** What is an “armored” subject? It is a subject that, in the midst of the horrors of war, surrounded by fragmented bodies, bodies in pieces, shattered bodies, bodies dismembered by war (see, for example, Tate 1998: 64–95; Koven 1994; Bourke 1996; Forth & Crozier 2005), has shielded itself, hardened itself, armoured itself against all that is weak, undisciplined and chaotic, “feminine,” and thus threatening its existence (for a thorough discussion of the armoured subjectivity of German Freikorps soldiers, see Theweleit 1977, 1978; cf. Henning 1999: 26–29; with regard to “Futurist machines” in “Fascist Modernism,” cf. Hewitt 1996: 133–160; for a reconceptualization of the armored body in terms of armor fou in relation to the Lacanian ego, Dada and Surrealism, cf. Foster 1991); that is, a mode of the subject living in a military body that has come into being in a world in which war is a rationally organized industry, a world in which being a self is not possible except as part of the machinery; a body-subject that is produced not only by the militarization of industry in the sense of the “militarism of production” (Maier 1987: 41), but, more fundamentally, by the militarization of economy, society and culture as a whole: the militarization of the very condition of possibility of being a subject in a world in which the human body has become an auxiliary organ of the machine, and, in *this sense*, a prosthesis of an industrial machinery (cf. Marx 1983 [1867]: 395–407, 441–451; van der Pot 1985: 425–431; Mikkonen 2001: 194–197; Thacker 2005: 176–183; Channell 1991).

This is the Grunderlebnis of the twentieth century (see, for example, Armstrong 1998: 77–105; Robbins 2002 [1984]: 150–163); the fate of the body-subject in the age of the Machine (cf., for example, Giedion 1948; De Landa 1991; Mazlish 1993; Yanarella & Reid 1996; Edwards 2000; Barry 2001; Cooper 2002; Jordan 2010; for a prehistory of the body/machine idea, see Morus 2002).

This is the *modern* in the postmodern: the body that has lost its integrity under the power regime of scientific-technological rationality (cf. Foucault 1976, 1978c [1977], 1978f [1976], 1980a [1975]), elevated now, under the sign of the “post,” to the ideal of being “posthuman” (for a paradigmatic example, see Stelarc 1991, 1997, 1998, 2002a, 2002b, 2002c; cf., for example, Hayles 1999; Żylinska 2002b).

### 3.1 The Prosthetic Reality of the Weimarer Republik

In terms of scientific-technological rationality, the “post” of the posthuman has its origin in the First World War, the apotheosis of productive destruction, a paradigmatic manifestation of the reason constitutive of the modern: the reason of the machine as the driving force of progress (see, for example, Adas 1990 [1989]: 345–415; Karnoouh 2002: 79–80; Bousquet 2009). The Great War, as it came to be called with regard to its all-consuming totality, was the first modern war
as a grand scientific-technological enterprise that cost altogether fifteen million human lives; it was a war that showed “that death, too, could be mass-produced efficiently” (Pursell 1995: 228). Nearly eight million men in Europe returned from the war permanently disabled by injury or disease (Cohen 2001: 295; from the perspective of the home front and the gender divide, see Hagemann & Schüler-Springorum 2002). In Germany, approximately four million of soldiers were severely wounded and three million of them came back from the front crippled, as Kriegskrüppel, as these deformed men were called in the idiom of the time (Kienitz 1999a: 181–187; 2001a: 217–221; Etzemüller 2007: 46; for the history of the term Krüppel, see Fandrey 1990; Thomann 1992, 1994, 1995; Heller 2009). Nearly 80,000 of these men were amputees, some 24,000 with missing arms, and almost 55,000 with missing legs (Fineman 1999: 88; for a disintegrated body image in terms of “Dada’s anti-humanist humanism” as a sign of the times, see Biro 1994, 2009; Gaughan 2006).

These mutilated men no longer embodied the military glory and pride of the Vaterland, instead, each of them personified, as Sabine Kienitz (2001b) says, fleischgewordenes Elend, a “carnal embodiment of misery” (cf., for example, Canning 2006: 101–120; Buschmann & Carl 2001), brought about by militarism operating on the basis of scientific-technological rationality constitutive of the modern (see, for example, Beaver 2003: 376–392; Geyer 1986; Eksteins 1989; Kaufamann 2004). In this sense, the First World War was “a peculiarly modern affair,” a result of the “Industrial Revolution,” that “unveiled the monstrous implications of nationalism and industrialism alike,” finally appearing as “a cruel mockery of the idea of progress” (Kennedy 2000: vii; for the industrialization of war by means of science and technology, see Beckett 2007 [2001]: 214–223, 361–374). Thus, incarnating the instrumental logic of modern mechanical warfare that reduced the human body to a functionalized part of a rationally organized killing and destruction machinery as a scientific-technological apotheosis of the inhuman (see, for example, Best et al. 2004: 6–29; Pick 1993; Strachan 1998; Kramer 2007), these German veterans were turned into living corpses (in terms of radical modernization of medicine, see Eckart & Gradmann 1996; Cooter et al. 1998). In their own bodies, war cripples were living incarnations of war: bodies as war material in the literal sense of the term.

29 The paradigmatic machine in the entire war machinery of the First World War was the machine gun; although invented already several decades earlier in America, it attained its full military significance in the killing fields of Europe between 1914 and 1918 (see Ellis 1986 [1975]). According to David Kennedy (2001: viii), “most murderously efficient of all World War I weaponry was the machine gun, the emblematic military innovation of the age.” Used as “a tool for industrial-strength killing, aptly described as ‘concentrated essence of infantry,’ the machine gun hugely amplified the firepower of stationary forces and thereby conferred nearly insuperable advantages on the defence” (ibid.; emphasis mine). But, paradoxically, the “withering fire” of the machine gun, consuming “attacking troops wholesale,” soon forced “the fighting in the Western Front into a grisly deadlock” (ibid.). That is, the deadly efficiency of the “mechanical warfare,” at first assumed to shorten the war, in fact, prolonged it for years, and thus “compelled fundamental changes in both strategical and tactical doctrines” (ibid.), all of which only amounting to an exponential increase of killing and suffering. This is the rationality of industrial war.
So, what is the constitutive experience of the twentieth century? *The rationality of irrationality that disguises the irrationality of rationality* – that is the logic of the modern that has enabled the dynamics of the postmodern; that is, the driving force of the contemporary world as a spectacular manifestation of the surrational, the world of the “post” as the world of post-reason.

It is in this sense that the prosthetic body is an embodiment of the reason of the machine in a paradigmatic manner, and, accordingly, the First World War is the historical origin of the postmodern body, a body that has turned into a scientific-technological project of body modification (cf. Flusser 1998 [1994]; Featherstone 2000; Siebers 2000; Zylinska 2002b; Pitts 2003), an experimental body (cf. Jongen 2008a) in the sense of the enhancement of the performance capacity of the body-subject inherent to the political economy of neoliberalism (in terms of the fitness cult, cf. Pronger 1998, 2002). That is, under the regime of postmodern technoscience, the body is a post-evolutionary form of the transcritical machine (cf. Bammé et al. 1983: 149–150; Ropohl 1991: 169–172; Maier & Zoglauer 1994: 147; Pfohl 1998: 26–28; Manzei 2003: 92, 109–115; Weber 2003: 158–159; Jongen 2008b: 60–61; Vallant 2008; for the origin of the notion, see Günther 2002 [1957]; cf. Tibon-Cornillot 1982, 1984); that is, the neoliberal body as a body-machine that is driven by the economic algorithms of neo-Fordism.

### 3.1.1 Modernizing the Body: From Rehabilitation to Recalibration

In terms of the human constitutive of the human being, the First World War, believed to be “the war to end all wars” (Simkins et al. 2003), is *die Urkatastrophe des 20. Jahrhunderts*, “the primal catastrophe of the twentieth century” (Neugebauer 2007), and, in this sense, the historical precondition of the contemporary world (see, for example, Eksteins 1989; Keegan 1999; Fussell 2000 [1975]; with regard to art and culture, see Brill 2010); that is, the basic occurrence, the establishing moment, of the twentieth century that still continues within the constellation of the postmodern (see Audoin-Rouzeau & Becker 2003).30 In other words, war is the name of the *longue durée* of our time, the enduring state of affairs even under the sign of the “post.” And it is in this sense that the modern body emerged in the killing fields of the First World War (cf. Jünger 1961 [1920], 1980 [1930], 1982 [1932], 2010; Theweleit 1977, 1978; Hermand 1980; Huysssen 1993; Heidegger 2004), a war that in a highly realistic manner demonstrated what it means to say that “[t]he

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30 The German expression *die Urkatastrophe* originates from George F. Kennan’s study of the political history of Europe in the late nineteenth century entitled *The Decline of Bismark’s European Order* (1979). From the perspective of “total war,” as Stig Förster (2000: 4) explains, “the means for large-scale destruction” and “the erosion of distinctions between soldiers and civilians” resulting from “industrialization, mass society and new military technology” were the ingredients that came together during the last decades of the nineteenth century and finally contributed to the catastrophic dimensions of the First World War. “In many respects World War I was indeed a watershed. With it began the disastrous ‘short twentieth century.’ There are good reasons to claim, as does George F. Kennan, that World War I was ‘the great seminal catastrophe of this century.’ When the German leadership decided in the summer of 1914 to plunge Europe’s great powers into armed conflict, they started a cycle of wars and crises that concluded only with the end of the Cold War. In addition, World War I constituted a major break in military history.” (ibid.: 5)
cyborg is a kind of disassembled and reassembled, postmodern collective and personal self” (Haraway 1991a: 163; cf. Gray 1997, 2001, 2005). In these terms, the war cripples of that war, although they certainly would have preferred to live in intact and sound bodies, were no longer able to embody what Haraway disparagingly calls “organic holism to give impermeable wholeness” (ibid.: 178): these men had irreversibly lost the wholeness of their bodies, their organic holism.

From that moment on, the human body was intelligible only from the perspective of an anti-body, the body as a negation of itself constituting the possibility of being a body at all. This was the rationality of prosthesis brought about by the First World War.

This “reformation” of the body through its deformation was an exemplary accomplishment of the logic of the scientific-technological rationality constitutive of the modern, the logic of a radical transformation of the body resulting from the achievements of science and technology, the imperative of progress in the name of the “perfectibility of the human being”; an idea, though originating from the Enlightenment, reaching far back to Antiquity (see, for example, Jackson 2004: 184–186; Lovejoy 2006 [1923]: 36–41; Passmore 1970; from a Darwinian perspective, see Cartwright 2000: 339–339; in terms of postmodern cyborg perfection, cf. Quinby 1999: 125–146; Ach & Pollmann 2006). In this sense, the “perfectibility of the human being,” finding a paradigmatic manifestation in the idea of the technologically extended body, was included in the idea of being human from the very beginning. This is the dialectic, or then again, the irony, of the ideal of humanism: regardless of results, whatever is done in the name of the human is human; that is, all that is in-human, anti-human or post-human is always already human.

The “perfectibility of the human being”: the human being as a machine, the machinic as the principle of the organic understood, in turn, in terms of the machinic, the rationale of being human in a world ruled by science and technology – that was the idea of body management inaugurated by the modern culminating in the idea of scientific-technological warfare as the great invention of the First World War (for a historical contextualization, see, for example, Rabinbach 1990; Armstrong 1996, 1998, 2005; Sarasin 1995, 2001; Sarasin & Tanner 1998; Rieger 2001a; Hughes 2004a [1989], 2004b); a paradigm of economic and political resource management that has turned into the idea of human capital in the postmodern, constituting the reason of the body politic in contemporary culture (cf., for example, Mirzoeff 1995: 53–89; O’Neill 1995: 6–7, 25–28, 111–130; Burkitt 1999: 129–152; Siebers 1994a). That is, the problematics that concern citizenship, the mode of subjectivity and agency of the individual, in a world ruled by the political economy of neoliberalism, a world in which, according to postmodern theory, there are no longer subjects after “the death of the subject” (see, for example, Delanty 1999: 102; Torfing 1999: 56, 89; Sandoval 2000: 30–31; Smith 2001: 118–119; Terada 2001), or, in terms of the posthuman, after the abolition of “the liberal humanist subject” (see Hayles 1999: 3–7, 85–92, 100–112).
Life and Death in the *Menschenpark* of the Modern

As a result of the logic implied by the ideal of the “perfectibility of the human being,” the First World War, the constitutive war of the twentieth century, was the decisive event that ushered in the final break-through of the order of scientific-technological rationality pertinent to the modern; a mode of the rational that, instead of reflecting its premises, is only interested in the results of its own rationality, the rationality of efficiency, the rationality of the feasible, the idea of the actual in the potential; in other words, the idea of *Machbarkeitswahn* (Hagenbüchle 2003: 583–584; for the origin of the idea in terms of “die Antiquiertheit des Menschen,” see Anders 1988a [1956], 1988b [1980]; for the “Americanization” of Germany and France from the turn of the century to the 1930s, see Lüdtke et al. 1996; Klautke 2003), a mania of feasibility in the sense of overestimating the possible, a technocratic delusion appearing as economic-political voluntarism concerning the omnipotence of scientific-technological ingenuity and efficiency (in the context of Heidegger’s critique of metaphysics, see, for example, Heidegger 1976b [1949], 1983 [1935], 1992a [1929–1930], 1999 [1938/1939, 1946/1948], 2006a [1957], 2009 [1935–1958]; Corona & Irrgang 1999; Glazebrook 2000; Kittler 2008).

The sheer intensity of the destructive power unleashed by the new weapons deployed in the First World War exceeded all the limits known up until then (see, for example, Spilker & Ulrich 1998; from a comparative historical perspective, see Parker 1979). In this scientific-technological constellation, the experience of a combat situation was, literally, indescribable, beyond words (though, cf. Jünger 1961 [1920], 2001 [1922]). As a keen observer of modern times, Walter Benjamin “remarked that when the soldiers returned at the end of the war, they tended to be silent about what they had experienced and done”: “they were silent because their experiences and the words through which they might be communicated had become *incommensurable*” (Tester 1998: 21; emphasis mine). This is the experience of the modern: not only was there an unparalleled discrepancy between words and reality, but the body had also lost its familiar parameters and coordinates. Benjamin’s observation sums up the radical transformation in terms of experience encountered by the war generation.

A generation that had gone to school on a horse-drawn streetcar now stood under the open sky in a countryside in which nothing remained unchanged but the clouds, and beneath these clouds, in a field of force of destructive torrents and explosions, was the tiny, fragile human body. (Ibid.; cf. Benjamin 1991c [1933]: 214)

Technology had not just made the body obsolete, but, more fundamentally, it had exploded the scale in which it had been experienced as the *human* body. This discrepancy constitutes the modern, its explosive dynamics; in this sense, war is the origin of the modern; war as the scientific-technological unleashing of all the forces of destruction deployed in the name of *Staatsraison*; that is, the *voluntas, necessitas* and *utilitas*, the will, necessity and utility of state as the *raison d’être* of national well-being (cf. Polanyi 1970 [1962]: 22–23). In short, “in the First World War the human body was exposed to threats and destructive forces which had previously been quite unknown” (Tester 1998: 21).
EXCURSUS 3: WAR, PROSTHETICS AND THE EMERGENCE OF THE MODERN BODY

This was the first war in which machine guns were used on a large scale, and in a tactically sophisticated way, against bodies of advancing men. In the first 12 days of fighting on the Western Front in August 1914, the French army lost over 4000 officers and 206,000 other ranks, mostly to German machine gun fire [...]. In eight days prior to the disastrous first day of the Battle of the Somme in July 1916, British artillery fired 1,732,873 rounds of ammunition at the German forces. A year later, at Messines, British artillery fired 3,258,000 shells over a similar period [...]. The skies did indeed rain. Yet this was also a war when the soldiers could not trust the ground under their feet thanks to the introduction of mining operations. Neither, of course, could the men trust the air thanks to the introduction of gas warfare. There was also the introduction of armoured tanks, and the bombing of civilian populations thanks to air flight. The human body was left to wait to be blown to pieces while all the technology did the fighting around it. (ibid.; emphasis mine; cf. Ellis 1986 [1975]; for a historical contextualization from the perspective of standardization, see Berz 2001)

Thus, during the First World War the idea of the human body as the basis of the body politic changed: no longer was the human body an organic entity as an integral wholeness, but it was now a disintegrated, interchangeable, disposable and substitutable part of a machinic system that had its own logic beyond human experience (cf. Berr 1989: 252–255; in Hobbesian terms, cf. Hobbes 1998 [1651]; Spragens 1973: 77–96). Accordingly, what was living was measured from the perspective of death; the perspective that opened up the view on what it meant to be a state-citizen of a modern state, a state that predicated its Staatsraison upon its ability for total destruction (in terms of the warrior as a “total soldier,” see Horn 1999a). After observing a military exercise, Wilhelm Lamszus, a German poet, anticipated, in his book entitled Das Menschenschlachthaus. Bilder vom kommenden Krieg (1912), the irrational rationality of the First World War culminating in the atrocious efficiency of machinic killing:


The “machinist” as the lord of the living and dead ruling the modern, this is the prehistory of the cyborg: the idea and experience of the human body as an entity subordinated to the power regime of scientific-technological reason (from the perspective of the Enlightenment in terms of the politics of reason, cf. Foucault 1990c [1979/1981]); the body as a techno-organic derivation and appendage of machine systems which have their origin in the industrialization of the military and the militarization of industry as a result a general advancement of science and technology in the sense of intensified scientification of
the management of life since the late nineteenth century in the framework of imperial power politics (see, for example, Förster 1985; Spreen 1998b; Berz 2001; Müller 2002; vom Bruch & Kaderas 2002; Berghahn 2005; Maier 2007; in terms of military organizations as “complex machines,” see Demchack 1991; for the proto-cyborgian fantasies evoked by the prosthetic body in France after the First World War, see Panchasi 2009: 13–24; for André Kertész’s Parisian street photographs of prosthetic men as a Surrealist protest against “the return to order,” see Lyford 2003: 84–88).

In this sense, the cyborg is not so much, as Haraway (1991a: 151) says, an “illegitimate offspring,” but the very product, of militarism, an incarnation of the military logic, the logic of instrumental reason (cf. Weber (1993 [1904–1905]; Horkheimer & Adorno 1994 [1944]). According to Les Levidow and Kevin Robins (1989b: 7), the world of the cyborg is “structured by military paradigms of power” amounting, in the postmodern, to the “barbarism of high-tech warfare” (cf. Edwards 1996; Bousquet 2009). What begun as the scientific-technological rationality that enabled the rationalization of killing and destruction in the First World War, finally resulted in a “cybernetic control model” in order to “shape people into perfectly flexible ‘human components’ of a control system” (Levidow & Robins 1989b: 8) that emerged from the Second World War, its scientific-technologically organized mode of warfare. The same rationality, deriving from the idea of the “perfectibility of the human being,” rules the increase of efficiency in neo-Fordism, the economic-political order of the postmodern; the postmodern which, in turn, is the aesthetic-intellectual and cultural superstructure of neo-Fordism, the spectacular camouflage of its ruthless rationalism, the reason of the political economy of neoliberalism.

That is, there is no postmodern without the scientific-technological radicalization of the modern, the origins of which are in the epoch of total war from 1914 to 1945 (for the First World War as the origin of total war, see Horne 1997, 2004), followed by the Cold War as the apotheosis of Machbarkeitswahn, the technocratic euphoria of scientific-technological feasibility (see, Chickering & Förster 2000, 2003; Chickering et al. 2005; cf. Jünger 1980 [1930], 1982 [1932]; Rohkrämer 1999; Schwab 2004). That is, during the twentieth century, the “American exceptionalism” (for the origin of the idea, see de Tocqueville 2003 [1835/1840]; cf. Sondhaus & Fuller 2007) turned into the general rule of the world, “rule” in both senses of the term; a rule of exceptionalism based on the politics of ruling out exceptions.

In this precise sense, the cyborg is an American invention: a body model deriving from the politics of body management based on the rationality of the American way of war, the politics of the Cold War.

From a larger historical perspective, since the Enlightenment, science and technology have increasingly turned into a technoscientific management and regimentation of life in the sense of “biopower” (see Foucault 1990k [1976]: 135–148, 1976, 2003 [1979]; cf. Geyer 2001; Gehring 2006; Lemke 2007; Muhle 2008;
Nadesan 2008; in terms of “the biopolitics of the war on terror,” see Reid 2006): in addition to, or even instead of, territories and natural resources, the human body as a biological entity has come to the focus of power politics, finally resulting in the politics of the “biohuman” (see Dillon & Reid 2009). In this manner, the idea of the “perfectibility of the human being,” a noble principle manifesting the ideal of humanism, has turned into its opposite by the force that Max Horkheimer and Theodor W. Adorno (1994 [1944]) call the “dialectic of the Enlightenment.” Exploitation and annihilation of human beings by means of science and technology, this is the very quintessence of the modern that has finally enabled the turning of the human being into a technoscientifically manipulated productive resource, a posthuman manifestation of “biomaterial” to be “bred” and “cultivated” in what Peter Sloterdijk (1999) designates as Menschenpark.

Within a century, from the scientifc-technologically organized killing fields of the First World War to the technoscientific biopolitics of the postmodern, the power of reason, reduced to the principle of rationalization, has penetrated the human body and turned it into a “humanware” (Yanarella & Reid 1996: 199–207; from the perspective of the Enlightenment, cf. Foucault 1990c) as the biological basis of the accumulation of capital, in the last instance, into Biomasse (see Lemke 2007: 111–128).

This is the historical genesis of what Mark Seltzer (1992b) calls the “body-machine complex” characteristic of Fordism as the industrial principle of the modern (in terms of the “docile body” as “a body-weapon, body-tool, body-machine complex,” cf. Foucault 1991a [1975]: 153); in my reading, an economic-political and scientifc-technological integration of bodies and machines to one another constitutive of the process of modernization as the condition of possibility of the postmodern (see, for example, McWhorter 1999: 149–154; Barry 2001: 148–151; Rabinbach 1990), to the extent that the body in itself is understood as a machine (see Sarasin 1995, 2001; Sarasin & Tanner 1998; Tanner 2001, 2005; in terms of holocaust as the logical conclusion of industrial rationality inherent to the modern, cf. Bauman 1991 [1989]; Weingartz-Perschel 2002).

In this respect, the cyborg is the epitome of the body in crisis, the crisis built-in in the experience of the modern, in the Erlebnis of the subject living in a Lebenswelt ruled by scientifc-technological rationality (from the philosophical perspective of the Krisis of sciences around the turn of the twentieth century, see Husserl 1996 [1936]; for a contextualization with regard to Heidegger, see Kockelmans 1985); a crisis constitutive of the modern, paradoxically, turned into the driving force of the postmodern (in terms of the “first crisis of modernity” in the years around the First World War, see Wagner 1998; in comparison to Nietzsche’s project of the Umwertung aller Werte, see Nietzsche 1969b [1888–1889/1908]: 363–364, 1969a [1888–1894]; cf. Heidegger 1998a [1961]: 15–22; Ebbighausen 2010).

But, a crisis of the body, in what sense? It is a crisis resulting from the ever-increasing retardation of the organic body – the lag or delay of the human body as a biological organism – in comparison to the ever-accelerating development
of technology ruled by the imperative of scientific-technological rationality: the constantly growing discrepancy between the performance capacity of the body and the efficiency of technology, dominating the corporeal everywhere in contemporary culture (in terms of the time regime of the neoliberal “Empire of Speed,” cf. Hassan 2009); a cultural formation called, not for nothing, technoculture (see, for example, Penley & Ross 1992c; Robins & Webster 1999; Rutsky 1999; Cooper 2002; Shaw 2008) constituted by the paragon of scientific-technological rationality, the idea of technoscience (see, for example, Sassower 1995, 1997, 2004; Aronowitz et al. 1996; Ihde & Selinger 2003; Michael 2006). The body as a scientific-technological object in terms of resource supply, as “human capital,” is a great invention of the modern (from the perspective of “social engineering,” see Bristow 1996; Podgórecki et al. 1996; Thompson & Findlay 1999; Etzemüller 2009; Jordan 2010). This idea has now become the hard core of neo-Fordism defining the politics of the body specific to the postmodern: the driving force of the politics of economism constitutive of the political economy of neoliberalism.

War as a “Realm of Anthropological Knowledge”

In this constellation, the body politics of technoscience not just merges into the body politic of neo-Fordism, but, more fundamentally, the political reformation of the human body becomes the very condition of possibility of the body politic: the economy of the body is an increasingly important resource of the political economy of neoliberalism. Accordingly, we can see how the individual body in the sense of Leib (subject-body) first becomes the body in the sense of Körper (object-body) and then turns into Volkskörper (the body politic) in the body politics of neo-Fordism (cf., for example, Erlach 1994: 142–146; Peukert 1994: 275–293; Schleiermacher 2006: 305–312; Michl 2007: 54–110; Süß 2003; for the difference between Leib and Körper, see Caysa 2003: 36–78).

This is the way from eugenics to the politics of the posthuman; the long and complex way beginning with Francis Galton’s doctrine of the improvement of human hereditary traits by means of genetic selection, and finding its logical conclusion in National Socialism and the holocaust, but also in state socialism, social Darwinism and social biology up to the biopolitics of the postmodern (see, for example, Burleigh & Wippermann 1991: 29–34, 52–57; Stingelin 2003; Engs 2005; Baillie & Casey 2005; Turda 2010). In all these efforts to “improve” the biological constitution of the human being, the goal has always been the same: not only racial purity and superiority, but, more specifically, the perfectibility of the human body in the sense of Leistungssteigerung, “heightening of performance,” leading finally to the maximization of the performance capacity of the human body in the neo-Fordist economy constitutive of the postmodern (in terms of “human enhancement,” see Coenen et al. 2010; in the context of the Nietzschean Wille zur Macht, “will to power” (see Nietzsche 1968a [1883–1885]: 143–145, 1968b [1886]: 21–22, 31–33, 1968c [1887]: 332, 1973a [1882/1887]: 267–268; Loscerbo 1981: 77–110; Heidegger 1998a [1961]: 33–51, 1998b [1961]: 210–215).
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The manner in which Susan M. Squier, considering the possibilities opened up by new technologies for “reproducing the posthuman body,” sums up the historical connection between rationalization, eugenics and the industrial reconfiguration of the human body, and thus succinctly illuminates my idea of the technoscientific body politics of neo-Fordism manifesting the principles of Taylorism in their contemporary form as the precondition of the body politic in the postmodern.

The rationalization of labor carried on in the early twentieth century in Europe, England, and America aimed at maximum efficiency by fragmenting the work process. These new industrial methods lent the goal of gaining eugenic control of the reproductive body a specifically industrial form. They treated the worker's body as a machine, breaking down the labor process into its smallest possible units, using the assembly line to enforce a uniform, external schedule, and carrying on constant surveillance. Modern literature drew metaphorically on this monitored, mechanistic, regulated, and fragmented way of life using it to figure not just production, but reproduction. Drawing their central metaphor from Taylorism and Fordism, such representations presented a reconfigured human body – male and female – available for industrial production. (Squier 1995: 117)

In the postmodern condition, however, the official policy makers are no longer those who make the decisions, but, as a result of radical privatization constitutive of the political economy of neoliberalism, globally operating private enterprises deriving their power from transnational financial capital are now in the position to practice a form of body politics that, in addition to the pursuit of happiness at the private level, has far-reaching consequences to the development of the contemporary social order; that is, the logic of financial capital is now the logic of the politics of the body specific to the postmodern (for a paradigmatic example of this kind of biocapitalism in the case of Craig Venter, see, for example, Thacker 2005: 13–15; Rajan 2006: 29–30, 48–51; Shreeve 2004; Rose 2007; Cooper 2008). This is the way from the war economy of the First World War to the economy of productive consumption as the economic basis of the postmodern.

All efforts to increase the performance capacity of the body necessitate an increasing control of the functions of the body. As a result, the body becomes subsumed by the machine model, the paradigmatic model of the economic rationality of the modern that is now the very rationality of the postmodern.

This is the logic of the posthuman, the logic of technomorphism, the logic of the instrumentalization of the body in the postmodern: the body as the disciplined body-machine of the subject subjected under the regime of reason, the omnipotence of reason based on the omniscience of science as the absolute control of all being.

From this perspective, the First World War was an ultrarational research and design laboratory of the industrialization of the body in the sense of “cynical reason” (see Sloterdijk 1983a, 1983b; Horne 2004; in terms of “war as experiment,” see Sturdy 1998; Eckart 2000; in the context of prosthetics, see Kienitz 2008: 152–192; Westermann 2012: 166–172); a gigantic scientific-technological effort to modernize the body through a rational appropriation of all its forces
and capabilities (from the perspective of the Russian Revolution, cf. Hoffmann 2003: 15–56; Emmerich & Wege 1995; Groys & Hagemeister 2005; in the context of Nazi Germany, cf. Wildmann 1998; Eckart 2006; for the ideological reconstruction of the human being under the sign of der Neue Mensch, “the New Human Being” in the sense of “the New Man,” radicalized by National Socialism, see Münch 2006: 366–369; Hüppauf 1993; Küenzle 1994; Mattenklott 1999; Wedemeyer-Kolwe 2004; D’Idler 2007). It is precisely in this sense that the First World War was the definitive break through of the modern: the human body became “socialized” in its entirety, turned into scientific-technologically administered economic factor of the body politic, the means of production of the whole society in the full sense of the term.

The economization of the body – that is the leading principle of the modern. In this respect, there is no difference in the aims of capitalism and socialism; only the methods of the implementation of the politics of the body are different: although both are based on the idea of norm, normality and normalization, capitalism prefers individual competition, whereas socialism resorts to state control (cf., for example, Link 1997; Sohn & Mehtens 1999; Boswell & Chase-Dunn 2000).

In this sense, what I call the Americanization of the body has its origin in the First World War (see, for example, Lowe 1995; Armstrong 1998; Chinn 2000; Johnston 2001b; Cogdell 2004; Serlin 2004; de la Peña 2005; Currell 2006; Brandt 2007). While Frederick Winslow Taylor (1967 [1911]), in his The Principles of Scientific Management, created the conceptual framework of the rational administration of the working body, and Henry Ford with his factory system provided the economic-political preconditions for its large-scale implementation (see, for example, Klautke 2003: 82–87, 183–238; Allen 1996; Ford 2006 [1922]; in terms of “Heidegger als Philosoph des Fordismus,” cf. Heinrichs 1999), it was the military-industrial economization of society that brought about the social-political order in which it became not only necessary, but expressly possible, to entirely integrate the individual body to the production apparatus and, accordingly, to the military machinery, of the modern state as a rationally organized bureaucratic structure of the body politic (cf., for example, Banta 1993; Nolan 1994), epitomized, in its purest form, by the politics of technocracy, the technopolitical programme of social engineering, based on a scientific conception of government in terms of expertise and professionalism, driven by American engineers from the 1920s to the 1940s (for the origins of the idea, see Maier 1987: 19–52; Veblen 1983 [1921]; Loeb 1996 [1933]; cf., for example, Akin 1977; Burris 1993; in terms of technological utopianism, cf. Segal 2005 [1985]).

The reliance on the power of expertise and professionalism constitutive of technocracy is paradigmatically expressed in a speech in 1962 by president John F. Kennedy, who, with his visions of the “Green Revolution” and space programme, practiced politics in the spirit of technocracy: “Most of us are conditioned for many years to have a political viewpoint – Republican or Democratic, liberal, conservative, moderate. The fact of the matter is that most of the problems that we now face are technical problems, are administrative problems. They are very sophisticated judgments, which do not lend themselves to the great sort of passionate movements which have stirred this country so often in the past. Now they deal with questions which are beyond the comprehension of most men, most governmental administrators, over which experts may differ.” (Burris 1993: 21; emphasis mine)
As a result of the modernization of the military organization and the methods of warfare, based on the achievements of the scientific-technological progress, the First World War was an industrial war (see, for example, Strachan 2001: 993–1113; Biddle 2004: 29–44; Imbusch 2005: 510–532; Beckett 2007 [2001]: 214–223, 361–374; Spilker & Ulrich 1998), graphically expressed by the term Materialschlacht, the “battle of materials” or “battle of attrition” (see, for example, Koch 2006: 217–221, 244–256; Morrow 2004: 281; in terms of “the social history of the machine gun,” see Ellis 1986 [1975]; cf. Berz 2001). In this constellation, human bodies and weapon systems constituted a modern “megamachine” (Mumford 1966: 188–195; cf. Jardine 1987: 152), in the operations of which the soldiers incarnated a new form of the “docile body” (Foucault 1991a: 135–169), a body reduced to instrumental functionality; a body the rationale of which was to function as a perfectly functional body-machine within the society-wide organized war machine the rationale of which was to produce destruction as efficiently as possible, by means militarily organized industrial production.

As a logical consequence of this instrumental functionality in its inverted rationality, the productive body was turned into an instrument of its own destruction: the war economy of the First World War, as a militarily organized form of capitalism, rationalized the deployment of the human body to the utmost (see, for example, Chickering 1998: 35–40; Ullmann 2009; Balderston 2010; in terms of the German wartime “New Economy,” see Michalka 1997: 83–95).

Accordingly, maimed and deformed by the war, the crippled soldiers, once human beings with a personal history, were turned into a faceless mass of disabled bodies without a future as independent individuals, as sovereign subjects. Functionalized for the war, they were dysfunctional in the postwar world: they had become “useless” bodies. In the name of social justice, and most importantly, to avoid the aggravation of political disturbances during and

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32 Although the First World War was evidently the first industrial war in the sense of the modern, the industrial management of warfare attained its full scale only in the Second World War. The management theorist Peter F. Drucker’s view is illuminative: “This war is being fought for the structure of industrial society – its basic principles, its purposes, and its institutions. It has one issue, only one: the social and political order of the entirely new physical reality which Western man has created as his habitat since James Watt invented the steam engine almost two hundred years ago. Nothing shows this more clearly than the fact that this is the first war really to be fought as an industrial war – a war in which industry is not an auxiliary but the main fighting force itself. Any peace following this war must be an industrial peace – a peace in which industry is not just on the periphery of the peacetime social organization but is its center. For it is a law of political life that the peacetime and the wartime organizations of society must be based on the same principles and follow the same structural rules.” (Drucker (2002 [1942]: 13)

33 “Megamachine” is Lewis Mumford’s term for “any enormous machine where the human becomes an indispensable part of a larger mechanical complex, the army being an obvious example” (Jardine 1987: 158). According to Mumford (1966: 192–193), what is essential to a megamachine, consisting of thousands of de-individualized and interchangeable, and as such “de-hominized,” worker or soldier bodies, is that it is a collective organized to the last detail, based on a minute division of labour, so as to achieve a maximum of efficiency. The idea of conceiving the whole society as a large-scale “working machine” is the final consequence of this kind of rationalization of human life (see, for example, Reichert 1996).
The TiC and the eM of the Modern Body after the war (see, for example, Chickering 1998: 117–139; Cohen 2000: 297–302; Poore 2007: 9–62; Hirschfeld et al. 1993; Horn 1998–1999, 1999b, 2002), it was urgent to rehabilitate these not only dismembered but traumatized survivors. For this purpose, a large-scale rehabilitation programme was conceived of in the course of which the war cripples were literally reconstructed with the help of modern prosthetic surgery (see, for example, Dederich 2007: 103–105; Harrasser 2010: 60–64; Panchasi 1995; Price 1996), by means of what Ferdinand Sauerbruch (1916; Sauerbruch & ten Horn 1923), a leading German surgeon of the time, called die willkürlich bewegbare künstliche Hand, “the arbitrarily moveable hand” (see Schöngle 2001: 120–132; Springer 2002: 76–80; Heller 2009: 92–93; Krumeich 1990; Ulrich 1996; Rauschmann et al. 2001; Karpa 2004; for the design of artificial limbs for British disabled veterans, see Guyatt 2001; for
In other words, “remastering the body” (Gagen 2007) was an effort to recom pense what was irrevocably lost: the integrity of the body (with regard to the rejection of “organic holism,” cf. Haraway 1991a: 178).

Although prosthesis as a medical-technical means to rehabilitate a crippled body was implemented for the first time in history on such a large scale during and after the First World War, prosthetics in itself, of course, is an old invention having its roots in the long tradition of surgery, already beginning in ancient Egypt and Greek Antiquity (see, for example, Erlach 2000: 113–115; Irrgang 2005: 171–172; Geus 1990). According to the standard definition given by the OED (1989: 672), prosthetics is “[t]hat part of surgery which consists in supplying deficiencies, as by artificial limbs or teeth, or by other means”; thus, prosthesis is an “artificial replacement for a part of the body.” The idea of prosthesis is clarified by the OED with an example of a medical text book (Amputation Prosthesis): “If the leg amputee is to be a successful member of society he must first learn to walk and travel on his prosthesis” (ibid.). Referring to the OED I am, of course, not saying that a dictionary definition is the only meaning of a word; I am only stating the plain fact that prosthesis is originally a medical means of rehabilitating a damaged or deficient body.

In response to this situation, “orthopedists and engineers created new artificial arms, highly specialized and divided along class lines” (ibid.); that is, prostheses “for agricultural workers, for workers in light or heavy industry and for Koptarbeiter” or those men whose professions consisted of mental work (ibid.). “In short, form followed function in German prosthetic design” (ibid.: 86; for details in terms of industrial rationalization and standardization, see Rieger 2001b; Berz & Price 2003), implying what Stefan Rieger (2001a: 37–42, 2003a: 164–165) calls a “latent anthropology” defining the conception of the disabled body in the rehabilitation process (cf. Horn 1999b; in terms of cybernetics, cf. Bühler 2004: 11–24).

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As a result of the war, enormously increased rehabilitation requirements necessitated a large-scale design and production of prosthetic arms capable of carrying through complicated work procedures typical of machine industry. “If the new ortho pedics was to return the thousands of Germany’s disabled to the workforce, amputees would need more than the wooden Sunday arm and the simple work claw” (Perry 2002: 84).

In other words, “remastering the body” (Gagen 2007) was an effort to recom pense what was irrevocably lost: the integrity of the body (with regard to the rejection of “organic holism,” cf. Haraway 1991a: 178).

34 Although prosthesis as a medical-technical means to rehabilitate a crippled body was implemented for the first time in history on such a large scale during and after the First World War, prosthetics in itself, of course, is an old invention having its roots in the long tradition of surgery, already beginning in ancient Egypt and Greek Antiquity (see, for example, Erlach 2000: 113–115; Irrgang 2005: 171–172; Geus 1990). According to the standard definition given by the OED (1989: 672), prosthetics is “[t]hat part of surgery which consists in supplying deficiencies, as by artificial limbs or teeth, or by other means”; thus, prosthesis is an “artificial replacement for a part of the body.” The idea of prosthesis is clarified by the OED with an example of a medical text book (Amputation Prosthesis): “If the leg amputee is to be a successful member of society he must first learn to walk and travel on his prosthesis” (ibid.). Referring to the OED I am, of course, not saying that a dictionary definition is the only meaning of a word; I am only stating the plain fact that prosthesis is originally a medical means of rehabilitating a damaged or deficient body.
In these terms, the battlefields of the First World War constituted what Eva Horn (1998) calls a “realm of anthropological knowledge” (cf. Horn 1999b): an experimental-epistemic constellation in which the capabilities and capacities of the human body became redefined as a result of the war (see, for example, Rieger 1999b, 2001b, 2003a; Berz 2001; Berz & Price 2003; in terms of “anthropomorphic machines,” see Westermann 2012). While the war in itself implied, as Horn (1998–1999: 96) says, that “the human being was reconstructed [umgebracht] according to requirements of the machinic warfare,” in the sense that the sense organs, nerves and corporeal motility of the soldiers were readjusted to the conditions of combat situations, the reorganization of the body schema of the cripples was even more drastic: the cripples were literally reconstructed according to the logic of the machine (cf. Panchasi 1995; Herschbach 1997). In this sense, the
anthropological conception of the human body was redefined in terms of the technomorphic (see Maier & Zoglauer 1994; for a historical contextualization with regard to the intellectual appropriation of technology in the discourses on modernity, 1900–1939, see Hård & Jamison 1998): the body, its organs and capabilities, appeared now from the perspective of technological functionality in its logical conclusion: the human body as a production instrument of its own destruction.

From this perspective, the regimentation of the body by means of technology is the legacy of the First World War; a war in which technological rationality became the measure of being human.

The Rationality of the Body-Machine

Prosthesis – that was the rebirth, a technological resurrection, for these men who were to be reworked – that is, recalibrated (cf. Yanarella & Reid 1996) – as soon as possible from a regimented mass of Kanonfutter to the disciplinedly working productive Arbeiter and socially integrated Bürger of the post-Kaiser German state, the Weimarer Republik – a political formation in the name of the modern anticipating global contradictions of the postmodern in the framework of a national state: the contradictions effected by the discrepancy between economic rationalism and the desires of the body to be a body in its corporeality and carnality: the incommensurability of the rational body and the libidinal body (cf. O’Neill 1995: 126–129; Williams 2001: 2–35). This is the source of social tensions in the modern: contradictory pressures on the body that always threaten to induce emotional and social explosions and, as a consequence, disrupt the prevailing order. That is, if the postmodern, in terms of scientific-technological and economic-political rationalism, is the logical conclusion of the dynamics constitutive of the modern, the affective contradiction between the working body and the libidinal body, in their mutual rationality in terms of efficiency, is the driving force of contemporary capitalism. In this sense, war economy is the historical model of the productive consumption specific to the postmodern: the disciplinary order of neo-Fordism.


As Mia Fineman (1999: 88), referring to Sloterdijk’s concept, says, the prosthetic man “obediently marched from the western front to the production front.” By means of prosthetics, the disabled veterans were reintegrated into the industrial process (see, for example, Panchasi 1995; Cohen 2000; Reznick 2000). In
this manner, they were restored to useful bodies: bodies that were able to bring economic value, bodies that were again valuable bodies in terms of national economy; in other words, _profitable bodies_ in the service of capital. It was in this manner that prosthetics enabled an economic-technological constellation in which, as Heather R. Perry (2005: 153–154) says, disabled soldiers were made _wiederverwendbar_, “reusable,” by literally “recycling” their bodies within the military-industrial production system (cf. Poore 2007: 9–10). Therefore, it was not so much the prosthetic man himself – his inclination, calling, vocational training, will, in a word, his _subjectivity_ – but, rather, the objectifying objectivity of weapon systems that positioned him as a working subject, and thus made him a cog in the wheels of the production and destruction machinery (see, for example, Harrison 1999: 2–3; Reznick 2004a). Thus, the man _deformed_ by the war was _reformed_ by means of what was in itself a product of the modern industrial war: modern prosthesis as an artificial organ “embodying” the scientific-technological rationality of the body-machine complex of the First World War (in terms of “artificial bodies” as “living technology,” see Orland 2005a).

This was the “perfectibility of the human being” in a world in which the very deformation of all that is human, to be then reformed by means of prosthetics, through the process of _prosthetic recalibration_, was in itself occasioned by means of science and technology. In this manner, as a product of a proto-cyborgian body engineering, the war cripple was reborn literally as a _prosthetic man_, a man _incorporating_ the idea of scientific-technological progress (in terms of the “remasculinization” of the crippled soldier, see Kienitz 1999a, 1999b, 2002c; in the context of the “engineering masculinity” of veterans by prosthetic technology after the Second World War, cf. Serlin 2002). What I call the _prosthetic optimism_ of the time is paradigmatically manifested by the British author John Galsworthy in his introduction to the conference proceedings concerning Britain’s rehabilitation programme for disabled soldiers:

> [I]n special hospitals, orthopaedic, paraplegic, neurasthenic, we shall give [the crippled soldier] back functional ability, solidity of nerve or lung. The flesh torn away, the lost sight, the broken ear-drum, the destroyed nerve, it is true, we cannot give back; but we shall so re-create and fortify the rest of him that he shall leave hospital ready for a new career. Then we shall teach him how to treat the road of it, so that he fits again into the national life, becomes once more a work-man with pride in his work, a stake in the country, and the consciousness that, handicapped though he be, he runs the race level with his fellows, and is by that so much the better man than they. (Reznick 2000: 185)

_Prosthesis_ – that was the triumph of instrumental reason in the _usability of the human body_: the body was no longer, as the conventional logic postulated, a whole meaning more than a sum total of its parts, but, instead, now a body part – a prosthetic arm or leg – was more than the whole body; a part having a functionality of its own, its own logic, its own teleology (see Kienitz 2001b: 230–233). Like in the division of labour pertinent to Fordism (see, for example, Harvey 1989: 121–129; Tomaney 1994: 177), the body adapted to the logic of prosthetics became fragmented and Taylorized (cf. Seltzer 1998 [1995]: 84–85;
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Perry 2005: 150–151; Poore 2007: 5; for a cultural-historical contextualization, see Boscagli 1996; Armstrong 1998), that is, reconstructed as a result of a techno-political deconstruction. No longer was the machine an extension of the man, now it was the man who was turned into an extension of the machine. As a result, the organic body was transformed into a prosthetic body (see, Kienitz 2008: 170–192; cf. Erlach 1994: 135–142), a body made to comply with the external systemic demands; that is, the economic, political and social interests of the postwar order of the Weimar Republic (Horn 2001: 194–199; Kienitz 2002a; in terms of work adaptation by means of psychotechnique, cf. Weber 2001).

In these terms, the prosthetic reconstruction of the war disabled of the First World War constituted, in Germany, what Peter Berz and Matthew Price (2003: 156) call die Utopie der Prothese, “the utopia of prosthesis,” peculiar to the machinic mode of thought during and after the war (cf. Dederich 2007: 104–105; with regard to Stelarc’s prosthetic body as a “posthuman utopia,” cf. Brunner 2008: 24–29; for prosthetics as a free-floating trope in postmodern theory, cf. Jain 1999; Moser 2000; Kurzman 2001; Nelson 2001a, 2001b; Wright 2001; Smith & Morra 2002b, 2006b). Thus, prosthesis is not just an artificial limb as a way to recover a damaged body, but, more fundamentally, it is a symbolic form of technology that constitutes a new paradigm of the body: the order of scientific-technological body modification (cf. Schneider 2005: 382–387; Featherstone 2000; Siebers 2000; Pitts 2003), paradigmatically manifested today by the post-utopian figure of the cyborg. What stands at the origin of this paradigm, as Berz and Price (2003) show in detail, is the Ersatzglied, the “substitutable member,” in a literal sense: an articulated element in an articulated system in which all functions are based on a highly adjusted mutual articulation; that is, the systemic logic of the machine (cf. Rieger 2003a: 170–175; Westerman 2012: 178–200; Horn 2001). What is constitutive of this kind of system is the Ersatzbarkeit, the “substitutability,” of all parts enabled by their standardization and norming (Berz & Price 2003: 147–148; Mühling 2007: 189–191; cf. Link 1997; Sohn & Mehrzens 1999).

Accordingly, the prosthetics developed in the scientific-technological constellation of the First World War is a manifestation of the Mechanisierung des Menschen, the “mechanization of the human being” (Berz & Price 2003: 149), epitomized by the idea of der Neue Mensch (see, for example, Küenzlen 1997 [1994]; Lepp et al. 1999; Wedemeyer-Kolwe 2004; D’Idler 2007; with regard to Otto Dix’s sarcastic paintings belonging to his series of “prosthesis-wearers,” see Poore 2007: 29–32; Werner 1999).

It is in this manner that the Ersatzglied was not only the determining factor of the new mode of corporeality and embodiment constitutive of the prosthetic body (see Sauerbruch 1916: 3–10; Wuerz 1980 [1921]: 6–8; Springer 2002: 77–79; Krumeich 1990; Horn 2002; Karpa 2004), but, more fundamentally, it manifested, in a material form, the imperative of a radical economization of the body in the war economy of the First World War; a body as a social construction embodying not an individual will, but alien rationality: the pros-
thetic body as an embodiment of instrumental reason. In other words, what was deemed to be a Rehabilitationskrise, “rehabilitation crisis,” was, at the same time, an Arbeitskrise, “labour crisis,” a crisis ensuing from the shortage of labour force caused by hundreds of thousands and finally millions upon millions of battlefield casualties (Berz & Price 2003: 150). In this way, the prosthetic men, the disabled soldiers reconstructed and reintegrated in society by means of prosthetics, became the Ersatzglieder of the German war economy, “substitutable members” in an economy in which dead bodies were to be replaced by prosthetic bodies as labour force (for a historical overview, see Gerber 2000; for

Fig. 46–49. “Der mechanische Aufbau der künstlichen Glieder,” “The Mechanical Construction of Artificial Limbs” (Schlesinger 1919: 486–487, 542–543, 570–571). Discussing the task of the rehabilitation of severely injured soldiers in a conference of the Deutsche Vereini-
gung für Krüppelfürsorge in 1916, German medical author-
ties emphasized the restoration of the ability to work as the first priority in the design of prostheses; in other words, the “re-arming” of disabled veterans was the goal of prosthetic rehabilitation (Perry 2002: 83). “Disabled soldiers needed to be able to perform to the same capacity, endurance level, and skill that their able-bodied com-
petitors could” (ibid.: 87). Modernizing prosthetic design according to the principles of industrial modernization “would eliminate the need for the individual attention of doctors by creating more standardized but practical arms,” culminating in a situation in which the “prosthetic working arm was a tool holder” (ibid.; cf. Harrasser 2010: 61–66; Panchasi 1995; Herschbach 1997; with regard to the paradigm of rationalism in the sense of Taylorism and Fordism, cf. Nolan 1994: 30–50).

This kind of “prosthetic reconstruction,” as Cornelius Borck (2008: 120) sums up, “became a national responsibility, as the industrialization of warfare resulted in an increase in maimed bodies.” “Critics, however, were soon to point out that the very supply with prosthetic devices contributed to a rather perfidious perfection of warfare, as it made the destruction of human bod-
ies appear acceptable and manageable. Medicine, the military, and technological development joined forces to form a perverted circle of human welfare.” (ibid.; for the medical and industrial militarization of disabled sol-
diers as a form of “total mobilization,” see Perry 2011; cf. Jünger 1980 [1930], 1982 [1932])
the enormous demand for artificial limbs as “the battle of limbs” in Britain, see Bourke 1996: 43–56; Guyatt 2001; in terms of “the other arms race” concerning the prosthetic rehabilitation of disabled soldiers after the Second World War, cf. Serlin 2004). In this sense, the war economy of the First World War was prosthetic economy to a considerable extent.

Accordingly, the prosthetically reconstructed war cripple was an instrument, a rationalized body-machine, of the industrial machinery of the Weimar Republic, a machinery that in its structure combined both the principles of prewar military order and the new demands of the postwar production efficiency; demands ensuing not only from the necessity of turning the war economy into postwar economy, but also from the necessity of creating a disciplined labour force that at the same time had the propensity to consume in an adequate relation to production (see, for example, Kluge 2006: 19–35, 52–54). In terms of economic recovery and the rehabilitation of the war cripples, this was the origin of the body-machine complex constitutive of the modern, lived by the cripples in their own body, a body reconstructed by means of prosthetics.

In this manner, the construction – both materially and discursively – of the prosthetic body reflected the necessities dictated by the requirements of survival in a social constellation in which labour power and the work effort of every citizen were the only means for the reparation of war damages, both material and spiritual, and, at the individual and personal level, for the integration of the traumatized war cripples into civil society (cf. Kienitz 2002c: 194–198; Poore 2007: 1–66; Heller 2009: 92–123; Reznick 2000, 2004a, 2004b). Paradoxically, this resulted in a new form of militarization – a second order militarization – of the postwar German society that was not so much struggling for peace as desperately attempting to recover from the destruction caused expressly by the militarization of the society through the pre-war politics in the first place (cf. Kienitz 2004: 329–336).

Here, the human body was no longer the locus of an integral self, rather, it was now a cross-section of interests exceeding the limits of the individual; the body had became an embodiment of the interests of the economic efficiency and political stability. As such an object of calculation and investment in terms of usability, the body of the prosthetic man was a thoroughly political body, a body permeated by the imperatives of the body politic of the Weimar Republic based on a military rationality of the second order, the rationalization of society by means of the principles deriving from war economy.

**Intermezzo: Prosthesis in the Sexual Economy of the “Cyber”**

“Why should our bodies end at the skin” (Haraway 1991a: 178)? Yes, indeed, why? Obviously, long before Haraway formulated this paradigmatic question concerning the ontology and the identity of the cyborg, “invented” by Haraway herself, the Weimar prosthetic men already embodied an answer to it in their own way. Through prostheses, the bodies of the war cripples, re-formed to prosthetic assemblages in the service of German national economy, were a
part of the postwar production machine: in a radical manner, the boundary line between the organic and the machinic was dissolved, and the organic body had thus become a prosthetic body, a techno-body in the sense of the modern (cf. Jünger 1980 [1930], 1982 [1932]; Herf 1990 [1984]: 70–108; Bühler 2004: 255–292; Morat 2007: 51–104, 147–160; Radloff 2007: 361–394; Huyssen 1993; Rohkrämer 1999; Heidegger 2004; for a cultural-historical contextualization, see, for example, Peukert 1993 [1991]; Kaes et al. 1995). Each of these war cripples, now turned into the prostheticized instruments of the production apparatus, was a posthuman being avant la lettre, a rationalized and disciplined body which no longer ended at the skin: the body of the Weimar prosthetic man was an interface between the economic demands of postwar Germany and the body-machine complex set up in order both to rehabilitate the cripples and to recover production (cf. Seltzer 1992a: 71–72; Wagner 1998: 235–246; Armstrong 1998; in terms of Dada, cf. Jones 2006).

In these terms, the Weimar prosthetic man was a “hybrid of machine and organism” (Haraway 1991a: 149), a cyborg not as a utopian vision, but a lived reality in a world in which a fragmented and disintegrated body was not yet the playful theory-fiction that it became in postmodern academia decades later (see, for example, Gray et al. 1995b; Lykke & Braidotti 1996a; Wolmark 1999a; Bell & Kennedy 2000; Kirkup et al. 2000; Flanagan & Booth 2002).

“I am a person who fell in love with her own prostheses,” and not only that, “[t]hen I fell in love with somebody else’s prosthesis” (Stone 1995e: 3). Would it have been possible that this kind of affection for prosthesis – to recall, originally a medical invention designating an artificial replacement for a lost or defunct body part – had been confessed by some of the war cripples having been rehabilitated, by means of an arm or leg prosthesis, to a new type of human entity being 45 % erwerbsfähig (Fineman 1999: 95), “45 percent fit for employment”? Be that as it may, but it is this kind of affection, an “erotic technophilia” (Sobchack 1995: 206), with which Allucquère Rosanne Stone (1995e: 1–32), a Californian cyber theorist playing with the ideas concerning “sex, death, and machinery,” celebrates prosthetic embodiment in her treatise on, as the title puts it, The War of Desire and Technology at the Close of the Mechanical Age (cf. Hawthorne 2001: 56; Foster 2005: 137–140; Paterson 2007: 103–126; Waggoner 2009: 30–31; Wills 1995; Smith & Morra 2002b; in terms of “prosthetic romanticism,” cf. Brown & Webster 2004: 123–125).

In what Stone designates as “war,” however, at issue is not the agony of death; instead, it is about the pleasure of words – or, rather, “free-floating signifiers” peculiar to the postmodern – playing with the idea of a prosthetic reconstruction of the human body to make it fit for the enjoyment of the “end of innocence” in a world dominated by what Stone (1995e: 123–155) calls a Cyberrähmung, a world in which, among other things, there is “no particular difference between missile software and interactive games” (ibid.: 129; cf. Stone 1996a); a world in which civilian life obeys military reason (see, for example, Gray 1997: 126–130;
Levidow & Robins 1989a; Edwards 1996; Dillon & Reid 2009). What was a painful and humiliating effort for the German war cripples to substitute a prosthesis for a lost body part, is, for Stone, a hilarious indulgence in a theoretical daydreaming evoked by a technophilic phantasm: prosthesis as a playful linguistic figure, prosthesis as a libidinal wish image, a prostheticized body as a narcissistic projection of the self as the cyborg in a manner similar to the Learyan “pilot” living in its cyberdelic delirium (see Leary 1994a: 124–128; cf. Haraway 1991a: 167–171; Smith & Morra 2006a: 2; Woodward 2009: 136–164; Featherstone & Burrows 1995b; for the prosthetic enhancement of the body, see, for example, Mitchell & Snyder 1997: 7–9; Brey 2009: 170–180; in critical terms, cf., for example, Kurtz 2002: 114–118; Sobchack 2004: 168–174, 205–225; Hawthorne 1999, 2001; Betcher 2001; Ott 2002).

Love your prosthesis as yourself — that is the imperative of prosthetics in the world of the “cyber,” a world in which the practices of technological augmentation, amplification and extension of the body comprise a new form of *le souci de soi*, the “care of the self” (cf. Foucault 1990h [1984]), an ego-politics of the post-subject characteristic of the postmodern.

Accordingly, for Stone, the question of prosthetics is not, as it was for the German war cripples, about a desperate need to be recognized as a human being, as a socially accepted subject entitled to work, income and respect, but, instead, about postmodern “experiments with subject position and interaction,” playing with “floating identities” (Stone 1995e: 2–3) in the free-zone of cyberculture, a postmodern academic subculture celebrating the pleasure of the technological. What is at issue here is not, as it was for the disabled veterans of the Weimar Republic, a “prosthetic will to work” (Fineman 1999: 90–91; cf. Cohen 2000), but a hedonistic and

Fig. 50. Otto Dix, 45% erwerbsfähig! (Die Kriegs-krüppel), “Forty-five Percent Fit for Work (The War Cripples),” 1920, on display at the First International Dada Fair in Berlin in the summer of 1920.

In the same year, the German government passed the law for military pensions that provided support for the disabled war veterans, but concurrently emphasized rehabilitation for at least partial reemployment. Because disability pensions were small they were supplemented by welfare payments under the precondition that the veteran was employable to a certain degree. Dix’s title, which refers to the ensuing “practice of defining veterans in terms of fitness percentage, alludes to this type of calculation” (Biro 2009: 162). “Depending on their degree of impairment, wounded veterans were given physical rehabilitation and job training, and a great deal of efforts was made reintegrating them into the workforce” (ibid.). In Dix’s painting, four “prosthetically augmented” veterans show “signs of technological reconstruction in the form of grafts and mechanical replacement parts – the stumps, hooks, and crutches of the two figures in the lead; the wheelchair carrying the third figure from the left; and the prosthetic jaw, eye, arm, and leg of the standing figure bringing up the rear” (ibid.: 163; cf. Poore 2007: 25–36). In its grotesque realism, Dix’s painting is “both a mockery and a serious condemnation of the German military system, which purported to represent heroism during the war and scientific and medical advances for war amputees afterwards” (Kreinik 2008: 112).
solipsistic “extension of my will, of my instrumentality” (Stone 1995e: 3). And it is not about work as the only means of survival, but “sex work” in “virtual systems” (ibid.: 6–8, 17; cf. Stone 1992, 1994a [1993], 1995d; Stryker 1996, 2000).

Instead of being constrained by what Stone (1995e: 9) terms an “epistemological Calvinism,” implying that “work is the quintessential defining human capacity,” she enjoys of moving freely in a new world of a technologically empowered limitless self, a mode of subjectivity based on a “play ethic” in the realm of “technosocial games” (ibid.: 14–15).

In Stone’s world, a world of the technological sublime in its specific American sense (see, for example, Carey 1989: 120; Bukatman 1996 [1993]: 4, 2003: 81–110, 1995; Graham 2002: 154–175; Heuser 2003: 202–218; Marx 1970 [1964]; Tabbi 1996; for a historical contextualization of the “American technological sublime,” see Nye 1996), effected by post-theory in the mode of Harawayan cyborg mythology, the body is totally free at last: the body is a personal invention, an individual resource of the subject, that, as the corporeal identity of the individual, as Marie-Luise Angerer (1999a) says, is a body option. In this world, prosthesis is an instrument of postmodern ego-politics based on post-Enlightenment cyborg emancipation, the ultimate freedom project made possible by the auto-poiesis of the post-subject following the logic of the “cyber” under the imperative of the “post” (cf. Balsamo 2000: 154–155; Hardt & Negri 2000: 214–218; Heuser 2003: 213–221; Franchi & Güzeldere 2005a: 114–120; Dyens 2001; Gray 2001; Flanagan & Booth 2002; Zylinska 2002b; Smith & Morra 2006b). No longer the disciplinary power of the state (for a historical contextualization, see Foucault 1976, 1978h [1976]), but body design promoted by market forces, the power of capital, is now the matrix of the body; a technoscientific free zone of cyborgian body modification in which the body, turned into a post-body, enjoys its libidinal existence by means of personal body management.

This is the world of prosthetic sex, a world in which sexual encounters with and between body-machines and machine-bodies exceed the limits of the organic: “sex” in the mode of the cyborg, post-sex as Harawayan “cyborg ‘sex’” (Haraway 1991a: 150).

In the midst of this kind of techno-euphoric theorization, however, one cannot help but ask why is it precisely prosthesis – a surrogate of an organic limb or a body function, an artificial body part, a supplement with its own logic, in a word: a Fremdkörper (cf. Schnalke 1999) – that figures as an object of desire in the world of the “cyber”? Why has prosthesis become a sexual dream object in cybertulture, a techno-avantgardist subculture obsessed by body modification in terms of the cyborg and the posthuman? What does this kind of radical disembodiment, a dis-membering of the organic body, imply? Where does the pleasure of the disintegration of the body of the subject come from, entailing the dissociation of the subject from the body? What is this techno-erotic euphoria around the techno-body, a body that appears as a libidinal object of the post-subject constructed in various theory-fictions pertaining to all that is “cyber”?

3.1.2 Redesigning the Body in the Prosthetic Economy of the First World War

If, in the world of the cyborg, prosthesis is not only the “fundamental category for understanding our most intimate selves” (Haraway 1991f: 249), but also an object of desire, an object of an affectionate attachment, an object of passionate emotions, even, as Stone enthuses above, an object one can fall in love with, in which sense prosthesis was a “fundamental category” in the world of the German war cripples reconstructed and rehabilitated by means of prosthetics to bring them back to the production process, and through that, if possible, to “normal life”? How did the prosthetic men of the Weimar Republic feel? What was life for those men who first were called to arms and then returned from the war mutilated and disabled, at both times guided by a superior reason demanding, to apply Marcuse’s (1941: 419) expression, only a subordination of their “spontaneity to the anonymous wisdom which ordered everything” for them, the “wisdom” of the machine manifesting the rationality of the body-machine complex organized according to military principles?

Were the mechanically repaired and augmented bodies of these men a source of joy or anger, of happiness or grief? Did these men love their artificial limbs, surrogate arms and legs? Did they have the feeling that, as the official rehabilitation doctrine wanted them to believe, “the will is the best prosthesis” (Fineman 1999: 90)? Or, did they feel, in the manner of the Harawayan cyborg, to be “resolutely committed to partiality, irony, intimacy, and perversity” (Haraway 1991a: 151) – in a word, committed to a state of being what Haraway calls a “cyborg monster” (ibid.: 178, 1992c), a hybrid body, a post-body most enthusiastically celebrated by cyborg feminism (see, for example, Armitage & Roberts 2002b: 132–133; Genz & Brabon 2009: 145–155; Lykke & Braidotti 1996a; Terry & Calvert 1997; Wolmark 1999a; Bryld & Lykke 2000; Kirkup et al. 2000; Gieselbrecht & Hafner 2001; Flanagan & Booth 2002; Sundén 2002a, 2003; Reiche & Sick 2002; Reiche & Kuni 2004; Melzer 2006; Toffoletti 2007; in terms of “somatechnics,” see Sullivan & Murray 2009; for a radical feminist criticism of cyborg feminism, see Kline 1996)?

The Body–Machine Complex of the Weimar Republic

With regard to the glorification of prosthetics as an emancipation of the body from the constraints of “biology” and the “organic” – or “nature” and “flesh,”
both of them celebrated *abjects* of post-theory (cf. Kristeva 1982 [1980]: 141–148; Beardsworth 2004: 76–93, 117–142, 231–243) – these questions pertain to the affective investment, the *cathexis* (see, for example, Freud 1987d [1900]: 572, 600, 604–612, 622, 1972f [1926]: 120, 204–205; Breuer & Freud 1977 [1895]: 92, 107; Laplanche & Pontalis 1998 [1967]: 92–96), of prosthesis, that is, the libidinalization of prosthetic technology in cyber discourse. In these terms, what this new mode of prosthetics is allegedly augmenting and enhancing is not only the range of the abilities of the subject; it is also assumed, as we have seen above when considering various fantasies and theory-fictions around the idea of “cybersex,” to enable post-corporeal pleasures of a post-body, the pleasures of prosthetic “sex” in virtual reality.

But, the question remains: for what reason is the prosthetic body seductive? In a word, to use an idiomatic American expression, why is prosthesis *sexy*?

This is the question concerning the great expectations projected upon and associated with prosthesis in post-theory, particularly in cyber discourse; prosthesis understood here as a textual figure turned into a discourse-political idea (a category, notion and metaphor) effected by prosthetic theory in the manner of the postmodern; the prosthetic in both senses of the term: prosthesis as a supplement implying not only a replacement but, at the same time, an addition (cf. Derrida 1997 [1967]: 145–160). What precisely is it that a prosthesis replaces and what is it that it adds and to what? In the study at hand, this is a question that pertains not so much to the real achievements of prosthetics, but, rather, the *politics of language* in terms of “the prosthetic” peculiar to cyber discourse.

It is from this perspective that I consider the discursively constituted linguistic figurations in which the figure of prosthesis figures as a post-theoretical given – or, rather, in which prosthesis *emerges* in the first place.

In this respect, it is instructive to look at in detail the grim reality of the Weimar Republic that made a comprehensive development of prosthetics into a political necessity; the only way to try to solve the immense humanitarian, social, economic and political problems brought about by the fate of war cripples.

Eva Horn’s summary illustrates the explosive situation after the First World War in Germany:

*Die Massen von Invaliden und Arbeitsunfähigten werden zu einer gravierenden sozialen und ökonomischen Belastung der Nachkriegsgesellschaft, zugleich sind sie Sinnbilder des verlorenen Krieges, eine Beschämung, die die Weiße*r Republik gleichwohl nicht einfach aus ihrem Straßenbild vertreiben kann. Dabei stehen diese zerstörten und desintegrierten Körper nicht nur für ein diffuses Bewusstsein vom “verletzten Volkskörper”, sondern vor allem für eine Krise sozialer und wirtschaftlicher Ordnung schlechthin. Sie verkörpern den Zusammenbruch, die wirtschaftliche Notlage und das politische Chaos in genau dem Maße, wie sie die Verheerungen des Krieges an ihrem Leibe öffentlich zur Schau tragen. Ihre Omnipräsenz steht all jenen Versuchen entgegen, nach dem Krieg zur Tagesordnung der Arbeit, des Vergnügens und der geordneten Ver-
In this sense, the war cripple, in its very habitus, was an “emblematic figure of the postwar era” in the Weimar Republic incorporating the “national, social, psychological and economic devastation” resulting from the war (ibid.: 193). The mutilated veterans embodied the “anthropomorphic face of the war” (ibid.), and therefore, the “corporeal reconstruction and social reintegration of the disabled was not so much a humane desideratum as a commandment of national convalescence, social functionality and economic efficiency” (ibid.; in detail, see Kienitz 2008: 153–192; for a historical contextualization, see Bessel 1995; Herschbach 1997).

This was the Lebenswelt of the Weimar Republic, a lived reality of lost illusions and a shattered future, a world in which pleasure was not so much on the agenda as the sheer necessity for survival.

At the same time, these new living conditions, in their concrete materiality, were a discursive reality, a reality of intensive politicization of everyday life, a reality of mass demonstrations, civil war, violent agitation and propaganda, radical politics and utopian visions (see, for example, Wirsching 2000: 1–46; Kolb 2002: 1–56; Peukert 1993 [1991]; Hardtwig 2007; Kluge 2006; in terms of “crisis” as a cultural-discursive construction, see Föllmer & Graf 2005; from a psychohistorical perspective, see Theweleit 1977, 1978), and not the least, bitter intellectual and literary debates about the idea of being human in a world in which only “cynical reason” (Sloterdijk 1983a, 1983b), a form of modern nihilism, was the most reasonable form of reason. That is, the reality of the Weimar Republic was a discursive universe that, at the same time, was a corporeal reality, a world of linguistic figures that were attempts to make the unreason of prevailing reality intelli-

Fig. 51. Otto Dix, Die Skatspieler, “The Skat Players,” 1920. Dix’s painting “has been termed the most important antiwar picture ever produced by a German artist” (Poore 2007: 30).

“Here three disabled veterans identified as officers by their posture and medals are playing cards at a coffeehouse table. Each man has injuries that could not possibly be survived and wears fantastic prostheses.” (ibid.) It has even been said that “perhaps no other painting portrays the mutilated human being so pitilessly” (ibid.: 31). “Through the intertwining of prostheses with chair and table legs and the impossible contortions of limbs and various apparatuses, the composition of the painting causes the viewer to look closely, with cold or perhaps amused curiosity, in order to discern how everything functions together, to determine what is human and what is inanimate matter. That is, the painting creates a freak show effect, an ambivalent fascination with the three war cripples, who are also presented in a radically negative manner as representatives of the war machine. The grotesqueness of their prostheses marks them with bitter irony as monstrous holdovers of an authoritarian system. They are still dyed-in-the-wool militarists, and they keep on playing their game the way they have always played it.” (ibid.: 32) Thus, instead of representing the prosthetic reality of the time as such, Dix’s prostheses are “bizarre results of bricoleuring” (Gaughan 2006: 146) and, in this manner, Dix mobilizes prosthetics as “a critique of the effects of technological modernization” in the aftermath of the war, when “its physical presence and presence in discourse was overt and unavoidable” (ibid.; in terms of “prosthetic modernism,” cf. Armstrong 1998: 96–98).
gible, even with regard to the fate of war veterans (see Dülf& Krumeich 2002; Hagemann & Schüler-Springorum 2002; Kienitz 2008).

In this world, it was science, the apogee of reason, that appeared once again as the salvation – the very same scientific pathos of progress, the ethos of the modern, that paved the way to the war in the first place.

In the chaotic reality of the Weimar Republic, it was "expressly the cripples that became the first objects in the efforts of scientific rationalization" (Horn 2001: 196) pertaining to work and production: prosthetically reconstructed amputees were a major issue, if not the first priority, of national survival in terms of both political economy and mental hygiene.

If, in the political and military process that resulted in the catastrophe of the First World War, there is anything that can be taken as a common denominator, it is certainly the cold rationality typical of "cynical reason." This, among other things, is the reason of the war machinery that produced millions of deaths and hundreds of thousands of cripples. It is the same reason that dictated the social ethos after the war turning the mutilated veterans into a man-machine hybrids adjusted to the postwar production machinery. It is in this situation that the human body, in a new way, turned into a resource to be rationally managed in order to increase productivity necessitated by the immense demands of

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35 One must, however, rigorously separate two things: firstly, the immediate, concrete, sensual-experiential reality of the real, the phenomenal reality of reality given in the experience of being-in-the-world (my body is my body, I am my body; cf. Adorno & Horkheimer 1994 [1944]: 178–192; Turner 1997 [1984]: 182–185, 219–235), and secondly, the reality made apprehensible and intelligible in and through language, language not as a reflexion of reality, but as a signifying practice making reality real for understanding. The body in pain is not a linguistic construction, it is a lived experience given in corporeal sensation, although the meaning, the sense-making idea, of pain is a culturally codified construction, if someone hits me, it is not the signifiers that hurt me: it is the blow I feel in my flesh. Thus, it is one thing to live the experience of becoming mutilated in one’s own body; it is quite another thing to apprehend the state of being mutilated. This bleeding wound, that fractured arm, these factual facts of the body are not just linguistic figures: they are corporeal facts one is experiencing absolutely real, real in one’s own very body that in its immediate givenness is beyond language. However, there is no other access than language to the reality of pain and agony of the others. This is the discursive reality of the war amputees reconstructed by means of prosthetics in the Weimar Republic, the reality lived by the cripples as a lived reality of their own lived bodies.
postwar reconstruction efforts to be carried through under the conditions under which a considerable part of labour force was fallen in the war and under which, due to inflation, hunger and proto-fascist violence, the socio-economic and political structure of society was instable and fragile (see, for example, Kolb 2002: 37–56; Pyta 2004: 50–72; Kluge 2006: 50–58, 69–76, 82–92).

“Cynical reason” – what is it? To explain all the monstrous dimensions of cynical reason, Sloterdijk (1983a, 1983b) needs 953 pages; to consider all that would be another story.

Suffice to say here that in this particular context – the context of the prosthetic redesign of the body in the body-machine complex of the Weimar Republic, a social order that was operating according to the principles of military-industrial efficiency (Sloterdijk 1983b: 791–814) – cynical reason means inverted rationality: first the integrity of the human being is destroyed by mutilating his body, and then the damage is repaired by substituting mechanical surrogates for the organic body parts. Or, seen from a wider perspective: first a rationally working killing and destruction machinery is constructed, and then those poor ones who have not been lucky enough to die are reconstructed by means resulting from the very same reason that was the raison d’être of this whole industrially organized military enterprise in the first place, producing both deaths and living corpses.

This was the cynical reason of the First World War, the reason of the scientific-technological, military-industrial laboratory of the modern; a model of laboratory that was greatly expanded and further elaborated by the American military-industrial complex during the Cold War, still in operation in postmodern technoculture, exemplified, among other things, by the figure of the cyborg soldier (see, for example, Edwards 1996: 1–42;

Accordingly, the Gulf War soldier was not merely influenced by the weapons technology but modified to fit it. Drugs were administrated to enhance night vision and make the pilot’s body compatible with the night-visioning equipment in the fighter planes. Anxiety depressants and other contributions from the disciplines of molecular biology, biocybernetics, neurochemistry, psychopharmacology, and so on were also employed, along with various other person-extending prostheses, to make the soldier into an effective fighting machine, into a virtual “cyborg soldier.” Weber’s rationalization of the factory and reshaping of the industrial worker, which was a product of disciplinary practices arising from militarization, has come full circle as the biotechnics of industrialization have fed back into military activities. (ibid.; cf. Gray 2001: 55–65, 1989, 2000; Gannon 2003: 208–238; Kellner 2003b: 230–232; Coker 2004: 84–85, 95–100)

This kind of integration of soldiers into military technology and the related recalibration of their corporeal functions was already to be seen in an elementary form in the First World War and in its aftermath in the prosthetic rehabilitation of the war cripples to fit them to the demands of industrial production (cf. Biro 2009: 153–197, 1994; Horn 1999a). According to Fineman (1999: 87), the Weimar prosthetic man, the war cripple turned into homo prostheticus, implies in his very mode of being that the “ancient ideal of human perfectibility stands in ruins.” Prosthesis, for Fineman, is not an emblem of a perfection of the body; on the contrary, it is a “conspicuous token of irreparable lack”; instead of a higher form of being human, it signifies “technologically supplemented imperfection” (ibid.: 88; emphasis mine). This is not, as in the case of innate defects, an imperfection that, although discursively constructed, is a result of biological processes (see, for example, Raulf 2001a; cf. Lutz et al. 2003); instead, it is an imperfection that is a consequence of the ideal of perfection inscribed in science and technology seeking the means of perfect destruction.

A “Special Biological Person”

The official rehabilitation doctrine of the Weimar Republic, however, saw things precisely the other way round: the imperfection of the body resulting from the war destruction was conceived of not as a defect body, but as a means to a more perfect body – if not the perfection of the body altogether. In this constellation, the prosthetic body was construed as an incarnation of what was called der neue Mensch, “the New Human Being” (see, for example, Küenzlen 1997 [1994]; Lepp et al. 1999; Wedemeyer-Kolwe 2004; D’Idler 2007; in Soviet Russia, cf. Rütting 2002; Groys & Hagemeister 2005; in terms of the posthuman, cf. Irrgang 2005; in the context of contemporary biopolitics, cf. Kleeberg et al.
embodied the ideals inscribed in the norms, standards and disciplinary practices pertinent to the scientific-technological reorganization of work and production in the industrial process in postwar Germany (Kienitz 2001b: 230–234; Horn 2001: 124–126). For the physicians and engineers, the prosthetic body, as a technische Neukonstruktion, a “technological neo-construction,” was a “miracle,” an “innovative improvement,” accomplished by the medical-technological expertise of rehabilitation industry (Kienitz 2001b: 233).

What is most important here is that these prosthetic specialists emphasized the “productive character” of the corporeal destruction” as part of a “general technological progress” (ibid.; emphasis mine; cf. Rabinbach 1990: 264–277). In other words, in the light of cynical reason, the mutilation of bodies in war was a precondition for a new kind of the “perfectibility of the human being”: homo prostheticus as the paradigmatic model of the reconstitution of the human being according to the principles of scientific-technological rationality.

Motivated not only by Taylorism (that at the time, along with Americanism, was just about to conquer both postwar Europe and Soviet Russia; see, for example, Maier 1987: 19–52; Nelson 1992: 16–27; Hughes 2004a [1989]: 8–9; Merkle 1980; Jakobsen et al. 1998; for the cultural-historical contextualization, see Bittner et al. 1995; Ball 2003), but also by the emergent science of work (Arbeitswissenschaft, science du travail) and psychotechnics, approaching the body as an energetic resource, a “human motor,” to be calculated, regulated and managed for the maximum effect in the service of national economy (see Rabinbach 1990: 179–237, 1986; Türk et al. 2002: 214–221; Raehlmann 1988; Nolan 1994; Spur et al. 2000; Weber 2001; Vöhringer 2007; from the perspective of norming and nomalization, see Sohn & Mehrtens 1999), the German medical-technical industry considered the body not as an organic whole, as the substratum and substance of human personality, but in terms of functional capabilities, as a dismembered tool system working according to the laws of physiology and physics; sciences that, along with experimental psychology, had radically changed the idea of human organism, conceived of as a machine, since the late nineteenth century (see Sarasin & Tanner 1998; Rieger 1999b, 2001a; Erlach 2000; Keck & Pethes 2001; Sarasin 2001; Schmidt 2002; Orland 2005a; Dierig 2006; in terms of “cybernetic anthropology,” see Rieger 1999b, 2003b; cf. Pias 2003, 2004).

Consequently, as a part of the production apparatus, the prosthetic body was seen as a machine construction to be supplemented with machinic spare parts, that is, various tools attached to the prostheses (see Rieger 2001a: 414–450, Rieger 2001b: 240–250; 2003a; Dederich 2007: 104–105; Westermann 2012: 178–188; Berz & Price 2003; cf. Berr 1989, 1990): the prosthetic man was literally a technological construction achieved by means of scientific-technological rationality. As a result of standardization constitutive of the industrial paradigm of the modern (for a historical contextualization, see Vec 2000; Berz 2001), prosthetic arms and hands made up a new kind of tool system; that is, what Heather R. Perry (2002) designates as the “re-arming” of the disabled veterans took on a
literal meaning: “the ‘arm’ had a metal joint at the end into which any number of specially designed working ‘hands’ could be inserted and securely fastened” (ibid.: 87). “These ‘hands’ ranged in form and shape from simple tools (e.g., a hammer), to brushes or cutlery with elongated handles, to specially crafted inserts designed to fit perfectly with corresponding industrial machinery” (ibid.). Thus, according to the prosthetic logic of “the artificial arm industry, hand attachments became both standardized and interchangeable, much like the soldier-workers who eventually received them” (ibid.; cf. Rieger 2001b, 2003b; Berz & Price 2003). In this manner:

These arms could bring together nearly any disabled body with a range of standard industrial tools, from a simple carpenter’s plane to a piece of heavy
machinery. Many of these prosthetic “hands” physically fastened the disabled man to his work station. With the prosthesis attached to the amputee on one end and to machinery on the other, the disabled man’s body gradually blended into his work. The quest for efficiency blurred the boundary between man and machine. In these cases the identity of the wearer was not so much denied as blatantly subjugated to that of his working equipment. The worker became nothing more than a living appendage or human prosthesis to his machine. (Perry 2002: 89; cf. Haraway 1991f: 249; Hayles 1999: 3; Waters 2006: 42; with regard to prosthetic experimentation in media/techno art, cf. Stelarc 1991, 1994a, 1998; Zylinska 2002b; Smith 2005; in terms of “posthuman prosthetics,” cf. Manning 2007: 155–158)

What happened in this constellation was not only the emergence of a new kind of man-machine system; it was, at the same time, the ultimate radicalization of the man-machine interaction specific to the industrial paradigm of the modern, the body-machine configuration constitutive of Taylorism and Fordism (see Yanarella & Reid 1996; for a historical contextualization, see Harvey 1989: 125–140; Cooper 1990 [1981]; Allen 1996; Miller 2002). As Sabine Kienitz (2002b: 193) states, a “process by which masculinity and technology” became “linked and melded in the mechanized (technically enhanced) body”; through this kind of “implantation of technology” that implied a “mechanization of the body,” a “manipulation took place that must be interpreted as a symbolic remasculinization” (ibid.). Kienitz’s description vividly sums up the prosthetic logic of the Weimar body-machine complex:

[T]he reintegration of the war-disabled into the labour market, which was proclaimed to be male, could obviously not be declared a question of the will alone, but was also presented as a victory of technology over the dysfunctionality of the maimed body: thus, a male body is presented that is part of the machine or indeed has become a machine, that was forced into wrought iron corsets and had to be formed according to the ideal of a working machine and “reinvented.” The technical reconstruction of the male body had been an unrealized project of the eighteenth century, and it seemed after the First World War that the scientific breakthrough had finally been achieved: now the real human body was a central object of the engineering sciences. (ibid.: 193–194; in terms of “social engineering,” see, for example, Podgórecki et al. 1996; Thompson & Findlay 1999; Etzemüller 2009; Jordan 2010)

In these circumstances, as Sloterdijk (1983b: 797) says, those in charge of the “military and productions apparatuses” did not hesitate to express their claim to be entitled to “consume [aufzubrauchen] the body in their service” (emphasis mine); that is, to use the bodies of the prosthetic men in an economically most effective way, to instrumentalize them to tools of the production machinery of the German war economy as a total economization of all resources, the human body included (for a historical contextualization, see Bessel 1995: 1–90, 254–284; cf. Marx 183 [1867]: 391–407, 416–461). It is in this manner that, in the final analysis, the logic of capital determines the reconstruction of the body, its recalibration according to the imperative of economism, the rationale of profitability based on the demand of surplus value. As a result, the body in itself was taken as a prosthesis in the Weimar Republic body-machine complex (in terms of the posthuman,
This is the idea of the usability of the body brought about by the logic of the modern, the logic of rationalization and efficiency; an idea that finds its final accomplishment in the concept of the body management pertinent to the postmodern, the order of what I call neo-Fordism: the human being as the cyborg, the prototype of the posthuman (cf. Jünger 1982 [1932]).

In the framework of the Weimar Republic body-machine complex, the prosthetic body was a “functional part of the social machine” (Fineman 1999: 92). Thus, the Weimar Republic war amputee, reconstructed with prosthetics, was treated as an economic factor who – like the Fordist man in the production system built around the assembly line in Ford’s automobile plants in Detroit in the early twentieth century (see Ford 2006 [1922]: 89–103; cf., for example, Harvey 1989: 125–140; Allen 1996: 281–297; in terms of the “docile body,” cf. Foucault 1991a: 135–169) – “can still do his part, even if his own parts no longer add up to a whole” (Fineman 1999: 93). According to the rehabilitation programme of what was designated as Krüppelfürsorge (see, for example, Heller 2009: 92–109; Harrasser 2010: 61; Osten 2004; for a historical contextualization in terms of “life reform” and Freikörperkultur, see Hau 2003: 125–149, 176–198), that is, a system of social measures implemented to care for the war cripples, the prosthetic man was propagated as an “entirely new form of life” (Fineman 1999: 96–97), a body construction half organic, half technological (cf. Haraway 1991a: 149–150). As such a “conglomeration of separate functions,” the prosthetic man was seen in the German medical-technical discourse as constituting a “unique configuration of body and soul,” amounting to a “special biological person with its own powers, capabilities and laws” (Fineman 1999: 97; emphasis mine).

In this manner, the prosthetically reconstructed bodies of the disabled soldiers manifested what Michael Hagner (2000: 79) calls tayloristische Optimierungsphantasien, “Tayloristic optimization fantasies,” typical of the rehabilitation politics of the time – and later, just as typical of the postmodern visions of body modification in terms of the cyborg and the posthuman.

Thus, postwar Germany was not only a matrix of personal, social and political pathologies of the modern; it was also a clinic and laboratory for the construction of the “new man” in the sense of der Neue Mensch (see, for example, Wedemeyer-Kolwe 2004: 84–118; Graf 2008: 172–201; for a cultural and artistic contextualization, see Seifert 2004; Cowan & Sicks 2005a; Biro 2009), epitomized, in its most futuristic form, by Ernst Jünger’s (1982 [1932]) proto-cyborgian figure of der Arbeiter, “the Worker,” as the Gestalt, the paradigmatic model, of the “New Human Being” created by the machine culture that emerged from the industrialized mass destruction of the First World War; a prototype of being human in
the mode of the “posthuman” avant la lettre. In this manner, in the Jüngerian world, as Michael Minden (2009: 126) sums up, “by dint of the now manifest inhumanity of modern technology, the false humanity of the bourgeois age can be surpassed,” and thus the “post-human subject trumps the machine by becoming machine-like itself” (cf. Spretnak 1999: 128).

A “new man” – was this scientific-technological creature also the identity model, the self-perception as a subject, of those men who after complicated surgical-technical operations and therapeutic procedures, in many cases taking years and demanding a great amount not only of physical and mental endurance, but also of strong willpower, were at last reconstructed and rehabilitated and thus ready to resume work and “normal” life? The records of the Krüppelfürsorge and social security institutions open a concrete view to what it was in reality to live as an “entirely new form of life.” In their letters to authorities and applications for public assistance, the prosthetic men often complained about the radical change for the worse in their conduct of life and future prospects due to prosthesis (see Kienitz 2001b: 232–233).

For example, a post office official whose right arm had been replaced by a Sauерbruch-Prothese (also called Sauerbrucharm, see, for example, Springer 2002: 77–79; Eckart 2005 [1990]: 285; van Bergen 2009: 350–351) did not see that he would ever regain an opportunity to advance in his career for which he had optimistically prepared himself before the war (Kienitz 2001b: 232):

Außerdem bin ich durch den Verlust meines rechten Armes in meinem Beruf so behindert, daß es mir bei stärkster Willenskraft nicht mehr möglich ist, die Stellung zu erreichen, in die ich ohne Beschädigung unbedingt hätte gelangen müssen. (ibid.)

If a post office official, a professional man working in an office environment, saw that his arm prosthesis could never allow him to perform the tasks necessitated by work at the desk, the situation was even worse for an industrial worker who was trained to carry through complicated montage operations before the war, since his job required skills which he would never again attain with a prosthetic hand. An electrician having his right arm replaced with a prosthesis could no longer carry out the craft for which he felt a calling and was thus compelled to be retrained as an office clerk – with the consequence that he regarded his life as entirely ruined.

Auch das Bewußtsein, früher hattest du einen Beruf, der dich befriedigte und in dem man fortkommen konnte und jetzt hat man einen Beruf nur um das Leben zu fristen, wirkt nicht gerade ermutigend auf den Menschen ein. Vor meiner Verwundung war ich gesund und zufrieden und jetzt bin ich ein Krüppel mit schlechter Gesundheit. (ibid.: 233)

Apparently, for these men – and there were thousands upon thousands of them who shared the same fate – who, through their prostheses, were mechanically coupled to the production machinery and thus turned into an extension of the machine, these apparatic systems replacing their organic body were not a liber-
ating experience. On the contrary, these men not only saw their corporeal freedom severely constrained, but, more fundamentally, they felt themselves handicapped, and as such, like second-rate citizens (Whalen 1984: 55–62, 101–115; Kienitz 2001a, 2004). After the loss of their bodily integrity – that is, an organic body as an integer body with its open and flexible structure – these men hardly experienced their “prosthetic devices” as “intimate components, friendly selves,” as Haraway (1991a: 178) celebrates the prosthetic body in her cyborg mythology.

On the contrary, for each of these prosthetic men, prosthesis was an intruder, a Fremdkörper, that made their own bodies into aliens, monstrous “others,” causing many of them not only to become permanently ill, infirm or disabled, but also driving them to desperation, isolation and suicide. In contrast to official propaganda, the prosthesis was not a salvation; it was a scientific-technological seal of damaged life, a sign of militaristic rationality for which human life was valuable only as an instrument of death. In this sense, the First World War, in its very scientific-technological innovation process epitomized by the logic of prosthetics, implied the emergence of the modern body: a body that was possible to be made usable and profitable, to turn it into a resource, even when it for the individual itself entailed life in ruins.

In Sloterdijk’s words, these prosthetic men embodied the “cynical reason” of the war economy of the Weimar Republic.

There is, however, no doubt that for the prosthetic men of the Weimar Republic, there was nothing that would be more valuable, nothing more of need, than an integer body – a body precisely consisting of that “organic holism” (Haraway 1991a: 178) hilariously despised by Haraway, cyberfeminists and other cyber-theorists in their cyborgian hubris, the techno-theoretical grandiloquence typical of the imaginary world of technological omnipotence, the techno-futurist fantasies and theory-fictions in the name of the posthuman, the apotheosis of the “post” in terms of scientific-technological rationality.

An Avantgarde of “New Life”

Obviously, something fundamental in terms of the human occurred between the years 1914 to 1918. Mens sana in corpore sano – this ideal of Antiquity was no longer valid after the great death orgy at the beginning of what Eric J. Hobsbawm (1994) calls the “Short Twentieth Century, 1914–1991.” What Hobsbawm considers as the “Age of Extremes” means, in my reading, among other things, an insidious extinction of the humanist ideal of bodily integrity, the idea of the inviolability of the human being. This is the origin of the politics of the posthuman; a politics of instrumental reason that has now finally resulted in the politics of technoscientific omnipotence fantasies under the auspices of the “post,” the politics of the God principle, manifesting a postmodern Umwertung aller Werte (cf. Nietzsche 1969b [1888–1889/1908]; 363–364, 1969a [1888/1894]; Kim 1995: 2–3, 36–49, 183–206) in terms of the scientific-technological reconstitution of the human being paradigmatically exemplified by the cyborg.
This is the politics of technomorphism, the politics of scientific-technological re-engineering of the human being; a politics of radical body design amounting to post-utopian phantasms pertaining to the pleasures of designer bodies in the postmodern, celebrated by cyber discourse in its technoscientific reveries in the manner of the “post.”

From this perspective, the techno-political project of the posthuman is not only an invention of the postmodern; it originates from the military-technological process that opened the way to the First World War, and thereafter to a radical industrial reorganization of all being in the postwar world. In this context, the prosthetic man, as constructed in the discourse of the German medical-technical industry, was an embodiment of technomorphism, manifesting the ideology of scientific-technological progress, a faith in technological management of all life as a panacea implying a post-theological Heilsversprechen (cf. Schnick 1998: 56–62; Bolz & van Reijen 1998; Harrison 1999; Gutmann & Gutwald 2005), a secularized form of religiosity brought about by technocratic reason. This is the discursive matrix of the second-order militarization of society, a society organized on the basis of war economy, according to the principles of rationally calculated power politics. It is in this sense that the war economy of the First World War, seen from the long perspective pertaining to the historical
transformation of the body economy of the modern, is the origin of the political economy of neoliberalism, the economy of neo-Fordism as the technoscientific regime of contemporary capitalism. That is, the war economy of the First World War was the first large-scale enterprise concerning a comprehensive economization of the human body in order to maximize its usability in a constellation in which life and death had a specific value for national existence instead of the survival of the individual. In other words, the First World War was a world-wide biopolitical experiment that unleashed the economic productivity in the service of destruction constitutive of the modern.

In this sense, the Weimar prosthetic man is the prototype of the body-machine assemblage that, in an extreme form, shows the feasibility of a technologically re-engineered body in which man-power and technology are welded together into a society-wide megamachine comprising an industrial machinery that, at the same time, is the precondition of the war machinery, and vice versa (with regard to the military-industrial complex of Cold War America, cf., for example, Hooks 1991; Edwards 1996; Medhurst et al. 1997; Harbutt 2002; Bacevich 2007; in terms of the militarization of science, see Leslie 1993; for a comprehensive historical overview, see Pavelec 2010).

Accordingly, war economy is the state of emergency from which the technoscientific conception of the human body emerges that is the hard core of the cyborg: the idea of the body as a thoroughly rationalized body-machine.

What is important in this context is that what Tim Armstrong (1998: 77–105) calls “prosthetic modernism” implies, in terms of war economy, a comprehensive mobilization of bodies and their energies, a mobilization the aim of which is not just to extract all the forces of the body, but, more fundamentally, to compel the body to exceed its limits (see Balderston 2010). This is the idea of what Ernst Jünger (1980 [1930]: 69–70) calls “total mobilization” manifesting the “genius of war” in an extreme form that is “imbued by the spirit of progress” (cf. Horn 1998–1999: 96–100, 1999a: 90–92; Meschnig 2008: 209–248; Perry 2005: 153–154; Rohkrämer 1999; in Heideggerian terms, see Radloff 2007: 379–383; for a historical contextualization from the perspective of the Holocaust, see Traverso 2003). It is in this sense that war does not know limits; that is, before the idea of “total war,” war is always already total: the logic of escalation is built-in in the teleology of war (see Horne 1997, 2004; Boemeke et al. 1999; Chickering & Förster 2000, 2003; Chickering et al. 2005). This is the origin of the cyborg in the scientific-military constellation of the First World War: a techno-body born as a result of the logic of death, a prosthetic body that is the ultimate embodiment of life under the regime of scientific-technological rationality; an entity the existence of which is based on techno-genesis: death as the precondition of life, scientific-technologically organized life as the precondition of death; a condition that has now reached a global scale through the American war machinery; as Jameson says:

[…] this whole global, yet American, postmodern culture is the internal and superstructural expression of a whole new wave of American military and economic
domination throughout the world: in this sense, as throughout class history, the underside of culture is blood, torture, death, and terror. (Jameson 1991: 5).

In the discursive matrix of the Weimar medical-technical industry, the survivors of the war were both redesigned and resignified: soldiers returning from the front to “the production front” (Fineman 1999: 88) were given a new life as a prosthetic extension of the production machinery and thus redefined as the most advanced form of the modern body, the body as a prosthetic construction. Thus, the prosthetic man was an embodiment of the “anthropomorphic face of the war” (Horn 2001: 193): he embodied the scientific-technological feasibility characteristic of the modern. Zerbrecht die Krücken – “Break the crutches” (Fineman 1999: 90), this exhortation manifested the official prosthetic ethos of the Weimar rehabilitation programme propagating the benefits of prosthetics. Überwindung des Krüppeltums – “Overcoming of the crippledness” (Kienitz 2001b: 233) by means of prosthetics, this was the only way to “normality” offered to the crippled war veterans by the officials of the Krüppelfürsorge. What was needed for the “overcoming of the crippledness” was der Eiserne Wille, “the iron will,” as the leading authority of the prosthetic rehabilitation, the orthopaedist Konrad Biesalski, emphasized in his programmatic directions for the medical attendance of the disabled veterans (see Wuertz 1980 [1921]: 52; Eckart 1997: 192–193; Cohen 2000: 301–302; Perry 2002: 80–85; Poore 2007: 8–9, 49–51; Thomann 1994).

Prosthesis was seen by the rehabilitation doctrine not as an obstacle of what was understood to be – as ironic as it may sound in this context – full-bodied life; on the contrary, prosthesis was propagated as the very means of the empowerment of the organic body, a body still implying a promise of new capabilities, in spite of its being crippled; a promise of overcoming and surmounting the organic structure of the body enabled by its prosthetic augmentation, precisely as in the postmodern visions of the cyborg, in the post-body utopia of the posthuman (cf., for example, Hayles 1999; Gray 2001; Graham 2002; Zylinska 2002b; Toffoletti 2007; Clarke 2008). In this respect, the “quasi-scientific identity politics” of the Weimar medical-technical industry focused on the concept of what was called the Krüppelseele (Fineman 1999: 97), that is, the “crippled soul,” allegedly expressing an entirely new mode of being human. This was a form of existence thoroughly conditioned by technology, a reconstitution of the human in terms of the machinic – that is, the posthuman, just like the mode of being of the cyborg in the world of the “cyber.”

In this way, prosthesis was a symbol of the new order in the Weimar Republic; prosthesis became thus a political matter, an issue of an entirely new mode of body politics based on an assumed omnipotence of technological progress.

A “new order” – what was this order? It was an early form (of course, mutatis mutandis) of what later became known as the “military-industrial complex” in the United States of America after the Second World War, a conglomeration of war industries and government agencies unifying science, technology and the economic-political power of financial capital (see, for example, Hooks
2019: 24–25, 51–52, 127–129; Barash & Webel 2002: 25–256; Pérez 2002; Nash 2009; Pavelec 2009; in terms of a “military-cybernetic complex,” see Levidow & Robins 1989c: 163–174). The Weimar Republic industrial machinery, closely tied to the political interests of the ruling class (not the same as the government), was in potentia (in both senses of the word) a war machinery – a potentiality which became actuality in the transformation through which the industrial machinery of the Weimar Republic was gradually turned into the military machinery of the Nazi regime after Hitler’s rise to power in 1933. However, for those ones who did not believe in the official euphemisms of the medical-technical industry and the Krüppelfürsorge, propagating the prosthetic man as a “special biological person” (Fineman 1999: 97), it was about a politics of language, a specific discourse on the “new man” constructed around prosthetics. In other words, “prosthesis” took on a meaning as a linguistic prosthesis in the prosthetic rhetorics that dominated the rehabilitation politics of postwar Germany.

For Raoul Hausmann, the caustic Berlin Dadasoph (see Riha 1992 [1972]; for a historical contextualization, see Biro 2009: 105–151; Benson 1987; Riha & Bergius 1991 [1977]), the Weimar Republic was living in a Prothesenwirtschaft, in a “prosthetic economy” (Hausmann 1992 [1920/1921]; cf. Poore 2007: 33–36). In Hausmann’s ironic vision, this new order, indeed, had given birth to a “special biological person,” namely, the Protetiker: a man as a technological construction that, as Hausmann (1992: 23) says, is ein besserer Mensch, sozusagen durch das Verdienst des Weltkrieges klasenengehoben, “a better type of the human being, so to speak, raised in another class through his merit in the world war,” in contrast to those ones who einfach ohne jedes künstliche Glied auf’m Erdboden rumlungern, “are simply hanging around on the earth without any artificial limb”; that is, those pitiful non-prosthetic beings whose existence was thus unjustified, and who, precisely for this reason, sollte als gemeine Bettelspekulation bestraft werden (ibid.), “should be punished for a nasty begging speculation.” But as for that one wom nur beide Arme oder Beine fehlen, der ist ja noch 50 Prozent erwerbsfähig (ibid.), “who has lost only both arms or legs, he is in...
any case still 50 percent fit for employment,” and because these people have a *Recht auf ‘ne Prothese* (ibid.), “a right to a prosthesis,” they are, therefore, also entitled to work and to enjoy a decent life.

On these grounds, these prosthetic beings, according to Hausmann, are for the benefit of themselves as well as of society as a whole. Therefore, they *are the avantgarde of a new life*. In this manner, prosthesis, for Hausmann, represents the culmination of human evolution: *Ja, so’n brandenburger Kunstarm ist das größte Wunder der Technik und eine große Gnade* (ibid.: 23), “Yes, such a Brandenburg artificial arm is the greatest wonder of technology and a great grace” (in terms of “artificial bodies,” cf. Orland 2005a). Thus, it is only consequent that the prosthetic redesign and resignification of the human being, undertaken by the Weimar medical-technical industry, amounts in Hausmann’s satiric vision to a revolution of production efficiency, since it not only makes it possible to increase the capacity of the worker, but, at the same time, to prolong the workday – creating a great number of new possibilities for improving the general standard of living, the well-being of all:


This is the elementary logic of prosthetic economy: prosthesis is the all-important existential condition of being human, and, in this sense, Hausmann’s *Protetiker*, quite similarly to Jünger’s *Arbeiter* (which, though, in its solemn techno-political pathos, is a deadly serious figure for Jünger) epitomizes the final accomplishment of the thoroughly rationalized working body projected by both Taylorism and the science of work in the early twentieth century (see, for example, Friedmann 1977 [1955]: 37–92, 102–107, 163–172; Rabinbach 1990: 179–228; Braun 1994 [1992]: 320–350; Beale 1999: 145–164; Weber 2001: 24–31; Merkle 1980).

In this world, indeed, it is, as Haraway (1991f: 249) says, that “prosthesis becomes a fundamental category for understanding our most intimate selves.”

**Jünger’s *Arbeiter*, or: The “Worker” as the Saviour**

The prosthetic redesign of the human body constituting a new body schema in avantgardist visions as well as in medical-technological reality is a significant turning point *within the modern*, a point at which the dynamics of mod-
ernization reaches the very condition of possibility of being and having a body; a point at which the parameters of the capabilities of the body become redefined by the para-corporeal potentialities implied by prosthetics (see, for example, Erlach 2000: 113–171; Rauschmann et al. 2001: 161–174; Schöne 2001: 120–129, 136–137; Irrgang 2005: 171–201; Berr 1989; Flessner 1997, 2002; Horn 2001; Harrasser 2004, 2010; Schneider 2005; Daniels & Schmidt 2008; in the context of the Soviet avantgarde and psychotechniques, cf. Vöhringer 2007; for bodies as “dancing machines,” cf. McCarren 2003: 9–20; in terms of the ideal of the machinic body in postmodern sport, cf. Gebauer 1997, 2006; Pronger 1998, 2002; Magdalinski 2008). This is the point at which the human being begins to turn into the posthuman. In other words, the prosthetic extension and amplification of human corporeality is the historical origin of the posthuman, both as a theory-utopian idea and a technoscientific reality in a world in which the imperative of scientific-technological rationality dictates the principles of body politics.

What is the posthuman? If, in the human condition, it is the human that comes first and all the other things thereafter, the posthuman entails the opposite. Accordingly, in the order of the posthuman, the machine comes first, then the supplement of it, the prosthetic entity formerly known as the human being. The machine, understood in its societal complexity as the engine of the progress at the cost of the well-being of workers (cf. Marx 1983 [1867]: 391–530), is not only constitutive of machine industry and the concomitant rise of industrialism as the basis of a new kind of society, but, more fundamentally, it establishes a new paradigm of the body: the body as an industrial product in itself (for a comprehensive historical contextualization, see Rabinbach 1990; in terms of Taylorism and Fordism, see Banta 1993; Sarasin 1995; Yanarella & Reid 1996). What is crucial here is that the machine exceeds both the limits of the organic body and the technical limits of tools: the machine is more than both together. Thus, long before the postmodern, in the relentlessly expanding modern, in the world of a rationally organized industrial machinery working according to the military imperative, it already became clear that, as Haraway (1991a: 152) says, “[o]ur machines are disturbingly lively, and we ourselves frighteningly inert.”

This is the moment of the posthuman in its historical context, the moment of technomorphism arising from the body-machine complex of the First World War, the first industrial war (see, for example, Strachan 2001: 993–1113; Imbusch 2005: 510–532; Spilker & Ulrich 1998; Prior & Wilson 2006 [2001]): war as a scientific-technological and economic-political project to industrialize the human body, to turn the body into a part of the machine, and finally into a prosthetic body in the service of the machine (see, for example, Tate 1998: 138–146; Leslie 2000: x, 6, 9–12, 25–41, 153–166, 172–183; Kienitz 2008). According to Esther Leslie (2000: 6), in Walter Benjamin’s conception of modernity, “industrial warfare means that nature is reinvented through technology,” and, as a result, “[t]echnological organization infuses human relations, realigning the relationship between self and environment.” In this constellation, “[b]odies are infused
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and enthused by technology,” and, accordingly, “an organic-technological techno-body is generated” (ibid.; emphasis mine).

For Benjamin, industrial modernity, ruled by commodities and dead labour and the exertion of machine power over people, elicits alienated human relations. Reification is a name for a social actuality, in which the body has become a thing, specifically a machine for work, the machine- pendant described by Marx. The body annihilated, petrified, subjected to attack, deformed by war weaponry, the body as alien, the skin of the self hardening, inorganic matter, a thing: such images litter Benjamin’s work. (ibid.: 9).

In my reading, it is precisely this “organic-technological techno-body” that returns with a vengeance in the postmodern. This is the ideal of the cyborg; the contemporary manifestation of the idea of the perfectibility of the human being by means of scientific-technological redesign of the human body according to the logic of prosthetics, a techno-logic originating from the socio-technological prosthetics of the First World War (see, for example, Brown 2002: 262–272; Perry 2002: 79–96, 2005: 149–156; Weber 2001; Berz & Price 2003; Rieger 2003a; for the organization of the Kriegskrüppelfürsorge, see Osten 2004: 304–324; Thomann 1994; for the medical development of prosthetics as a consequence of the First World War, see Rauschmann et al. 2001; Schönle 2001). The Weimar Republic, the political order of the prosthetic economy, was a desperate effort of a national and social renewal of Germany after the atrocities of the First World War, a tumultuous interlude between the collapse of the Wilhelmine Kaiserreich and the uprise of the Fascist Drittes Reich, a period of emotional and intellectual turmoil beginning with a Menschheitsdämmerung and ending with an eclipse of reason (Lunn 1982: 63; for a historical overview, see, for example, Bessel 1993; Hirschfeld et al. 1993; Duppler & Groß 1999; Dülffer & Krumeich 2002; Kolb 2002; Pyta 2004; Hardtwig 2007; Kluge 2006).

These three decades, from 1914 to 1945, were an era in Germany in which all that was technological was seen not only as practical results of innovative Ingenieurwissenschaften (see, for example, Vec 2006: 371–378; Berz 2001; Rasch 2006; Maier 2007; for a historical overview in terms of technische Intelligenz, see Dietz et al. 1996; for a cultural-historical contextualization, see Hüppauf 1997), but also as objects of utopian dreams and dystopian nightmares: technology was a source of fantastic and phantasmatic projections characteristic of the modern (see, for example, Rohkämper 1999; Hardtwig 2003; Koch 2006; Sander 2009) – finally culminating in Heidegger’s (1983 [1935]: 208) cosmic vision of an impending new age of a technological reconstitution of everything known as human; a vision that, in philosophical terms, reflected the political programme of the NSDAP interpreted by Heidegger (1983 [1935]: 208) as a Begegnung der planetarisch bestimmten Technik und des neuzeitlichen Menschen, an “encounter between global technology and modern man” (cf. Heidegger 2000c [1966/1976]: 675–677; cf. Jünger 1982 [1932]; Müller-Lauter 2000: 13–16; Wolf 2005: 206–214; Morat 2007: 181–183; in the name of “conservative revolution” in the sense of “reactionary modernism,” see, for example, Bambach 2005: 12–31;

This was the cultural matrix in which prosthesis was at the same time a bitter reality and an imaginary object reflecting the coming into being of the “new man,” the posthuman being avant la lettre; a technological being coming into being, as a discursive figure and literary Gestalt, through a writerly autogenesis in the cultural constellation of postwar Germany in which the politics of survival was the dominant mode of identity politics in the midst of material and spiritual destitution and distress (cf. Theweleit 1977, 1978; for a programmatic reconstruction of the human being by means of proto-cyborgian techno-politics as a form of techno-poetics, see Jünger 1982 [1932]; for a parallel hypostatization transposed into the terms of the postmodern, see Kochhar-Lindgren 2005: 14–21, 36–39, 72–76; cf. Kroker 1993, 2004b; Gray & Mentor 1995b).

A politics of survival – that was a politics of enforced modernization of industrial work and production, a politics projecting the idea of the “new man” as an ideal type of a collective individual, an individual without individuality, a political subject subjugated by the objectivity of technology as an overarching, all-encompassing material manifestation of the objectives of the economic imperative of efficiency and productivity ruling the national reconstruction of postwar Germany (with regard to the politics and political economy of technology constituting a new kind of military power in post-Second World War America, cf., for example, Kahn 1960, 1962, 1984; Melman 1985 [1974]; Kimball 1992; Leslie 1993; Ghamari-Tabrizi 2005; Abella 2008; Moore 2008). In this sense, the prosthetic man was an embodiment of the Weimar Republic body politic, a corporeal representation of the Volkskörper in his own body, incorporating the body politics of national regeneration (see, for example, Fritzsche 2007: 155–164; Föllmer 2001; Michl 2007; in terms of leibhaftige Moderne, see Cowan & Sicks 2005a; cf. Herschbach 1997). The birth of the “new man” implied, of course, the male in the first instance. In fact, the genesis of this masculinist figure already began in imperial Germany where, in the spirit of a nationalistic moral rearrangement, Nietzsche’s Zarathustra, the manifesto of the Übermensch, was instrumentalized to an ideological device in the military training purporting to “harden” the allegedly “effeminate” recruits into fearless warriors to whom “‘thou shalt’ sounds more agreeable than ‘I will’” (Nietzsche quoted in Fineman 1999: 91).

Among the right-wing intellectuals of the Weimar Republic, it was Ernst Jünger, a militant author hardened in the Stahlgitter on the Western Front (see Jünger 1961 [1920], 1980 [1930], 1982 [1932]; Hermand 1980; Berman 1989b; Huyssen 1993; Sokel 1993) and awarded for his military achievements by the “Pour Le Mérite” of the Wilhelmine Empire, who, as a person, dashingly exemplified and vigorously advanced the idea of the “new man” as the saviour of defeated Germany in his writing (see, for example, Mattenklott 1999: 30–33; Lethen 2002: 147–176; Morat 2007: 35–104; Neaman 1999; Martus 2001;
For Jünger, the “new man” was an accomplishment of the First World War, its most important outcome: the man of the future that was born from the agony of the old world:


As such a “new man,” a personification of the prevailing societal mood consisting of aggressive modernity, traumatic disappointment ensuing from the defeat of Germany and a furious faith in the better future under the regime of military-technological power, Jünger propagated a politics of what he called die totale Mobilmachung, a “total mobilization” (Jünger 1980 [1930]; Nevin 1996: 49, 133–134, 142–143; Bühler 2004: 255–263; Morat 2007: 82–94; in Heideggerian terms, cf. Zimmerman 1990: 36, 54–58, 78–83; de Beistegui 1998: 67–70; Radloff 2007: 368–394). This was a power politics enabled by a total harnessing of technology for a thorough renewal – or, rather, rearmament – of society according to military principles (cf. Koslowski 1991: 36–78; Rohkrämer 1999), a new kind of “disciplinary society” (Foucault 1978h [1976], 1991a) built on the technoscientific fundament of the future military megamachine emerging from the total industrialization of the human being.

36 It must be emphasized, though, that Jünger was not a Nazi, on the contrary, he was an outspoken critic of National-Socialism. Nevertheless, in an equally radical and aggressive manner, Jünger praised the virtues of the “new man” in his essays, based on his own war experiences: In Stahlgewittern (1920/1924/1934), Der Kampf als inneres Erlebnis (1922), Feuer und Blut (1926) and Die totale Mobilmachung (1930). In his monumental work, Klaus Theweleit (1977, 1978) has historically and psychoanalytically contextualized and elaborated the background of the Jüngerian militaristic phantasmagoria.
After the gigantic industrial-technological battles of the First World War manifesting the idea of Materialschlacht (see, for example, Chickering 1998: 70–71; Vahabi 2004: 213–214; Koch 2006: 217–221, 233–256), the prototype of industrial warfare, a manner of conducting war as an excessive deployment of military equipment and ammunition, based on the logic of mass production as the most effective form of mass destruction, it was clear, for Jünger (1982 [1932]: 109–115), that in the world organized according to the imperative of the machine, the individual as a person was to be replaced by a new kind of man, the Typus, the “type” (cf., for example, Nevin 1996: 133–134; Bühler 2004: 255–270; Wünsch 2004: 461–471). According to Jünger (1982: 159–160), the Auflösung des Individuums inaugurated the Zeitalter des Arbeiter that was to displace the bourgeois order that was no longer adequate in a world totally dominated by technology. This entailed an entire reorganization of the world, die Mobilisierung der Welt durch die Gestalt des Arbeiter (ibid.: 161–165), the principle of the

What is important here, however, is that, for Jünger (1982: 165), this mobilization had nothing to do with progress as usual: nicht Fortschritt, sondern die Herrschaft, “not progress but the command and authority,” was the political rationale of the “worker”: the control not only of the whole human existence, but of all being by means of technology. That is, technology was first and fore-

In these terms, the “worker” was the emblem of the global power of technology, technology as a Heideggerian “planetary” politics (Jünger (1982: 201; Heidegger 1983 [1935]: 208; cf. Morat 2007: 180–183; Radloff 2007: 36–61; in terms of Stelarc’s cyborg politics, cf. Farnell 2000b: 129–132; Zurbrugg 2000b: 110) – similar to the global militarization under American supremacy in the world of the postmodern (see, for example, Edwards 1996; Gray 1997).

For Jünger, the technological reconstitution not only of the human body, the male body as the paradigm of the human, but, beyond that, all the spheres of life was an absolutely new form of power, a thoroughly modern way of ruling and controlling, constituted by the authority and force intrinsic to technology, a new world order produced by war (cf. Haraway 1991a: 161–162, 1997: 88–90). In Jünger’s words:


In these terms, for Jünger, technology was more than a means of reorganizing the world according to the reason of technology; it was, at the same time, a new language, die neue Sprache nicht im Sinne des bloßen Verstandes, des Fortschrittes, des Nutzens, der Bequemlichkeit, “a new language not in the sense of mere understanding, progress, advantage, comfort,” but as an Elementarsprache, “an elementary language,” spoken and understood only by the emerging “race” represented by the Gestalt des Arbeiters (ibid. 169; in terms of Harawayan “cyborg writing,” cf. Haraway 1991a: 175–181; Cornis-Pope 2001: 93–94; Graham 2002: 16, 84–85, Greenbaum 2002: 42–43; 200–220; Yaszek 2002: 14–16, 156–160; Inman 2004; Schneider 2005) – an elementary language that anticipates the logic of the linguistic figuration in terms of the cyborg in the mode of what I call the pathos of the technological, the will to omnipotence in the name of the overcoming of the human, a technological will embodied by the cyborg, the embodiment of the posthuman.

The Utopia of the Body-Machine

The Jüngerian language of technological radicalism as a technomorphic discourse forming and informing, transforming and reforming, the entire existence
in the world of the “worker,” was a medium of a secular-religious revelation, a utopian vision of technological redemption, that presented itself in the sense of scientific and philosophical insight into the existential condition of being human in a world in which technology had become the very condition of all being (cf. Cooper 2002: 50; in terms of Heideggerian *aletheia*, “unconcealment,” as a way of revealing truth, unveiling and disclosure of the true essence of being, cf. Heidegger 2000b [1953]: 13–14; Thiele 1995: 198–211; in the context of German philosophical discussion concerning the technologization of culture in the 1920s and the 1930s, cf. Plessner 1985 [1924]; Jaspers 1998 [1931]; for the situation in the 1950s, cf. Gehlen 1957; in terms of the American type of modernization, cf. Schüler 1990; for a historical contextualization, see Hardtwig 2007).


In the Jüngerian techno-evolution, it is precisely this “organic construction,” a *proto-cyborgian hybrid entity*, that implies a higher form of life: *die Technik wird Organ*, “technology becomes an organ,” manifesting a perfection of all thus far known as human; that is, it brings about a techno-biological hybridization, an *enge und widerspruchlose Verschmelzung des Menschen mit den Werkzeugen*, a “close amalgamation of the human being with tools” (Jünger 1982: 186–187; cf. Haraway 1991a: 149–150, 177–178, 1997: 16, 47, 49–51; Baker 2000: 100–102; Betcher 2001: 35, 47–48; Ihde 2002: 89–92; Schneider 2005: 63–64). In this technocratic utopia, a new world order to come after the hated, moribund democracy, the Jüngerian man, embodying the achievements of science, technology and military-industrial organization, was the basic building block for a new form of society subordinated to the imperative of rational calculation, the reason of technology as a quasi-natural force.
In military terms, as Klaus Theweleit (1978: 185), referring to Jünger’s conception of a military formation as a “machine,” says, this is die Utopie der Körpermaschine, the “utopia of the body-machine,” a techno-organic machine that produces the “new man” as a machinic part of a machinic whole (cf. Szczepaniak 2007: 162–165; for sexuality redefined as machinic functioning, see Theweleit 1978: 167–204).

What is important here, however, is that, as Theweleit, basing his analysis on the Deleuze-Guattarian ideas of both “desiring-machines” and the libidinal body (see Deleuze & Guattari 1998 [1972]: 1–22, 36–50, 322–339; cf. Goodchild 1996: 78–83), emphasizes, [d]er Ursprung der konservativen Utopie vom maschinisierten Leib, “the origin of the conservative utopia of the machinic body” (Theweleit 1978: 188; emphasis mine) – exemplified not only by Jünger, but, in one way or another, also by the writers and authors of the Freikorps (ibid.: 167–184, cf. Boscagli 1996: 132–161; Pacey 2001 [1999]: 190–193; Foster 2004: 154–155; Grenville 2001a: 27–29; Lungstrum 1997), as well as the thinkers and philosophers of what Jeffrey Herff (1990 [1984]) calls “reactionary modernism” – is, in the final analysis, not based on the Technisierung der Produktionsmittel, the “technologization of the means of production” (Theweleit 1978: 188); that is, er hat mit der Entwicklung der maschinellen Technik nichts zu tun, “it has nothing to do with the development of machinic technology” (ibid.). Instead, the desire for a machinic body derives from the psychic compulsion of the soldiers, an explosive pressure within the men who, for years, have experienced only extreme hard and humiliating drill, discipline and aggression (ibid.: 190–204); in other words, this is the Jüngerian machinic body-subject that lives in a world in which the ideal of life is the Mechanisierung des Menschen (Jünger 1978 [1923]: 62), the “mechanization of the human being” (cf. Dederich 2007: 104–105; Harrasser 2010: 57–59); that is, a world in which die Kälte, “coldness,” is the basic principle of existence (see Lethen 1994).

Yet, this does not imply a will to freedom, on the contrary, what is at issue here, as Theweleit (1978: 188) emphasizes, is an ardent desire to subjugate and repulse all that is human within oneself, that is, das Es, die Produktionskraft des Unbewußten, “the id, the productive force of the unconscious,” the realm of real freedom in the sense of the liberation of the subject (cf. Marcuse 1987 [1955]; Wilkerson & Paris 2001). In contrast to utopia as a vision of freedom, in the “conservative utopia” of the Freikorps, the machinic body is a means of constraining and subduing the subversive power of the libidinal body, of controlling the uncontrolled productivity of the unconscious, of repressing the creative disorder and confusion of the “Id.” As Theweleit says:

Nicht aus der Entfaltung der industriellen Produktionsmittel, sondern aus der Hemmung und Verwandlung der menschlichen Produktionskraft stammt also die konservative Utopie des maschinisierten, des ganzheitlich maschinisierten Körpers. (Theweleit 1978: 188; emphasis mine)37

37 As Theweleit (1978: 167–204) demonstrates, the Jüngerian utopia – and the many equal body utopias of the military authors behind it, analysed by Theweleit – in its very loss of affects, emotions, feelings and drives, is deep down sexually charged, loaded with a negative sexual energy that is explosive in its high tension.
It is in this way that the “machine-body” is a post-traumatic *Wiederkehr des Verdängten* (see Freud 1977e [1896]: 387, 389, 1990d [1911]: 310, 1991b [1915]: 257–258, 1972f [1926], 1987e [1920]; Laplanche & Pontalis 1998 [1967]: 631–632), the “return of the repressed” in the sense of the lost body as the “Other” of the traumatized subject; a recompense that does not restore or restitute what is lost, but, instead, produces a surrogate that is experienced as more powerful than the original. The “machine-body” is an empowering indemnity of a destructed subject, a substituting embodiment of a deformed psychic body, a body that is made to an enemy of oneself through military violence – an enemy that, at the same time, paradoxically, is one’s own best ally (Theweleit 1978: 171–177). From this perspective, the “machine-body” is thus not a result of, but a *precondition* for, the construction of the militarily organized body-machine complex in the Weimar Republic (cf. Berman 1989a: 106–117; Koslowski 1991: 36–76).

This is the psychic side of the birth of the “new man” as a utopian-dystopian figure of the modern, a worker as a warrior celebrated by Jünger: the rejection of the self from the techno-rational “machine-body” of the Jüngerian “new man.”

This modern, thoroughly mechanized, and, as such, thoroughly militarized, social hero, described in what Andreas Huyssen (1993: 6) calls Jünger’s “armored texts,” is a “metaphysically coded gestalt of the warrior-worker with the warrior’s body constructed as the ultimate armored fighting machine” (ibid.: 8). This masculinist figure was an emblem of a “new, fully technological age,” “with its joyously anticipated synthesis of flesh and steel,” an amalgamation of “body and machine” (ibid.: 9; in terms of contemporary feminism, cf. Braidotti 2006: 41–58, 101–102; Detsi-Diamanti et al. 2009). Jünger’s “megalomaniac and narcissistic fantasies of power, combined with a cult of hardness and invulnerability, resulted from the traumatic experience of emasculation in the lost war” (Huysen 1993: 8; cf. Morat 2007: 52–55). In this respect, the Jüngerian phantasm of an invincible body, an armored body as a self-contained, self-supporting machine, belongs to the realm of what Theweleit (1977, 1978) calls *Männerphantasien*, “male fantasies”: the machinic body was a realization of an imaginary body, a body as an embodiment of desire – in this sense, a prefiguration of the cyborg as a technoscientific refiguration of the desiring body constitutive of the neo-Fordist order of productive consumption in the global constellation of the political economy of neoliberalism.

1972a [1872]: 22–26). Omnipotence as the redemption of the defeated male through the body-machine working as a machine in a machinic order – this masculinistic imaginary world constituted a “universe of discourse” in traumatized postwar Germany (cf. Marcuse 2002 [1964]: 87–103), a world of words, which, for its part, gave a legitimation for a nationalistic body politics dreaming of a healthy and integer Volk[körper] – a body soon thereafter mobilized by the Nazis (see, for example, Wildmann 1998; Schmitz-Berling 2000 [1998]; Süß 2003).

What is important here is that, according to Huyssen (1993: 3–9), there is a continuity, a line of development, leading from Jüngerian techno-utopianism to contemporary “cyborg science fiction.”

Seen genealogically, the Jüngerian emasculated Weimar man, this mutilated war survivor turned into a phantasmatic wish-image of a prosthetically reconstructed warrior-worker, the “type” of the Arbeiter, is an archetypical Gestalt as a literally elaborated figure emotionally engulfed by a mixture of ressentiment and hope, hate and self-aggrandizement, typical of both the disillusioned front soldiers and Jünger’s traumatic heroism, manifesting technological futurism as an imaginary redemption from the distressing present (with regard to Jünger in the tradition of the European Right, cf. Bullock 1992), and thus, mutatis mutandis, it is a distant ancestor of the postmodern cyborg, the cyborg as the paragon of the ego-politics of the technological (cf. Koshar 2005: 124–127; in terms of the techno-imaginary of the postmodern, cf. Armitage 2004; in the context of the post-political politics of the “new barbarians,” cf. Hardt & Negri 2000: 214–218),38 that is, the politics of individual self-overcoming (from the perspective of Futurism, cf. Berghaus 2009; Poggi 2009). According to Matthew Biro (1998), this “New Man” – appearing in various forms in both the scientific-medical-political discourses and literary, visual and cinematic fantasies of the Weimar Republic – was, in fact, a “cybernetic organism” in the sense of the body redefined in relation to the machine, both in terms of the subject and the social condition.

Of course, as Biro says, the word “cyborg” did not exist at the time (ibid.: 72); nevertheless, the idea of the cyborg – exemplified most clearly by the Jüngerian “organic construction” amalgamating the body and the machine (see Jünger 1982 [1932]: 187–188) – was already inscribed in the cultural imaginary of postwar Germany (for “the Dada Cyborg” as an emblematic image of “the

38 To understand the appeal of postmodern ego-politics, the politics of self-overcoming, the politics of what Michael Hardt and Antonio Negri call the “new barbarians,” Jünger’s modernist pathos extolling “the spirit of the metropolis” in 1926 offers an illuminative parallel: “We must penetrate the forces of the metropolis, which are the real powers of our time: the machine, the masses, the worker. For here lies the potential energy from which will arise the new nation of tomorrow; and every European people is now at work trying to harness this potential [. . .]. The Great War itself is a good example of the way that the essence of the city has begun to take possession of the whole range of modern life. The generation of the trenches went forth expecting a joyous war in the old style, a field campaign. But just as the landscape of this battlefield proved to be no natural landscape but a technological landscape, so was the spirit that animated it an urban spirit. Urban, too, was the ‘battle of materials’ [Materiauschlacht] and still more the mechanized ‘battle of movement’ that developed from it. Today any kind of revolt that does not begin in the urban centers is doomed from the start to failure.” (Werneburg 1992: 47; Huyssen 1995: 131)
What is at issue in both Jünger’s technological futurism and Haraway’s technoscientific ego-politics is the idea of transition, a changeover to an entirely new condition of existence; in the first case, a techno-political vision of a coming post-bourgeois society constructed on the basis of “the worker” as a body-subject re-formed by the machine (from a Heideggerian perspective, cf. Kittler 2008), and, in the second, a postmodern theory-fiction of a body-machine hybrid opening the way to the “post-gender world” of the cyborg (see Haraway 1991a: 150–151; cf. Parisi 2004: 7–10; Strathern 2004 [1991]: 36–38; Flieger 2005: 164–169).

In this sense, the prosthetic reconstitution of the human being taking place in the Weimar Republic both technologically and discursively, as both a mode of body engineering and a techno-poetic figuration, created a conceptual-metaphoric matrix that anticipates the coming into being of the cyborg. In this context, the figure of the prosthesis has a key position.

Thus, the question concerning prosthesis is a question concerning the meaning of the body as the human body in a constellation in which “the technological” has turned into the measure of all being.

3.2 Prosthetic Metamorphoses

In the light of all that was said above, the Weimar prosthetic man is the historical prototype of the cyborg in terms of machine and organism, although not its conceptual model (for the origin of the cyborg, see Clynnes 1977: 192–193, 1995 [1970]; Clynnes & Kline 1995 [1960]; Mirowski 2001: 107–112; Munnik 2001 [1999]: 101–106; Orr 2006: 169–170, 2010: 358–360, 376–377, 305; Gray 1995; for biomedical engineering, see Clynnes & Milsum 1970): a hybrid of the organism and the machine (for the prehistory of the cyborg, see Muri 2007; in terms of conceptual relationships between machine and organism, see Canguilhem 1992 [1952]). As a non-organic body, the prosthetic man of the First World War, rather than enjoying his condition of being in the manner of the Harawayan cyborg as “resolutely committed to partiality, irony, intimacy, and perversity” (Haraway 1991a: 151), is simply compelled to a violent heterogeneity, the “otherness” of his body – a body that for the prosthetic man still is, somehow, his “own” body. This is a body that is both redesigned and resignified according to the principles of prosthetics; a body that, by becoming a production instrument integrated to the machine, and through it, to the body-machine complex functioning as an economic-political megamachine (cf. Mitcham & Casey 1992: 48–50; Mumford 1970; in the context of Leviathan, cf. Schmitt 1982 [1938]: 61–78; in Deleuzian terms, cf. Patton 2000: 88–108), has lost its intrinsic integrity.
as the human body: as the subject-body of the subject, as what in German is understood to be Leib (see, for example, Hauser-Schäublin et al. 2001: 19–24, 133–137, 142–144; Caysa 2003: 36–78; Irrgang 2005: 24–33, 39–67).

This kind of radical transformation of the human being Günther Anders (1988 [1956]: 67–71) designates as the Antiquiertheit des Menschen, the “becoming antiquated of the human being”; a situation in which the human being, driven by the Promethean ingenuity, turns into a subordinated appendage of his own inventions, and, as a result, is made to feel, instead of pride and joy, a negative emotion that Anders calls “Promethean shame,” a feeling of inferiority and insignificance in the face of the omnipotence of his own creations. In other words, this is a technological form of what Nietzsche (1968c [1887]: 422), in his genealogy of moral, conceived of as a Selbstverkleinerung des Menschen, a “self-diminution of the human being” (cf. Spiekermann 1992: 44–72; Brusotti 1992).

This turning of the human being into an “antiquated” and “diminished” creature began in the trenches of the First World War, continuing then, only in a heightened form, in the postwar body ideal projected by, in one way or another, the Freikorps “male fantasies” typical of the “conservative revolution” of the Weimar Republic right-wing intellectuals, and finally in the military-industrial body politics of Nazi-Germany, a form of the body politic as a Volkskörper in which the Hobbesian idea of Leviathan (see Hobbes 1998 [1651]; cf. Schmitt 1982 [1938]), Kapp’s (1877) techno-anthropological schema of Organprojektion, Nietzsche’s (1968a [1883–1885]) vision of the Übermensch and Jünger’s (1980 [1930], 1982 [1932]) utopia of a technological state based on the regime of the Arbeiter coalesce into a power politics attempting to create a New Man as a type of an ideal state-citizen totally adapted to the system, to the military-technological order of the state (cf. Weber 2003: 134–135; from the utopian perspective, cf. D’Idler 2007).

This is the prehistory of the postmodern cyborg seen from the perspective of prosthetics, the perspective of the prosthetic reconstruction of the body destroyed by war.39

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39 To avoid misunderstandings, I am, of course, not suggesting that the cyborg as such is an heir of Fascism, although the postmodern cyborg soldier is another matter; what I am saying is only that there is a line, a historical continuity, from the proto-cyborgian body-machine constructions elaborated on in the Weimar Republic and Nazi-Germany to the contemporary postmodern world of the cyborg. What is important here is that in the Weimar Republic body-machine complex it was a matter of constructions in which the human body was conceived of in terms of the machine, that is, in the conceptual framework of technomorphism. With regard to the cyborg, it is precisely the idea of technomorphism – the idea of reducing the human being to an “organism” that is a product of technology – that is the connection between the postmodern cyborg and various proto-cyborgian body models in the sense of human-machine hybrids (see, for example, Glaser & Kaempfer 1988; Sutter 1988; Gendolla 1989, 1992; Berr 1990, 1994; Dotzler & Gendolla 1992; Drux 1994, 1999; Meyer-Drawe 1996; Spreen 1997, 1998a, 1998b, 2004, 2006; Söring & Sorg 1997; Wittig 1997; Mikkonen 2001; Mraček 2004; Hüppauf 2005; Biro 2009; for a historical overview of man-machine from the Greeks to the computer, see Vartanian 1973).
3.2.1 Cynical Reason, the Armored Body and the Cyborg

These ideas – figures and visions of a body rebuilt by means of technology – re-emerged, *mutatis mutandis*, after the Second World War in the doctrines of body management exploiting notions and views of behaviourism, cybernetics and engineering based on information, systems and computer sciences (see, for example, Helvey 1971; Levidow & Robins 1989a; Cordeschi 2002; Mirowski 2002; Hammond 2003; Hancock 2009; from a historical perspective, see Beniger 1986).

Within all these scientific discourses, the body was conceived of, in one way or another, as a machine, or in terms of machinic conceptualities: the body as a performative “apparatus,” a rational system, consisting of functions compatible with one another in the manner of scientific-technological rationality (see, for example, Feenberg & Hannay 1995; Rutsky 1999; for a classical problematization, see Marcuse 2002 [1964]; in Schmittian terms, cf. McCormick 1999). As Paul N. Edwards (1996: 147) says, “cybernetics, cognitive psychology, and artificial intelligence (AI), three research programs that relied on the computer as model, metaphor, and tool,” created a discursive constellation in which human beings were considered in terms of “mechanizing military tasks,” and thus, “[e]ffective human-machine integration required that people and machines be comprehended in similar terms, so that human-machine systems could be engineered to maximize the performance of both kinds of components.” As a result, “[w]ork on these problems during and after World War II brought psychologists together with mathematicians, neuropsychologists, and communications engineers as well as computers” (ibid.; for a historical contextualization, see Capshew 1999).

This is the historical genesis of technoscience, the scientific-technological matrix of the cyborgization of the human being: from the First World War and the industrialization of warfare to the Manhattan project and the atomic bomb, to the Vietnam War and the computerized logistics of killing and destruction, to the global dimensions of strategic thought based on high-tech weapons and the militarization of science and technology in general, all this redefined the human in the twentieth century in terms of instrumental reason and economic-political calculation (see, for example, Ruttan 2006; Hacker & Vining 2007; Harris 2008; Bousquet 2009). That is, the rationality of the machine is constitutive of the scientific world-view of the twentieth century, the century during which the control paradigm became an essential component not only of the scientific understanding of life, but even the very definition of “the scientific” in sciences in themselves (with regard to Descartes’s and La Mettrie’s conceptions of the machine and the machine-body/body-machine, cf., for example, Vartanian 1960; Baruzzi 1968a, 1973; Mayr 1986; Sutter 1988; Channell 1991; Wellman 1992; Mazlish 1993; Des Chene 2001; Muri 2007; Kang 2011; for a historical contextualization in terms of “artificial life,” cf. Riskin 2007).
Membra disiecta, or, Dismembering the Body

The machinic conception of the body, typical of the technoscientific view of the human being, paradigmatically appears, in addition to cybernetics, in the psychological doctrine of behaviorism as it was developed by John B. Watson. As Kerry B. Buckley (1989: x) says, “Watson’s formulation of behaviorism characterized psychology as a science whose primary objective should be to predict and control human behavior”; it is in this manner that:

behaviorism could be used as an instrument of social control in the most basic sense: as a management tool, as a pedagogical method, as an advertising technique – to name but a few. Moreover, Watson’s behaviorism helped legitimize the notion of efficiency as a standard of human conduct. In this sense Watson’s behaviorism, which characterized Homo sapiens as “organic machines” and envisioned a scientifically managed society, belongs on the spectrum of progressive social thought somewhere between the Scientific Management and Technocracy movements. Above all, Watson’s career as a prominent scientist, successful advertising executive, and popularizer of self-help psychology links important strands in the evolving social fabric. The establishment of professions and the rise of the expert, the growth of modern advertising, and the assault on the autonomy of domestic life are all illustrated by Watson’s life and work, through which is revealed aspects of an emerging culture of consumption and self-fulfillment in twentieth-century America. (ibid.)

As we can see, for all the differences, there is nevertheless a quite short step from the war economy and the Arbeitswissenschaft of the Weimar Republic to Taylorism, technocracy and behaviourism ruling the conception of the human being in America from the 1910s to the 1950s (see, for example, Nolan 1994: 90–107; Kaes et al. 1995: 393–394; Bittner et al. 1995). The imperative of control – that is common to all of these machinic approaches to the existential conditions of being human. In this sense, they all manifest the idea of the machine as the model of the human being.

In the habitus of the posthuman, the becoming “antiquated” of the human being has achieved its accomplishment: the cyborg implies the ultimate opportunity to abandon the idea of the human and to adopt the machine model typical of the postmodern: the figure of the cyborg as the paragon of the posthuman.

Instead of a “Promethean shame,” the posthuman manifests the pride of the cyborg; the pride of the cyborg is a postmodern, post-Nietzschean form of aristocratic radicalism (cf. Detwiler 1990): I am the lord and the master of my body, the body that is my survival machine, the body that I am by having it. This is the supreme form of the ego-politics of the subject, the mode of “the political” that is constitutive of the “post”: an elation effected by the technological omnipotence enabled by the technoscientific reorganization of the world according to the scientific-technological rationality of instrumental reason; that is, the superhuman pleasure of not being created, but being the creator, not a natura naturata, but the natura naturans of all being (cf. Spinoza 1996 [1677]: 20–21; Kashap 1987: 25–29; Lermond 1988: 6–8; Rothenberg 1993: 59–65; Bronner 1999: 267–268): a body-subject produced by way of postmodern self-management, a
subjectified adaptation to the logic of technoscientific regulation and optimization as a continuous cybernetic process. In its artificiality, the cyborg is an embodiment of post-nature, nature as a scientific-technological production process: a "second nature" after the disappearance of the first one, the "originary nature," into the theoretical phantasmagoria of post-theory (in the context of the “New Human Being” in early Soviet thought, cf. Groys & Hagemeister 2005).

In this sense, the cyborg is the final embodiment of the God principle constitutive of all that is "post": I am the God of myself, the God that I am in my cyborgian omnipotence.


In this configuration, the “post,” like the “cyber,” is in itself, as a linguistic device, a linguistic prosthesis implying an endless ambiguity of “meaning” after the collapse of meaning into the excess of signification constitutive of the politics of language following the logic of “de,” “dis” and “trans.”

After the implosion of all being resulting from this discursive matrix, we are living in a world in which prosthesis has become the emblem of the transformation of the human being into the cyborg, glorified by postmodern technocyber-theorists in the ecstasy of the prosthetic discourse of the “cyber” brought about by the linguistic figuration characteristic of all that is “post” in its prosthetic ambiguity. This, indeed, is a new world beyond dualistic epistemologies, a world living on the basis of the epistemology of the cyborg, a post-rational epistemology as a never-ending linguistic play in terms of “thesis, antithesis, synthesis, prosthesis” (see, for example, Gray et al. 1995a: 13; Kember 1998: 100–129; Gray 2001: 12–15, 193–201; Gray 2002: 189–191; Nelson 2006: 100; Gunkel 2007: 27–31), a technologic that has absolutely, once and for all, abandoned the idea of the human.

It is in this manner that in the world of the “post” the parameters of being are redefined by the epistemology of an endless exceeding the limits of the possible, that is, the limits between the rational and the surrational.

This is the triumph of prosthetics over the human: what was once an attempt to restitute the human being suffering from a deformed body by means of artificial substitutes, has now become a vehicle of reconstituting the human as the
posthuman – a mode of being “human” that, paradoxically, is the final accomplishment of the human in its very post-humanness, the human as a full realization, the terminal product, of its intrinsic potentialities accumulated in all that is technological. Prosthesis – that is the key to the posthuman ego-politics, the ultimate means of self-design of the postmodern subject in a world in which the most intense affect of the body is a desire for disembodiment, the specific “high” of the “cyber,” a vertiginous sensation “like having had your everything amputated” (Barlow 1990a: 42; cf. McLuhan 1964: 53–55; Fisher 1997: 118; Kirby 1997: 132; Nunes 2001: 59; Sobchack 2004: 170; Foster 2005: 174) – certainly a definitely more intense pleasure than Jünger could ever experience in the ecstasy of technological sublime effected by the Stahlgewitter of the Western Front (see Jünger 1961 [1920]; cf. Encke 2006: 22–24, 97–108).

What was, for Jünger, the techno-body of the Arbeiter as an “organic construction” is now the cyborg, a “cybernetic organism,” as a post-organic body-machine assemblage, a techno-organism maintaining and controlling its own life functions by means of prosthetic devices functioning, in fact, as a body-double, a technological phantom body with a functional logic of its own (cf. Farnell 2000a: 121–123; Salecl 2001: 34; Toffoletti 2007: 128; Stelarc 1994, 1997, 2002a). In both cases, the appropriation of the organic by the principle of the machinic appears as the reconstitution of the human as the posthuman. This is the vertigo of the omnipotence constitutive of scientific-technological rationality, the source of the jouissance of the God principle. This is the pride of the cyborg, a pride that totally annihilates the “Promethean shame” postulated by Anders (1981) in his vision of the Antiquiertheit des Menschen. In the world of the cyborg, one is at last completely free, free to re-engineer oneself over and over again in the manner of the Jüngerian Arbeiter, the modern prototype of the postmodern cyborg (from a historical perspective in terms of techno-avant-garde, cf. Müller-Funk 2004; Harrasser 2004, 2010; Daniels & Schmidt 2008).

Where technology has become the matrix of being human, or, as Heidegger (1994a [1949]: 32–41) says, the Gestell, the “enframing,” of the being of the human being, das Dasein, there the corporeality, subjectivity and agency of the body-subject follow the logic of the machinic: the corporeal being of the human becomes dismembered, fragmented, and turns into a technological assemblage that can be reassembled at will time and time again (cf. Haraway 1991a: 170). Although, on the one hand, the machinic as such, structurally, is equal to the organic in the sense of functional integrity, on the other, the organic loses its very organicity through the disintegrative mode intrinsic to the machinic: the principle of the componential structure, the principle of Ersatzbarkeit of each “member” of a machinic assemblage (see, for example, Juarrero 2002: 45–51; Cordeschi 2002; Hughes 2004b; in terms of Wienerian cybernetics, see Wiener 1961 [1948], 1968 [1950]; for a classical problematization of the terms “machine” and “organism,” see Canguilhem 1992 [1952]; in the context of the Heideggerian conception of metaphysics, see Heidegger 1976a [1946]: 322–327; from the perspective of the history of philosophy, see Des Chene 2001; cf. Mayr 1986).
This is the idea of the machine: by its very structure, the machine is a modular construction; it is a combination, a compound, an assembly of separate parts that make a “whole,” provided that they enable the functional co-operation of the parts necessary for the functionality of the systemic configuration thus achieved: there is no machine without its intrinsic functionality constitutive of its teleology as a machine. Thus, where the organic body is turned into a part of a machinery, it becomes a machine within the machinery, a machinic “member” of a machinic “body.” In other words, it is as Norbert Wiener (1968 [1950]: 185), the founder of cybernetics, says: “What is used as an element in a machine, is in fact an element in the machine” (emphasis mine; cf. Stanley 1978: 176; Hayles...
In this context, the body-schema is no longer organic integrity, but an assemblage consisting of *membra disiecta*, a body dismembered both as a result and a precondition of its usability: a body organized according to the principles of labour efficiency turned into a disorganized body of an individual subject, reorganized as the body-subject of work performance. This is the politics of “humanware” (Yanarella & Reid 1996): a politics of body management that attains its full scope in the postmodern, in the postmodern world of “human capital” (Becker 1993; Gomez Dierks 2001; Held & McGrew 2007; Hartog & van den Brink 2007), in which the human body, in a neo-Cartesian manner, is once again conceived of as a machine (see Ruccio & Amariglio 2003: 104–105, 116–117, 133–134, 144–147), as a rationally working performative apparatus in an administrative constellation of what James C. Scott (2003: 133–37) designates as “authoritarian high modernism” (cf., for example, Nash 2001: 185–196; Hariman 2003: 14–20). Consequently, as Haraway (1991a: 178) says, in the world of the cyborg, “[w]e don’t need organic holism to give impermeable wholeness.” In this world, indeed, “[o]ur machines are disturbingly lively, and we ourselves frighteningly inert” (ibid.: 152).

This is a world in which a machinic assemblage, with its constructive conjunctions that are based on the disintegrating disjunctions intrinsic to all that is technological, is the dominant body model: the body not as an organic unity, but as a disjunctive assembly to be assembled and reassembled according to the principles of machinic reason. This is the postmodern body as the latter-day embodiment of the prosthetic man constructed in and by the prosthetic discourse of the Weimar Republic; a body that has now experienced its resurrection in the world ruled by the politics of the cyborg, a techno-radical mode of transgressive politics based on the transformative logic of disassemblage and reassemblage constitutive of the epistemology and ontology of prosthesis.

**What is the Problem with Auxiliary Organs?**

This kind of fragmentation and refunctonalization of the body finds its characteristic expression in a perversely philanthropic idea of the division of labour elaborated to its logical conclusion by Henry Ford – an industrial tycoon resolutely supporting the model of authoritarian society and an ardent anti-Semite who not only admired but endorsed Hitler and National Socialist Germany (see, for example, Wallace 2004). In his autobiography *My Life and Work*, Ford (2006 [1922]: 105–148) describes his assembly line production system, combining the Taylorized worker, the American body politic and the ideal of modern corporate economy, as a principle of rationalization in its most rational form; a system
resulting in the end in “Ford’s horrific fantasy of the completely rationalized factory” (Yanarella & Reid 1996: 196). Mark Seltzer’s summary is illuminating:

The production of the Model T required 7,882 distinct work operations, but, Ford observed, only 12 percent of these tasks – 949 operations – required “strong, able-bodied, and practically physically perfect men.” Of the remainder – and this is clearly what Ford saw as the central achievement of his method of production – “we found that 670 could be filled by legless men, 2,637 by one-legged men, two by armless men, 717 by one-armed men and ten by blind men.” If from one point of view such a fantasy projects a violent dismemberment of the natural body and an emptying out of human agency, from another it projects a transcendence of the natural body and the extension of the human agency through the forms of technology that supplement it. This is the double logic of technology as prosthesis, and it begins to make visible the interlaced problems of the body and uncertain agency that the questions concerning technology entail. (Seltzer 1992b: 170–171; cf. Ford 2006 [1922]: 123–125)

The Fordist assembly line production system is a “totalitarian dream of human resource deployment and management” (Yanarella & Reid 1996: 196); this is the origin of what I call neo-Fordist body politics, the politics of postmodern corporate economy in which the working body is reduced to a machine interfaced to a global computer network (cf., for example, Day 1997: 52–57; Fullbrook 1997: 73–78; for the inauguration of computerized work organization, see Zuboff 1988).

The “double logic of technology as prosthesis” is the logic of the cyborg: no longer an organic body, but a body “disassembled and reassembled” (Haraway 1991a: 163), a body subsumed by the logic of the machine (cf. Hughes 2004b: 17–77), is today the model of being and having a body, the prevailing paradigm of embodiment based on the incorporation of the machine. Where I was, there the machine shall be (cf. Freud 1990c [1933]: 86) – that is the imperative ruling the organic in a world in which science and technology, in the name of the human elevated to the posthuman, have taken the place of religion and God; that is, the world of the post-Freudian “prosthetic God” as the logos of the technoscientific body politics of the postmodern, the God principle of neo-Fordism.

This is the historical context from which the cyborg emerges: the body-machine complex of the modern as the inherent idea matrix of the posthuman.

Thus, at the beginning of the twentieth century, on the fronts of both war and production, prosthesis defined the idea of being human anew. From this perspective, the figure of the Weimar prosthetic man, in fact, was an unintentionally ironic comment on the ideal of the “new man” not only celebrated by the intellectuals of the German “conservative revolution” (see Herf 1990 [1984]; for the psycho-historical situation that produced this ideal, see Theweleit 1977, 1978), but also seen as a rebirth of the human being by various political movements in the Weimar Republic in general – whether secular or (neo)religious, progressive or reactionary, on the left or on the right, all under the idea and ideology of reform – in the early twentieth century, the formative years of the modern world (see Küenzlen 1997 [1994]; van Dülmen 1998; Lepp et al. 1999), and, as such, the historical basis of the contemporary world living under the
disciplinary regime of the postmodern as a manifestation of the political economy of neoliberalism.

The body conceptualized in terms of prosthetics instead of organic corporeality is the idea of what Bernhard Kathan (1999: 111–136) calls meta-prosthetics, the logic of the prosthetic body made functional according to the functionality of prosthesis, a functionality in which the point of departure is not the organic body, but the technological properties of prosthetics based on the rationality of the machine (cf. Erlach 1994: 135–142; Kienitz 2001b: 230–233; Horn 2001; Berz & Price 2003; Rieger 2003a). An artificial organ (whatever it is) is never organic, it is techno-logical; an “organ” that, at its best, can only simulate a function of the body, but is never able to entirely replace it in its organic functionality intrinsic to the human body. This is the logic of the cyborg, the logic of hybridity that has displaced the logic of integrity (for hybridity in postmodern theory, see, for example, Haraway 1991a: 150; Schneider & Thomsen 1997; Elam 1999; Bath et al. 2005; Stocker & Schöpf 2005; in terms of “postmodern animal,” see Baker 2000; for an incisive critique of the “intellectual nomadism” implied by the postmodern celebration of hybridity, see Dorn 1998). Indeed, in the world of the cyborg, as Haraway (1991a: 180) says, the “machine is us, our processes, an aspect of our embodiment” (cf., for example, Feenberg 1995: 98–100; Edwards 1996: 340–342; Graham 2002: 201–204; for a historical-conceptual overview of human-machine interconnections, see Youngman 2009).

However, for the Weimar prosthetic men, as we have seen, the idea of the machine as an “aspect of our embodiment” had another meaning. In fact, did the prostheticization of the human body, implemented by the German medical-technical industry according to the rationality of the machine, in its own way, entail what Wiener (1961 [1948]) later called the “human use of human beings” (cf. Porush 1985: 55–68; Tomas 1995b: 39–40; Hayles 1999: 115–124, 140–149; Mirowski 2002: 55–68; Yaszek 2002: 11–18; Wiener 2003a [1954], 2003b [1949]; Goody 2011: 136–167)? If so, what, then, was here the specifically human?

This is the question that now pertains to the posthuman in the habitus of the cyborg. It is the question concerning, in Seltzer’s sense, the double bind of a simultaneous extension and emptying out of the human agency in the context of prosthetic redesign of the human body. What is at issue here, in Stone’s (1995d: 398) words, is the “new meaning and purpose of technological prosthetics in an age in which the physicality of agency is irrelevant” (emphasis mine). If the “physicality of agency,” indeed, is “irrelevant” in the world of the posthuman, why do we – that is, all those who are supposed to survive in the posthuman condition – need a body at all?

This is the question concerning the cyborg as the prosthetic embodiment of the posthuman. What is this question, if not a question pertaining to the ultimate survival of the human being, a survival that is to be achieved by a termination of all that is human?
In this respect, it is evident that there has been a significant shift in the meaning of the term (concept, category and metaphor) “prosthesis” from the times of the First World War to the present, to the highly advanced postmodern world living – of course, only in the Northern hemisphere, in the security zones of abundant Western culture – under the blessings of technoculture, a cultural formation based on technoscience (see, for example, Penley & Ross 1992c; Marcus 1995; Robins & Webster 1999; Cooper 2002; Ihde & Selinger 2003; Michael 2006; Shaw 2008; for a comprehensive overview from Greek Antiquity to the postmodern, see Davis 2006).

To understand this shift in the idea of prosthesis, it is illuminating to contrast two conceptions of the prostheticization of the human body: Freud’s (1972a [1930]: 450–451) figure of Prothesengott as a metaphor of an ever-increasing techno-culturalization of the human being as a thoroughly rationalized body-subject, and Stelarc’s (1991) vision of the technologization of everything that is human by means of “prosthetics, robotics and remote existence” as the conceptual framework of “postevolutionary strategies” constitutive of the posthuman.

In their own ways, both of these conceptions contribute to the understanding of the genealogy of the cyborg in the theory matrix of the technologization of the human being. What is at issue here is a postmodern recapitulation of the Nietzschean genealogy of the Übermensch (see Nietzsche 1968a [1883–1885]: 8–10; Ansell Pearson 1997: 90–92; Heidegger 1998b [1961]: 262–282; Pettman 2002: 70–71; Joisten 1994; Gerhardt 2000; Moore & Brobjørn 2004), a genealogy of a posthuman super-being as its own creator, that is, a postmodern prosthetic God. We are currently living, as Freud (1972a [1930]: 450–451) envisaged in his metaphor of Prothesengott, those “future ages” that “will bring with them new and probably unimaginably great advances” of science and technology. Whether the body is able to adapt to prosthetics, and whether the human being feels itself “happy” in its technological omnipotence, as Freud skeptically stated, is a matter of the meaning we ascribe to the body and technology – and not the least to what is called “happiness.”

For Freud it is, indeed, exactly human happiness that is at issue here, or, the lack of it, entailing never-ending suffering.

In Freud’s (1972a [1930]: 444) conception, there are three sources of suffering: firstly, the superior power of nature; secondly, the feebleness of the body; and thirdly, the emotionally inadequate regulation of human relations based on the repression of the free reign of drives (cf. Freud 1981c [1905], 1991b [1915], 1991d [1915]; Laplanche & Pontalis 1998 [1967]: 525–539; Roudinesco & Plon 2004 [1997]: 1039–1047) – the forces of the Es, repressed, in reality, by the Freikorps soldiers, and by Jünger in his techno-imaginary. With regard to the first two sources, it is clear, for Freud, that the human being will never completely master nature and will thus constantly stay at its mercy; and, in turn, the human body as an organism, itself a part of nature, will always remain limited in its capacities for adaptation to prevailing conditions and the requirements arising
from them (Freud 1972a [1930]: 444). Regarding the third source of suffering, the necessity to repress the freedom of drives for the common good, there is also quite little to do: human culture, to which we ascribe the hope for happiness, in fact, is the very reason for our unhappiness in itself (ibid.: 444–445; cf. Schönherr-Mann 1994: 244–246; Imbusch 2005: 123–126; for a comparison between Freud and Nietzsche with regard to the self-overcoming of the human being, see Gasser 1997: 483–489).

Then again, it is as clear, for Freud (1972a: 446), that although science and technology, regardless of their enormous advancement, have not improved the human condition in the same measure, there is no reason of inferring from this failure that progress in this respect has been without value for the Glücksökonomie, the “economy of happiness,” of humans living in the modern world. The “extraordinary advances of the natural sciences and their technological applications” have, indeed, increased human control over nature, the human themselves as part of nature included, in a manner never before imaginable (ibid.: 445).

For Freud, this is the way for the human being to an improvement of the capabilities of the body; a self-improvement implying the Enlightenment idea of the “perfectibility of the human being” (see, for example, Jackson 2004: 184–186; Lovejoy 2006 [1923]: 36–41; Passmore 1970; cf. Hegel 1986b [1821]: 504, 1986d [1837]: 74–75). As a result of scientific-technological inventions, according to Freud (1972a: 450), with his every tool, the human being has been able to perfect his own organs, whether motor or sensory, as well as to remove the limits of their functioning. This is the coming into being of what Freud calls “prosthetic God.” What is important here, however, is that, firstly, all the extensions and amplifications which the human being uses as prosthetic devices to augment and enhance its bodily capacities and the range of action are expressly tools, and secondly, these tools, functioning as the Hilfsorgane, the “auxiliary organs,” of the human body, always remain external attachments of the body – in contemporary parlance, the media as the technological extensions of the human being (see, for example, McLuhan 1964: 51–56; Theall 2001: 68–80; Cavell 2002: 32–48, 69–90).

This entails that the Freudian “prosthetic God,” as omnipotent and omniscient as it ever might be, does not exceed the limits of the human organism, the human as an organic whole consisting of the organically functional relations of the organs. That is, the prosthetic extensions and amplifications of the human body do not transform its organic constitution, the organization of the organs into a human organism establishing the specific articulation of the human body as the habitus, the very form, of being human. As Freud (1972a: 451) emphasizes, the artificial organs of the human being have remained external attachment to the body, that is, sie sind nicht mit ihm verwachsen, they have “not grown on to him,” and therefore, they still make him occasionally much trouble to cope with.

In other words, Freud’s “prosthetic God,” in its very “likeness to God” (ibid.), rather than being posthuman, is a being that is human through and through in every respect.
Technological Self-Design as the Ego-Politics of the Cyborg

It is precisely in this respect that Stelarc’s vision of prosthetics radically deviates from Freud’s idea. If, for Freud, prostheses complement and increase the capabilities of the human body, similar to the Ur-cyborg conceived of by Clynes and Kline (1995 [1960]), without altering its organic structure, for Stelarc (1991), we as humans, as a species, have now reached a decisive turning point, since the enormous advances in technology have created the possibilities not only to remedy the biological deficiencies of the human body, but, first of all, to redirect the entire course of human evolution leading to techno-evolution within which the human body becomes a techno-body under the disciplinary regime of technoscience (cf. Cooper 2002: 67–87, 116–121; Csicsery-Ronay 2008: 93; Achterhuis 2001 [1997]). As a result of the ever-accelerating development of technoscience, according to Stelarc and theorists elaborating on his ideas (see, for example, Candy & Edmonds 2002: 115–124; Graham 2002: 196–198, 228–230; Murphie & Potts 2003: 131–137; Cooney 2004: 142–145; Giannachi 2004: 55–63; Munster 2006: 119–121, 130–136; Stelarc 1991, 1994a, 1998, 2002a; Farnell 2000a, 2000b; Ayers 2002; Zylinska 2002b; Goodall 2000; Smith 2005), we are today living in a world in which the human body has become superfluous; or, as Stelarc (1991: 591) says, “the body is obsolete” under present conditions since it has fallen behind the development of technology.

What is at issue here is what Brian Massumi (2002: 89–130) calls an “evolutionary alchemy of reason” that operates in Sterlarc’s post-evolutionary performances in which he himself is a “concept” (ibid.: 89), instead of just developing and presenting new concepts of the body (cf., for example, Stelarc 1991, 1992, 1997, 1998).

Consequently, from this perspective, the only way for the human being to survive is expressly to renounce being human, to abandon human existence as the very obstacle of evolution, and adopt a new mode of existence by a radical redesign of what thus far has been the human body as a specific biological organism brought about by evolution. As Stelarc says:

It is time to question whether a bipedal, breathing body with binocular vision and a 1,400-cc brain is an adequate biological form. It cannot cope with the quantity, complexity and quality of information it has accumulated; it is intimidated by the precision, speed and power of technology, and it is biologically ill-equipped to cope with its new extraterrestrial environment. The body is neither a very efficient nor a very durable structure. It malfunctions often and fatigues quickly; its performance is determined by its age. It is susceptible to disease and is doomed to a certain and early death. Its survival parameters are very slim – it can survive only weeks without food, days without water and minutes without oxygen. The body’s LACK OF MODULAR DESIGN and its overreactive immunological system make it difficult to replace malfunctioning organs. It might be the height of technological folly to consider the body obsolete in form and function, yet it might be the highest of human realizations. For it is only when the body becomes aware of its present predicament that it can map its postevolutionary strategies. It is no longer a matter of perpetuating the human species by REPRODUCTION, but by enhancing the individual by REDESIGNING. What is significant is no longer male-female intercourse but human-machine interface. THE BODY IS OBSOLETE. We are at the end of philosophy and human physiology. Human thought recedes into the human past. (Stelarc 1991: 591)
In a sense, of course, Stelarc is absolutely right. The way he describes the human body as a *biological organism* is correct in every respect (see, for example, Ehrlich 2000; Moore & Sanders 2006; Krois et al. 2007; in terms of classical cybernetics, see Wiener 1961 [1948]: 39–44, 58–59, 155–161): with regard to the anatomical and physiological parameters of the organic constitution of the body, the human being, indeed, is what Arnold Gehlen (1997 [1940]) calls a *Mängelwesen*, a “deficient being,” a being that cannot live – from the very birth, *survive* – without the whole compensating and supporting system that is culture, and increasingly technology today (cf. Erlach 2000: 121–126; Bühler 2003; Jonas & Lembeck 2006).

What does this imply? In Stelarc’s vision, things turn upside down: what is normal becomes pathological (cf. Canguilhem 1989 [1943/1966]); that is, what in “normality” is experienced as “normal” in human life – namely, that the human being is a “deficient” being by birth – entails a pathology for Stelarc. And, conversely, what is perceived as “pathological” in “normality” – namely, that in order to be human, or, *to be at all*, one needs prostheses – is “normal” for Stelarc.

What is problematic in Stelarc’s vision, however, is that not only the normal and the pathological have changed places in it: the normal now equals the pathological, and vice versa. But most problematic, first of all, is Stelarc’s tacit implication that we need what he calls “postevolutionary strategies” because our destiny is to live in a “new extraterrestrial environment,” and vice versa, to live in a “new extraterrestrial environment” we need “postevolutionary strategies,” that is, “prosthetics, robotics and remote existence” (Stelarc 1991: 591–593; Zylinska 2002b; Smith 2005; cf. Graham 2002: 176–199; Stocker & Schöpf 1996). In other words, in this train of thought the premise and the conclusion presuppose each other; this is what is called *circulus vitiosus* in conventional logic.

Thus, what remains without an answer in Stelarc is the question: in order to survive, *why*, in the first place, do we have to leave, to escape from, our human habitat, the earth as our living condition, that is, terrestrial life as the very form of human life, the trajectory of human evolution? The problem is that Stelarc’s conception of the human being, in its postmodern art-based techno-futurism, is *biological reductionism in negative terms*. In other words, from an imaginary future based on his theory-fictional rhetorics, Stelarc deems the present, *real-existent*, human being incapable of living, namely incapable in the future supposed by his techno-futurism.

Biological reductionism in negative terms implies that it is not the corporeal-sensual mode of existence of being human, embedded in culture and history, but the human biological constitution in its constitutional insufficiency, in its assumed primordial *organic imperfection*, that constitutes the human being for Stelarc. Thus, Stelarc is speaking not of the human being, not even of the human body, but of an *organism* that is the biological premise – a premise that is a necessary but, of course, not a sufficient precondition – of being human. At the same time, the idea of considering the human as a biological organism is, conversely, technological reductionism: according to this view all the defects of the

The point is that, in Stelarc’s world, life is reduced to a continuous maintenance of a mutable techno-organism, a prosthetic construction, always upgraded according to the latest achievements of technoscience in a similar manner as computers and other digital devices are updated by ever-new software. As Stelarc (1991: 591) says above, the body is no longer “a site for the psyche or the social,” it is rather a “structure to be *monitored and modified*” (emphasis mine), or, in Haraway’s (1991a: 163) words, as cyborgs, we can always be “disassembled” and “reassembled” and thus circumvent the constraints of an immutable body, that is, our biological destiny based on evolution – biological evolution that is simply too slow and insufficient from the perspective of the technofuturism constitutive of Stelarc’s world-view.

In these terms, the Stelarcian techno-being is only interested in its own post-body functions, in its artificial organs that enable its survival, in fact, turn it into a survival machine, a machine working for its own survival. In other words, Stelarc’s prosthetic body as a post-evolutionary techno-body is the paragon of what I call the *ego-politics of the cyborg*. This is what Stelarc (1991: 592) calls an “amplified body,” a cyborg body that is not only thoroughly penetrated and intruded, but, first and foremost, dominated by technology, a body that is constantly rebuilt by means of prosthetics, robotics and remote existence. This is a body that “can be amplified and accelerated,” thus attaining “planetary escape velocity,” a body that “becomes a postevolutionary projectile, departing and diversifying in form and function” (ibid.; cf. Dery 1996: 153–170; Birringer 1998: 59–63; Dixon 2007: 147–151, 260–271, 308–319; Küppers 2007: 115–120; Featherstone 2000; Zylinska 2002b; Smith 2005; Munster 2006; in terms of “the absent body,” cf. Leder 1990; from a historical perspective with regard to “the Enlightenment cyborg,” cf. Muri 2007) – a body that is a postmodern version of the Jüngerian “armored body,” the techno-body of the *Arbeiter* in its “planetary” dimensions (see Jünger 1980 [1930], 1982 [1982]; Nevin 1996: 126–137; de Bestegui 1998: 67–69; Neaman 1999: 20, 42–44; Radloff 2007: 375–397).

Yet, a question remains: if today – and certainly for a long time to come – we are still living on earth, under terrestrial conditions, why do we need an “amplified body,” an astronautic body, a body made fit for space travel (cf. Clynes 1995 [1970]; Clynes & Kline 1995 [1960]; Gray 1995)?

In Stelarcian discourse, this question does not exist, it is excluded since it does not belong to the terms of the posthuman as it is understood in post-theory.
and cyber discourse based on it. As a “postevolutionary” life form, the Stelarcian techno-being is the quintessence of the cyborg, the cyborg brought into its logical conclusion: a monad for which its own being is the whole world, the only world. As Haraway (1991a: 150–151) says, the cyborg is “the awful apocalyptic telos of the ‘West’s’ escalating dominations of abstract individuation, an ultimate self untied at last from all dependency, a man in space” (emphasis mine). This, indeed, is the final achievement of the God principle: the cyborg is its own raison d’être, an omnipotent being living in its own autistic techno-universe enabled by all-encompassing prosthetics; that is, a technoscientific monad subsisting in its prosthetic autarchy, the economy of self-sufficient self-reliance as the ultimate form of technological self-generation: the final consummation of the ego-politics of the cyborg.

In Stelarc’s (1991: 591) world, as he makes it perfectly clear, there is neither the psyche nor the social; thus, the world of the Stelarcian cyborg is an empty world in human terms, it is a world of prosthetic beings that are preoccupied with their own prosthetic selves. In its social nihilism, this is a continuation of Sloterdijk’s (1983a, 1983b) “cynical reason” by other means: the means of scientific-technological redesign of the human being under the regime of the surrational, the highest form of reason in the postmodern (cf. Sloterdijk 1999; Kempe 2001).

If, however, we return from this post-Jüngerian “planetary” scale to human dimensions, the problem is that in his techno-futurist body-machine constructions, presented in his techno/media art performances, Stelarc, in fact, incorporates biologism turned into technologism; that is, the idea of technomorphism, a postmodern form of scientism based, in an extreme form, on what Raymond Williams (1975: 13–14, 133) calls “technological determinism” (cf. Smith & Marx 1994). This is the idea of the cyborg celebrated by cyber discourse, combining and elaborating on various ideas of body enhancement ranging from the New Age obsession of personal empowerment (see, for example, Hanegraaff 1996; Heelas 1996; Ziguras 1997, 2004) to transhumanist visions of technological rebirth of the human being (see, for example, Stock 2002; Hughes 2004; Deane-Drummond & Scott 2006; Young 2006; cf. Kurzweil 1990, 1999, 2005) – both deriving from the traditional American utopianism dreaming of an “individual perfection” (Rooney 1985: 99–102; in terms of the cyberdelic, cf. Leary 1994a).

As such an embodiment of technological self-design, the cyborg is a neo-religious figure, an emblem of a postmodern ego cult idolizing a technologically reborn self as a postmodern incarnation of the Freudian “prosthetic God.”

In these terms, Stelarc’s post-body is a latter-day descendant of the prosthetic body conceived of by the German medical-technical industry after the First World War; a body that was adapted not only to the operative logic of an individual and singular prosthesis, but, beyond that, at the level of the reconstitution of subjectivity and agency, to the socio-cultural and economic-political logic of prosthetics pertinent to the body-machine complex of the Weimar Republic. Is it, in fact, the Weimar prosthetic man – a Fordist worker having a fragmented


It is in this sense that the Lacanian dictum that il n’y a pas de rapport sexuel, “there’s no such thing as a sexual relationship” (see Lacan 1999 [1975]: 5, 12, 34, 59, 71; Fink 1997 [1995]: 104–122, 2004: 84–85), has now taken its ultimate turn: in the post-organic world of
the cyborg, in the posthuman constellation of the “cyber,” there is no longer any room for “the sexual” in the form of body-to-body encounter, except in the form of prosthetic self-sex, “sex” in the monadic autarchy of the cyborg: technological ego-sex with one’s own prosthetic body in the virtual universe of sexual solipsism populated by sexually self-sufficient monads each of them preoccupied by their own post-corporeal techno-bodies.

3.2.2 The Rationality of the Machine

As we have seen, this metamorphosis of the body began already long ago, in the war economy of the First World War, in a world in which the body became radically redefined as a prosthetic construction in the sense of a body-machine being able, in the manner of the cyborg, to be “disassembled and reassembled” (Haraway 1991a: 163; cf. Campbell 2000: 263–267; Ballif 2001: 186–194; Hicks 2002: 87–91; Biro 2009: 7–8), and thus readjusted to the varying requirements of the production process; that is, a body reconceptualized in terms of tool (for the body-machine in the context of Fordism/post-Fordism, see Yanarella & Reid 1996; for a historical contextualization in terms of “prosthetic modernism,” see Armstrong 1998: 77–105; with regard to “the body as the original prosthesis” in the context of the posthuman, cf. Hayles 1999: 3).

Of course, I am not trying to say that the medical reconstruction of the war cripples by means of prosthetics in the First World War and its aftermath in the Weimar Republic is the model of the postmodern cyborg; I am only asking whether there are, on the level of the techno-imaginary then and now, what Ludwig Wittgenstein (1995a [1953]: 278) referred to as Familienähnlichkeiten, “family resemblances” (cf. Goeres 2000: 234–300), between the habitus of the German prosthetic men projected by the rehabilitation discourse of the time and the latter-day figure of the cyborg created by cyber discourse. In other words, I am interested in the manner in which, mutatis mutandis, the prosthetic reconstruction of the First World War amputees and the related discursive construction of prosthetics by the medical-technological industry working under the supervision of the Krüppelfürsorge anticipated the discursive figure of the cyborg as a prosthetic reconstruction of the human body in terms of the posthuman (see, for example, Gray et al. 1995b; Gray 2001; Graham 2002; Smith & Morra 2002b, 2006b; Yaszek 2002; Zylinska 2002c; Biro 2009; with regard to the “sexual reconstruction” of disabled war veterans by means of prosthetics, see Carden-Coyne 2009: 160–212). In this respect, what is at issue here is the way in which a discourse produces the idea it names.

This is a question concerning what in German is called the Eigenlogik of matters under consideration, that is, the intrinsic dynamics of concepts, the “self-movement” of conceptual configurations within a specific discourse (cf., for example, Sarasin 2006 [2001]: 64–78); in my case, the interrelations, related to the figure of prosthesis, between the modern and the postmodern ensuing from the lin-

In this sense, the cyborg – exemplified in a detailed way, like in medical-technical textbooks, by Stelarc’s performances – is, as stated above, not so much an “illegitimate offspring” (Haraway 1991a: 151) of militarism, but, first of all, a manifestation of an on-going militarization of the human body in the conceptual-metaphoric framework of technomorphism (cf. Graham & Luke 2003; Masters 2005; in terms of “martial corporeality,” cf. Dillon 2003; with regard to “the militarization of thinking,” cf. Weber 2005). This is a scientific-technological paradigm that ranges from the German medical-technological industry through the American military-industrial complex to the postmodern body management in the context of contemporary corporate capitalism in which the body is reduced to “human capital” ruled by the disciplinary regime constitutive of the political economy of neoliberalism. This is the paradigm of what I call a techno-dispositive (cf. Foucault 1978e [1977]: 119–123; Jäger 2001). In this dispositive, the body is a resource, a “human ware,” to be experimented with and elaborated on, bred and raised, cultivated and intensified, in order to achieve ever better results in terms of efficiency and reliability of the body considered as an economic factor, a unit of production and consumption, according to the principles of the political economy of neoliberalism (see, for example, Comaroff & Comaroff 2001; Peters 2001; Harvey 2005 [2003], 2006 [1999]; Smith & Deazley 2009). That is, a body that, in the Harawayan manner, is constantly “disassembled and reassembled” (Haraway 1991a: 163) in order to adapt it to changing demands of global capitalism.

In short, this is the project of a total appropriation of the body, the idea of its absolute usability, which is common both to postmodern militarism and corporate capitalism. To paraphrase Wiener: to be used as an element of a machine entails being an element in the machine. This is the body schema of the posthuman, the idea of the Harawayan cyborg in the post-utopian constellation of cyber discourse (cf. Bermúdez et al. 1998; De Preester & Knockaert 2005).

**Programming the Body, or, The Anonymous Wisdom of the Cyborg**

In this context, the organic and the technological entirely intertwine, they collapse thoroughly into one another, constituting the order of the “third”; an

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40 By the concept of dispositive Foucault (1978e: 119–123) refers to ein entschieden heterogene Ensemble, das Diskurse, Institutionen, architekturelle Einrichtungen, reglementierende Entscheidungen, Gesetzte, administrative Maßnahmen, wissenschaftliche Aussagen, philosophische, moralische oder philanthropische Lehrsätze, kurz: Gesagtes ebenso wohll wie Ungesagtes umfaßt. Soweit die Elemente des Dispositivs. Das Dispositiv selbst ist das Netz, das zwischen diesen Elementen geknüpft werden kann. […] Das Dispositiv ist also immer in ein Spiel der Macht eingegrenzt, immer aber auch an eine Begrenzung oder besser gesagt: an Grenzen des Wissens gebunden, die daraus hervorgehen, es gleichwohl aber auch bedingend. Eben das ist das Dispositiv: Strategien von Kräfterverhältnissen, die Typen von Wissen stützen und von diesen gestützt werden. Thus, what is important in a dispositive is that it is an assemblage of power and knowledge (cf. Foucault 1978f [1976]), forms of power and knowledge that work through discourses and institutions (Gesagtes ebenso wohll wie Ungesagtes). In this sense, techno-dispositive is an order, a conceptual-metaphoric matrix, of power and knowledge that is based on technoscience, a conglomeration of scientific-technological enterprises that strive to turn the world into resource, into fund to be exploited.
order of techno-biological body management in which the human body turns into a technoscientific object-body, an abstract body consisting of economic relations without the agency of an authentic subject, a subject as a subject for itself; that is, a body that is reduced to a nodal point of discourse networks operating beyond the reach of the subject.

This is what I call life in the laboratory pertinent to the neo-Fordist regime of contemporary capitalism integrating, on the one hand, capital, labour force and work processes, and on the other, productive consumption, into an economic megamachine recycling the flows of desire in the cultural constellation of the postmodern. Under this regime, work efficiency is based on an entirely rationalized body, a libidinal body that is thoroughly functionalyzed and instrumentalized to an economized body, a body that exists only to produce for consumption and consume for production. This is the body ideal established by the techno-dispositive as the body regime of corporate capitalism, the techno-economic regime of neo-Fordism incorporating the body as the embodiment of productivity and efficiency; that is, “the McDonaldization of society” (see Ritzer 2004) as the model of world economy, the model of productive consumption as both the basis of economic growth and the fundamental rationale of human existence.

In his One-Dimensional Man, Herbert Marcuse (2002 [1964]: 10) describes the miraculous ability of American capitalism to produce consumption by “the transplantation of social into individual needs”; according to Marcuse, what is at issue here is a specific mode of rational irrationality:

We are again confronted with one of the most vexing aspects of advanced industrial civilisation: the rational character of its irrationality. Its productivity and efficiency, its capacity to increase and spread comforts, to turn waste into need, and destruction into construction, the extent to which this civilisation transforms the object world into an extension of man’s mind and body makes the very notion of alienation questionable. The people recognise themselves in their commodities; they find their soul in their automobile, hi-fi set, split-level home, kitchen equipment. The very mechanism which ties the individual to his society has changed, and social control is anchored in the new needs which it has produced. (ibid.: 11)

If this was the situation in America in the 1960s, it is now the general situation of postmodern capitalism.

Historically, this ideal of the body as an embodiment of reason appears most clearly in the visions of the technologically equipped warrior-body, the body-machine developed in the framework of the American military-industrial complex, in its technomorphist discourse based on the idea of the machine (see, for example, Edwards 1996: 1–43; Shapiro 1997: 82; Gray 2001: 35–68, 1997; Johnston 2001a: 74; Kellner 2003b: 230–235; Biro 2009: 153–198; Levidow & Robins 1989a; Robins & Levidow 1995; Bacevich 2007; for the militarization of thought in Cold War America based on “the military-intellectual complex,” see Robin 2001).

This is the idea of “the cyborg soldier” (Gray 1989), an idea coming into being already in the early 1970s, as Paul N. Edwards, analysing the scientific-techno-
logical rationalization of warfare in Cold War America, points out by referring to General William Westmoreland’s vision of “the automated battlefield”:

On the battlefield of the future, enemy forces will be located, tracked and targeted almost instantaneously through the use of data links, computer-assisted intelligence evaluation, and automatic fire control [...]. I am confident [that] the American people expect this country to take full advantage of its technology [...] to welcome and applaud the developments that will replace wherever possible the man with the machine. (Edwards 1996: 43; cf. Nayar 2004: 250–253; for the contemporary military-technological development towards “post-human warfare,” see Coker 2004: 80–109; cf. Pursell 1994: 144–167; Bishop & Phillips 2010: 117–133)\(^4\)

According to Edwards (1996: 72), “the pervasive military fascination with computers,” epitomized by Westmoreland’s speech in the aftermath of the Vietnam War, “represents a dream of victory that is bloodless for the victor, of battle by remote control, of speed approaching the instantaneous, and a certainty in decision-making and command” (ibid.). In this sense, Westmoreland wish-image of “the automated battlefield” is “a vision of a closed world, a chaotic and dangerous space rendered orderly and controllable by the powers of rationality and technology” (ibid.). It is in this manner that the cyborg soldier enters the scene of military reason: instead of replacing the man with the machine, as Westmoreland dreams, the cyborg soldier is a man that has turned into a machine, a body-machine assemblage that is connected to a computerized environment as a real-time interactive information network that coordinates the movements of individual soldiers combining them into a collective body that operates under a multi-nodal control system constitutive of the whole as a virtual-real megamachine (see, for example, Blackmore 2005: 36–67; Dittmer 2007; Kaufmann 2003, 2005, 2006, 2007; in terms of “militarized masculinity” as an embodiment of technoscientific rationality, see Masters 2005: 113–115; for cyborg soldiers deployed in the First Gulf War, see McNeil 2007: 125–128; for “impotent warriors” and the “Gulf War Syndrome” exemplifying the reality of high-tech war, see Kilshaw 2009; for a contextualization of the cyborg soldier ideology as part of “the military-industrial-media-entertainment network,” see Der Derian 2009b).

As a latter-day embodiment of the scientific-technological reason inscribed in cybernetics, the cyborg soldier manifests what Les Levidow (1994: 326–327) calls “high-tech barbarism” and “paranoid rationality,” exemplified by the First Gulf War, most brutally by “the Gulf massacre.”

The Gulf War illustrates the role of high-tech systems in mass psychopathology. A paranoid rationality expressed in terms of the machinelike self combines an omnipotent fantasy of self-control with fear and aggression directed against

\(^4\) If we replace the expressions “the battlefield of the future” and “enemy forces” that “will be located, tracked and targeted almost instantaneously through the use of data links, computer-assisted intelligence evaluation, and automatic fire control” by the figures of cybersex and virtual sex objects that will be made available by telepresence to be controlled by means of interactivity and prosthetic organs, it is not difficult to see that the sexual-technological complex constructed in and by cyber discourse is not so far removed from the military-industrial complex based on the idea of cyborg warfare. What is common to both of these techno-visions, obsessed by the idea of a total abolition of the obstacles of time and space, is the dismembering of the body, the disembodying of the subject and the presence of the absent.
the emotional and bodily limitations of mere mortals. As this episode illustrated, computer systems can seduce us into a participatory paranoia, turn our selves into social and emotional cripples, and extend commodity-type reification far beyond market relations, to our very sense of who we are. This dynamic refuses the naive hopes of those who have idealized electronic information—as an instrument of participatory democracy, as a social prosthesis, or even as resistance to the commodity form. (ibid.: 327)

In this constellation, the de-subjectified cyborg soldier literally becomes a continuation of the machine, a prosthetic organ of the military machine (cf. Shapiro 1997: 82; for the cyborg soldier in Lacanian terms, cf. Nusselder 2009: 97–98). In other words: “Why should our bodies end at the skin,” as we recall Haraway (1991a: 178) asking; in its own way, the cyborg soldier is an answer to this question.

Thus, the cyborg soldier manifests the transformation of the body-machine relationship from the mechanic to the prosthetic; as Haraway says:

> From the seventeenth century till now, machines could be animated – given ghostly souls to make them speak or move or to account for their orderly development and mental capacities. Or organisms could be mechanized – reduced to body understood as resource of mind. These machine/organism relationships are obsolete, unnecessary. For us, in imagination and in other practice, machines can be prosthetic devices, intimate components, friendly selves. (ibid.; emphasis mine)

In the world of the cyborg, indeed, “[w]e don’t need organic holism to give impermeable wholeness” (ibid.); what we need is prosthetic fragmentation, a mode of having and being a body that is decentred and desubjectified in the multidimensional command-and-control network of global capitalism under the disciplinary regime of neo-Fordism (cf., for example, Poster 2001b: 175–178, 2009 [2004]; Nayar 2010: 74–86; Hassard et al. 2000; Mitchell 2003). In other words, the abstract body constituted by the economic relations of the transnational financial transactions that rule the production of surplus value according to the principles of neoliberalism is the ideal body of the postmodern (cf., for example, Shaviro 2003; Hassan 2004, 2009): like the body of the cyborg soldier, it is a networked body without the disturbing factor of subjectivity, an object-body that operates under remote control, a body that is a non-subjective agent of a higher reason, the reason that reigns the accumulation of capital (in terms of “technocapitalism,” see Suarez-Villa 2009; for a historical contextualization, see Schröter 2004).

What Edwards observed with regard to Westmoreland’s speech was only the beginning of the on-going American military project purporting to construct a cyborg soldier – a techno-warrior that is a latter-day reincarnation of the Jüngerian cyborg (see Biro 1994), and at the same time, an idea implied in Haraway’s (1991a: 150, 151, 164, 165, 168, 171) cyborg, the cyborg as an allegedly subversive figure, the emblem of radical techno-feminist body politics in order to subvert “phallogocentrism” (see, for example, Haraway 1991a: 175–176; Shildrick 2002: 122–128; Bassett 2007: 70–78).

If, in Westmoreland’s vision, a replacement of man by the machine was at issue, now, three decades later, what is at issue is a question of turning the human
being into a cyborg in general, a body-machine assemblage that functions according to the logic of the machine. This is a body-machine that works as efficiently under the conditions of war, production and consumption. This is a new type of Foucauldian “docile body” (Foucault 1991a: 135–169), an ideal body compatible with the economic and military requirements of the emergent global system consisting of the interrelations between corporate capitalism and the transnational military-industrial complex; a postmodern disciplinary order made possible by the relentless advancements of technoscience, the scientific-technological reason constitutive of the political economy of neoliberalism (cf., for example, Harvey 2005 [2003]; Bousquet 2009; Nash 2009; Guzzetti 2010).

After the enormous development of computer and digital technology (see, for example, Williams 1997; Cortada 2000; Hashagen et al. 2002; Rojas & Hashagen 2002; Ceruzzi 2003 [1998]; Black et al. 2007; Swedin & Ferro 2007), the cyborg soldier is no longer only a dream of the military-industrial complex, it is a working prototype tested all over the world in the field conditions of the military operations pertinent to the Pax Americana; an idea of a new world order in which peace is war and war is peace (see, for example, Tabak 1996: 90–103; Best & Kellner 2001: 57–99; Beck 2006 [2004]: 130–162; Melman 1985 [1974]; Gibson 1986; Gray 1997, 2005; Hunter 1998; Boggs 2003; Dillon & Reid 2009). In the middle-1980s, when Haraway was envisaging her mythical-utopian idea of the cyborg, in reality, as Chris Hables Gray (1989, 1997) has shown, a new type of soldier what he calls the “post-modern warrior” was marching from the laboratory into action on the battlefield, paradigmatically demonstrated by the American war operations in Iraq (see, for example, Kellner 2003b: 230–242; Casper & Moore 2009: 173–175; cf. Luke 2002: 182–187; for a contextualization from the perspective of “the military-industrial-media-entertainment network,” see Der Derian 2009b; in terms of “immaculate destruction,” see Buley 2008: 86–90, 113–127).

What Gray saw coming at the time is a postmodern body-machine construction. In this connection, it is appropriate to recall Gray’s description of the emerging cyborg soldier, a new form of the military body no longer of the type of the modern soldier just “influenced by the weapons used” (Gray 1989: 43), but, more fundamentally, a postmodern warrior integrated to computer-controlled operations and even transgressing the gender divide:

he or she is (re)constructed and (re)programmed to fit integrally into weapon systems. The basic currency of war, the human body, is the site of these modifications – whether it is of the “wetware” (the mind and hormones), the “software” (habits, skills, disciplines) or the “hardware” (the physical body). To overcome the limitations of yesterday’s soldier, as well as the limitations of automation as such, the military is moving towards a more subtle man/machine integration: a cybernetic organism (“cyborg”) model of the soldier, that combines machine-like endurance with a redefined human intellect subordinated to the overall weapons system. (ibid.; cf. Masters 2005)

This is the body ideal of both the military-industrial complex and the global system of corporate capitalism: for both of them, the body is a resource managed
by scientific-technological means in order to achieve maximal utility from its performance. This is a “militarism of production’ that vitalizes technology and merges labor and war” into a “gigantic labor process” (Seltzer 1992a: 222; cf. Maier 1987: 41).42 If, in Jünger’s world, the “warrior-worker” was the “day laborer of death” (ibid.), the postmodern consumer-worker is a producer of desire in the system of the productive consumption constitutive of the economic order of neo-Fordism. In both cases, the human body, as Gray (1989: 43) says, is the “basic currency.” Thus, in contrast to Stelarc’s (1991) techno-futurist vision of the “obsolescence” of the body, the body is not obsolete in the reality of technoculture; on the contrary, it is an indispensable resource, the very material, of the ego-politics of the subject, and, as such, an essential “asset” in the labour markets of neoliberal capitalism (see Coronil 2001: 76–77).

What is quintessential here is that the human being, reconstituted – that is, redesigned and redefined – through, in Gray’s (1989: 43) words, a “subtle man/machine integration,” turns into a “cybernetic organism” that is “subordinated to the overall weapons system.” That is, the body of the cyborg soldier, integrated to the body-machine configuration of cyborg warfare, functions as an interactive nodal point in a global military surveillance system (cf. Bogard 1996: 82–97; McKenzie 2001: 101–131; Lyon 2006; Dillon & Reid 2009), a computer-operated panopticon, by which it is constantly monitored while, at the same time, it is monitoring itself by means of its prosthetic sensory organs (cf. Gray 2001: 55–65). In other words, through the metamorphosis from the human body to the body-machine assemblage of the cyborg soldier, the human subject turns into an object of the war machinery that, as a high-tech megachine, works according to its own logic, the logic of military efficiency – the techno-logic of productive consumption in terms of scientific-technologically planned destruction. It is in this manner that deliberation, constitutive of rational subject, is replaced by the reason of the machine in the world of the cyborg.

This is precisely what Marcuse (1941: 419) calls the “anonymous wisdom” peculiar to the instrumental reason of the modern, a superior reason that subordinates human spontaneity to the rationality of machinic functionality. Or, to refer once again to Wiener (1968 [1950]: 185): “What is used as an element in a machine, is in fact an element in the machine” (in terms of “sociocybernetics,” cf. Bousquet 2009: 115–118).

42 The idea of a “militarism of production” originally comes from Charles S. Maier’s (1987) study of Taylorism and technocracy referred to by Seltzer in a historical context ranging from the nineteenth century idea of “the human motor” (see Rabinbach 1990) through the First World War as the background of Jünger’s “warrior-worker” to the American technocratic project as an “effort to combine technology with vitalist sources of energy,” that is, a technological intensification of labour power. As Seltzer (1992a: 222) says, what, for Jünger, was an “identification of machine labor and mechanized battle,” a “conjoining of the ‘war front and the labor front,’” appears in the “technocratic imaginary” as the “coordination of body and machine.” In turn, this is the notion of the “human motor,” in Anson Rabinbach’s words: “The human organism was considered a productive machine, stripped of all social and cultural relations and reduced to ‘performance,’ which could be measured in terms of energy and output” (ibid.). This is precisely what I call the usability of the body projected by the contemporary techno-dispositive, the paradigm of cyborg visions.
If this is the world of the cyborg soldier, a world of human-machine constructions that exceed the limits of both the human and the machine, this is, *mutatis mutandis*, the world of postmodern bodies made fit for corporate capitalism. This is the paradigm of a new order constitutive of the body-machine complex of neo-Fordism, the order of the “Third” in which the logic of hybridization determines the parameters of being a body; a biopolitical body under the imperative of economization (see Bröckling et al. 2000; Lemke 2007), defined by the machine model of technoscience: the idea of the machine redefined by the paradigm of the post-organic, the politics of the posthuman (cf. Seltin 2009). It is precisely in this order that also the preconditions of sex and sexuality become redefined according to the performance principle of neo-Fordism (cf. McKenzie 2001; Marcuse 2002 [1964]); desires and pleasures now circulate in the matrix of the cyborg, a realm of “sex machines, human beings, in-betweens” (Gray 2001: 151–160); that is, as Stelarc (1991: 591) says, “[w]hat is significant is no longer male-female intercourse but human-machine interface.”

This is a world in which cybersex becomes intelligible; this is the world of the “sexual” in terms of techno-dispositive.

**The Logic of Meta-Prosthetics**

As a species, the human being is a being that is predicated upon two hands. As a multifunctional, extremely flexible part of the human body, the hand is the extension of the human corporeal design that, in an organic co-operation with the brain, constitutes the human in the human being (see Leroi-Gourhan 1993 [1964–1965]: 25–60; Popitz 1995: 44–77; Hartmann 2003: 55–56; Bondio 2010; for “the epistemology of the hand,” see Turner 1992b: 99–114; in Heideggerian terms, see Heidegger 1992b [1942–1943]: 118–127). In this sense, there is no human being – the human being as a *species*, as an anthropological and historical *category* – without the human hand; a body part that most clearly manifests the historicity of the human being, and, as such, the radical difference of the human to the animal and the machine. As Wiener (1961: [1948]: 102–108) has demonstrated, the human hand, in fact, is an extremely complicated cybernetic system, operating according to the principles of feedback specific to the human organism.

We have seen that, in general, a complex additive system like this [the motion of a hand or a finger] cannot be stabilized by a single feedback. Correspondingly, the voluntary feedback by which we regulate the performance of a task through the observation of the amount by which it is not yet accomplished needs the backing up of other feedbacks. (ibid.: 107; cf. Rieger 2003a; Wiener 2003a [1954], 2003b [1949]; for a contextualization in terms of “cybernetics and artificial intelligence from automaton to cyborgs,” see Franchi & Güzeldere 2005a)

For this reason, the human hand – like all subsystems of the human body based on voluntary movements – is an *open system*; that is, a system that is not determined by some intrinsic teleology built-in into the mechanisms pertinent to automata or programmed systems (cf. Rosenblueth & Wiener 1950; for discussion on the problem of teleology and purposiveness in Wienerian cybernetics,
see Faber 1986: 55–65, 72–93, 97–117; Cordeschi 2004: 187–189; George & Johnson 1985), but, on the contrary, a highly flexible and adaptive organ that is able to modify its functions according to the situation, literally always in touch with the objects it is touching. In other words, the human hand is not a machine, a mechanical apparatus; instead, as a part of the human body, the human hand is a part of the human organism functioning according to the principles of organic integrity; the human body as a “cybernetic organism” that is organized by culture, in a circular causal interaction between the body and its environment (cf. Boden 2006: 198–210; Orr 2006: 108, 189–190; von Foerster 1950; Rosenblueth et al. 2004 [1943]).

Accordingly, in terms of both phylogenesis and ontogenesis, it is the hand that constitutes the human being (in Heideggerian terms, cf. Olafson 1995: 191–220). But does this also apply to the constitution of the posthuman in the form of the cyborg? In other words, is Stelarc’s “third hand” a hand or a prosthesis (see Stelarc 1994a; cf., for example, Graham 2002: 196–197; Giannachi 2004: 56–59; Nayar 2004: 254–257; Drucker 2005: 211–213; Grundmann 2007: 86–90; Matthews 2008: 152–154; Fischer 2009: 182–189; Candy & Edmonds 2002; Zylinska 2002b; Smith 2005)? What is the difference between an organic hand and its prosthetic substitution, an artificial Ersatz? What makes a hand a hand, a human hand? Does a prothesis function not only like a hand, but also as a hand? For what reasons do humans happen to have two hands? Why not four hands, or five, or seven? Why do human hands always form a symmetric pair? In general, why is the human form symmetric (often reproduced even in robotics)? And last but not least, if, as Aristotle says, the human hand is the “organ of organs” (Boyle 1998: 24, 50), what is precisely its part in the becoming human of the human being?

All these questions are anthropological questions concerning both the evolutionary and the historical constitution of the human being; questions that are explained away in the world of the “post” by the reference to “anthropomorphism,” deemed by poststructuralism and, as its derivation, post-theory, to be an ideology of the Enlightenment, the ideology of humanism (see, for example, Braidotti 1994a: 174–177; Colebrook 2005 [1999]: 202–256; Daston 1995; Steiner 2005; cf. Heidegger 1976a [1946]; with regard to Nietzsche, cf. Gasser 1997: 253–259; Koch 2007: 119–124; Joisten 1994), now not so much subverted and revoked as – paradoxically – confirmed and sacralized by all that is posthuman.

In the configuration of the cyborg, these and similar questions concerning the constitution of the body turn into questions concerning the technological reconstitution of the human; that is, the precondition of the posthuman.

In this context, a new perspective opens up in which the idea of a “third hand” is no longer an issue of the human form (an idea of anthropomorphism), but, instead, a matter of technomorphism (see, for example, Koslowski 1987: 33–34; Campbell 2000: 265–266; Perniola 2004 [2000]: 90; Hubig 2006: 69–71, 82–99). This is a perspective from which the Heideggerian difference between
vorhanden and zuhanden (see Heidegger 1977d [1927]: 85–151) becomes sublated. Here, the “third hand” is no longer a third hand, an appendix attached to one of the human hands (or to some other part of the body); instead, it belongs to the order of the “Third,” a register of post-binary relations enabled by the logic of the “post.” As an instance of the order of the “Third,” the “third hand” exists in the realm of the posthuman. This is a realm in which technomorphism becomes intelligible. In terms of prosthesis, this is the realm of metaprosthetics (see Kathan 1999: 111–136).

While the human hand is a part of the human body, a member belonging to the human form (a form intelligible in terms of anthropology), Stelarc’s “third hand” is no longer human, instead, it is a projection of the technological, a posthuman variant of the Organprojektion postulated by Kapp (1877: 29–39, 105–108; cf. van der Pot 1985: 573–575; Borck 2005: 102–107; Hartmann 2008: 127–135), a post-organic projection as a kind of Cartesian res extensa in terms of technology (cf. Descartes 1985c [1644]; Bordo 1987: 98–100; Marcuse 2002 [1964]: 155–163). Accordingly, it is a member that is dis-membered, a member becoming re-membered in the body imaginary of the posthuman, the phantasmagoria of the cyborg. In this manner, the body as a whole shares the fate of the phantom limb in the technoscientific constellation of the posthuman: it becomes a “hauntological” object, a “spectral” entity, haunting the postsubject as an absent presence (cf. Derrida 1994 [1993]; cf. Spivak 2000: 8–10, 19–31; Tatum 2007: 14–28). What is essential here is that in the world of the “post” the human has to be dis-membered, to be forgotten, by discarding the member-ness of the human form, and replacing it with the form of a technomorphist body scheme.

This is the idea of technomorphism (see, for example, Hayles 1993b: 180; Campbell 2000: 265; Perriola 2004 [2000]: 89–90; Maier & Zoglauer 1994). As Kathan (1999: 143) emphasizes, in medical terms, this is a shift from Körperprothesen, “body prostheses,” to meta-prostheses, to the scientific-technological order of meta-prosthetics.

Das Ideal der technischen Beherrschbarkeit in der Medizin bilden nicht die Körperprothesen, sondern die Metaprothesen. Sie haben die Erinnerung an den menschlichen Körper verloren, und sie orientieren sich am Modell der Maschine. Obwohl sie protetischen Charakter haben, sind sie dem menschlichen Körper überhaupt nicht mehr nachgebildet. Es gibt einen gravierenden Unterschied zwischen dem Ersatz eines Organs durch eine Prothese und der Überantwortung von Körperfunktionen an ein vom Körper losgelöstes Gerät. Medizinische Geräte abstrahieren in ihrem Aussehen und in ihrer Funktionsweise stark von dem, was als Körper wahrgenommen werden kann. Die Metaprothetik der Medizin verweigert jegliche Erinnerung an den Körper. (ibid.; emphasis mine)

What is important here is that prosthesis does not re-member the body, because it has never been a part of the body. It is precisely this “abstraction,” as Kathan says, the “transfer of corporeal functions onto a device detached from the body,” that constitutes a meta-prosthesis not only in medicine, but also in the technomorphist body schema in general, and in cyborg visions in particular. In this sense, prosthesis is a translation of the functions of the body.

Fig. 72–73. The “third hand,” as Stelarc states, was “originally designed as a semi-permanent attachment to my body; I was supposed to be wearing it as much as I would wear my clothing” (Zylinska & Hall 2002: 125).

The idea, however, was not realized for the reason that, instead of building the “third hand” out of carbon as planned, Stelarc had to resort to materials that were less suitable for the purpose (ibid.). In addition, “the electrode gel where the muscle signals were picked up and preamplified irritated the skin,” and, thus, the “third hand” became “more a performance object” (ibid.).

In terms of the body-subject, what is problematic in Stelarc’s “third hand” is that, as a technological object constructed by a deliberate act of will relying on – or, subjected to the imperative of – the logic of the machine, it, in fact, implied an object inverting the self-integrity of the body image intrinsic to the human body, that is, the body schema of the subject as a self (cf. Weiss 1999: 87–102; Mansfield 2000: 84–90; Cregan 2006: 7–13, 88, 91–136). Thus, what is inherent to Stelarc’s “third hand” is that, instead of being an organic body part, it is a supplement with its own modus operandi (cf. Derrida 1997 [1967]: 140–164; Royle 2003a: 47–60). That is, instead of being an integral part of the body, Stelarc’s “third hand” is literally a prosthesis that, as Julie Clarke (2002: 37) states, “mimics” the “substitution of the body by a technological construct”; and, as a result, although Stelarc maintains that “the prosthetic attachment represents excess, demonstrating body extension through technology, this excess is always accompanied by loss” (ibid.).

In this sense, Stelarc’s body extensions “represent psychicextensions of the abject” thus symbolizing “the object that needs to be expelled” (ibid.): the abject as a symbol of “mortality,” “separation” and “the other” (ibid.). In Stelarc’s words: “We’ve created the potential of life without humanity” (ibid.).
the body into the terms of prosthetics, terms that have their own logic, the logic of the machinic: a techno-logic that is abstracted from the Leib-body and constitutes thus a techno-logical body schema of the Körper-body (cf. Horn 2001: 194–204; Rieger 2001a: 414–440, 2001b, 2003a; Berz & Price 2003). Accordingly, a prosthetic hand is not a human hand; it is a transfiguration of the functionality of the human hand onto an artificial body part, a technological substitute, that functions according to the principles of the technomorphist organology of prosthetics; and, as such, it has its own mode of operation, the functionality of meta-prosthesis, the logic of functionality that is always already built-in in the very idea of prosthetics: the logic of techno-morphological suppleness, which in itself, paradoxically, is intrinsically always already human (cf. Derrida 1997 [1967]: 141–164; Norris 1987: 34, 67, 110–111, 121; Ansell Pearson 1997: 123–124; Howells 1999: 24, 60; Clark 2000: 245–247; Mackenzie 2002: 5–6; Royle 2003a: 55–59, 96; Stiegler 2001).

The meta-level of prosthesis is most clearly manifested by the impossibility of mechanizing human touch; as Kathan says:

Eine Handprothese eignet sich nicht zur Begrüßung mit Handschlag. Der Handschlag ist nicht nur ein mechanisches Tasten, sondern die gegenseitige Berührung zweier Personen. (Kathan 1999: 143)

In other words, Stelarc’s “third hand,” a meta-prosthetic machine simulating the human hand, is not able to touch, to mediate a human feeling between two persons; instead, it is an artificial hand-like techno-organ able to techno-tactile operations without any kind of emotional sensibility and affectivity, without human sensibility and sensuousness (cf. Sobchack 1995: 212–213); that is, prosthesis has no capacity to respond to human touch (for the thesis that “[t]o touch is to become posthuman,” cf. Manning 2007: 156; for “robotic skin” as a question concerning “the future of touch,” cf. Castaneda 2001; in terms of “haptics” and “affects,” cf. Paterson 2007; with regard to the epistemological and ontological aspects of the posthuman, cf. Miccoli 2010). In terms of human relations, this entails a radical transformation of the idea of the human being in cyborg configurations; this is the turn to the posthuman, a being that functions according to the principles of the machine. In the world of the posthuman, it is the idea and ideal of the machinic that determines the functionality of the body.

The vision of the German master surgeon, Ferdinand Sauerbruch, concerning the potentialities of prosthetics, anticipates, in its own manner, the prosthetic reconstitution of the human being in the world of the cyborg. Sauerbruch, who had already become famous after the First World War for his pioneering prosthetic operations enabling what was called the Sauerbrucharm, a versatile arm prosthesis – prosthesis as a willkürlich bewegliche Hand (see Sauerbruch 1958: 184–196, 1916; Sauerbruch & ten Horn 1923; for a medical-historical contextualization, see Rauschmann et al. 2001: 162–174; Schönle 2001: 120–129, 136–137; Springer 2002: 77–80; Eckart 2005 [1990]: 285) – functioning by means of the undamaged nerves and muscles of the upper part of the body, was returning
from an inspecting tour of military hospitals at the Eastern front in 1942 when he had a “day-dream” during the drive. Dismembered and distorted amputees – or, as Sauerbruch says in the military jargon of the time, “Ohnhänder,” that is, *Einarmigen* and *Einbeinigen*, men with only one arm or one leg – that he had come across time and again during his journey, were amalgamated in his “day-dream” into a surgical ideal image of a prosthetic man that was more than a normal human (“normal,” in this context, of course, in terms of the biological constitution, the terms of human anatomy).


A “prosthesis of modern times,” a prosthesis that is more able than a healthy human body part – that is the idea of prosthesis as a constitutive element of the Harawayan cyborg; this is the “third hand” of Stelarc; this is the dream object of post-theory celebrated by cyber discourse in its prosthetic dreams, the object of desire of cyber-theorists dreaming eyes wide open about the posthuman being as a postmodern prothetic God. A “prosthesis of modern times” – that is the transition from the order of the human to the order of the “Third,” the order of the cyborg, the order of the posthuman. If, in this order, the organic is replaced by the machinic, and, as Haraway (1991f: 249) says, “[p]rostheses becomes a fundamental category for understanding our most intimate selves,” what does this imply in terms of corporeal intimacy constitutive of being human, intimate relations between humans in their carnal corporeality the emblem of which is human touch?

In other words, if prosthesis does not re-member the body, because it has never been a part of the body, what are corporeal desires and pleasures in the world of prosthetics, the world of cyborg, a world of technological simulation and supplementation? This is a quintessential question concerning the human body as a phenomenological body, a body that is able to experience itself in an intimate relationship to the world: a body that is a *Leib*-body in its carnal subjectivity (see Merleau-Ponty 2002 [1945]).
4 Love Your Prosthesis as Yourself

A prosthetic love and friendship, erotics and politics should be understood as something different from a raising of the stakes of non-identity or de-subjectivation, different from taking things beyond the human, even beyond the animal, to the inanimate. Prosthesis refers for me not to the replacement of the human by the inanimate but to the articulation of one and the other. Such a love and friendship, erotics and politics would [...] break with the naturalness of the supposed homogeneity of those concepts; it would, from the perspective of an always already prosthetic, allow us to begin to think the subject of love and friendship, erotics and politics in its biotechnological becoming, to think the radically inconceivable otherness of the other as coming upon and coming to bear upon [...].

David Wills (2005a)

Prosthetics. The castration complex raised to the level of an art form.

J. G. Ballard (1992: 271)

Destructive fantasies and utopian hopes of a political resurrection, phantasmagoric visions of power, order and discipline, and transgressive wish-images of release, deliverance and transcendence by way of technology, all together appearing from a kind of post-Spenglerian double perspective of utopia and dystopia (cf. Spengler 1998 [1918–1922]; Gangl et al. 2009; in the context of the technological modern, see Rohrkrämer 1999) – that is the affective force field that reverberated around the figure of prosthesis in the Weimar Republic (see, for example, Kienitz 2001: 230–233; Hagemann 2002: 24–25; Möhring 2007: 178–191; Poore 2007: 28–42; Court 2008: 179–181; Fineman 1999; Berz & Price 2003; Horn 2001, 2002); a long time ago, in the world of the modern, a world in which war and technology became interwoven by the logic of instrumental reason (cf. Horkheimer 1967 [1947]; Horkheimer & Adorno 1994 [1944]; Rosen 1995: 131–135), and, as a result, the body begun to be seen in terms of the machine, as a machinic part in the machinery of the economic, political and military systems of society ruled by the reason of technische Intelligenz (see Dietz et al. 1996; cf. McCormick 2002); a world enchanted by the technocratic rationality of engineering, understood as a new kind of cultural force, as a way to social reform (see, for example, Renneberg & Walker 1994: 7–8; Jakobsen et al. 1998: 119–122; Verc 2006: 365–371; Willeke 1996; in terms of “reactionary modernism,” cf. Herf 1984; in the American context, cf., for example, Akin 1977; Schwab 2004).

In contrast, considering the celebration of prosthetics, peculiar to the postmodern, as the ultimate emancipation of the body from the constraints of the organic, of biology in its entirety, and by extension, of nature, the very


Is it “the sex appeal of the inorganic” (Perniola 2004 [2000]) that generates prosthetic desire in the world of the “post,” or is there something more that turns prosthesis into a libidinal object, a theory fetish glorified by post-theory?
4 LOVE YOUR PROSTHESIS AS YOURSELF

4.1 From Thesis to Prosthesis

In fact, what is a “prosthetic body”? It is a prosthetic body – a body that has lost its former integrity, its organic wholeness, and has been rehabilitated by means of prosthetics and concomitant therapy; a body that is fully functional inasmuch as the prosthesis is fully functional, capable to function like the damaged or lost body part (cf. Meier 2004; Gallagher et al. 2008; in terms of the phantom limb, cf. Grosz 1994c: 71–73; for a historical contextualization, see, for example, Panchasi 1995; Herschbach 1997; Ott et al. 2002; Kienitz 2008). In this sense, a prosthesis cannot replace the loss, it can only imitate the original functions of the body, functions that are based on the organic organization of the organs in the structural articulation of the body; an embodied body organization that is acquired by the subject using a prosthesis through a process of cultural learning (see, for example, Serlin 2002; Carroll & Edelstein 2006; Messinger 2008). Conversely, if the prosthesis or its attachment to the body does not function appropriately, the body is not able to perform its organic functions in the same manner as an intact body. In other words, the prosthesis can only mimic or emulate the functions of the body, but it is not and never will become an organic part of the body: the prosthesis follows the logic of technological feasibility, not the logic of organic functionality.

If there is an “essence” of prosthesis, it is mimicry; that is, as close a resemblance of the functions of human organs as possible is the precondition of the functionality of prostheses. Consequently, the problem of the posthuman is not technology, rather, it is the human, and, accordingly, the “post” of the posthuman only begins beyond the human (wherever it might be). This is the predicament of the cyborg: to overcome the constraints of the human by means of the human, the means of technology, that are always already human (there is no non-human technology, if we take the idea of the human seriously) (cf. Boyle 1998; Baillie & Casey 2005; Sternberg & Preiss 2005; Berthoud 2007; Lenk 2007; Allen 2008; Brey 2009; in terms of cybernetics, cf. Wiener 1968 [1950]).

These distinctions, however, have no meaning in the world of post-theory in which prosthesis is celebrated as a magical means to better life, a technological supplement attributed with the ability to enhance the performance capacities of the body (for the difference between prosthesis as a technomorphic metaphor and as an artificial body part in the sense of a medical device, see, for example, Sobchack 1995: 208–210, 2004: 207–215; Berger 2000: 103–109; in terms of the glorification of technology exemplified by Jünger’s “magical realism,” cf. Herf 1984: 70–108).

We may recall, for example, how prosthesis is for Allucquère Stone (1995e: 3–5, 12–15, 1995d) a body extension that enables her to enjoy moving freely in a new world of a technologically empowered limitless self, a mode of subjectivity based on a “play ethic” in the realm of “technosocial games.” This is a world in which, as Haraway (1991f: 249) says, “prosthesis becomes a fundamental cat-
Very your Pros


In the light of the remarks above, it is obvious that prosthesis is a complex notion, more complex than postmodern prosthetic theory gives us to understand; that is, like the cyborg, prosthesis is a liminal notion that shows, by implication, that the very idea of liminality is inscribed in the “post” of the posthuman: the posthuman is a split notion in itself, and, thus, a prosthetic construction.

4.1.1 Theory as Prosthetics: Subverting the Power of the Phallus

“Where does the natural body end and the prosthetic body begin?” (Wilson & Laennec 1997: 1). This question, as fundamental as it ever is, is no longer possible to be answered in the world of the “post” since this question as a question has entirely lost its meaning in the vertigo of theory typical to the paradigm of post-theory, as a result of which there is now only unending supplementation and dissemination that makes all the limits, limitations and borderlines not just instable, but, more fundamentally, impossible: in terms of the “post,” prosthesis is the paragon of a limitless body. That is, for the reason that there is no “natural body” in the world of the “post,” there can be no beginning of the prosthetic body either; in other words, the body is always already a prosthetic body in a world in which the “post” defines the parameters of all being. This is the world of the posthuman; as N. Katherine Hayles (1999: 3) says, “the posthuman view thinks of the body as the original prosthesis we all learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born” (emphasis mine; cf.; Manning 2007: 120–122, 155–158; Miah & Rich 2008: 115–116; Tibon-Cornillot 1979; Berr 1989; Wills 2006; Stiegler 2008 [1996]; from the perspective of the “nanologic,” cf. Milburn 2004: 124–126; in terms of Christian theology, cf. Waters 2006: 42–43). As a result:

As every made object may be thought of as a projection of the human body, there is a sense of the logic of the body producing its own technology: as with language, technology as body, which is in all its electronic avatars a triumph of technology over the body. Here, in the prosthetic movement from the mechan-
ical to the robotic to the immaterial, we enter a shadowy realm in which the body is threatened by its new dimensions. The augmented physical organs of the deficient body launch its image into a sort of cyberspace, where it reproduces mastery over nature with other mystifications in a theater of astronomical scale. That might at some overreaching disjuncture of the speed of light, or unaccountable swerve in the Doppler effect, break into some unimaginable galaxy of non-representation. (Blau 1992: 114)


Towards the Politics of the Trans-Body


There are no definite boundaries to the body. Our skins overlap, undermining strict measures of inside and outside. Our bodies are amalgams, collectors of heterogeneous components (antibodies, germs, bacteria, implants) that undergo continuous reformulations. This reformulation is an asignifying process. Bodies and antibodies interact, sometimes to their advantage, sometimes to their detriment. Conditions of possibility change, and with them new (anti)bodies materialize and dematerialize. We are not in possession of our bodies, though we do have the capacity to creatively express them. We are our bodies, but even “being” our bodies is too ontological. Our bodies are vectors of emergence that generate virtual embodiments in a future anterior we can only reach toward. Our skins are peeling away, leaving new surfaces for experimentation. (Manning 2007: 120; in terms of cyberpunk, cf. Ross 1991a: 152–153; Heuser 2003: 35–36)
Yes, as a biological fact, of course, this is true. But in a world in which technology in the form of the techno-imaginary has taken the place of biology, “the body without boundaries” is a post-theoretical phantasm, a post-utopian wish-image, a libidinal object engendering ever-new desire for theory. This is the world of the Harawayan post-body, the cyborg body as the emblem of the posthuman; in other words, the world of postmodern technoscience in which “prosthesis becomes a fundamental category for understanding our most intimate selves” (Haraway 1991f: 249).

It is in this manner that Smith and Morra’s “prosthetic aesthetic” turns into prosthetic eroticism: prosthesis becomes an imaginary object of prosthetic desire, a mode of desire that is prosthetic in itself: a techno-theoretical transcription of postmodern desire for theory operating by the prosthetic language of the “post,” the language of the supplementation of supplementation in the sense of the postality of postness. In other words, in post-theory, prosthesis is a prosthetic theory object that, in, by and through a post-cybernetic process of effectuating, produces the desire for the pleasure that it in itself produces. The pleasure of desire that is a desire for pleasure is the logic of prosthetic theory in terms of the “post.” Here, prosthesis is both the object and agent of the desire for pleasure that is the pleasure of desire extended, enhanced and augmented by means of the prosthetic imaginary as the imaginary of prosthetics in the discursive constellation of technoscience as a postmodern theory project; that is, in the discursive configuration of prosthetic eroticism, prosthesis is a theory fetish that manifests the desire for prosthetic theory. In other words, in terms of cybernetics: desire as the feedback of pleasure and pleasure as the feedback of desire. This is the circular causal mode of theoretical supplementarity that constitutes the post-cybernetic cybernetics of prosthetic eroticism.

turns in the world of the “post” into linguistic prosthetics, prosthetic writing in which, in the manner of the circular causality of post-theory, “free-floating signifiers” function as prosthetic supplements of one another.

This is an effect of Derridean spectralization in terms of theory: the prosthetic body as a postmodern “ghost,” a phantom body produced by the prosthetic discourse of the “post”; as Derrida (1994 [1993]: 125–126), speaking about prosthetics and the body as Leib, says:

For there is no ghost, there is never any becoming-specter of the spirit without at least an appearance of flesh, in a space of invisible visibility, like the disappearing of an apparition. For there to be ghost, there must be a return to the body, but to a body that is more abstract than ever. The spectrogenic process corresponds therefore to a paradoxical incorporation. Once ideas or thoughts (Gedanke) are detached from their substratum, one engenders some ghost by giving them a body. Not by returning to the living body from which ideas and thoughts have been torn loose, but by incarnating the latter in another artifactual body, a prosthetic body, a ghost of spirit. (ibid.: 126)

An artifactual body as a spectral apparition on the theory scene of the “post” – that is the logic of the cyborg. In prosthetic theory as a prosthetic extension of post-theory (a mode of theory that in itself is prosthetic theory), the cyborg is the most sublime object of desire: the cyborg is the very embodiment of prosthetics in its spectacular spectrality: a dream object embodying prosthetic phantoms as phantom prostheses.

In this manner, the prosthetic logic in the theory constellation of the “post” implies the logic of subversion, the logic of “de,” “dis” and “trans,” as an effort to reinstate the Heideggerian critique of technology (see Heidegger 2000b [1953]) in a postmodern form, that is, not in negative terms, but reversed – turned upside down – into a positivity of the technological in the mode of being of the posthuman (cf., for example, Halberstam & Livingston 1995; Graham 2002; Kroker 2004b; in terms of cyberpunk, cf. Sterling 1986: ix; McCarron 1995: 261–262; in the context of feminist science fiction, cf. Haran 2006: 247–252).

Thus, what is now at issue is no longer the regime of the phallus, the order of the One; instead, the order of the cyborg, the order of the many, the matrix of the multiple, the post-individual politics of disintegrated multitude in which each particle is a heterogeneous post-subject manifesting the principle of the polymorphous perverse in a radically postmodern manner (cf. Freud 1981c [1905]: 91, 136, 1986d [1915–1917]: 213; Boone 1998: 7–19; Mansfield 2000: 196–112; de Berg 2003: 10–15). This is the logic of “cyborg politics” (Haraway 1985: 95), the “logic of cyborg monsters” (ibid.: 97; Haraway 1992c; cf. Lykke & Braidotti 1996b: 246–249; with regard to “the hopeful cyborg” from a transhumanist perspective, cf. Garner 2011), the logic of an ultimate liberation from the constraints of the human, the prison-house of the liberal humanist subject, the world of the possessive individual (see Hayles 1999: 3–7, 85–92, 100–112; Kember 2003: 143–144; Haney 2006: 58–59; Vint 2007: 11–14; Clarke 2008: 3–4). No longer is there either/or, but, instead: both-and, but not necessarily in this

What was once the “linguistic turn” in the discourse history of the postmodern is now a turn to a *prosthetic language*, a mode of language that hybridizes the subject and writing into a prosthetic inscription of the self, a “self” that enjoys the freedom of self-deconstruction, the pleasure of disintegration as prosthetic multiplication (cf., for example, Zylinska 2002b; Smith 2005). This is a world in which subjectivity has turned into prosthetic agency, and post-identitarian alterity has taken the place of identity. In this constellation, writing has a pre-eminent significance; that is, a mode of writing based on *significance* in the Kristeva sense as a writerly process engendering a surplus of signification in, through and by a self-multiplying proliferation of signifiers (see Kristeva 1984 [1974]: 16–26, 99–105, 145–147, 1998a [1973]: 134, 173–174, 1980 [1969]; cf. Heath 1977: 10; Roudiez 1980: 18; Polan 1986: 59; Beardsworth 2004: 40–48; Lechte 2004), signifiers as a libidinal function of language empowering the writerly subject as the subject of writing (in both senses of the term): *what you write is what you get*, this is the post-existential principle of prosthetic writing. As David Wills (1995: 18) says, “[p]rosthesi[s] is the writing of my self as a limit to writing”; that is, a “writing of my relation to a prosthesis” (cf. Hayles 1999: 126–127). In other words, testing the limits, writing at the limits of the body, the prosthetic subject lives in a post-liminal universe of prosthetic writing that constitutes it as a writerly-prosthetic subject as a prosthetic-writerly self that lives and is enlivened by and through its prostheses and prosthetic extensions.

This is the supreme form the ego-politics of the subject after the “death of the subject” (see, for example, Jameson 1991: 305–306; Rose 1991: 71–72; Rosenau 1992: 42–61; Terada 2001), the politics of the post-subject as an enactment of the self without the “I.” Indeed, the self-constituting “I” as the apotheosis of the liberal humanist subject has given way to the mode of being in terms of “I am otherwise” (Blazer 2007). We have entered here a world in which the “post” and the “cyber” function as the deconstructive meta-markers, linguistic prostheses that have the ability to be deployed as resignifying attributes, articulating the “subversive” play of language by means of “de,” “dis” and “trans,” the most liberating shifters in the theory game of “free-floating signifiers” enabling a continuous exceeding the limits. In this world, what is prosthetic in terms of language is, at the same time, prosthetic in terms of the subject, and vice versa. Thus, it is not only, as Theresa M. Senft (1996a: 22) says, that “in contemporary feminism, identity is most usefully viewed as prosthetic”; what is more important is that in a world in which everything comes into being through a “performative language that has material effects” (ibid.) – a language, as Senft, refer-
ring to the idea of Butler, specifies, works by “reiterative citational practices” (ibid.: 15) – the only way of making things around us intelligible is a “cyborg politics of l’écriture digital” (ibid.: 13).

In this context, intelligibility takes on an ontological significance implying that the cyborg, as a prosthetic being, is an effect of the onto-theology of the digital that has the ability to occasion a new world to emerge from the void of nothingness by the force of language, language alone (cf. Heidegger 1977 [1953]: 9–10, 2000b [1953]: 11–12, 2006a [1957]; Peacocke 1998).

Thus, “digital writing” is more than just “writing the degree zero” (see Barthes 1967 [1953]); what is at issue now is writing in terms of ones and zeros (cf. Plant 1997b), writerly writing as an unending play of “free-floating signifiers” enabling an infinite ambiguity of signification that turns the subject into a texture of textuality in the mode of the “digital.” This is a mode of writing that effects what it says, a linguistic activity that is constantly supplemented in, by and through its own terms, being therefore, in a Derridean manner, always already “out of phase with itself” (Critchley 1999: 155). This is a language of liberation, a language that makes it possible to turn the world into one’s own prosthetic playground (cf. Stone 1995d, 1995e), a realm of a theoretical ego-politics in which the highest “high” is the linguistic delirium of the “post.” But, in fact, even in its unending multi-dimensionality, the language of the “post” is quite a simple language, like a new kind of basics; a language in comparison to which the Jün-gerian language of the Arbeiter as the language of “organic constructions,” in its pathos of the modern, is as complicated as it is one-dimensional (see Jünger 1982 [1932]; cf. Rohkrämer 1999: 301–337; Bühler 2004: 255–259, 274–292; Morat 2007: 80–104; Hermand 1980; Wünsch 2004; with regard to Heidegger, cf. Kittler 2008; for a historical contextualization, cf. Hardtwig 2003, 2007).

Both languages, however, are similar in one respect: they belong to the same category, the category of linguistic figuration that works as prosthetic writing. Writerly supplements effected by free-wheeling dissemination are signifying prostheses that drive the movement of the text ahead and keep it going. Hence, Jünger’s Arbeiter as Gestalt has the same textual function as Haraway’s cyborg: both are prosthetic devices, mythopoetic metaphors in the form of meta-signifiers, that codify and organize signifiers into signifying chains that inform the textuality of the text as a means of radical transformation of the world in terms of technology (from a theological perspective, cf. Roberts 2002: 272–274, 282–288). While Jünger operates with linguistic figures reflecting the techno-political radicalism of the Weimar Republic, Haraway plays with terms typical of the American techno-imaginary of the 1980s that gave rise to a specific postmodern discursive formation in which science fiction, radical feminism and the technoscientific phantasmagoria of the Reagan era intermingled with one another (see Haraway 1991g [1988]: 183–188; Wolmark 1999b: 3–5; Couldry 2000: 31–34; Schneider 2005: 59–63; Bell 2007: 95–109; McNeil 2007: 21–22; Åsberg 2009: 33–35; Munnik 2001 [1999]; for a contextualization in terms of
the military-industrial complex, see Leslie 1993; Robin 2001; Giroux 2007; Der Derian 2009b [2001]).


Prosthetic Pleasures, or: Strap On, Strap Off

As Barbara Browning (1996: 37) has demonstrated, in the world of the “cyber,” what is at issue are “new ways of thinking about identity” (cf., for example, Phelan 1989; Butler 1990; Nicholson & Seidman 1995; Stone 1995b; Turkle 1995, 1996; Bromberg 1996; Foucault 1996k [1982/1984]; Reid 1996 [1994]; Holmes 1997b; Jones 1997; Donath 2000; Nakamura 2002; Hekman 2004; Bernstein & Schaffner 2005; Negrin 2006; Wolfreys 2008; Waggoner 2009). But, as we have seen so far, in terms of the “post” which determine the terms of the “cyber,” thinking as such is no longer possible: in the world of the “post,” thinking is always – always already – a matter of the linguistic of language in the mode writerly writing, a matter of a specific language that constitutes the condition of possibility of thinking in a peculiar way, in the manner of radical linguisticity. Accordingly, thinking in “new ways” about “identity” Browning operates with an appropriate language, the language of an advanced dialectics; a language that is far more capable of exceeding the constraints of Hegelian dialectics than any form of conventional philosophical language (cf. Hegel 1986c [1807], 1986e [1812–1816], 1986f [1812–1816]), a language in which prosthesis has a significant position:

First, some simple definitions: a thesis is something you put forth, an idea which you thrust, into the world. An antithesis is what is offered in opposition to a prior thesis. A synthesis is the bringing together of thesis and antithesis. A hypothesis is a proposal which comes under a more grounded premise of reality – an alternative, imagined one which, if proven valid, might slip into our notion of reality, like a hypodermic needle slips under the skin. A prosthesis is something put forth (or on) in addition to the body, or perhaps more properly the self. (Browning 1996: 37.; cf. Gray 2001: 158; Gray & Mentor 1995b: 456)

As we can see, the language of advanced dialectics applied by Browning is an idiosyncratic application of prosthetic language constitutive of all that is “cyber” in terms of the “post.” This is a language of prosthetics in which all that initially – implicitly, per se – has a “phallic quality” becomes, according to Browning, subverted, not by a Hegelian Aufhebung or “sublation” (see Hegel 1986c [1807]: 150, 1986e [1812–1816]: 113–115; cf. Inwood 1992: 283–284), but by a linguistic manoeuvre that mobilizes signifiers into an order of disorder, an order of signifying disarray that produces ideas free from prejudices: the derangement of signifiers is the supreme method to produce theory in the world of
the “post.” This new order is not possible by way of Hegelian dialectics bound to preset premises; instead, this is a radicalization of the dialectics of liberation in a linguistic mode in which “my body” does no longer “determine my identity” (Senft 1996a: 23). “Rather, I see my sex as a working hypothesis, and I manipulate my body in the world, like my prosthesis” (Browning 1996: 38; cf. Hayles 1999: 3; Paterson 2007: 103–126; Stone 1995d; Wright 2009; for critical comments, see Betcher 2001: 36–50; Sobchack 2004: 207–215). This is the idea of prosthetic writing enabling ever-new “body options” (Angerer 1999a) in the multioptional constellation of the “cyber.”

What is at issue here is writerly radicalism as a mode of the ego-politics of the “post,” the most radical form of which, of course, is the language of the “cyber,” if it is applied in a manner that allows for an appropriate application of dialectics. As soon as we adopt this language – or, rather, immerse in its linguistic figuration – playing with the “free-floating signifiers” of the “post” in a correct way, we will experience the decisive moment of revelation making us realize the revolutionary fact that “[p]rostheses are artificial devices to replace missing parts of a body” (Senft 1996a: 22), a fact that is not possible to be understood without the logic of the “post.”

Missing parts of a body? This, in turn, is possible to be understood only if we see that Browning’s prosthetic language is a highly intelligent application of cyborg writing, writing the cyborg in the Harawayan manner (see Haraway 1985: 71–72, 1997: 121–135; Graham 2002: 200–220; Mortensen 2002: 111–119; Olson 1995; Cortiel 1999). Then we can see that missing body parts are the parts we are missing, the objects of our desire; that is, prosthetic amplifications and extensions of the body, amplifications and extensions that we need to be able to have a body which is not one, a body that, by the force of its desire, is a body that is many, instead of one. Encountering this kind of prosthetic desire, it can be, as Senft (1996a: 22) says, that first the “phrase ‘phantom limb’ comes to mind,” but then, if we are really ready to open our minds, we can clearly see that prosthetics is about “metonymic replacements” implying “hook for a hand, chip for a brain, strap-on for a penis” (ibid.). In other words, sex, gender and sexual identity of the cyborg subject are prosthetic constructions in which not only prosthetic devices and body parts, but, more fundamentally, body parts in themselves are interchangeable with one another (cf., for example, Preciado 1999: 67–89; Parisi 2004: 1–8); an entirely new configuration of the body in which, as Haraway (1991a: 178) says, “machines can be prosthetic devices, intimate components, friendly selves” (cf., for example, Ben-Tov 1995: 146–147; Murphie & Potts 2003: 118–120; Strathern 2004 [1991]: 36–38).

After this decisive moment, the moment of cyborgian revelation, it is no longer difficult to subvert the order of “phallogocentrism,” the terror regime of phallic language (in terms of “post-phallic culture,” cf. Barr 2000). Most importantly, it is no longer difficult to be free by becoming free. This is the great promise of the “cyber,” the promise of becoming a cyborg, not only once, but all the time.
It is in this way that in the world of prosthetics in which “personal technologies have become political strategies,” it is precisely “cybernetics,” a “communication technology,” that “determines what constitutes a legitimate body” not only in Western high-tech societies, but “all over the world” (Senft 1996a: 12; emphasis mine), from the North Cape to Cape Horn, from New York to Vladivostok. This is the “logic of the prosthesis,” a logic that produces different bodies depending on “which part of your identity you regard as prosthetic” (ibid.: 23; cf. Blau 1992: 107–115; Sobchack 2004: 205–225; Gray & Mentor 1995a; Lury 1998; Jain 1999).

In this configuration, identity is no longer about being identical with oneself, a subject having a stable self; instead, identity is about a liminal state in its radical post-liminality in which everything is always – always already – in a process of becoming, a process of a continuous transgression. Thus:

In the logic of the prosthesis, a transsexual is a cyborg, because she changes from one sex to another. A transgendered woman, on the other hand lives a prosthetic sexuality – she points to the fact that all gender is a strap on that you can’t strap off. (Senft 1996a: 23)

This is an entirely new kind of body politics: a “prosthetic politicization” (Browning 1998: 29–34) of all that is corporeal is the body politics of the cyborg. No longer are there the shackles of the organic, instead, the absolute freedom of the prosthetic, the freedom of the prosthetic self, is the freedom of the designer ego as the most radical form of prosthetic politics in the constellation of postmodern body politics (cf. Brahm & Driscoll 1995; from the standpoint of “prosthetic aesthetics,” cf. Cavell 2003: 69–90; Smith & Morra 2002b; in the context of Futurism and Surrealism, cf. Foster 2004: 109–192; in Derridean terms, cf. Wills 2008).

This is the cyborg subject as the prosthetic subject in its most dialectic form, a radically new form of “identity”: a mode of being of the posthuman as what Zoë Sofoulis (1995) calls a “para-ego,” the ultimate incarnation of the “decentered subject” inaugurated by the postmodern (cf. Wilson 2002: 646–647). What, at the dawn of the postmodern, was theory is now lived reality, the reality of a technological transmutation of all living enabled by technoscience, the very science of the “post” (cf. Holmes 1997a: 2–3; Melzer 2006: 22–25; Sassower 1995; Ihde & Selinger 2003; Davis 2006).

This is the world of the “cyber,” a world in which “human beings become prosthetic devices for machines” (Boon 1996: 162). In this world, what was once human sexuality is, by necessity, defined anew in terms of the machinic: it is no longer a question of the abilities and potentialities of the human body, an organic body in its organicity; but, instead, at issue are now the “sexual preferences of machines themselves” (ibid.) that determine what the coordinates of desires and pleasures are in their singular multiplicity and multiplied singularity, as an unending proliferation of heterogeneities enabled by the posting of the “posts” in their postified postness in the matrix of radical postality. As “machines
find different ways to develop human libido,” all that is sexual migrates from the realm of warm bodies to “the colder regime of machines” (ibid.: 171) in which “the human being or human sexuality is not necessarily the privileged partner of choice in machinic interaction with the world” (ibid.: 174); instead, the machine is now the very entity, the technological agency, that dictates the parameters of “the sexual” as the subversion of sex and sexuality in their inherited forms (cf., for example, Dery 1996: 87–95, 183–225; Kurzweil 1999: 184–188; Jensen & Draffan 2004: 65–67; Forster 2005: 472–473; Botting 1999).

If the human being is no longer a “privileged” partner, it is clear that the machine is now the sexual subject, and what was once the human has been replaced by anonymous human-machine hybrids as the sexual objects of the machine, the machine as the desiring subject of prosthetic sexuality desiring for the posthuman, the posthuman as an object-subject of itself, a monadic ego as a machinic agency of a self without identity (cf. Halberstam & Livingston 1995: 8–14; Hayles 1999: 2–6, 140–149, 279–291; Botting 2000: 112–115; Jacobi 2003: 91–107; Kember 2003: 143–144; Murphie & Potts 2003: 196–200; Sofoulis 2003: 87–88, 93–94; Clarke 2008: 3–8, 16–23; Halberstam 1998a [1991]; Harvey 2006; in the context of Dada, cf. Gaughan 2006; Jones 1998). It is for this reason that the sexual is no longer a matter of the immediate, that is, unmediated, experience of the flesh implying desires and pleasures of carnal bodies intermingled in an act of intimate exchanges; instead, what is now sexual are, as Boon (1996: 172) emphasizes, “acts of communication,” and, accordingly, “[i]t is these acts, of communication, performed by a combination of human being and machine, which become the sexual acts.” This is the jouissance of the “machinic libido” (ibid.; cf. Žižek 1997b: 180; Dixon 2007: 214; in terms of “the influencing machine,” cf. Tausk 1992 [1919]; Armstrong 1998: 101–105; with regard to a “mechanical boy,” cf. Bettelheim 2001 [1959]; in the context of the belle époque, cf. Mikkonen 2001). This is the ultimate seduction of cybersex, the consummation of prosthetic pleasure in terms of the “cyber.”

However, in the world of the “post,” a world in which the post-body is the emergent paradigm of all the corporeal, it is not only in terms of the sexual that prosthetics has defined the body anew: the prosthetic reconstruction of the body has become the very existential condition of the subject in contemporary technoculture in which technoscience determines the parameters of all being. Both being and having a body (see Turner 1997 [1984]: 73–82; Magdalinski 2009: 33–36; Williams & Bendelow 1998; Crossley 2001, 2006; Shilling 2005; for the difference between Körper and Leib, see, for example, Hauser-Schäublin 2001: 97–99, 107–109, 133–137; Caysa 2003: 36–57; Thomas 1996; Schmidt 2009; in terms of Nietzschean Rausch, see Nietzsche 1889: 110–112, 1872a [1872]: 22–26; Caysa 2000: 43–45, 48–55, 55–57) is now the most challenging, the most complicated existential challenge of the subject in general, the challenge of a radical choice: the selection of one’s “own” body as a “body option” (cf. Mellor & Shilling 1997: 49–50; Jones & Sofia 2002: 58–59; Angerer 1999a); that is, to
avoid falling into a situation in which “my” body is a no-body, it is necessary to become a body that is a post-body, to elevate “my” subjectivity and agency from the level of nothingness to the very realm of being “a being” in terms of the “post,” a being in the mode of the “cyber.” But, what is more fundamental, at issue is no longer being as such; instead, it is now about performing the body as the ego-vehicle of the post-subject (cf. Van Bauwel 2004: 22–24; Hoberman 1994; Johnston 2001a; McKenzie 2001; Pronger 2002). Thus, in the “postmodern condition” (Lyotard 1984 [1979]), radicalized by the prosthetic reconstitution of the subject, what is the general precondition of one’s “own” existence is an optimization of one’s corporeal performance by means of prosthetics.

In the last instance, the issue is quite simple: without the prosthetic empowerment of the body, the body is no body at all; as Lyotard already saw in the late 1970s, the imperative of the “post,” emerging from the very conception of the body under the scientific-technological regime of the postmodern, is the optimization of performance:

Technical devices originated as prosthetic aids for the human organs or as physiological systems whose function it is to receive data or condition the context. They follow a principle, and it is the principle of optimal performance: maximizing output (the information or modifications obtained) and minimizing input (the energy expended in the process). Technology is therefore a game pertaining not to the true, the just, or the beautiful, etc., but to efficiency: a technical “move” is “good” when it does better and/or expends less energy than another. (ibid.: 44; emphasis mine; in the context of Nietzsche’s “last man” and modernity, cf. Evans 1993: 29–32)

This is the politics of survival in the prosthetic economy of the postmodern: whether you have an optimized body or you are nobody at all. In other words, we are now living in a world in which, as Haraway (1991a: 245), commenting Jameson’s conception of the postmodern, concluded in the mid-1980s, “only a cyborg would have a chance.”

Prosthesis, whatever it is, calibrated according to the imperative of body optimization, is the key to a world in which the body has become, in the true sense of the term, the “original prosthesis” (Hayles 1999: 3; emphasis mine) of the post-subject, the techno-body as a prosthetic agency that produces the posthuman subject, a subject that is not one, but many, depending all the time on

43 For Lyotard, prosthesis exemplifies the transformation of knowledge in what he calls the “postmodern condition.” The efficiency of science has become inextricably converged with technology and, as a result of this, with the regeneration of global capital. Without technology, science cannot fulfill its defining mission any more: to experimentally prove its theories (in terms of calculative reason or Vorausberechenbarkeit constitutive of modern science, cf. Heidegger 1989b [1962]: 17, 1994a [1949]: 43, 2000b [1953]: 22, 2006a [1955–1957]: 155, 2006b [1959–1969]: 23, 175–177; Meyer 1961: 165–166; Wolf 2005: 246–248). Human sense organs are deceptive, and what is even more important, their ability to discriminate with regard to the object under examination is extremely limited from the very beginning. It is precisely for this reason that the advantage of technology is in its capability to exceed the limitations of human capacities. This human-prosthetic interdependence is the idea of technoscience (cf., for example, Aronowitz et al. 1996; Ihde & Selinger 2003; Sassower 2004; Asdal et al. 2007). At the same time, it is the moment at which science turns into a force of production, that is, an essential part in the circulation of capital. In this way, the human body, science, technology and capital intertwine in a prosthetic system, an scientific-technological assemblage that transforms the human being into a posthuman techno-organism.
the interface at hand, whether technological, post-corporeal, or a hybrid of both (cf. Latham 2002b: 125–128; Sobchack 2004: 205–225; Vint 2007: 175–78); “at hand” in the specific Heideggerian sense of zuhanden, “ready-to-hand,” in its practical Zuhandenheit, “readiness-to-hand,” in contrast to vorhanden, “present-at-hand,” in its abstract Vorhandenheit, “presence-at-hand,” in its pure existentia or sheer “there-is-ness” (see Heidegger 1977d [1927]: 26, 48, 67–82, 98–121, 132–138; cf., for example, Blattner 2006: 52–56). In a miraculous manner, vivified by the force of the “cyber,” prosthesis, in this context, has overcome its indeterminate potentiality as an in-between between “presence-at-hand” and “ready-to-hand” and turned from an unspecified object into an empowering supplement of the subject. This is the genesis of the prosthetic body in the world of the “post,” a body through and by which “I” can become what “I am” – provided, of course, that the “I” which “I am” is able to turn “my” desire into will: the will of becoming a post-subject in terms of prosthetics.

No longer, as in the Sartrean world in which the subject as an “I” was free to choose itself (see Sartre 1972 [1943]: 433–556), is at issue the choice of identity; instead, we are now free to choose “our” bodies as the condition of possibility of “our” agency, not only once, but all the time anew: our bodies are the body options of ourselves as the selves of our body options (cf. Angerer 1999a). This is the post-body as a trans-body, a body effected by the logic of “de,” “dis” and “trans,” a body that is transitional, transformative and transgressive (cf. Baudrillard 1993c [1990]: 14–35, 1990c [1983]) – that, in its prosthetic mode of being, is definitively more than the body in the Bataillean world (cf. Bataille 1986 [1957]; Hussey 2006): a “body” that is capable of exceeding the limits time and time again.

Indeed, this is a world in which, in the midst of unending body options, as Steve Fuller (2007: 204), referring to Haraway, says, “being human is no longer an option.”

Resignification: Transferring Terms

What is important, however, is that the trans-body is a theory-body, a post-body as an embodiment of theory, an incarnation of “the theoretical” constitutive of post-theory, a body construction that cannot exist without theory. This is the posthuman body in its most consequent form, a “body” that is a product of a theory that is able to transgress the constraints of theory and invade the world of corporeality; a mode of theory that effects not only what it describes, but, more fundamentally, it effects what it prescribes (cf. Butler 1990: 111–149; McQuillan et al. 1999; Butler et al. 2000; Callus & Herbrechter 2004c). It is in this manner that theory is the sine qua non of the cyborg, the very substance of life in being a cyborg. That is, to become a cyborg by writing the cyborg in the mode of cyborg writing is to become a theory-body in one’s “own” body that is the effect of one’s “own” theory writing in terms of the cyborg, the terms enabled by the “cyber,” the most productive signifier in the world of the “post”: the “cyber” as the very signifier of techno-genesis.
Thus, in post-theory, prosthesis is no longer a medico-technological substitution for a lost or deficient body part – although, of course, it is that in the Lacanian sense of lack (see Lacan 1988b [1978/1954–1955]: 192, 223–224, 323; cf. Horrocks 1997: 68–85; Homer 2005: 21–31, 51–57, 71–73, 87–88); instead, prosthesis is now a theoretical supplement in the Derridean sense (see Derrida 1997 [1967]: 141–164; cf. Norris 1987: 80–86, 97–121; Royle 2003a: 47–60) engendering prosthetic theory as the precondition of prosthetic corporeality, a supplement that in its radical supplementarity is able to transgress the borderline between “the theoretical” and “the material” (cf. Wills 1995; Smith & Morra 2002a, 2006a). This is a mode of theory in which prosthesis functions as an object of theoretical projections generating, in turn, desire for theory (cf. Butler 1999b [1987]: 18–26), desire in its post-Hegelian form of motivity and motility: desire as the primus motor of the world under the rule of technoscience (cf. Hegel 1986d [1837]: 11–105, 1986c [1807]). A desire for theory enabled by the “post” in its radical postality based on the logic of the postness of the postmodern – that is the idea of the cyborg as a supplementary body, a body for which each substitution is a supplement, and each substitution a supplementation, in an unending movement of supplementarity (cf., for example, Clark 2000: 246–247, 252–253; Mackenzie 2002: 5–10; Shaviro 2003: 111–113; Nayar 2004: 226–232; Manning 2007: xxii–xxiii, 117–121, 128–131, 154–158). This is the movement of the modern in its transition to the postmodern.

Through this transition, as Georg P. Landow (1992: 170) points out, the idea of prosthesis turns into a metaphor of all that is technological.

Transferring the term prosthesis from the field of rehabilitation (itself an intriguing term) gathers a fascinating, appalling congeries of emotion and need that accurately conveys the attitudes contemporary academics and intellectuals in the field of humanities hold towards technology. (ibid.; cf. Sobchack 2006: 19–27)

This is the idea of prosthetic theory as the theoretical prosthetics of post-theory in terms of prosthetic corporeality (in comparison to the idea of corporeality in terms of body parts, see Benthien & Wulf 2001; Forth & Crozier 2005).

As Smith and Morra (2002a: 5) say, “[i]n considering the bonds between modernity, technology and the body, there is no better place from which to begin than from the figure of prosthesis” (emphasis mine). In this sense, if all that is modern is the condition of possibility of the postmodern (cf. Lyotard 1984 [1979]), prosthesis is the prosthetic copula between the technoscientific reason of the postmodern and the scientific-technological rationality of the modern; that is, the prosthetic body is the paragon of the posthuman, the mode of being of the cyborg (cf., for example, Brande 1996: 80–85; Hayles 1996a: 35–37; van der Ploeg 2001: 123–136; Waters 2006: 42–45, 53–79; Yi 2010: 3–14, 121–144; Clark 2004; Toffoletti 2007; Vint 2007; Gordijn & Chadwick 2008), in other words, a being “beyond the body proper” (Lock & Farquhar 2007). Referring to the increasing theoretical interest over the last decade around the topic of prosthetics in the context of both the humanities and social sciences, Smith and Morra (2002a: 5) introduced the term “prosthetic aesthetic” in order to “extend
our thinking on the relationship between aesthetics, the body, and technology as an a priori prosthetic one” (ibid.; emphasis mine).44 According to Smith and Morra, what is at issue here is prosthesis as a “historical, philosophical, technological, political, ethical, and medical concern” (ibid.); a concern that derives from the Eigenlogik of technology: as soon as something becomes feasible, a teleology determining it becomes defined retrospectively, which, then, retroactively legitimates the need and the deployment of the technology.

It is in this manner that technology is the very condition of possibility of all being in the contemporary world in which technoscientific rationality is the constitutive reason of the entire existence of humankind in its transformation to posthuman.

Yet, what is important to notice is that in spite of its postmodern façade, its postmodern appearance, the world under the scientific-technological imperative of technoscience is deep down modern, modern in the sense of Leistungsprinzip, the performance principle of neo-Fordism as the disciplinary regime of productive consumption (see Marcuse 1979 [1955], 1987 [1955]; cf. McKenzie 2001; in terms of reason and sexuality, cf. West 2005: 168–169). This is the logos, the dynamics and the secular-messianic pathos of the modern: there is nothing that is impossible in the light of prosthetic reason, the reason of general substitutability of all being that has its origin in the scientific-technological reason of the modern that is now the reason of the postmodern. The logic of substitutarity (see Derrida 1997 [1967]: 140–164), indeed, is the logic of technoculture, a cultural formation in which technology is the very raison d’être of all being.

All this notwithstanding, the question arises: what is “the aesthetic” in “the prosthetic aesthetic” that enables “the prosthetic” in “the prosthetic aesthetic,” that is, “the prosthetic” as a specific determinant of “the aesthetic”? Is it, in fact, a new mode of eroticism, an eroticism of prosthetics – an eroticism as a desire for supplementation, a desire for the supplementary, in terms of the technoscientific reason of the modern that is now the reason of the postmodern. The logic of substitutarity (see Derrida 1997 [1967]: 140–164), indeed, is the logic of technoculture, a cultural formation in which technology is the very raison d’être of all being.

As Smith and Morra (2002a: 5) say, the topic of the “prosthetic aesthetic” has been elaborated on in as diverse fields as the “discourses of cultural history, critical theory, philosophy, literature, cyberculture, and the visual arts.” Their own focus is especially on the “confluence of the body, technology and prosthetics in an aesthetic and visual forum” entailing that the idea of prosthesis is to be approached from a variety of viewpoints, such as “philosophy, psychoanalysis, media studies, history, feminist theory, art history, critical theory, and medicine as a means of unpacking certain types of consequences borne of prosthesis” (ibid.).

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projection that is both effected by and, in turn, itself effects supplementation, the unending movement of supplements (cf. Derrida 1997: 141–164); a supplementation that is the very logic of prosthetics: prosthetic desire as a desire for prosthetics (cf., for example, Stone 1995e; Wills 1995; Brassett 1997; Senft 1996a; Marsh 2000; Clarke 2002; Drucker 2002; Gargett 2002; Smith & Morra 2002b, 2006b; Nguyen 2003).

4.1.2 The Body as a Political Project: An “Anthropological Exodus”

Of course, it is possible to rewrite the history of the human body in terms of prosthetics, in the manner of prosthetic writing (cf., for example, Wills 1995: 9–14, 29–33, 82–83; Hayles 1999: 126; Brahm & Driscoll 1995; Jain 1999; Smith & Morra 2002b, 2006b; with regard to “writing on the body,” cf. Conboy et al. 1997; for critical views in terms of disability theory, cf. Reeve 2012: 95–106; Mitchell & Snyder 2000; Siebers 2006, 2008; Davidson 2008; for non-metaphorical, medical and rehabilitation prosthetics, cf. Ott et al. 2002; Schnalke 2004; Serlin 2004). In the light of the eroticism of prosthetics, however, one can see that prosthetic theory follows the logic of post-theory, the logic of supplementation, the logic of “auto-affection” (Derrida 1997: 165–167, 187) effected by the “free-floating signifiers” of the “post”: the prosthetic signifiers of post-theory. What is at issue here is a mode of eroticism engendered by the desire for theory (cf. Barthes 1989 [1972]: 53–55; Ungar 1983; in Hegelian terms, cf. Butler 1999b [1987]), a desire for being which one is not, a being which is not one. In this respect, it is apparent that prosthesis, as Smith and Morra (2002a: 5) say, is a figure, a textual supplementation, and, as such, a theoretical prosthesis bringing about “prosthetic pleasure” (Sobchack 1995: 207), the pleasure of being theoretically (“the theoretical,” of course, understood non-ontologically, non-intentionally and non-representationally) what one is not, that is, the “Other” in the order of the “Third.”

In other words, what we have here is prosthetic writing as a specific subgenre of post-theoretical écriture that I call prosthetic phantomatics, a mode of writerly writing that operates by way of prosthetic interpolation effecting an epistemologically and ontologically redefined body, a technoscientific post-body as a techno-imaginary embodiment of prosthetics.

Here, it becomes apparent how odd, in fact, it is, as Cynthia Haynes (1998: 79) says, that “[w]hen the word prosthesis is casually tossed into a conversation, you begin to notice a discomfort in the air, sometimes leading to dead silence.”

How Many Are Few If They Are Not Too Many?

A discomfort ensuing from prosthetics – why? “The artificial limb is an obscene and repulsive object in our culture” (ibid.; emphasis mine). Is it that, still today, in postmodern culture in which, according to prosthetic theory, prosthetics is the very condition of possibility of being, both in terms of language and technology? Why, then, a “discomfort”? It is something that, in words of Haynes, “sig-

Precisely all this – the obscene, the repulsive and the feeling of discomfort – is now over in the world of a prosthetic politicization, a world in which we have become prosthetic devices for machines (cf. McLuhan 1964: 56; Haraway 1991a: 178). But not only that, we are now approaching a definite transubstantiation of all the corporeal, a postmodern transubstantiation that takes place in the virtual reality of language constitutive of post-theory. Before our very eyes, a thoroughly new body is materializing, as Haynes (1998: 80), referring to Haraway, says, a “transgenic body,” a “body that is genetically engineered so that organic discourse and prosthetic rhetorics share a circulatory system”; this is a “body in which writing, loss, and technology exchange bodily fluids in the disciplinary field of composition” (ibid.; emphasis mine); that is, a “body of a prosthetic field whose members function like prostheses replacing absent (lost) literacies” (ibid.). In other words, in the linguistic configuration of the “post” in which “free-floating signifiers” form ever-changing kaleidoscopic figurations, prosthetic body design is an enticing and alluring theory object, a seductive obsession of post-theorists dreaming about body enhancement and augmentation, extensions and amplifications of organs and their capabilities. All this is typical of prosthetic discourse that plays with the figure of the posthuman as the transition to a new world under the sign of techno-transcendence (cf. Ben-Tov 1995: 145–149; Graham 2002: 17; Dinello 2005: 117; in terms of the transubstantiation of the flesh into “digital bodies,” cf. Briggs 2006: 157–158).

That is, in the contemporary world, which, as Graham Ward (2003: 129) states in theological terms, is “re-enchanted” in the Weberian sense, “technology has become sexy, seductive and the bearer of messianic possibilities.” Thus, in technoculture in which we are always and everywhere surrounded by and interact with ever-new technologies, there is now even a “desire to get them speak with each other and create integrated, intelligent environments” (ibid.). In this constellation:

The immersive experiences of an aestheticized life are made possible and maintained by advanced technology. If anything is prosthetic today, it is the human body itself. Hence, talk about “digital living” becomes heady with the possibilities for “techno-transcendence” and the language of light offers undreamt of freedoms. (ibid.; cf. Hayles 1999: 3, 115–128)

Illuminated by this "language of light" we can see that what is now at issue is not so much the heteroglossia of the “Other,” a plurality of selves between and within subjects (cf. Schrag 1992: 83–85; Shapiro 1992: 84–85; Rose 1993: 133–136; for the origin of the idea of “heteroglossia,” see Bakhtin 1981 [1934–1935]; in terms of “postmodern animal,” cf. Baker 2000: 99–102; from a critical perspective, cf. Kumar 1995: 131–132), but, rather, the heterology of the “Third” (in Simme-

This is the point at which we see how the Hegelian dialectics of thesis, antithesis and synthesis suddenly attains a new level through a qualitative leap, the level of prosthetics, and results in a new paradigm of being defined by the post-Hegelian dialectics of “thesis, antithesis, synthesis, prosthesis, and again” (Gray 2001: 12, 2005: 116, 135–136, 156; Gray et al. 1995a: 13; emphasis mine; cf. Hegel 1986e [1812–1816], 1986f [1812–1816]; Gunkel 2007: 27).

It is in this manner that the figure of prosthesis – with all its epistemo-ontological and theoretical dimensions – has opened up a new discursive realm, the order of the “Third,” a post-Hegelian order in which, as Haraway (1991a: 177) says, “One is too few, but two are too many,” or, “One is too few, and two is only one possibility” (ibid.: 180). This is the order of the body which is not one (cf. Irigaray 1985 [1977]), a body redefined in terms of the “cyber” in the theory matrix of the “post.” Before entering this order we have to make up our minds as to whether we see prosthetics in terms of, as Haynes (1998: 83) defines our options, the “vivogenic” or the “pathogenic,” that is, whether we seek to “vivify, nurture, create, regenerate, and empower” our bodies, or simply reject prostheses as “threats to the body,” as “threats to a well-defined self” (ibid.). What is this decision all about? It is no more nor less than the question concerning a “Final Amputation” (ibid.: 82, 87) of ourselves understood either “as a loss or as a redefinition of self” (ibid.: 87). That is, at issue is whether we fear that “technology will eliminate the self” (ibid.; cf. McLuhan 1964: 43–58; Genosko 1999: 97; Cavell 2003: 80–87; Marchessault 2005a: 182, 191, 212), or we see it as a chance, a final one, of a resurrection of ourselves: a resurrection as a cybernetic transcendence in the mode of the cyborg.45

Given these options, it is not difficult to understand that this is the point of no return, the point of becoming what one is in terms of what one is not (cf. Nietzsche 1969b [1888–1889/1908]) – or just losing oneself in an endless maelstrom of nothingness (cf. Barlow 1990). A total virtualization of the body – that is the

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45 It is to be noticed that Haynes (1998) has appropriated, and in this way given a new, ontological-existential, meaning to the metaphors of the “vivogenic,” “pathogenic” and the “Final Amputation,” originally used by Mark D. Pesce to describe the “full immersion virtual reality games.” For Pesce (1993), these metaphors explain how “any technological amputation always has a consequent effect on the structure of the self, as the reconfiguration of the senses produced by self-amputation introduces a new gestalt, or world view”; it is in this manner that what is at issue in the empowerment of the body by means of prosthetics is the “overloaded self crying out for final amputation within cyberspace” (ibid.). It is not difficult to hear these words echoing McLuhan’s mode of speech (see McLuhan 1964: 43–58), his great sermon of technology extolling the liberatory effects of the media as the “extensions of man.”

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idea of the “final amputation” in terms of the “cyber”; an idea that, having its origins in McLuhan’s (1964: 51–56) view of the prosthetic extension and amplification of the human body as an “auto-amputation,” resurfaced in the enthusiastic visions around virtual reality in the early 1990s (for the revival of McLuhan in cyberculture, see Wolf 1996a, 1996b). The term “final amputation” was coined by Mark D. Pesce (1993) in his conference paper entitled “Final Amputation: Pathogenic Ontology in Cyberspace” according to which virtual reality, in the final analysis, implied a total self-effacing, a complete fading-out of one’s corporeal existence in the immateriality of virtual reality and, as its reverse side, a total prostheticization of oneself. Ron Purser’s summary is illuminating:

In this paper, Pesce builds on McLuhan’s insight – that every technological advance can be seen as a simultaneous gain and loss – what McLuhan referred to as a “metaphorical amputation.” So, for example, with the driving of an automobile, the driver no longer uses the legs for locomotion. The legs have undergone a metaphorical amputation. Since VR is totalizing in its ability to dominate the human sensory field, VR amputates everything – hence, his notion of the “Final Amputation.” (Purser 2001: 220; for the possibility of expanding the human sense organs through an artificial sensorium, cf. Spreen 1999; for a fictional idea of a bio-adapter, cf. Wiener 1969, 1989 [1988])

This is the point at which we come to realize that there is no “cyber” without the “post.” As Purser points out, the idea of virtual reality as a total simulation derives from the speculations around machine or artificial intelligence in which the “very meaning of human intelligence descends to a functionary level, ruled by the logic of algorithmic reasoning” (Purser 2001: 219). What emerges is “an image of the human subject that is colonized by cyborg and artificial intelligence ‘anti-consciousness’ discourse, and metaphors of the brain as a cybernetic information processing device” (ibid.: 219–220). It is in this manner that “humans descend and subordinate their capacities to the level of the machine” (ibid.: 220; in the context of classical cybernetics, cf. Wiener 1961 [1948], 1968 [1950]; in terms of “spiritual machines,” cf. Kurzweil 1999; for similar visions based on the notion of “the new biology of machines,” cf. Kelly 1994; for a thorough criticism of these kinds of visions of human abilities, see Dreyfus 1979, 1992). This is the world of the cyborg, the world of final transcendence; that is, a world in which a radical cerebralization of the human being in terms of speculative theorization based on linguistic figuration peculiar to the “post” effaces our corporeal existence as humans.

In other words, the body does not matter in the world of the cyborg; what matters is a discursive construct called “the body” in which the carnal body is replaced by the “matter” of signifiers (cf. Kirby 1997: 129–148; Cregan 2006: 113–165; Butler 1993; Cranny-Francis 1995; Ussher 1997; Mills 2004 [1997]; Jagger 2008; for the origin of the prominence of the signer in structuralism in terms of “the prison-house of language,” see Jameson 1974 [1972]; 105, 111, 121–133, 143–146, 153–155, 159–165; for a comprehensive critique of the Lacanian idea of “the primacy of the signer over the signified” dominating contemporary theory, see Michaels 2004: 19–81); to be emphasized: what is at issue here is the human body as the very condition of possibility of our existence as humans.
If, in the world of the cyborg, the body is not one, the same also applies, of course, to all that is sexual in terms of the “cyber.” As Haraway (1991a: 181) says, “[c]yborgs might consider more seriously the partial, fluid, sometime aspect of sex and sexual embodiment.” This is a world in which “[m]icroelectronics mediate[s] the translations of labour into robotics and word processing, sex into genetic engineering and reproductive technologies, and mind into artificial intelligence and decision procedures” (ibid.: 165; emphasis mine). This is a world in which the “New Industrial Revolution,” “producing a new world-wide working class, as well as new sexualities and ethnicities” (ibid.: 166), brings about “close ties of sexuality and instrumentality” (ibid.: 169) turning the body into a “private satisfaction- and utility-maximizing machine” (ibid.; emphasis mine). As a result, the idea of the corporeal becomes transfigured: not only the body enhanced and amplified by prosthetics, but the body in itself, as such, is now, indeed, a prosthesis, the prosthesis of the self as a “para-ego” that is the proper “self” of the post-subject (see Sofoulis 1999 [1992]; cf. Hayles 1999: 2–3; Wilson 2002: 646–647; Sobchack 1995).

The Politics of “Corporeal Mutations”

Here we have entered the world of what Michael Hardt and Antonio Negri (2000: 214–218) call the “new barbarians” (for the origin of the term in Nietzsche and its influence on Benjamin, see Reschke 2000: 88–107; Guth 1974), a promised land for all those who are ready to break away from the constraints of the “human condition” (cf. Arendt 1958). The “new barbarians”? They are a thoroughly new kind of agents of political transformation constituting a post-political collective subject, the “multitude,” a trans-political formation of political will as the ultimate form of political voluntarism constitutive of the avantgarde politics in the sense of post-68 political radicalism; subjects living in a continuous state of “being-against” (Hardt & Negri 2000: 210–214; for criticism, see, for example, Balakrishnan 2003; Passavant & Dean 2004; in the context of Russian pre-revolutionary thought, cf. Chernyshevsky 1989 [1863]). This is a mode of subjectivity based on “nomadism,” “desertation” and “exodus” (Hardt & Negri 2000: 210–214). Instead of clinging to the efforts to create something permanent, the “new barbarians” – the avantgarde of a global transformation, creating a “counter-empire” to combat the power of “Empire” (ibid.: 205–219) – are constantly ready to “destroy with an affirmative violence” the structures of the prevailing order and “trace new paths of life through their own material existence” (ibid.: 215; in terms of “postanarchism,” cf. Newman 2010: 121–128).

Accordingly, from now on for each and everyone in the “multitude” there is a “must,” a personal duty, to “continually attempt to construct a new body and a new life” (Hardt & Negri 2000: 214; emphasis mine).

This is the imperative of the new “barbaric” order, an order that is globally emerging “first and foremost in corporeal relations and configurations of
gender and sexuality” (ibid.: 215). In this order, as a result of globalization, the circulation of desire – the driving force of both transnational capital as the power structure of “Empire” and the “new barbarians” constituting its “counter-empire” – is in a process of transformation resulting in a post-Freudian Triebstruktur of the cyborg (cf. Freud 1981c [1905]: 47, 66–69, 94, 157, 1991d [1915]: 214–221, 1983a [1938/1940]: 70–73; Marcuse 1987 [1955]). This is the way to the transcendence of the body, the way to the world of the posthuman that will abolish sex, gender and sexual pleasure such as they have been determined until now by heteronormality, the order of the “heterosexual matrix” or “compulsory heterosexuality” (Butler 1990: 5, 151; cf. Blunt & Wills 2000: 130–132; Salih 2002: 48–52, 61–62; Lloyd 2007: 33–35; for the origin of the notions, see Rubin 1975, 1984, 2011; Rich 1980, 1985 [1984]), the disciplinary order of the terror regime of “sex,” sex in the Foucauldian sense of le sexe, that is, the “austere monarchy of sex” (Foucault 1990k: 159, 1996m [1977]). As Hard and Negri say:

Conventional norms of corporeal and sexual relations between and within genders are increasingly open to challenge and transformation. Bodies themselves transform and mutate to create new posthuman bodies. The first condition of this corporeal transformation is the recognition that human nature is in no way separate from nature as a whole, that there are no fixed and necessary boundaries between the human and the animal, the human and the machine, the male and the female, and so forth; it is the recognition that nature itself is an artificial terrain open to ever new mutations, mixtures, and hybridizations. (Hardt & Negri 2000: 215; emphasis mine; cf. Haraway 1991a: 149–155; for a radical deconstruction of the binary opposition human/animal, cf. Derrida 2002c)

In the world of the “new barbarians,” the body, redefined as a machine-animal assemblage in terms of the posthuman, is the personal survival machine of the subject, a post-subject that is in a continuous state of emergency, a constant alertness directed towards the actions against the power of “Empire” (cf. Jünger 1980 [1930], 1982 [1932]; Nevin 1996: 27–28, 115–140; Neaman 1999: 41–45).

This is no longer about the Sex-Pol radicalism of the Weimar Republic of the 1920s, Wilhelm Reich’s revolutionary sexual politics (see Reich 1966; for die Funktion des Orgasmus, see Reich 1965 [1927]; cf., for example, Grossmann 1997: 107–108; Boggs 2000: 185; Reiche 1970; Briehl 1995 [1966]; Fallend & Nitzschke 1997; for a historical contextualization, see, for example, Robinson 1969; Kaes et al. 1995), nor the “sexual revolution” of the America of the 1960s (see, for example; Evans 1993: 65–88; Weeks 1995b [1985]: 15–32; McLaren 1999: 166–191; Eder 2002: 217–222; Connell 1995; from a historical perspective in the context of European cultural history, see Timm & Sanborn 2007: 169–209). This is a free world of the “new barbarians” constituting a new subject of history, the post-subject as a radical agent of transformation constantly transforming itself, that will finally abolish the necessity of being the subject once and for all, a necessity that was introduced by the modern, paradoxically, as the condition of possibility of the freedom of the individual, the autonomy and agency constitutive of the subject as a self-conscious self. For this kind of “freedom,”
the “freedom” of the “liberal humanist subject” of the modern, there is no longer use in the world of the “new barbarians” (cf., for example, Hayles 1999: 2–7, 85–92, 100–112; Kember 2003: 143–144): the post-subject is an agent of “permanent revolution” in a new form, in the mode of permanent self-transformation as the agency of permanent world transformation (cf. Trotsky 1965 [1930]; for a critical contextualization, see Löwy 1981; in terms of the Russian professional revolutionary as a “new man,” cf. Chernyshevsky 1889 [1863]; cf. Lenin 1973 [1902]).

In these terms, Hardt and Negri’s “new barbarians” constitute the most radical and the most consequent model of the post-political ego-politics of the subject: the total annihilation of the idea and the category of the subject, a true revolutionary act inaugurating a new world.

This is the body politics of the cyborg: instead of conventional radicalism and revolution, what we have now is a politics of subversion, a micro-politics of a continuous deconstruction of all that is, effecting things that are coming and coming into being through a process of permanent becoming. This is a politics of “corporeal mutations” that constitute an “anthropological exodus” (Hardt & Negri 2000: 215), the ultimate exit from history, the final coming of the “new man” as a post-revolutionary incarnation of the posthuman. It is in this sense that the “anthropological exodus” implies a post-Nietzschean Übermensch (cf. Nietzsche 1968a [1883–1885]: 8–12, 142–145, 356–368; Conway 1997: 20–27; Gebauer 2001b), an “overman” that embodies the idea of über in its post-body as a cyborgian hybrid of the human, the animal and the machine. Instead of the conventional, old-fashioned efforts to create a new political subject of radical and revolutionary politics (the fallacy of affirmation of the human typical of traditional Left politics), at issue is now an “ontological mutation in action”; that is, a “concrete invention of a first new place in the non-place” (Hardt & Negri 2000: 215–216). The idea is not merely to “occupy any existing place”; rather, it is about a politics of a subversive will, a barbarian will that is a will to desire, intrinsically implying a desire for a will that “invents a new place.”

As such, it is a “desire that creates a new body”: a desire for a “metamorphosis that breaks all the naturalistic homologies of modernity” (ibid.: 216). This is the politics of the cyborg, the politics of the prosthetic body.

Enjoy Your “Poietic Prostheses”!

wish, neither a will nor a desire as such, this is a must, a prescript of radical self-discipline, prescribing, in the mode of corporeal inscription, that “[w]e certainly do need to change our bodies and ourselves” (Hardt & Negri 2000: 216; in terms of “cyborg writing,” cf. Haraway 1991a: 175–176; Graham 2002: 200–220; Yaszek 2002: 13–15; Schneider 2005: 73–75; with regard to écriture féminine, cf. Cixous 1976 [1975]; Blyth & Sellers 2004: 18–34; Segarra 2010). Why? Simply because in “our contemporary world,” the “will to be against really needs a body that is completely incapable of adapting to family life, to factory discipline, to the regulations of traditional sex life” (Hardt & Negri 2000: 216).

As we can see, the “new barbarians” are in a privileged position: unlike millions upon millions of “the wretched of the earth” (see Fanon 2004 [1961]) who are doomed to their poverty, deprivation and exclusion, the “new barbarians” have the privilege of choice: their total refusal is a political option, an act of free will, an individual declaration of independence; in other words, the “new barbarians” choose themselves, their own freedom, their own selfhood, their own ego empowered by their being “against” (cf. Sartre 1972 [1943]: 433–556). This is what I call the ego-politics of the post-subject: “[i]f you find your body refusing these ‘normal’ modes of life, don’t despair – realize your gift!” (Hardt & Negri 2000: 216). What we have here is an ego-political radicalism in the form of self-promotion as post-political voluntarism; that is, the “multitude” celebrated by Hardt and Negri is not a community based on mutual solidarity, but a centrifugal crowd of atomized individuals each pursuing one’s own happiness, a disintegrated swarm of lifestyle rebels each obsessed by ever-new possibilities of body modification, the art of the cyborg as a self-transformer (cf. Featherstone 2000; Siebers 2000; Zylinska 2002b; Pitts 2003).

This is the ethos of the post-body body politics of “being radically unprepared for normalization,” a politics of cyborg corporeality requiring – that is, positing an imperative – that the “new body must also be able to create a new life” (ibid.). This is a post-utopian politics of “non-place,” a post-political self-aggrandizement celebrating a post-body as a u-topos enabling the ultimate metamorphosis of the self: “the body” as a postmodern cult object, the cyborgian body as a project of self-transcendence in technological immanence (cf. Graham 2002: 154–160; Hammond 2003: 269–278; Janicaud 2005 [2002]: 31–33; Clark 2004; Cole-Turner 2011). This is the most radical form of what I call the post-subjective enselfment of the body as the object-subject of the cyborg in the mode of radical negation of the self as a self-conscious individual, the ultimate form of the “decentered subject” of the postmodern: the disintegrating integration of the self by way of subverting the subject. As Hardt and Negri (2000: 216) say, “[w]e have to arrive at constituting a coherent political artifice, an artificial becoming in the sense that the humanists spoke of a homohomo produced by art and knowledge, and that Spinoza spoke of a powerful body produced by that highest consciousness that is infused with love”; it is in this manner that the “infinite paths of the barbarians must form

In other words, this is a postmodern version of the ethos of the revolutionary subject advocated by Nikolai Chernyshevsky (1989 [1863]) in Czarist Russia as an answer to the question “what is to be done” (cf. Lenin 1973 [1902]; for a historical contextualization, see Lih 2006).


This kind of post-subjective form of a post-political collective subject materializing – or, better, becoming incorporated and embodied in the manner of radical Selbst-Inszenierung, an act of self-enactment by means of post-aesthetic self-enstagement of self-negating post-subjects – in the “multitude” is the post-historical agent of the “anthropological exodus” that opens the way to the post-utopian “non-place” of the “new life” (Hardt & Negri 2000: 217). What is important here is that this “new barbarian life” is not possible without advanced prosthetics; thus, what is needed is that “tools” that “have always functioned as human prostheses” (cf. Freud 1972a [1930]: 450–451; Hartmann 2003: 53–54; Seifert 2004: 94–104; Roesler & Stiegler 2005: 210–213) now “become poietic prostheses,” a new type of prostheses that are capable of “liberating us from the conditions of modern humanity” (Hardt & Negri 2000: 217). This is a powerful artificiality of being, a mode of being that is to be found, as Haraway has demonstrated, at the “ambiguous boundary between human, animal, and machine” (ibid.: 218; cf. Haraway 1991a: 149–155).

Under these circumstances, it is absolutely clear that only the cyborg can save us now. It is precisely here that we are entering the world of the “prosthetic God” of the postmodern: the prosthetic subject as the agent of permanent self-transformation that is the most radical and the most consequent form of world transformation.

Accordingly, the “multitude, in its will to be against and its desire for liberation, must push through Empire to come out the other side” (Hardt & Negri 2000: 218). It is this “other side” – a site beyond the human, the non-place of the posthuman – in which the sexual, together with the corporeal, brings
about forms of desires and pleasures that are possible only by means of “poietic prostheses.” This is an invitation to come and enjoy post-paradisial pleasures enabled by the jouissance of prosthetics in the world of the posthuman, a world in which my body is no longer a nobody; instead, my body is now a post-body, a prosthetic body, a body that is an embodiment of my will to be a cyborg: my will to exceed my own limits, my will to become a prosthetic being that is constantly becoming in its radical becomingness (cf. Deleuze & Guattari 2000 [1980]: 232–309; cf. Goodchild 1996: 150–172; Braidotti 2006). This is a body that is the object of my desire, a desire for prosthetic love: love as the highest form of the ego-politics of the cyborg, love in its ultimate form: love as the self-love of the cyborg.

This is a world in which cybersex becomes thoroughly intelligible as a mode of the “euphoric, addictive thrill of the technological sublime” (Ross 1991c: 99) constitutive of all that is “cyber.” In other words, love your prosthesis as yourself is the imperative of prosthetic eroticism.

46 In the manner of the “post,” Hardt and Negri’s post-utopian vision, of course, is, as such, in itself, a hybrid, a theory assemblage in which – in addition to Gibson’s cyberpunk classic Neuromancer (1984), for them the “seminal text” to understand the “control and mutation” pertinent to the “anthropological exodus” (Hardt & Negri 2000: 215) – they recycle ideas of François Peraldi (“polysexuality”), Arthur and Marilouise Kroker (the “last sex”), Judith Halberstam and Ira Livingston (the “posthuman body”), Rosi Braidotti (the “nomadic subject”), among others, and, inevitably, of the performance artist enjoying a cult status on the postmodern theory scene, Stelarc (“the body is obsolete”) (ibid.: 447–448), as well as of the subversive author Kathy Acker, the “best source for experiments of corporeal and sexual transformations” (ibid.: 447). For this post-theoretical mixture of theories, fictions and theory-fictions, Haraway’s cyborg mythology – the grand récit of all that is “cyber” – constitutes the general framework.
4.2 The Penis: An Obsolete Organ

The result is a production of a cynical sex, of sex itself as an ideological site of disaccumulation, loss, and the sacrifice as the perfect sign of a nihilistic culture where the body promises only its own negation; where the previously reflexive connection between sexuality and desire is blasted away by the seductive vision of sex without organs – a hyperreal, surrogate, and telematic sex like that promised by the computerized, phone sex of the Minitel system in France – as the ultimate out-of-body experience for the end of the world; and where the terror of the ruined surfaces of the body translates immediately into its opposite; the ecstasy of catastrophe and the welcoming of a sex without secretions as an ironic sign of our liberation.

Arthur and Marilouise Kroker (1988b: 15)

In five years, the penis will be obsolete.

John Varley (1993 [1976]: 3)

But if prostheses accelerate us into the future, there will indeed be an inevitably blurring of the body, and new genders, new sexes, will be constructed out of the new bodies.

Chris Hable Gray (2001: 157)

If, as Haraway (1991f: 249) says, in “the era of techno-biopolitics,” “prosthesis becomes a fundamental category for understanding our most intimate selves,” the question, of course, is: why would the sexual be an exception? And, as far as, according to Sherry Turkle (1995: 21), in “our new technologically enmeshed relationships,” we have “become cyborgs, transgressive mixtures of biology, technology and code,” it is obvious that the “traditional distance between people and machines has become harder to maintain” (ibid.; cf. Haraway 1991a: 149–155; Gray & Mentor 1995a: 222–223; Hayles 1999: 243). It is here that prosthesis has turned into a “second self” of the postmodern subject in an entirely new way (cf. Turkle 1984); that is, the constitution of the subject is now determined by a prosthetic agency of post-subjective subjectivity. This is a world in which, as Haraway (1991a: 178) says, machines are “prosthetic devices, intimate components, friendly selves.” It is in this world that prosthesis has been incorporated by the postmodern body, and, at the same time, it has become a prosthetic “Other” of the self, an object of desire of the postsexual subject, the prosthetic subject of posthuman becoming as the agent of its permanent self-transformation by way of prosthetic hybridization (cf., for example, Paterson 2007: 114–117; Miah & Rich 2008: 111–116; Salter 2010: 245–253; Suárez 2000; Drucker 2002; Bath et al. 2005; Stocker & Schöpf 2005; Papilloud & Hahn 2008; Vallant 2008).

It is in this manner that, as a result of prosthetic hybridization, prosthesis has become the multifunctional copula of sexual hybridization proliferating prosthetic sexualities, thus implying a radical redefinition of the subject in terms of...
“the sexual” after the implosion of sex and sexuality as a consequence of the triumph of the “post.”

What happens in this constellation that I call the matrix of prosthetic metamorphosis is that not only desires and pleasures, but, more fundamentally, the experiences of the body that previously were designated as “touch,” “intimacy” and “emotions” become replaced by post-corporeal sensations subsumed by the term “the affective” (see, for example, Tikka 2001; Massumi 2002; Tobias 2006; Clough & Halley 2007; Thrift 2007; Ferreday 2009); “post-corporeal,” of course, in the sense of the post-body, a body defined by an intimate relationship to technology, and “the affective” specified by the attributes “the prosthetic” and “the sublime” in the form of “the prosthetic sublime” (Boulter 2005: 60; from the perspective of “transhumanism and the technological sublime,” cf. Graham 2002: 154–173; in the context of cyberpunk, cf. Botting 2005: 122; in terms of “sublime dreams of living machines,” cf. Kang 2011; with regard to “prosthetic conglomerates” in Babbage’s machine theory, cf. Ketabgian 2011: 33).

In this constellation, “the prosthetic” and “the affective” are intertwined in a complex manner effecting a peculiar affection for prosthetics, a specific combination of affects culminating in what David Wills (2005a) designates as “prosthetic love” and “cyborg synthetic ecstasy” (Wills 1995: 2); a postmodern mode of affectivity in which, paradoxically, affectation is as authentic as affects are artificial; a post-emotional experience of being affected by the presence of phantoms, a phantasmatic sensation of the presence of the absent, resulting from the prostheticization of affects as a manifestation of “synthetic reason” (see De Landa 1994); that is, an affective state peculiar to the cyborg (cf. Stone 1995e: 3, 1995d; Case 1996: 96–98; Weiss 2003: 58–61; Nelson 2001a) effected by the auto-affection of the technological (in terms of “machines that become us,” cf. Katz 2003). In its artificiality, the cyborg is an epitome of affectation: the affects of the cyborg are effects of prosthetic simulation. In this manner, prosthetic love is, at the same time, both a precondition and a result of the “affinity politics” of the cyborg producing, among other things, “prosthetic identities” (Senft 1996a: 16; cf. Foster 2005: 118–119; Melzer 2008: 178; Miah & Rich 2008:

47 Discussing the experience of the body in the context of computer games, Jonathan Boulter (2005: 59) explains the “technological seduction” of the game world by referring to the notion of the sublime, “the ultimate effect” of which is “transport” (ibid.: 60); that is, ekstasis in its Greek sense meaning “to stand outside oneself” (ibid.). In other words, “the sublime transports the self” to a “different realm,” or, “as in metaphor,” to a “different site” (ibid.). It is in this manner that the “confluence of subject and machine” produces the cyborg, or “the avatar,” that is, “a fractal version of the self” that “serves as a prosthesis-self, transporting the subject elsewhere” (ibid.). “The fascination of the game lies in its ability to transport the self; the sublime ecstasy of the player-cyborg lies in her ability to project the self beyond space and time limits” (ibid.). This is the situation that Boulter describes by the term “the prosthetic sublime” (ibid.; in terms of “avatar bodies,” cf. Weinstone 2004). In my reading, it is not only the game world, but the world of the “cyber” in general that manifests the seduction of “the prosthetic sublime,” the affect of exceeding the limits of the self in and through the ecstasy of the techno-imaginary, “the high” of the technological transmutation of the subject.
To sum up: this is the genesis of the post-sexual body as the “Other” in the order of the “Third”; a technologically in-formed and re-formed body enjoying desires and pleasures redefined in terms of prosthetic eroticism. In this order, the irrationality of emotions typical of the “natural body” is replaced by the technological rationality of the cyborg; thus, the rationality of control is the principle of prosthetic love, love as the ego politics of the post-subject constituting an “ideal love object” (Vasseleu 1997 [1994]: 55) of both itself and the “Other,” an object-subject as a subject-object that is “infinite, reiterative, ex- cessively recombinant” (ibid.).

This is the seduction of post-sex in terms of the “cyber”: prosthesis as the most mesmerizing erotic object in the world of the “post”; prosthesis as the key to what I call post-sexual phantomatics, the spectrality of “the sexual” as an effect of the prosthetic sublime conjured up by the reason of the surrational.

4.2.1 The Sexualization of Prosthesis

If, as Stelarc (1991: 591) says, “the body is obsolete,” the same also applies, of course, to the genitals. What is sex without the sexual organs, organs in the sense of the organic? It is “sex” with prosthetic organs in the mode of cyborgian post-sex, Harawayan “cyborg ‘sex’” as post-corporeal desires and pleasures by means of artificial organs that no longer consist of the organic, but of the technological, the post-organic substance of the “cyber,” the matter that matters in terms of the linguistic of language following the logic of the “post”: in the world of the “post,” it is only “the linguistic” that “matters” (cf. Best & Kellner 1991: 165; Cunningham 2002: 19–31, 38–41, 68; Butler 1993; Kirby 1995; for the turn to “the linguistic turn,” see Rorty 1992b [1967]; cf. Clark 2004b; for a historical articulation of “linguistic turns in modern philosophy,” see Losonsky 2006). This is a world in which the sexual has become redefined in terms of the cyborg: the sexual as its own negation, as a manifestation of the logic of “de,” “dis” and “trans” constitutive of all that is “post.”

This is the world of the “cyber,” the world of the posthuman, a world in which the “obsolete body” proclaimed by Stelarc (1991) is replaced by the prosthetic organs organizing themselves in a continuous process of de-construction, dis-organization and trans-formation, in the Deleuze-Guattarian manner of “becoming” (see Deleuze & Guattari 2000 [1980]: 232–309; cf. Goodchild 1996: 150–172; Braidotti 2006); that is, a spectral body as an effect of prosthetic fragmentation.

If the prosthetic reality of the Weimar Republic was deconstructed, often in a sharply ironical light, in the artworks of the avantgarde of the time – most notably, perhaps, by Otto Dix in his The Skat Players (1920) (for a historical context-
tualization, see, for example, Werner 1999: 308–309; Herzogenrath & Schmidt 1991; Biro 2009) – what we have in the world of the “cyber” is a radical reconstruction of the body, the body as a post-body continually constructed and reconstructed by means of prosthetics, “the body” as a constantly changing assemblage of prosthetic supplements, a prosthetic body perpetually “disassembled and reassembled” (Haraway 1991a: 163), in which ever-new couplings are created by grafting ever-new prostheses upon yet other prostheses, finally leading to the fundamental question: where is “the body” if the body consists of nothing but prosthetic attachments?

Our Mission: The Annihilation of the Penis


The transformation of what was called the Sonntagsarm, “sunday arm,” in pre-First World War Germany, a prosthesis used in free time only as a cosmetic replacement simulating a missing limb (see Fineman 1999: 96; Perry 2002: 79), into the Weimar prosthesis as a proper work arm (or leg) (see Kieniz 2008: 170–192; for medical and technical details, see Sauerbruch 1916; Sauerbruch & ten Horn 1923; Rauschmann et al. 2001), was not only a technological, but, more fundamentally, a political process reaching deep down into the emotional state of both the prosthetic men and the German nation desperately seeking a new identity after the humiliating end of the war. Thus, what was at issue was not only the honour of the nation, but also the pride of being man, a male properly doing his duties, trotz alledom (see, for example, Koschorke 2000: 145–149;
Heller 2009: 92–109; Kienitz 1999a,, 1999b, 2008; for an overview in terms of histori-cal psychoanalysis, see Theweleit 1977, 1978). Although the prosthetic man was conceived of first and foremost as a working man, as a labouring body reintegrated into production, he was no less a man, a male acrimoniously in need of corporeal recovery and acknowledgement of his masculinity.

What was the problem was not so much a masculinity as a gender ideology as it is understood in terms of the “post,” but masculinity as the embodied fact-uality of the lived body: the body as the subject-body, the Leib, of the male subject (cf. Kamper & Wulf 1989; Kienitz 2002b; Cowan & Sicks 2005b; Hanisch 2005; Gagen 2007; for the difference between Körper and Leib, see, for exam-ple, Hauser-Schäublin et al. 2001: 97–99, 107–109, 133–137; Caysa 2003: 36–57; Thomas 1996; Schmidt 2009; for the prosthetic rehabilitation of disabled veter-ans in the aftermath of the Second World War, cf. Serlin 2002).

While the prosthetically rehabilitated working man was saved from losing his personal and social identity by literally interfacing him with the production machinery, there were, of course, thousands of men who had lost more than their working capabilities and were thus irreversibly damaged. From the standpoint of being male, the gravest and most traumatizing misfortune was, no doubt, the loss of the genitals. What was it to be a man without a penis? It was a nightmare turned into a bitter reality for quite a number of the crippled war survivors, otherwise reconstructed by means of prosthetics. Since in the Weimar Republic, in which, according to the official doctrine of the German medi-cal-technical industry, the prosthetic man was a “special biological person with its own powers, capabilities and laws” (Fineman 1999: 97), it was not politically correct to bemoan one’s fate, let alone to say aloud that no rehabilitation could ever recover the loss of the penis.

George Grosz, whose bitterly ironic artworks – similarly to Dix’s paintings (for a contextualization, see, for example, Mackenzie 2005: 48–51, 58–61; Gaughan 2006: 146–151; Schneede 1989; with regard to André Kertész’s Parisian street photographs of prosthetic men as a surrealist protest against “the return to order,” cf. Lyford 2003: 84–88) – incisively reveal the hypocrisy characteristic of the Weimar Republic, portrays this with an anecdote. During a brief stay in a military hospital, Grosz overhears how an unlucky soldier lying in the next bed had his penis blown off.

“No more fun with the girls for him,” said the medical orderly. The sergeant was of a different opinion. “Don’t believe it, my boy,” he said. “They’ll bloody well give him a brand new custom-built cock made of bloody wood. We’ve seen the lot here. And artificial legs are as good, partially, as the real thing, even better for some things, if you ask me, like... bloody hurdling, or high-jumping, partially anyway. I mean better, partially, than the real thing.” He was fond of the word “partially.” (Fineman 1999: 96)

In Fineman’s interpretation, the “sergeant imagines the prosthesis not as an imitation of the lost limb itself, but as a refinement and an extension of a lost
or weakened function” (ibid.). Thus, “[w]hat is lost in affects is made up for in effect: the soldier with the wooden cock might not have fun with the girls, but the girls can still have fun with him” (ibid.). This kind of “cynical functionalism” (cf. Sloterdijk 1983a: 391–392) exemplifies, as Fineman (1999: 96) says, a “nightmarish spectacle of castration anxiety,” that is, the Weimar prosthetic phantasmagoria in terms of the sexual. If the loss of the penis was a true tragedy for the Weimar cripple, although a survivor, and rehabilitated by means of prosthetics, but nevertheless irreparably ruined in his masculinity, in contemporary post-feminist theory a definite annihilation of the penis is the ultimate triumph of freedom, a triumph of becoming a post-gender being, once and for all exceeding the limits of phallogocentrism (cf. Haraway 1991a: 178–180; Thomas 1996: 51–54; Derrida 2003: 112–113; Sofoulis 2003: 89–92; Parisi 2004: 8; Badmington 2007: 28–29, 36–37; Angerer 2008b: 232–234; Miah 2008: 78; Åsberg 2009: 34–36).

This is the sexualization of prosthesis that, at the same time, is the prosthetization of sexuality, celebrated by cyber-theorists in the ecstasy of the technological sublime. It is in this manner that in the world of the “cyber,” as Haraway (1991f: 249) says, “prosthesis becomes a fundamental category for understanding our most intimate selves.”

Dildo, or, Castration as a Dream of Cyborg Feminism

One question still remains: why does to be female – or, for that matter, feminist – mean today to be, as Patric D. Hopkins (1998) formulates it, something like a “sex/machine” (cf. Gieselbrecht & Hafner 2001; Weber & Bath 2003)? What is this fascination of “Third Wave feminists” with the technological enhancement and augmentation of the sexual capacities of the female body and the experiences of sex, even with the substitution of the machine for the body (in terms of “cybersexualities,” cf. Wolmark 1999a)? Why do the “Third Wavers” love to have “cybersex” (Hopkins 1998: 276–277) with machinic entities, post-gender cyborgian constructions in cyberspace, or, as a “Web Grrl” under the pseudonym “Weeber” puts it:

Machines are easy [...]. Everyday, we are creating more and more intimate relationships with them [...]. [We] girls need to invent our own technological improvements over those overrated things called human relationships. Why not begin this process of breeding with machinery now, while the pesky risk of pregnancy is (as of yet) impossible. (ibid.: 277).

This is the postmodern affective state of the subject in cyberculture that I call prosthetic love in the sense of erotic and sexual affection for technological mediation of intimacy enabled by the cyborgization of the body in the constellation of the sexual-technological complex of the “cyber” (cf., for example, Foster 2005: 81–114; Dery 1991; Springer 1996; Vasseleu 1997 [1994], 1999, 2002; Botting & Wilson 2002b; Roden 2002; Perniola 2004 [2000]; from a historical perspective, cf. Goble 2010). No longer the organic body, the body in the flesh, the body as the substance and substratum of carnal pleasures, is the object of
Very your Pros

The body that only becomes a body in, by and through the prosthetic couplings of the cyborg. This is the desire for disembodiment peculiar to all that is "cyber": a substitution of a prosthetic body for the carnal body.

What does this mean? For Jeanne Hamming (2001), this is a "post-lesbian" state of being in the textual configuration of "Dildonics, Dykes and the Detachable Masculine" purporting to a "non-phallocentric reconceptualization of the dildo" (ibid.: 336); a project engendering, as she postulates, a "technological mutation from human to post-human" (ibid.: 337; cf. Hardt & Negri 2000: 214–218). According to Hamming (2001: 331), the dildo functions not only as "transformative object," but first of all as a "fetishistic 'attachment,'" as a "supplement," in a word, as a "prosthesis," enhancing the pleasure of the sexual beyond the constraints of the organic body, in the realm of freedom brought about by an intimate contact between "the technological" and "the sexual," the libidinal phantasm of postmodern technoculture. In this sense, the "dildo is capable of signifying an extra-phallic desire" (ibid.; cf. Minge & Zimmerman 2009), a mode of desire that has liberated itself from the suffocating grip of phallogocentrism (cf. Haraway 1991a: 175–176; for "the strap-on dildo" as "a prosthetic penis," cf. Lamos 1995: 109; with regard to the dildo as "an artificial penis, an appropriated phallus," Griggers 1997: 120; for the dildo in terms of "the lesbian phallus" and "the phallic woman," cf. Brooks 2006). Thus, "any lesbian can go out and buy a better penis than any man possesses" (Hamming 2001: 331; emphasis mine). As a "phallic simulacrum," the dildo-prosthesis "appears to be potentially superior to the flawed organic penis"; hence, the dildo acts as a "technologically enhanced extension of the penis" (ibid.).


This is the post-sexual autarchy of the prosthetic subject, a post-gender subject that lives in close relationships to machines which, for their part, operate in promiscuous relationships to one another (cf. Boon 1996: 162–163, 171–175). In this sense, as Haraway (1991a: 178) says, "machines can be prosthetic devices, intimate components, friendly selves." This is the extraordinary pleasure of "cyborg 'sex'" (ibid.: 150): it is post-relational, subject-oriented and technologically augmented self-sex in which the sexual subject is its own object (cf. Preciado 2003; Perniola 2004 [2000]); that is, prosthetic sex in which...
the sexual subject and the prosthetic apparatus are both prosthetic object-subjects in prosthetic relationships to one another; a post-cybernetic circular causal configuration in which machines and cyborgs exchange techno/post-sexual vibrations; in other words, a body-machine constellation in which “the sexual” is defined in terms of radical self-referentiality (in Lacanian terms, cf. Lacan 1977f [1966/1949]; Nusselder 2009: 83–98; for self-referentiality constitutive of the Western world, cf. Chow 2006).


As Hamming emphasizes, the post-gender cyborg, enjoying the pleasures of dildo-sex, is an embodiment of subversive body politics that disrupts the hegemony of the “heterosexual matrix,” the constraints of “compulsory heterosexuality” (see Butler 1990: 5, 18–19, 24–26, 30–35, 45–46, 151; cf. Spurlin 1998: 78–79; Blunt & Wills 2000: 130–132; Hollinger 2002: 302–304; Salih 2002: 48–52, 61–62; Lloyd 2007: 33–35). In this sense, “the dildo-donned lesbian” (Hamming 2001: 337) is the very emblem of the liberation from the gender and sexual conformity implied by heterosexuality; that is, the abolition of the terror regime of the phallus, paradoxically, by turning the phallus into a lesbian sign:

As a cultural construct that supposedly inhabits counter-hegemonic spaces, the dildo-donned lesbian offers feminist lesbian theorists a provocative cultural sign – she both has the phallus, not biologically, but technologically, and does not have it, able to leave it behind at will. The dildo acts as a post-gender prothetic and the lesbian, then, acts as a cyborg, post-human, and therefore not male, nor castrated. She functions, then, as an unaccountable gender-bending sign. In this sense, the dildo acts as a disembodied prosthetic, not as a supplement to a woman’s lacking penis, a reproductive representation of the male body, but as a productive mutation of the dildonic body as altogether different. (Hamming 2001: 337; emphasis mine)
A “disembodied prosthetic” effecting a “productive mutation of the dildonic body as altogether different” – what does it mean? How is it that a disembodied prosthetic can bring about a body that is altogether different? If the German war cripple, the man castrated by a shell, had “no more fun with the girls” because of the loss of the penis, nevertheless, according to official rehabilitation optimism, there was still a hopeful perspective of prosthetic enhancement of the damaged body, since – as Fineman (1999: 96) says, ironically paraphrasing the manner of speaking of the German War Cripple Care – “[w]hat is lost in affects is made up for in effect” (for the real problem of the “castrated veterans” in postwar Germany, see Poore 2007: 41–44). And if the “wooden cock” (Fineman 1999: 96) designed for the mutilated man was now – at least in the imagination of the medical sergeant – a detachable penis, that is, a sex prostheses “as a refinement and extension of a lost or weakened function” (ibid.), for Hamming (2001: 339), the dildo, as a prosthetic extension of the lesbian cyborg, represents a “post-human sexual scenario” that not only subverts the “female castration complex,” that is, the lack of penis suggesting woman’s “castrated sex,” but even – and this is the most spectacular achievement of lesbian sex prosthetics – opens the possibility that “what perhaps becomes castrated is the male body and the phallocentric baggage it carries” (emphasis mine).

Indeed, this is a miraculous achievement, a post-heroic feat of valour: at a stroke not only the Freudian edifice of the “castration complex” (see Freud 1972d [1925]: 21–22, 28–29, 1976a [1909]: 246; 335, 1976f [1908]: 178–179, 1983a [1938/1940]: 117–118, 1986a [1919]: 103, 111, 117, 148, 1987b [1924]: 400, 1987c [1923]: 295–297, 1972f [1926], 1983b [1922]) crumbles down, but, more fundamentally, the whole history of castration, with its complicated conceptual ramifications (see, for example, Taylor 2000), evaporates into nothingness, and by that, what is most important, the millennia long history of man, the male, simply ceases to exist. Facing all that, what more can one say, except that, no doubt, the dildo is a real wonder wand.

Then again, on the second look, why is it that even in the postmodern it is still expressly the male body that is the problem of feminism – a problem to be solved once and for all by means of castrating man and appropriating the male organ in the form of prosthesis. If, in the “post-gender world” of the cyborg (Haraway 1991a: 150), prosthetics is the ultimate form of castration, the final annihilation, the definitive amputation, of the phallus as a symbolic representation of the penis (see Lacan 1977g [1966/1958]; cf. Gallop 1985: 124–140, 143–149, 153–156; Bowie 1991: 122–157; in terms of the “lesbian phallus,” cf. Butler 1993: 57, 63–64, 73, 84–91), it is clear that the phallus is a Derridean specter (see Derrida 1994 [1993]: 95–153), a post-theoretical phantom, in the world of prosthetic feminism; that is, the double-faced signifier “phallus-dildo” is a spectral entity, a phantasmatic prosthesis, that is necessary in order to uphold the whole theoretical construction: the Phallus as the Great Liberator in terms of phallic feminism (cf. Armstrong 2000: 210–214; Donovan 2000 [1985]: 122–128; Shaktini 1989; Chanter 1997; Campbell 2000; for “post-phallic culture” as a uto-

The question still remains: why is it that Hamming’s “dildo-donned lesbian” only finds its identity by destroying the other: man and his sexuality? That is, why is it that Hamming will annihilate the very condition of possibility of her own thesis: the phallus? *Without phallus, there is no dildo* (although the phallus stands without the dildo) – that is the logic of the dildo (cf. Creed 1999 [1995]: 116–119; Brooks 2006: 138–163; Lamos 1995; in the context of “teledildonics,” cf. Foster 2000 [1997]: 441–442).

Thus, if the Weimar prosthetic man was a wounded phallic figure, man as a dysfunctional phallus, expressing at the same time a traumatic loss and a destructive reconstruction of masculine identity, the prosthetic lesbian is simultaneously both a Freudian narcissistic subject (see Freud 1991g [1914]) dreaming of autoerotic pleasures of the cyborg body in its post-sexual autarchy, and a Lacanian mirror-image reflecting the fragmented body as an imaginary whole through a misrecognition (see Lacan 1977f [1966/1949]): the disavowal of man in his symbolic form of the phallus implies the recognition of this very symbol as the symbol of the true identity of the “dildo-donned lesbian”; in other words, the prosthesis as the phallus, redesigned and resignified in terms of lesbian desire, signifies the most sublime erection for Hamming: the dildo as the hard core of the penis, the dildo as the symbol of the lesbian, the dildo as the prosthesis of lesbian identity (cf. Griggers 1997: 45–47, 52–53; Foster 2005: 118–119). *Love your prosthesis as yourself* – that is the seduction of the cyborg in the Harawayan “post-gender” world, the cyborg as the sexual object of post-sexual feminist fantasies: *prosthesis as the most arousing fetish* (cf., for example, de Lauretis 1994: 272–274; Lamos 1995: 110–112; Livingston 1997: 68–69; Melzer 2008: 167–168).

This is “sex” in the dildo-feminist techno-imaginary, that is, post-sex in which sexual desires and pleasures have turned into their own simulation: “sex” as a phantom experience.

The Resurrection of the Penis as a Genderless Organ

In these terms, in the world of cyborg feminism it is, in fact, not so much the Stelarcian maxim that “the body is obsolete” that counts, but, rather, it is *the male body as a body with no future* that is at issue: the phallic body, the male body as an attachment to the phallus, has entered its terminal phase. Hence, in the post-gender world of prosthetic bodies articulated by the signifying power of the lesbian phallus, there is no longer the terror of the male organ, nor of the “phallocentric baggage it carries”; that is, what Haraway (1991a: 150) calls the “tradition of racist, male-dominant capitalism” is now subverted by means of *detachable organs*, the prosthetic organs of the cyborg and, as a result, “[a]ny objects or persons can be reasonably thought of in terms of disassembly and reassembly” (ibid.: 162). In the long run, what is more important

It is in this manner, as Sarah Ahmed (1998: 111) sums up, that “[p]ostmodernism comes to express the very crisis of ‘the human’ as a boundary crisis – the impossibility of separating the subject from its prosthetic limbs.”

If, in the world of cyborg feminism, as Hamming (2001: 337) says, the “dildo acts as a disembodied prosthetic, not as a supplement to a woman’s lacking penis, a reproductive representation of the male body, but as a productive mutation of the dildonic body as altogether different,” what does this mean in terms of the male body, a body about to be abolished? As we have seen, there is only one answer to this question: castration – a procedure that pertains, of course, only to the male, since, as Freud (1972d [1925]: 24–26, 1972h [1931]: 535, 1981c [1905]: 95–96, 1983a [1938/1940]: 77, 1987b [1924]: 398, 1987c [1923]: 296–297, 1990c [1933]: 138–139, 1983b [1922]) has demonstrated, the female is always already castrated. As an always already castrated body, the female body is the embodiment of absolute freedom, and, as such, the model of the liberation of the world. Conversely, the male body, as the very embodiment of the phallus, is an emblematic incarnation of destruction in itself, a paradigmatic incorporation of the terror regime of phallogocentrism: the phallus as the monolingual power organ of endless perdition, destruction and annihilation – of course, only if it is attached to the male body, the body that is the paragon of all that is wrong in the whole universe.

The female body versus the male body – that is the constitutive binary opposition inscribed in feminism; “the male” as an intrinsic subtext and metacode of feminist theory; today, of course, rewritten by an unending sex/gender deconstruction in the sense of interminable rereading/rewriting as the theory of liberation in terms of postfeminism (see, for example, Jaggar & Bordo 1989; Elam 1994; Bordo 1995 [1993]; Grosz & Probyn 1995; Brooks 1997; Conboy et al. 1997; Ahmed 1998; Price & Shildrick 1999a; Weedon 1999; Potts 2002; Genz & Brabon 2009; from a historical perspective, see Donovan 2000 [1985]; for male/gender/sexuality problematics from a homosexual standpoint, see Edwards 1994). Thus, what is at issue here is either/or, and, according to this logic, there is only one way out: castration, a radical act that inaugurates the era of absolute freedom, the New Age of the cyborg as the embodiment of the Harawayan “post-gender world” (Haraway 1991a: 150). Castration – that is a small step for a man, but a giant leap for mankind: a leap to a new world inhabited by post-humankind; castration: the final abolition of what Haraway calls “the tradition of racist, male-dominant capitalism” with its evil consequences: “the
tradition of progress; the tradition of the appropriation of nature as resource for the productions of culture; the tradition of reproduction of the self from the reflections of the other” (ibid.). Castration: the beginning of a New Age in the name of the cyborg.

Here we have the primal scene of the cyborg, the body liberated from the male organ implying the birth of the “post-gender world”:

A second later he shouted a great raw scream of fear and pain… There, between his legs, was nothing. Nothing at all of penis, testicles, scrotum; nothing but the gleaming artificial flesh, with a transparent bandage over it, concealing the surgery lines. It was as if nothing had ever been there. Of the diagnostic signs manhood… nothing. The tiny little operation was over, and what was left was nothing at all. (Pohl 1976: 105)

“A great raw scream of fear and pain,” and then – “nothing at all.” What we have here is the abolition of man as the birth of the cyborg inaugurating a new world ruled by the reason of postfeminism, the reason of the “post-gender world” resulting from the dismantling of the phallus and the disruption of phallogocentrism performed by the politics of theory of postfeminism (see, for example, Potts 2002: 98–150; Chisholm 1995; Brooks 1997; Chantry 1997; cf. Campbell 2000; Reader 2006; in terms of fetishism, cf. McCallum 1999: 15–30, 81–116; in the context of “utopian feminist science fiction,” cf. Barr 2000; with regard to feminist endism, cf. Beetham 1995; for a theoretical contextualization, see Brooks 1997; Genz & Brabon 2009).


What is important here is that this ultimate castration no longer occurs in terms of the Freudian sexual ontology, but, instead, in terms of Harawayan cyborg onto-technology, a postmodern onto-theology as a post-biological epistemology enabling the “post-gender world” as a world in which, as Haraway (1991f: 249) says, “prosthesis becomes a fundamental category for understanding our most intimate selves” (from a theological perspective, cf. Roberts 2002: 286–288, 300). If there is still something that is called “sexual” at all in this world (which, of course, would no longer be intelligible as sexual in the inherited, historical sense, but in some new, transhistorical sense), it is possible only as a product of technology. Instead of being determined by the irrational impulses of the flesh, or, according to the terminology of the “cyber,” meat (see Dery
From this perspective, the cyborg is an entirely different being in comparison to the human being: the cyborg is the most supreme embodiment of scientific-technological reason and, as such, it is not dependent on the irrational whims of the flesh. As Haraway says:

A cyborg body is not innocent; it was not born in a garden; it does not seek unitary identity and so generate antagonistic dualisms without end (or until the world ends); it takes irony for granted. One is too few, and two is only one possibility. Intense pleasure in skill, machine skill, ceases to be a sin, but an aspect of embodiment. The machine is not an it to be animated, worshipped, and dominated. The machine is us, our processes, an aspect of our embodiment. We can be responsible for machines; they do not dominate or threaten us. We are responsible for boundaries; we are they. Up till now (once upon a time), female embodiment seemed to be given, organic, necessary; and female embodiment seemed to mean skill in mothering and its metaphoric extensions. Only by being out of place could we take intense pleasure in machines, and then with excuses that this was organic activity after all, appropriate to females. Cyborgs might consider more seriously the partial, fluid, sometimes aspect of sex and sexual embodiment. Gender might not be global identity after all, even if it has profound historical breadth and depth. (Haraway 1991a: 180)

What Haraway calls “the partial, fluid, sometimes aspect of sex and sexual embodiment” is not possible in terms of the organic; for this reason, whatever “cyborg ‘sex’” (ibid.: 150) as such is, it is based on the prosthetic organs of the cyborg. These are organs that have a better-than-normal performance, organs that bring about a rearticulation of sexual identity. “Today,” as Chris Gray (2001: 157) says, “the construction of gender is more than cultural, because the production of bodies is cyborged.” In fact, what is at issue now is a shift “from gender production to sexual reassignment and innovation” (ibid.); we are living in a new constellation of “the sexual” in which “prostheses accelerate us into the future” in which “new genders, new sexes, will be constructed out of the new bodies” (ibid.). This is a world in which “anatomy is not destiny; it is ambiguity and aporia” (ibid.) in a new constellation of indeterminacy in which the “erotics of cyborgs promises the actual bionic construction of many sexualities and sexes” (ibid.: 158). “With transsexual surgery, complicated mechanical sexual aids, and the virtual magic of teledildonics, sexual identity is more plastic than it has ever been” (ibid.).

Here we are in the world of the “new barbarians” (see Hardt & Negri (2000: 214–218) embodying a posthuman species that materializes the promises of the cyborg in their trans-political bodies.
The new sex/gender constellation outlined by Gray (2001: 158) is an entirely new paradigm of “the sexual” in which “anatomy is an epistemology.” This is “the cyborg epistemology” based on a post-Hegelian dialectics, the logic of “thesis, antithesis, synthesis, prosthesis” (ibid.; cf. Hegel 1986e [1812–1816], 1986f [1812–1816]), a post-logical logic manifesting the reason of the “post,” in which precisely prosthesis is the highest form of syn-thesis. This new prosthetic paradigm, comprising “no-sex and many-sexes models,” constitutes “a new set of power relationships around the erotic body, with possibilities for incredible displacements and pleasures” (Gray 2001: 158; cf., for example, de Lauretis 1997: 45–47; Battis 2007: 49–55, 107–139; Hollinger 2008: 150–157; Nguyen 2009: 373–378; Mason 1999). In other words, as Haraway (1991a: 150) says: “Cyborg ‘sex’ restores some of the lovely replicative baroque of ferns and invertebrates (such nice organic prophylactics against heterosexism).” It is in this manner that the morphology of cyborg “sex” is entirely amorphous: the logic of prosthesis enables an unlimited amount of couplings, it is a logic that is promiscuous through and through; or, as Haraway says, the “cyborg is resolutely committed to partiality, irony, intimacy, and perversity” (ibid.: 151).

It is in this matrix of prosthetic techno-sexuality that, as Judith Butler (1993: 193) says, “the production of new subject-positions, new political signifiers, and new linkages,” by becoming “the rallying points for politicization,” displace all the residual remnants of the heterosexual matrix once and for all. From now on, each and everyone has “his,” “her” or “its” own sex and sexuality, one’s own post-sexual, post-identitarian “identity” based on individually customized prosthetic organs, artificial organs that are constitutive of the post-body, the cyborg-body of the posthuman (cf., for example, Rorvik 1971: 57–80; Cavallaro 2000: 45–46; Gray 2001: 72–80; Launius & McCurdy 2008: 200–201; Whitt 2008: 31–31, 43–44; Åsberg 2009: 25–26; Reeve 2012: 93–99; for a philosophical problematization of the interrelations between machine and organism, cf. Canguilhem 1992 [1952]; for organisms and artifacts in terms of the imitation of life in ancient Greek philosophy, cf. Berryman 2007). That is, by choosing your organs you are free to choose yourself: your self as the exclusive, unique object of your desire. This is the import, the very sense, of the cyborgian ethos: love your prosthesis as yourself.

If, in the old world of oppressive heteronormality, it was a “truism that male masculinity [sic] was situated in the male organs” (Gray 2000: 279), in the world of the “cyber,” both the male and the organic no longer make sense, and accordingly, the penis is obsolete. As a result, the “penis is disappearing” (ibid.) without any hope of resurrection: in the Harawayan “post-gender world,” even the notions the “penis” and the “phallus” are no longer intelligible. Therefore, just like the time of “panic sex,” the time of the “panic penis” (Kroker & Kroker 1988a: 95–97, 1988b: 14–15; Kroker et al. 1989: 180–181), in the sense of a penis having reached a terminal phase, is now definitely over – like the body as a whole in the world of the “post” (cf. Bogard 1996: 144–145; Lehman 2007: 232–233). Just as the cyborg has taken the place of the organic body, the penis has been replaced by the prosthetic organs of the cyborg.
To understand the significance of this ultimate act of castration in its historical gravity, it is appropriate to recall the misery prevailing in the world under the terror regime of the phallus as the political manifestation of the penis; the time when the penis already had entered its terminal phase, the time of "postmodern penis," as Arthur and Marilouise Kroker (1988a: 95) call this residual organ in its final convulsions and spasms.

No longer the old male cock as the privileged sign of patriarchal power and certainly not the semiotician’s dream of the decentered penis which has, any-

Fig. 74–75. Two illustrations by Fritz Kahn (1888–1968), a German physician and author, famous in the Weimar Republic for his popular scientific publications in which he explained the functions of the human body by means of vocabulary and imagery derived from industrial modernism; that is, human physiology as a modern factory (see Hau 2003: 139–144; Borch 2007).

Continuing, in a modified form, the body-machine tradition of Descartes and La Mettrie as well as the Enlightenment discourse around the automata of Vaucanson and Jaquet-Droz, Kahn described the human body in terms of the machine, by way of machine analogies (for a historical contextualization, see Liu 2000; Riskin 2003, 2005, 2007; Muri 2007; Kang 2011; for the idea of the body-machine in the American context, cf. de la Peña 2003). An emblem of this kind of machine metaphors was Kahn’s poster Der Mensch als Industriepalast, “Man as Industrial Palace” (1921–1933), in which the human body was presented as a complex assemblage of industrial machinery, as a machine system that reflected the achievements of scientific-technological progress (on the left).

way, already vanished into the ideology of the phallus, but the postmodern penis which becomes an emblematic sign of sickness, disease, and waste. Penis burnout, then, for the end of the world. [...] [T]he penis, both as protuberance and ideology, is already a spent force, a residual afterimage surplus to the requirements of telematic society. (ibid.)

What was thought of as the rescue of the penis in the 1980s was only the final guarantee of its demise; that is, from the very beginning, the loss of the penis was inscribed in “all of the technologies of sex without secretions”: “the computerized phone sex of the Minitel system in Paris; video porn for the language of the gaze: designer bodies; and gene retreading” (ibid.).

And yet, as the breakthrough of post-sexual desires and pleasures in the mode of the “cyber” shows, the end of the penis does not imply the end of sex. There is no end of sex. If there is anything that is persistent it is sex: sex always returns, in one way or another, even triumphantly. And what is most important, in the world of the cyborg, sex finds its final liberation in the form of what Freud (1981c [1905]: 91, 136, 1986d [1915–1917]: 213) calls “polymorphous perverse.” Now everything, as we have seen above, is “altogether different.” Therefore, as astonishing as it after all may sound, even the penis, paradoxically, has an opportunity to return, since, as Gray (2001: 105) assures us, “technoscience has come to the rescue.” Thus, instead of the organic penis, there will be a “cyborg penis” (ibid.), a penis prosthesis as the ultimate post-penis. And although this penis may, at the first look, appear as a “fitting sign of postmodern patriarchy” (ibid.), there is no reason to let this impression to delude us, since what seems to be the old patriarchal penis, in fact, is only a phantom memory that can haunt even the cyborg world, and thus, quite understandably: where there is a prosthesis, there are phantom sensations that, however, cannot impede the triumph of the cyborg penis.

Fig. 76. “Bob Thawley has here imagined a science-fiction nightmare based on the real cyborgian research in medicine and the military that is driving much of the technoscience that lies behind our cyborg society. It is one thing to consider these changes in the abstract; it is quite another to see them, even in artistic representations. Phallic gun and prosthetic penis, programmable organs and programmed grimace – the marriage of war and technology breeds nightmares.” (Gray 2001: 109)

The celebration of the grotesque body and the fragmentation of the subject into a contingent assemblage of arbitrary body parts, accompanied by a hilarious nihilism glorifying the death of all that is human in a world ruled by the omnipotence of the machine – that is the triumphalist attitude of cyber/post-theorists who live in a posthuman future of their own making; a future that is a syncretistic mixture of post-Nietzschean pathos, neo-Futurist apocalypticism and postmodern technophilia. This is the basso continuo of cyber discourse as a techno-imaginary radicalization of the “post” of post-theory, sometimes reverberating just in the background, sometimes rising to the foreground (for a contextualization, see Derrida 1984c, 1992 [1980]; Dellamora 1995; Bozeman 1997; Berger 1999; Quinby 1999; Heffernan 2008; Geraci 2010). In other words, body horror in terms of the post-Kristevan abject is an extraordinary sublime form of pleasure in the world of the “post”: the pleasure of “the theoretical” as a manifestation of the “other” (for the idea of the abject, see Kristeva 1982 [1980]).
What is essential here is that the cyborg penis is a genderless penis, a penis belonging, as Haraway says above, to the “post-gender world,” the world of the posthuman enabled by the body politics of the cyborg.

This is the world based on “the double logic of prosthesis: in terms, at once, of panic and of exhilaration” (Seltzer 1990: 149). Hence, what is finally at issue here is the courage to overcome the residues of the organic world by proliferating ever-new “cybersexualities” (see Wolmark 1999a) by means of prosthetics. And just as the cyborg is the rescue of the penis, it is also the salvation of gender: in the world of the cyborg, gender is a “body option” (Angerer 1999a) implying that each cyborg is a gender of its own, a post-gender as a polymorphous perverse embodiment of prosthetic sex.

The Pandora’s Box of Prosthetic Sex

Thus, what is the perspective of hope and deliverance for the post-subject after the terror regime of the phallus disrupted by deconstructive feminism? In contrast to Freud (1987b [1924]: 400, 1990a [1912]: 90), in the world of the cyborg, as we recall Gray (2001: 157) saying, “anatomy is not destiny; it is ambiguity and aporia” (cf. Cassell 1992: 234; Bristow 1997: 95; Dean 2000: 59–60; Rose 2005 [1986]: 68). And since “[t]he cyborg epistemology is ‘thesis, antithesis, synthesis, prosthesis,’” it follows, precisely according to this post-Hegelian dialectics, that “gender binaries are overthrown through cyborg anatomies” (Gray 2001: 158). If, before the invention of sexuality some two centuries ago, what Laqueur (1992a [1990]) calls “one-sex model” and “two sexes model” were defined through maleness, that is, through the idea of the penis as the male organ and the phallus as its ideological and political projection dictating the rules of the sexual order as the order of heterosexuality, or, as Haraway (1991a: 150) says, “heterosexism,” in contrast, in the “post-gender world” (ibid.) of the cyborg there are, literally, innumerable options between “no-sex and many-sexes models” based on a “new set of power relationships around the erotic body” (Gray 2001: 158); that is, not only that each and everyone is now a gender of one’s own, but, more fundamentally, genders are interchangeable so that one can be many genders at will.

In this configuration, not only are genders a supply of unending multifarious options, from now on, everything is possible also in terms of sexual choices: “[t]hanks to technoscience in the near future” we will have “recreational sex” and “electromechanical phalluses,” “sex toys” and bodies working as “high performance sex machines” (Gray 2000: 291); there will be “those who choose chemical or moral celibacy, giving up the pleasures of the phallus to focus on their work,” and there will be others who see it more pleasurable to live “restricted to self-referential sex” (ibid.). Finally, in terms of “cyborgism” – the post-ontological epistemology of the cyborg – there will be “different types of posthumans, some with male bodies of some sorts, some quite genderless, some with new genders based on new sexes” (ibid.). This is “where the technol-
ogy is rapidly going”; and, in terms of the subject and agency, what is most important, “it is producing new, self-directed and indeed liberatory, politics” (ibid.). In other words, sex and gender, sexual orientation and sexual identity, all the manifestations of “the sexual,” are deliberate political choices in the world of the cyborg, political options in the sense of the ego-politics of the subject.

Facing this variety, one can understand, once and for all, what a horrible monotony prevailed in the world under the rule of the phallus, the disciplinary regime erected around the penis, the totem pole of male power.

Paradoxical as it may sound, it is precisely in terms of the posthuman that “cyborgian technoscience has actually opened the Pandora’s box to a proliferation of humans and variations on the human that is just as vast, as improbable, as wild, as nature itself” (ibid.: 292). This is the ultimate resurrection of the human as the posthuman: the body is now a technological assemblage, a technoscientific object conceived of “in terms of disassembly and reassembly” (Haraway 1991a: 162). This is the return of denaturalized nature in the form of the second nature of the technological. This is the world of meta-prosthetics in which each and everyone is “his” or “her” own prosthesis, and finally, everyone has the same possibility of becoming a prosthetic being beyond whatever definitions there may be, be it sex, gender or identity, beyond the constraints of all categorizations in general (cf., for example, Halberstam & Livingston 1995; Rail 1998b; Brodwin 2000; Featherstone 2000; van der Spek 2000; Angerer et al. 2002; Flanagan & Booth 2002; Pronger 2002; Yaszek 2002; Zylinska 2002b; Mitchell 2003; Mitchell & Thurtle 2004; Redmond 2004; Chorost 2005; Vint 2007; Pearson et al. 2008; in terms of the techno-imaginary of the life sciences, cf. Doyle 1997).

In these terms, we are now living in a world in which the most essential part of identity politics is cyborgian self-customizing; that is, the ego-politics of the cyborg in which the prosthetic enhancement and augmentation of the body is not only the elementary strategy of survival, but, more importantly, the condition of possibility of post-body hedonism: desires and pleasures of technologically optimized transformative bodies that exist in the mode of continuous “becoming” (see Braidotti 2006).

Love your prosthesis as yourself – that is the ethos of love in the world of the cyborg, the world of prosthetic beings in their unending “becoming.”

4.2.2 Does the Cyborg Need a Penis?

As always, when fundamental transformations are at issue, the transition includes its own complications. The transition to the world of the cyborg is no exception. In this respect, what is problematic is the obstinence of the human flesh, especially in terms of the sexual. If the human being has what are called the “sexual organs” (whatever they are), or, in a narrow sense, the “genitals,”
what are the organs of the cyborg appropriate to what Haraway (1991a: 150) calls “cyborg ‘sex’”? In other words, what are “sexual” desires and pleasures in terms of prosthetics as forms of “sex” that constitute “cyborg ‘sex’” (cf. Peppers 1997: 164–170; Apter 1999: 216–219; Parisi 2004: 7–8, 22–27, 34–37; Haney 2006: 160–164)? This question brings us back to the pre-cyborgian world, a world in which the organic was still constitutive of the body instead of the technological.

If there is anything that epitomizes this problem, the problem concerning the sexual organs, it is – yes, once again – the penis, the most problematic organ in the human world; an organ that time and again has thrown the world to the brink of ultimate destruction, an organ full of malevolent power, an organ that refuses to obey the imperative of reason, as we know since Augustine’s agonizing meditations on the lust of the flesh (see Saint Augustine 1966 [413–426]: 257–407, 1982 [388]: 111–126, 1991 [397–398]; cf. Deane 1963; Kirwan 1989; Elliott 1999; Brown 2000 [1967]). Therefore, it is apposite to take a closer look of this trouble maker, an organ that has not only, as David M. Friedman (2001) says “a mind of its own,” but, what is even more problematic, has its own will.

To understand how evil this will can be, one just needs to recall what happened when, some three and a half decades ago, the days of the penis seemed to be counted. “In five years, the penis will be obsolete” (Varley 1993 [1976]: 3; cf. More 1997) – that was the good news at the time. Unfortunately, however, the terror of the penis was able to continue because of the insidious whims inherent to its thoroughly malevolent character. Still today there are many who claim that it is not easy to terminate the penis since its power is inextricably entangled with the power of pleasure – not least because, as odd as it may sound, there have always been women for whom the penis has been an irreplaceable, even an indispensable, source of pleasure, and, as human history shows, pleasure is an adversary that is extremely difficult to fight against.

What Comes After Dinosaurian Sex?

Then again, from the perspective of reason, the wish to terminate the penis is more than understandable: the self-willed behaviour of the penis as “a wilful entity with a mind of its own,” as Annie Potts (2002: 261) also sees the problem of the male organ, is the very opposite of all that is rational, even of all that is reasonable. Thus, the penis is the most irrational organ; it is the paradigmatic embodiment of unreason. The problem is that as an autonomic organ having its own visceral, involuntary mode of functioning, the penis cannot escape its organic and organismic willfulness, its orgasmic and orgiastic whimsicality, its intrinsic inability to function rationally, in comparison to the rationality embodied by both the machine and the cyborg. The penis, in its contemporary evolutionary form, simply does not correspond to the high standards of state-of-the-art technology in terms of precision and reliability. In other words, as a residual organ, the penis has fallen behind the efficiency requirements set by the performance capacity of the technological body, a body that is not organized by organs, but
by the rationally constructed body parts that are constitutive of the cyborg, a “hybrid of machine and organism” (Haraway 1991a: 149).

In short, the penis is an epitome of irrationality in its very “naturalness,” an organ that is symptomatic of the unreason intrinsic to the sexual body in its “natural” state (for the origin of this idea in Augustine’s libidinal body, see O’Daly 1987: 12–14, 45–55, 116–121; Lyman 1989: 55; Clack 2002: 21–34). In its non-naturality, the cyborg is the opposite of all that is “natural.” As Haraway (1991: 162) says, in the world of the cyborg, everything “can be reasonably thought of in terms of disassembly and reassembly,” and therefore, there are “no ‘natural’ architectures” that “constrain system design.” Thus, the problem is that it is precisely the penis that does not comply with the rationality of the “system design” constitutive of the cyborg.

It is in these terms that from the standpoint of the cyborg, it is understandable that, sooner or later, the penis not only “will be obsolete,” but, first of all, it must become obsolete rather sooner than later. And for the same reason, this judgement, pronounced by a “body-morph salesman” (Gray 2001: 151), a man of the future, is not a condemnation; it is a fact, for some a relief, for others, a loss, for some a great satisfaction, for yet others an unbearable frustration. But there is no way to stop the progress of science and technology. Dinosaurs are gone; that is also the future of humans: evolution is an unending process, a process of continuous and irresistible transformation (for an overview, see Moore & Kosut 2010b). Most fundamentally, we are now living under conditions under which the body is no longer a “natural” organism, but a scientific-technological construction always constructed anew by means of hybridization and morphing, the means of prosthetics (see, for example, Graham 2002: 176–199; Manning 2007: 155–162; Smith & Morra 2006; Deane-Drummond & Scott 2006); that is, the very methods of survival in a world in which the future is already present: the world of technoscience (see, for example, Halberstam & Livingston 1995; Marcus 1995; Aronowitz et al. 1996; Robins & Webster 1999; Ihde & Selinger 2003; Clough 2004; Hayles 2004b; Clarke 2008).

All this is clear also in terms of the medical body defined by technoscience and the body politics based on it. As Suzanne Anker and Dorothy Nelkin (2004: 111) sum up the development taking place before our very eyes: “As artificial organs become the frontier of technocratic medicine, the body is re-imagined as a machine, a hybrid form, indeed a kind of chimera that morphs the human and the machine.”

This is a world in which the organic body is replaced by a techno-body, a body that is no longer an anatomical destiny (cf. Freud 1987b [1924]: 400, 1990a [1912]: 90), but a conscious choice, or, as Marie Luise Angerer (1999a) says, a “body option.” That is, in the world of the cyborg, the body is a design object: you are your designer body, a body that is a technoscientific construction, always mutable at will.
The man of the future, John Varley, already saw the future of the penis in the distant 1970s. Varley, for some an author writing “right-wing Hard SF” (Roberts 2000: 106), for others, as Haraway (1991f: 249) says, an outspoken visionary perspicaciously investigating “limited embodiments, differently abled beings, prosthetic technologies, and cyborgian encounters,” an author who was even capable of constructing a “supreme cyborg in his arch-feminist exploration of Gaea, a mad goddess-planet-trickster-old woman-technological device on whose surface an extraordinary array of post-cyborg symbioses are spawned” (ibid.: 179). This is a world in which all that is sexual is now experienced and expressed in a scientific-technological constellation in which, as Chris Hables Gray (2001: 151), a prominent cyborg scientist from Haraway’s school, says, “sex machines,” “human beings” (whatever is still left from the being formerly known as “human”) and thoroughly new entities called “in-betweens” define the parameters of sex and sexuality.

Thus, after the era of dinosaurian sex, what we have in our present future is prosthetic sex. In a world in which “the body is obsolete” (Stelarc 1991: 591) – the body as we know it as a creation of evolution – it is, of course, clear that the organic form of the body is no longer necessary. Why to be content with a body that has come into being as a result of biological procreation, a random process, a thoroughly contingent course of events, an outcome of an unscientific act in its irrational accidentality, if we have the possibility to build ourselves up from scratch? Body building, in the true sense of the word – that is the strategy of the survival in the age of prosthetics, an era in which prosthesis implies not only technological extensions and amplifications of the body, but, more fundamentally, prosthetic epistemology as a post-evolutionary regime of knowledge that opens up a post-anthropological perspective on the world after the human being (cf. Stiegler 1999 [1994]: 49–53, 114–118, 124, 145, 154, 193–199, 216, 219, 235, 252; Brahman & Driscoll 1995; Wills 1995; Jain 1999; Berger 2000; Marsh 2000; Clarke 2002; Drucker 2002; Smith & Morra 2002b, 2006b). As Haraway (1991f: 249) says, in a world ruled by technoscience, “[p]rostheses become a fundamental category for understanding our most intimate selves.”

Whatever prosthesis is, it is clear that it is nothing natural; prostheses are not a result of evolution, they are scientific-technological inventions, products of body engineering, artificial organs created by cyborg intelligence, a form of intelligence that, by all measures, is superior to nature. What is important is that they are not bound by a fixed form – which, of course, has radical consequences in terms of “the sexual.” As Natasha Vita More, a transhumanist techno-avantgardist, already envisioned in the mid-1990s, at the time when Dolly the sheep was just one year old:

Maybe our genitals will change form, and perhaps we will have new genders and a mixture of genders. Maybe not. Maybe we will eliminate physical sex altogether and endow a simulated creativity center in our brains manufacturing mental orgasms on an assembly line. (More 1997; cf. Kurzweil 1999: 179–194; Gray 2001: 157–160; Leary 1994c [1985])
Maybe, maybe not: in the world of the cyborg, things are open, *everything is possible since everything is contingent*. What is certain, however, is that this is the world in which the penis will be obsolete. This is a world in which the body is a transformer – and for what a transformer would need a penis when there are other options, options that depend only on the imaginative faculty of each and everyone of us as the body-engineer of one’s own life and destiny. As Gray says:

> Bodies can now be remade technologically, not just morally or wilfully through the self-discipline of abstinence and exercise. The discipline of tools and machines, long a part of human culture, is no longer just inscribed on the body in the ways that worried Michel Foucault. Today, metaphorically and physically, the discipline of technoscience is incorporated into the body as information, and it is surgically added, prosthetically. (Gray 2001: 191; in terms of the military body, cf. Dillon 2003; Dillon & Reid 2009; Bishop & Phillips 2010)

In fact, this is the world of Filippo Tommaso Marinetti finally realized in our present future under the sign of the “cyber.” Marinetti, the leading figure of Futurism, a man of superb imagination and courage, already saw the coming of this world almost a century ago: “We will conquer the seemingly unconquerable hostility that separates our human flesh from the metal of motors” (Gray 2001: 110; cf. White 1990: 342; Drucker 2005: 196–218; Brouwer & Hoekendijk 1997; Featherstone 2000; Berghaus 2005; Braidotti 2006; Goertzel & Bugaj 2006). Astonishingly enough, Marinetti, in his triumphant, insuperable masculinism empowered by militant phallic rage (see, for example, Kaplan 1986: 82–85; Cooper 2002: 78–84; Foster 2004: 114–128; Poggi 2009: 34–40, 69–70, 157–165), did not see, however, what was the fate of the penis. At the beginning of the twentieth century, at the time of the breakthrough of the modern, the man was still man, a creature of phallic power, a being dependent on his phallic capabilities; a man that recognized only one might superior to himself: his own sexual organ, *the penis playing the role of the phallus*.

From this historical perspective, it is, of course, clear that the entire twentieth century was an outcome of phallic power, a tremendous achievement of the phallus. After the pyramids of Egypt and the great ideas of Greek philosophy, there has never been such a burst of creativity – except in technoscience in the twentieth century: *technoscience as the apotheosis of phallic power*. Seen in the light of this historical fact, it is evident that the cyborg is an embodiment of the phallus; that is, a paradigmatic creation of technoscientific imaginary (cf. Derrida 2002a [1996/1998]: 81–84; for a historical contextualization, cf. Marcus 1995), a postmodern descendant of the Baconian project constitutive of the modern (see, for example, Harding 1991: 43, 64, 146–148; Schiebinger 1991 [1989]: 137–157; Keller 1996 [1985]: 31–54; Hooykaas 2000 [1972]: 39–74; Park & Daston 2006). In other words, the cyborg would not have been possible without the scientific-technological progress that has enabled the contemporary world, a world in which we enjoy the future already today; a world in which *everything is a matter of engineering*, an object of technoscientific research and design (cf. Haraway 1991a: 170–176, 1997: 53–71, 84–109; Michael 2006: 41–62;

It is in this manner that in our world ruled by technoscience, bodies are subsumed by the systemic rationality of what Barry Allen (2008: 109–116) calls the “second-order machine,” a postmodern disciplinary regime under which the body is no longer just an organism (with regard to the “transclassical machine,” cf. Weber 2003: 158–159, 164–165; Tibon-Cornillot 1982; Bammé et al. 1983); rather, it is now a techno-organism increasingly dependent on scientific-technological engineering.

That is, to be a body at all, the body has to be adapted to a complex and all-inclusive scientific-technological power structure, the technocratic management system of neo-Fordism as the contemporary form of what John Kenneth Galbraith (1967) called the “technostructure” in the 1960s (cf. Waligorski 2006: 55–59); in other words, the politics of “economic barbarism and managerialism” (see Pena 2001) as the politics of the body constitutive of the disciplinary order of productive consumption, promoting the expansion and intensification of the political economy of neoliberalism.

In this sense, cyborg feminism, a post-theoretical doctrine theorizing the feminist cyborg, is a continuation of phallic power by other means, by means of post-feminism ruled by the imperative of “the technological” (cf. Balsamo 1996; Brooks 1997; Clarke & Olesen 1999; Kember 2003; Mamo 2007; Clarke et al. 2010).

If there is still something left over of male power, one should not forget – as already stated above – that for millennia it has been, according to Gray’s (2000: 279) pointed remark, “a truism that male masculinity was situated in the male organs,” and for this reason, “so unsurprisingly they have been a focus of technological interventions for a very long time” (ibid.). Accordingly, the penis has been an object of “technological treatments which offer the possibilities of better-than-normal performance in the long run, the reassignment of sexual identity, or even the creation of new sexes” (ibid.). “From its beginnings in the late 17th century, technological attempts to treat the male ‘limb’ have ranged from the disquieting to the grotesque” (ibid.).

All this notwithstanding, the fact remains that if, in general, there is a human organ that is an emblem of the deficiency constitutive to the human being in its atavistic, archaic and prehistoric form, in its evolutionary retardedness, in its social and cultural backwardness, it is the penis, the penis as an entirely dinosaurian organ. It may be that the phallus, indeed, has wielded as a sceptre of the world, as the almighty symbol of manpower, but the penis as a male organ, as the very member of masculinity, has been, in reality, significantly less powerful than its symbolic form, the phallus.

That is, the phallus is a magnificent monument of the self-aggrandizing and pretentious power of the penis, an organ that, in every respect, is smaller than its fame, its assumed greatness.
The more there is fear about the fate of the penis, and, accordingly, attempts of appropriate measures to rescue it. Despite the proliferation of, as Gray (2001: 105) says, “artificial male genitalia” as an assumed restoration of the penis, some theorists, nevertheless, argue that the “penis is disappearing and a crisis of masculinity is upon us” (ibid.). Indeed, for example, the Krokers (1988a: 95–97, 1988b: 14–15) have already been announcing for years that what we have in the contemporary world is a “panic penis” manifesting “panic sex”; as we remember, it is a “post-modern penis” that has become an “emblematic sign of sickness, disease, and waste,” and for this reason, it is “already a spent force” (Kroker & Kroker 1988a: 95)

Yet, as Gray (2001: 105) assures us, the “penis continues to rise, and fall, and rise and fall again (sometimes thanks to a little pump).” This is the miracle of the penis: its insuperable ability to survive.

Phallogocentrism, or: The Terror of Reason

In the light of all this, why, in the first place, is it, then, that the penis, this particular male member, is, at the same time, an obsolete organ in the sense of an evolutionary relic without any hope of survival, and, an all-powerful, horrific weapon of terror and subjugation constantly threatening not only the female part of humankind, but also all those who have decided to live in the Harawayan “post-gender world” – and, finally, in the symbolic form of the phallus, even an enigmatic theory-totem celebrated by post-theory for its abundant ability to proliferate ever-more theory, ever-new signifiers, in terms of the “post”?

To specify, if the penis, as an organ functioning as both an agency of procreation and, independently of this, an organ of pleasure, bringing a specific mode of pleasure that Freud (1986d [1915–1917]: 335–336, 1990c [1933]: 104–105, 1991d [1915]: 217–218) designates with the term Organlust (cf. Laplanche & Pontalis 1998 [1967]: 363–364; Schöpf 1998: 122–124; for a theory-historical discussion, see van Haute & Geyskens 2004), of course, not only in heterosexual intercourse, but also in various sexual practices, whatever they happen to be, among heterosexuals and homosexual alike – why is it, then, that the penis, in its double role as the penis/phallus (or the phallus/penis) has been resignified expressly in negative terms in postmodern theory, in terms of castration and rape, oppression and violence, terror and horror, to the extent that the equation penis-penetration has become to signal nothing but aggression (see, for example, Graham et al. 1994: 91–95, 110–111, 162–184; McCallum 1999: 28–30; Weber 1999: 84–110); in other words, why is it that the penis signifies first and foremost “panic” in the world of the “post” (Kroker & Kroker 1988a: 95–97, 1988b: 14–15)?

Indeed, why is it that this tiny piece of flesh, or, more scientifically, this erectile tissue (the question as to what exactly is the psychic mechanism of erection would be an issue for a separate study), which in the flaccid state is almost nothing, but in the operative state almost bombastic, has taken on a signifi-
cantly charged meaning as a libidinal investment in terms of theory? According to Elizabeth Grosz (1995b: 5), the problem is “how to think desire beyond the limits of castration and thus beyond the phallus, the subject’s inherent masculinity” (cf. Ballif 2001: 55–59)? Theorizing the connections, or, better, the associations, between the theoretical figures “the phantom limb,” “narcissism” and “hysteria” (each of which alone has a heavy load of theory in the contemporary academic world), Grosz (1994c: 73) argues that all these signifiers refer to “a kind of nostalgic reaffirmation of the body of women outside of (phallic) genitality,” which, in turn, “raises the general question of the status of the body image of women insofar as women are considered and consider themselves to have suffered an amputation more debilitating than most – the amputation implied by castration” (emphasis mine). In these terms, the most crucial question, according to Grosz, is:

Do women have a phantom phallus? What is the status of a fantasized amputation (such as is required by castration) and a real one? Do women experience the castration complex as a bodily amputation as well as a psychosocial constraint? If so, is there, somewhere in woman’s psyche, a representation of the phallus she has lost? Is this what makes the masculinity complex possible? (ibid.; emphasis mine; in terms of “phallic woman,” cf. Waldby 1995: 273–275, Potts 2002: 219–223; with regard to “the woman with a penis,” cf. Creed 1999 [1995]: 118)

Do women have a phantom phallus? To be able to ask this question, one has to believe that there is such a thing as “the phallus” in the first place. If you do not believe in the phallus, you do not have a problem with it. In other words, the question concerning “the phallus,” and, accordingly, any questions pertaining to its ominous effects, most notably the threat of castration, in fact, produce the problem they speak about. That is, “the phallus” is an effect of theory, a linguistic figure that has an enormous suggestive power in the world of post-theory, to the extent that to practice theory in general in postmodern academia is not possible without “the phallus.” In other words, “the phallus” is constitutive of the “post,” one of its most important theoretical premises: there is no theory without “the phallus” in the world of the “post.”

Thus, take care of the phallus if you like to play with it. In this sense, “the phallus” of post-theory is a post-Žižekian tamagochi, a “virtual pet”: to keep “the phallus” alive you must take care of it, feed it, give it emotional attention, constantly prove your affection and devotion to it by little loving gestures (cf. Žižek 1999c: 106–109, 2001c: 48, 2004: 118–119, 2006: 190–191).

Of course, as a sexual organ, due to its enigmatic autonomy, the penis, the real-world substrate of the theory-figure of “the phallus,” has had from the very beginning a mythical meaning: a self-willed organ that does not obey his master’s voice. This potent pillar, manifesting generative force, evoked overwhelming admiration among ancient Greeks (see Keuls 1993), having had since then, in the guise of “the phallus,” symbolic power without which psychoanalysis à la Lacan would be, literally, unimaginable (see, for example, Pettigrew & Raffoul 1996; Fink 1997 [1995]; Borch-Jacobsen 1999 [1990]; Reader 2006), and without
which feminism would have lacked an important – if not a constitutive – object of theory, of course, in terms of highly sublimated love-hate (see, for example, Brennan 1989; Grosz 1990; Campbell 2000; Dever 2004) (although, curiously enough, there have been and still are women who can enjoy the penis as a source of heavenly pleasures available only on earth). But how is it possible that in the world of the cyborg, a world ruled by scientific-technological rationality, this organic-symbolic body part, the penis/phallus, still has such a significant position that it time and time again resurfaces as a theoretical figure, as an abominable spectre full of negative power, the power of all that is signified and codified as “phallic” in the name of theory (see, for example, Beetham 1995: 108–110; Zylinska 2001: 34, 58–60, 92–95; Foster 2005: 51, 102–104; Melzer 2006: 204, 210, 216; Shaktini 1989; Ian 1993; Feldstein 1995; Weber 1999; Barr 2000; Brooks 2006)?

In short, why has the penis, be it as such, or in the guise of the phallus, become a figure that signifies only terror and horror in contemporary theory, even in theories in which the body exists purely in the form of writing, or in which, incorporated into the neologism phallogocentrism, it immediately conjures up a spectre of some imminent threat or danger? This is an enigma – or then not, if “the phallus” is taken at its word, as a “free-floating signifier” constitutive of post-theory, as a suggestive object of study, an inexhaustible source of theory. This is the importance of “the phallus”: “the phallus” is a postmodern sphinx.

To return to the theme proper of the study at hand, and to pave the way for the questions I will next be approaching, I will take up a couple of passages from Haraway’s cyborg manifesto that show the importance of the phallus in the world of the cyborg; the phallus here, of course, in its negative role as a theoretical figure in terms of “phallogocentrism,” that is, the enemy of all those who seek the salvation in the form of the cyborg.

Having reminded the reader that “postmodernist” theories have been “attacking the phallogocentrism of the West, with its worship of the monotheistic, phallic, authoritative, and singular work, the unique and perfect name” (Haraway 1991a: 175), Haraway writes – it should be emphasized, writes in the mode of her own cyborg writing – that “cyborg writing” is about “the power to survive, not on the basis of original innocence, but on the basis of seizing the tools to mark the world that marked them as other” (ibid.; cf. Haraway in Olson 1995: 49–50; Cameron 1992: 179; Schaffer 1999: 160; Lykke & Braidotti 1996a; Bryld & Lykke 2000; Smelik & Lykke 2008). That is, in the world of the cyborg, in order to exist, what is absolutely necessary is that I believe in the word, it is the word that is my salvation, it is the word that will lead me to my redemption, it is the word that is my final deliverance (for Catholicism and “Catholic sacramentalism” constitutive of Haraway’s cyborg, see Haraway 2000a: 24, 86, 141, 2008: 18, 162, 165; Graham 2002: 217–218; for parallels between Spanish Jesuit Francisco Toletos and Haraway with regard to the relations between the body, sensuality and violence, see McAleer 2005: 94–95, 103–114).
Thus, if one wants to become a cyborg it is a matter of faith in a fundamental manner: the word does not become flesh if one does not believe in it; accordingly, there is no way to become a cyborg without the faith in it; and, as we know, extra ecclesiam nulla salus, “outside the church there is no salvation.”

What is specific to the cyborg, however, is that the salvation is possible only in terms of subversion; the subversion of the power structures maintained by the phallus, which, paradoxically, presupposes that one believes in the phallus in the first place; that is, no faith, no phallus. Therefore, in order to become a cyborg by overcoming the power of the phallus, what is needed are appropriate “tools”; as Haraway explains:

The tools are often stories, retold stories, versions that reverse and displace the hierarchical dualisms of naturalized identities. In retelling origin stories, cyborg authors subvert the central myths of origin of Western culture. We have all been colonized by those origin myths, with their longing for fulfilment in apocalypse. The phallogocentric origin stories most crucial for feminist cyborgs are built into the literal technologies – technologies that write the world, biotechnology and microelectronics – that have recently textualized our bodies as code problems on the grid of C³I. Feminist cyborg stories have the task of recoding communication and intelligence to subvert command and control. (Haraway 1991a: 175; emphasis mine)

What Haraway calls a “language politics” is about writing both “figuratively” and “literally,” referring here to the “struggles of women of colour” (ibid.). In these terms, the world of the cyborg is first and foremost a world of writing, but writing that does everything to avoid unambiguous meanings, all that is uttered “clearly and distinctly” in the Cartesian sense (see Descartes 1985b [1637]: 121, 1985c [1644]: 199, 207, 216); in other words, a mode of writing that subverts the power of the phallus: the phallus as the totem of Western reason erected by male thinkers for whom the highest virtue has been, in Descartes’ words, to comprehend things “clearly and distinctly” (cf. Cottingham 1986: 66–72, 75–76; Patterson 2008). It is in this manner that:

Writing is pre-eminently the technology of cyborgs, etched surfaces of the late twentieth century. Cyborg politics is the struggle for language and the struggle against perfect communication, against the one code that translates all meaning perfectly, the central dogma of phallogocentrism. That is why cyborg politics insist on noise and advocate pollution, rejoicing in the illegitimate fusions of animal and machine. These are the couplings which make Man and Woman so problematic, subverting the structure of desire, the force imagined to generate language and gender, and so subverting the structure and modes of reproduction of “Western” identity, of nature and culture, of mirror and eye, slave and master, body and mind. “We” did not originally choose to be cyborgs, but choice grounds a liberal politics and epistemology that imagines the reproduction of individuals before the wider replications of “texts.” (Haraway 1991a: 176; emphasis mine)

As we can see here, “the phallus” is a highly productive discourse generator without which Haraway’s cyborg would never have come into being. As such, the phallus, precisely as an enigma without resolution, regardless of whether it refers to the penis or not, is a negative figure in its productive positivity in Haraway’s
writing, in Harawayan discourse; and doubly so, as it has no right to appear in its own right, but comes to the fore, appears in the scene of writing, embedded in the image of enemy, the vicious configuration of “phallogocentrism” that is the paramount form of male rationality, the tradition of the Enlightenment implying the terror of reason in its very Baconian sense (see, for example, Schiebinger 1991 [1989]: 137–157; Keller 1982, 1996 [1985]; cf. Soble 2003a, 2003b). It is this tradition that Haraway wants to crush once and for all in the name of the anti-phallic figure of the cyborg: the cyborg as the very negation of the phallus.

**Bourgeois Modernity, or: The Order of the Penis**

From the perspective outlined above, in terms of the sexual, what is the most terrible thing about the penis? Penetration. The penis is an organ that, regardless of its sexual self-sufficiency as an agency of masturbation, manifests the desire for penetration: relentlessly, the penis wants to penetrate, to always find an object for penetration, to enjoy the pleasure that only penetration can bring to it. The penis is, in other words, quintessentially a penetrative organ, an organ that, in order to exist, is in need of another organ, or a substitute for it: a smooth, warm, wet, engulfing orifice, a snug hollow, a vertiginous chasm that, in the final analysis, is a horrific abyss in its irresistible seductivity, an alluring, insidious and ever-present power of the flesh that is more powerful than the potency of the penis in itself (cf. Saint Augustine 1966 [413–426]: 355–361; Salisbury 1992: 39–44; Grosrichard 1998: 144–145; West 2005: 29–35; Shorter 2005). This is the logic of the penis: penetration is its obsession. This is the terror and horror of the penis, the threat to all the objects that are potentially penetrable, all the objects that are within the reach of the penis: all the objects that are the potential prey for the penis the predator.

*The penis is the most terrible, the most dangerous, the most destructive organ* in the world of humans; the sceptre of a terror regime the only salvation from which is the subversive power of the posthuman generated by cyborg feminism (see, for example, Halberstam 1998a: 473–480; Van Loon 2002: 60–78; Hartmann 2004: 48–57; Melzer 2006: 22–32, 259–262; Senft 2008: 33–37; Sandoval 1995; Lykke & Braidentti 1996a; Schaffer 1999; Wolmark 1999a; Kirkup et al. 2000; Flanagan & Booth 2002).

In the prevailing situation, in the face of the ultimate subversion of phallogocentrism and with it the terror regime of the penis, if there is a place or a space, an area that can provide a refuge for the objects that want to avoid the approaches of the penis, to thwart the possibility of getting into the danger of penetration, it is cyberspace. In cyberspace, there are no penises, hence no risk of penetration. In other words, cyberspace is an absolutely penis-free zone, a zone in which one remains safe from the importunate intrusion of the penis. A miracle happens in cyberspace; for, as Stone says, it is in cyberspace that:

> Penetration translates into envelopment. In other words, to enter cyberspace is to physically put on cyberspace. To become the cyborg, to put on the seductive
and dangerous cybernetic space like a garment, is to put on the female. Thus cyberspace both disembodies, in Sobchack's terms, but also reembodies in the polychrome, hypersurfaced cyborg character of the console cowboy. As the charged, multigendered, hallucinatory space collapses onto the personal physicality of the console cowboy, the intense tactility associated with such a reconceived and refigured body constitutes the seductive quality of what one might call the cybernetic act. (Stone 1994b [1991]: 109)

A “cybernetic act” in the penis-free zone of cyberspace – that is the miracle of the “cyber”: under the sign of the “cyber,” penetration turns into envelopment. A tremendous occurrence: where the penis was, there is now a void, a vastness full of pleasure, the pleasure of being “cyber.”

This implies that cyberspace signals a large-scale historical transformation that concerns the very condition of possibility of both the body and the subject, in fact, the existential premises of the body-subject as the subject of its own body, and as a body constituting the subject as a self, unique in its subjective corporeality and corporeal subjectivity. This, indeed, is an unparalleled transformation, an epochal turn, the consequences of which have only slowly begun to reach the cultural consciousness of the Western world, to say nothing of other parts of the world. As Stone says, the “the unitary, bounded, safely warranted body constituted within the frame of bourgeois modernity is undergoing a gradual process of translation to the refigured and reinscribed embodiments of the cyberspace community” (ibid.). In other words, this is the final end of what N. Katherine Hayles (1999: 2–7, 85–92, 100–120) calls “the liberal humanist subject” constitutive of the modern; a subject as a self-conscious and autonomous self; that is, like the new media in general, cyberspace in particular brings about an entirely new constellation in which, in Mark Poster’s (1995b: 90–91) words, “the subject as coherent, stable, rational center is refuted by heterogeneity, dispersion, instability, multiplicity.”

As a result of this fundamental transformation, a significant change has taken place in terms of sex and sexuality in those parts of the world in which one can enjoy access to cyberspace, the sublime zone of the ultimate liberation. It is in this realm, in a paraspace of the techno-imaginary (cf. McHale 1992: 247–253; Wolmark 1994: 22–25; Bukatman 1996 [1993]: 157–182), that we can experience the miracle of the “cyber,” the miracle of the absent presence of present absence, the presence of spectral bodies in the sublime state of virtual desire as the desire for the virtual (cf., for example, Currier 2002: 525–530; Heim 1993; Žižek 1995a, 1995b; Deuel 1995; Vasseleu 1999 [1994]; Marsden 1996; Krewani 1998b; Plant 1998; Angerer 1999b, 2004; Crang et al. 1999; O’Farrell & Vallone 1999; Sofoulis 1999 [1992]; Massumi 2002; Sundén 2002a; Flanagan 2004; Tobias 2006; Case 2007; Parisi 2008); as Stone says:

Sex in the age of the coding metaphor – absent bodies, absent reproduction, perhaps related to desire, but desire itself refigured in terms of bandwidth and internal difference – may mean something quite unexpected. (Stone 1994b: 109; cf. Kroker & Kroker 1993b: 15–19; Virilio 1997 [1995]: 115–118)

And as if all this as such were not already concrete evidence that we are living in a new age, now even death – that terrifying threat always present in human life – will undergo a palpable change. This is that “something quite unexpected” referred to by Stone above: “Dying in the age of the coding metaphor,” as Stone (1994b: 109) specifies, “in selectably inhabitable structures of signification,” will give a “new and disturbing meaning” to the question: “Who Dies?” (Stone refers here to a book by Stephen Levine with this title). Indeed, why should we care about death, because in the transcendence of cyberspace we can finally attain immortality (see, for example, Wilson 1996: 224; Fisher 1997: 118, 122–124; Hillis 1999: 172–175; Wertheim 2000: 20–21, 41–42, 259–260, 265–268; Jordan 1999: 185–190; Herzfeld 2002: 69–77; Dinello 2005: 1, 9, 12, 18–29; Partridge 2005: 157–162; Jahshan 2007: 46, 51; McRobert 2007: 94–95; in the context of the posthuman, cf. Graham 2002: 168–175, 211–220, 230–233; in terms of transhumanism, cf. Hansell & Grasse 2011). In other words, as Nicole Stenger (1994 [1991]: 51) says, “cyberspace grafts a new nature of reality in our everyday life” and “opens up an infinity of space in an eternity of light.” In this “primeval garden where a synthetic sun will rise, inner voices will whisper, immaterial kisses hover in the air, and you will lie in the reconstructed sense of fur,” you will certainly be assured that “cyberspace will feel like Paradise!” – and then, “[w]e will all become angels, and for eternity!” (ibid.: 52).

Thus, there is no doubt that in cyberspace everyone can become one’s own Timothy Leary (see, for example, see Leary 1994d [1988], 2000a [1988], 2005 [1965]; cf. Robins 1996: 45–46, 88–89; Heuser 2003: 24, 71).

From the perspective outlined above we can see that the termination of the phallus is the beginning of cybersex. That is, no phallus: no penetration; instead, prosthetic sex with the prosthetic organs of the cyborg in virtual reality, post-sex in the world of the “cyber.”

This is the true meaning of Varley’s prophesy cited above: In five years, the penis will be obsolete. This is the answer to the question as to whether the cyborg needs a penis.
4.2.3 The Pleasure of Prosthetics, or, To Be Cyborg Is “Sexy”

“Cyborgs,” according to Barbara Browning (1996: 35), “are not of woman born – nor do they get pregnant.” In terms of the female body, this is a new order of things in which not only all inherited categories, concepts and terms pertaining to female sex and sexuality have lost their relevance, but, in fact, the whole paradigm of the sexual has become obsolete. Accordingly, along with the ideas of procreation and gender also the notions of desire and pleasure have become redefined in terms of technology: bodies and machines now belong to the same ontological and epistemological matrix of the technological, and, as such, they follow the same logic of efficiency. That is, by denaturalizing birth, technology has turned life into a post-biological process controlled by scientific-technological rationality, the reason of the cyborg (see Haraway 1991a: 176–178; Firestone 1970; Corea 1985; Caddick 1995; Casper 1995; Farquhar 1996; Lublin 1998; De Jonge & Barrat 2002; for a historical overview in the context of American life sciences, see Clarke 1998; for “babies in bottles,” see Squier 1994; for “cyborg babies,” see Davis-Floyd & Dumit 1998; in terms of “queering reproduction,” see Mamo 2007; from the standpoint of “prosthetic bodies,” see van der Ploeg 2001; with regard to ectogenesis, see Murphy 1998: 194–198; Gelfand & Shook 2006; for the ethics of artificial uteruses, see Coleman 2004; from the perspective of feminist science fiction and utopias, cf. Burwell 1997: 144–145; Donawerth & Kolmerten 1994).

In other words, where such terms as “of woman born” and “pregnant” have lost their validity and meaning, there the female body is no longer intelligible as constitutive of “woman” as a gender category in the context of heterosexual reproduction, or, reconceptualised in terms of the “gender trouble,” in the context of the “heterosexual matrix” (Butler 1990: 5, 151; cf. Gubar 2000: 127–129; Stone 2007: 206–207). A way out of the biological definition of “woman” in terms of reproduction is the conception of the female body as a post-biological technobody, a technologically modified organism (cf., for example, Graham 2002: 35–37; Bell et al. 2004: 8–9; Braidotti 2006: 36–43; Herbrechter 2006: 249–251, 285–286; Shevory 2000). As a result, the whole idea of “being woman” becomes replaced by the notion of the cyborg: a rationally functioning body-machine assemblage that has taken the place of the unreliable, error-prone and basically irrational biological entity, the female body (from a historical perspective, see Jordanova 1989, 1999; in the context of “American bodies,” see Johnston 2001a: 73–77).

Beyond the Organic: The Organic Machine

This is the world of “cybersexualities” (Wolmark 1999a); a world in which sex in the sense of sexuality has turned into “cyborg ‘sex’” (Haraway 1991a: 150). This is a mode of “sex” that follows the imperative of being “against” (cf. Hardt & Negri 2000: 216), the logic of “de,” “dis” and “trans,” in a word, the logic of subversion defining the female body as a site of resistance in terms of post-political, post-identitarian counter-politics. In this constellation, sexual desire (as far
as “the sexual” still has any meaning at all in this context) has a key position: subversive sexual desire turns the body against the prevailing sexual order, the order of “compulsory heterosexuality” (Butler 1990: 17–20). As Haraway (1991a: 150) says, “[c]yborg ‘sex’ restores some of the lovely replicative baroque of ferns and invertebrates,” a postmodern “baroque” that forms “such nice organic prophylactics against heterosexism,” the sexual ideology, and its corresponding practices, of phallogocentrism, a binary system dictated by the law of the phallus – the phallus: the most dangerous invention in the world of the humans. Thus, according to Haraway:

The cyborg is a creature in a post-gender world; it has no truck with bisexuality, pre-oedipal symbiosis, unalienated labor, or other seductions to organic wholeness through a final appropriation of all the powers of the parts into a higher unity. (ibid.)

In these terms, what is important here is that cyborgs, as Browning (1996: 35) says, “don’t procreate,” instead, “they regenerate” (emphasis mine; cf. Haraway 1991a: 181; in the context of Barbie dolls, cf. Toffoletti 2007: 59–63; in terms of science fiction, cf. Slusser 2009: 109–110); that is, if cyborgs have what are conventionally called the “sexual organs” at all, implying also the organs of “sex,” they are not used for reproduction; from the very origin, cyborgs are different: they are not human, they are posthuman. “But” – and here we come to the issue of desires and pleasures, the signifiers of sexuality in terms of sex – according to Browning (1996: 35), “that doesn’t mean they can’t be sexy” (emphasis mine). In other words, to be a cyborg is to be “sexy,” and vice versa, without the “sexiness” of the cyborg there is not what Mario Perniola (2004 [2000]) calls “the sex appeal of the inorganic” (cf. Hostert 2007: 109–115; in terms of “sexual outer-course,” cf. van Sevenant 2005: 52–54). “Many of us,” as Browning (1996: 35) – strangely enough, referring here to the obsolete world of the humans – points out, “are having sex not in order to get pregnant.” Yet, the problem is not pregnancy, but “that other component of sexual exchange which now impinges on our organic pleasures: Do cyborgs, too, have to worry about AIDS?” (ibid.).

What a question, one might exclaim. Why should a cyborg be worried about AIDS, a disease that belongs to the world of humans, the world of the organic, a world predicated upon the irrationality of biology? The problem is that the cyborg, in fact, is a schizophrenic being; it is still an inhabitant of two worlds: the world of the biological ruled by the law of contingency, and the post-biological world of scientific-technological rationality. As Haraway (1991a: 149) reminds us, the cyborg is a “cybernetic organism, a hybrid of machine and organism” (emphasis mine). This is the problem of the cyborg: whatever it is, or may yet become, it is always already an organism. Insofar as the cyborg is a machine, it can recreate itself time and time again, from the tiniest particles of matter to the most complicated constructions of posthuman intelligence; insofar as the cyborg is an organism, however, it cannot escape the fate of all that is organic: the law of entropy, the relentless progress of disintegration and decay, the law of nature: the law of organic destruction (in terms of classical cybernet-
This is the tragedy of the cyborg: it is partially natural, a part of the order of nature; an order the laws of which are even beyond posthuman reason. That is, as long as there is something of nature within the cyborg, it cannot escape the most cruel law of nature: the unending and irrevocable progress of entropy (see, for example, Tofts 1999: 39–40; Ayres 1994). Conversely, control is the very condition of possibility of the cyborg: the existence of the cyborg – in rigorous terms, understood as a cybernetic organism – is based on the control paradigm in its most fundamental sense (see, for example, Kay 2000: 73–127, 195–240; Beniger 1986; Bennett 1993; Levin 2000; Mindell 2002; Mirowski 2002; Floridi 2004; Franchi & Güzeldere 2005; for the emergence of cybernetics from the idea of antiaircraft fire control, Masani & Phillips 1985; Galison 1994; for a historical contextualization with regard to the Cold War, see Farish 2010: 147–192).

From this perspective, one can easily understand Browning’s question, as well as her effort to chart, as Browning (1996: 35) says, a “figural strand” of “sex and viruses,” reaching “from the ‘real’ world into a fiction which seems uncannily more familiar than reality.” What is interesting in Browning’s project is the issue of what she calls “promiscuous communication” in terms of “border crossing” (ibid.: 36), that is, the idea of cyberspace. As Browning says, when it was “first hypothesized in the early 80s, whether by William Gibson’s Neuromancer or by the theoretical propositions of cyber enthusiasts like Donna Haraway, cyberspace appeared to be the allegorical representation of a simultaneously utopian and dystopian world of undecidable identity” (ibid.). That was then, but what is important now is that, according to Browning, a decisive border crossing has taken place only thereafter: “the fictions and theories of cybernetic identity are becoming embodied, and real” (ibid.; cf. Gray et al. 1995b, 2001; Wolmark 1999a; Kirkup et al. 2000; Bell & Kennedy 2000; Flanagan & Booth 2002).

In other words, the real and the imaginary are no longer opposites; they now belong to the same order, the realm of the possible redefined as the actual of the potential in its potential actuality, a configuration of the viable in terms of the surrational: the surrational as the reason of the postmodern, and, as such, the hard core of the “post.”

What is crucial in this connection is that, as a boundary figure, the cyborg embodies the idea of boundary transgressions (see Haraway 1991a: 151–155;
4 LOVE YOUR PROSTHESIS AS YOURSELF

cf. Munnik 2001 [1999]: 103–116; Shaviro 2003: 103–105; Sanbonmatsu 2004: 58–62), and, as such, implies the logic of the post-liminal constitutive of the techno-imaginary – with all its consequences that we can witness in the escalation of “the theoretical” in post-theory. Browning’s (1996: 36) point is that in the 1980s the “imagined reconfiguration of the boundary between nature and technology” also brought into question other boundaries: “those between genders, races and cultures.” In this new configuration, “most fully articulated in fiction (most particularly by Gibson),” Haraway “predicted” that even the final distinction, that “between fiction and non-fiction,” “would soon be swallowed by the organic machine” (ibid.; emphasis mine), a new type of machine that cyberfiction – be it in the Gibsonian manner of science fiction or in the mode of Harawayan theory-fiction – at the time had created (cf. Wolmark 1999a; Cavallaro 2000; Kirkup et al. 2000; Flanagan & Booth 2002; Nayar 2004; in terms of “cybernetic bodies” manifesting the body ideal and the ideal body in the context of “American bodies,” cf. Johnston 2001a: 73–77; with regard to “cyberbodies,” cf. Angerer 1999a: 26–55, 1999b; Featherstone & Burrows 1995b).

An “organic machine”? Of course, if the distinction between fiction and non-fiction is abolished, everything is possible: even inorganic, like the machine, can be organic, though, differently, in the mode of the “cyber.” This is precisely the world of the cyborg; a world in which the principles of syncretism, hybridity and border crossing define the parameters of both epistemology and ontology; a world in which the monster is the most sublime body ideal (see, for example, Haraway 1992c; Lykke & Braidotti 1996a; Braidotti 1997b [1996], 2003; Graham 2002; Shildrick 2002; Zylinska 2002c; Botting 2005; from the perspective of the Enlightenment, cf. Douthwaite 2002). And just as precisely, it is in this world in which fiction and non-fiction have merged into one another that cyborgs have no reason to be worried about such human problems as AIDS – problems of organism, of organic life. Organic machine is no longer an organism: it is a machine; that is, something that is not born but constructed, something that is assembled from machinic parts, from components that do not follow the law of organic growth, but the imperative of engineering, the paradigm of the posthuman (cf. Haraway 1991a: 160–165, 1991h [1979]: 47–67; Sagaru 2006: 210–214; Stafford 1994; Schurman & Kelso 2003; Baillie & Casey 2005; Pethes 2005; Ascott 2006; Jongen 2008a, 2008b; Peacock 2010; for a contextualization in terms of the philosophy of technology, see Meijers 2009).

This is the world of prosthetics, a world that is completely constructed since it is based on a linguistic order that obeys the logic of the thetic (from the Greek tithēnai, to put, place, set) (cf. Derrida 2005 [2001]: 6–7, 59); a mode of postmodern logic in which not only prosthetic prefixes – most notable “de,” “dis” and “trans” – but, more fundamentally, linguistic figures as metaphoric hybrids re-signify the objects they are attached to. This is the logic of the cyborg.
The Self as the Prosthesis of the Subject

In this new world, everything that is “thetic” implies not only a manner of seeing everything through language, but, beyond that, as a consequence from the linguistic figuration enabled by the logic of the “thetic,” a new methodology has thereby emerged that makes it literally possible to put a world together from pieces which one assumes to be appropriate; a methodology in which there is no longer a difference between epistemology and ontology. What does that mean?

First, some simple definitions: a thesis is something you put forth, an idea which you thrust, as it were, into the world. An antithesis is what is offered in opposition to a prior thesis. A synthesis is the bringing together of thesis and antithesis. A hypothesis is a proposal which comes under a more grounded premise of reality – an alternative, imagined one which, if proven valid, might slip into our notion of reality, like a hypodermic needle slips under the skin. A prosthesis is something put forth (or on) in addition to the body, or perhaps more properly the self. The figure of thrusting is not one which I have inserted into or attached onto the word thesis – it can be seen as etymologically implied. I’ve just extended the metaphor a bit to bring out its phallic quality. And certainly one could argue – as it has been argued – that some of the most influential theses on the constitution of human identity are masculinist in slant, and fail to accommodate for women’s role in that constitution, even as they claim universality. (Browning 1996: 37: emphasis mine)

The superiority of the prosthetic logic of the “thetic” notwithstanding, here we have it, once again, the spectre of the phallus that – like a phantom pain – even haunts the world of the cyborg, a world in which it is precisely the logic of phallus – the logic of phallogocentrism – that is abolished once and for all. This is not, however, an unsurpassable problem, as “feminist scholarship and theory,” a project absolutely “antithetical to the totalizing theses of patriarchal history, material culture and family romance” (ibid.), has shown from the 1970s until today. It is in this manner that what is feminism is an inversed phallic projection: from the very origin, the phallus is inscribed into the project of feminism.

According to Browning, “[s]exual identity” was already seen at the beginning of feminism to be “nothing but a construction,” and, accordingly, the order of the day was: “let us construct ours strategically” and “Put our identity together piece by piece, like a Frankenstein monster” (ibid.: 38). This was the “moment of feminist adoption of the synthetic” (ibid.). This is now history; what we have today is “a moment in feminist theory” that is “both hypothetical and prosthetic” (ibid.). To put oneself together time and time again hypothetically, that is, non-essentially, to construct an identity prosthetically, that is, out of separate components, is the new old mode of being “female,” a mode of being inhabiting a “community” that “needs to be hypothesized, without assuming literal identity” (ibid.). As Browning shows, this, indeed, is a liberatory strategy, a form of identity politics beyond identity, a project of constructing a subject beyond the constraints of subjectivity.

On a global scale, identity, of course, is a contradictory and complicate issue; therefore, the construction of an identity always implies its deconstruction.
Female identity, whether essentialist or constructed, still has its pitfalls. Postcolonial theory is demanding that we acknowledge that racial and cultural identity themselves can’t be delimited. Global culture is now too hybridized: our cultures have all infected one another, as if through dirty needles. If we can acknowledge that race, class, sexual orientation, and nationality – among other things – are not even fixed points which might help us specify female identity, then how useful or how meaningful can the group identity, “female,” be? (Browning 1996: 38)

This is the politics of the artificial that has abolished the irrationality of biology by the rationality of prosthetics. That is, *my body is a prosthetic body, a body that is my own prosthetic construction, my ego-prosthesis that enables my very existence in the first place*; as Hayles (1999: 3) says, “the posthuman view thinks of the body as the original prosthesis we all learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born” (cf. Callus & Herbrechter 2004a: 230–234; Manning 2007: 155–158; Waggoner 2009: 29–34). In this sense, *I am the creator of myself*, literally. This is the neo-religious message of the cyborg (cf. Graham 2001; Kull 2001, 2007; Garner 2011; for the cyborg in “divine economy,” cf. Grau 2004: 7–18, 200–2008, 224–226). The prosthetic body is the beginning of a new life, the life as the cyborg, a mode of life constantly coming into being through becomings enabled by prosthetic re-forming of the body.

Now, we want to say: I may have a uterus, but who determined that I was a woman? Why should my body determine my identity? Rather, *I see my sex as a working hypothesis*, and I manipulate my body in the world, like my prosthesis. (Browning 1996: 38; emphasis mine)

*To manipulate one’s own body like one’s own prosthesis* – that is the idea of prosthetic politics, a body politics that makes me into an effect of my prostheses, a product of the prosthetic components I choose by my own free will: my will to be not myself, but *the self of my prostheses*. As a male I may have a penis, but who *determines* that I am a man? In other words, I see my sex as a working hypothesis, and I manipulate my body like my prosthesis. *My prosthesis belongs to me* – which, of course, *does not prevent your prosthesis from being an object of desire of my prosthesis*.

If we take Browning seriously, I mean, in the Harawayan way, prosthesis, like gender, is not a property of a being called “woman.” Accordingly, *if*, in the prosthetic world, there is no female, there is no male. Why is that? Since the female and the male are binary opposites, a dichotomy in which, according to the logic of binary opposition, one term is the precondition of the other: both terms, in order to exist, necessitate one another. Of course, the female is historically a derivative of the determining term, the male, but as soon as the binary opposition between the male and female has been constructed, it initiates its own intrinsic deconstruction: a Hegelian logic of *Herr und Knecht* in which the *Knecht* is the very condition of possibility of the *Herr*: if there is no subjugated without the subjugater, conversely, there is no subjugater without the subjugated: both are interdependent on one another (see Hegel 1986c [1807]: 150–155; cf. Bluhm 2004; in terms

In other words, without the female there is no male: if the oppressed is abolished, there is no oppressor. But the problem remains: according to Hegelian logic, the oppressor is always already a product not of oppression, but of the oppressed; that is, the oppressor lives from the creativity and productivity of the oppressed. This is the horror and terror of Hegelian logic, inscribed even into the logic of prosthetics: ultimately, prosthesis is not the *Knecht*, but the *Herr* of the prosthetic being, a being that necessitates its prosthesis in order to exist. This implies that as a prosthetic being the cyborg is a subjugated subjugator, a reincarnation of the Althusserian subject: a subject that is the subject of its own subjection (see Althusser 1971 [1970–1970]: 163–169); in prosthetic terms, the subject of its own prostheticization is the subject of its prostheses, a subject that is always – *always already* – the object of these very same prostheses in the first place.

**Playing with Prosthetic Identities**

If, for Browning, in Harawayan terms, the cyborg as a prosthetic being is one way to reconstruct not only the body but also sex, sexuality and sexual identity on the same premises, what, then, are the implications of cyberspace in this context; cyberspace that, along with the cyborg, is constitutive of the organic machine as the mode of being of the liberated subject? For Browning (1996: 41), the decisive question is: “What difference does gender make in cyberspace?” This, indeed, is an important question. But in the long run, as the development of cyber discourse during the decades after Browning’s contribution has shown, the issue is actually the other way round: what difference does cyberspace make to gender?

Assuming – as we should, if we take the “cyber” seriously – that there is something that one can, indeed, call “cyberspace” in the sense that is intelligible not only in the sense of science fiction (or fiction in general), a sense, that, of course, has its full legitimacy in the realm of literature and literature studies (cf. Porush 1985; McHale 1987, 1992; McCaffery 1994d [1991]; Bukatman 1996 [1993]), the idea of gender takes on a new meaning that, in the last analysis, can render the whole category of gender meaningless. According to Browning, entering cyberspace

the primary *choice* you have to make is your gender. This isn’t expressed as a “choice” – although we’re all aware a good deal of transsexuality goes on on the internet. The relationship between your on-line hair, face shape, eyes, happy expression, and of course genitalia – and your real world self can be read as either a hypothetical, imagined identity or a prosthetic one – one which is an extension of your “real” self. Unless your “real” self turns out to be both hypothetical and prosthetic. (Browning 1996: 41; emphasis mine)

If gender is a choice, a gender option (in terms of “body options,” cf. Angerer 1999a), in which sense is it your *choice*, and accordingly, your gender? For
Browning, as we can see, not only are gender and sexual identity, as acquired in cyberspace, prosthetic constructions; gender and sexual identity are in general, always – always already – prosthetic constructions for which there is no origin, only prosthetic components, to be chosen from a never-ending variety of possibilities, at will. But, expressly in terms of cyberspace, as Browning (1996: 41) points out, “[d]espite Haraway’s hopefulness, the virtual public at large is less willing to allow for total free-play of gender” (emphasis mine). For Browning, part of the “terror of loss of control” is related to the “fear of infection”: the spectre of AIDS returns in the form of the promiscuity of prosthetics. In these terms:

If cyborgs are the technological infected with the human, the male infected with the female, the West infected with the non-West, as Haraway optimistically prophesied […] should cyborgs be worried about sexually transmitted diseases? Amid all this infection, can they get AIDS? (ibid.: 42)

Leaving this question open, Browning proceeds to rearticulate the issue with another question: “can a virus be infected with a virus?” (ibid.). And the conclusion?

To say that the cyborg is infection made manifest (and to imply that the literally infected body is cybernetic) is not to make it monstrous. The figure of contagion can animate the body. (ibid.)

To leave aside the question as to what the “cybernetic” in the “infected body” is, making it, indeed, clear that “postmodern theory bears a remarkable resemblance to epidemiology” (ibid.), this implies that in the world of the cyborg there is nothing outside infection: everything is infected by the “cyber”; that is, everything is effected by the prosthetic proliferation of cyber discourse, the linguistic matrix of the cyborg and cyberspace. In this sense, the cyborg is an embodiment of infection as a result of prosthetic promiscuity. What does this imply in terms of the sexual? The mode of sex that Haraway (1991a: 150) calls “cyborg ‘sex’” is from the very beginning infectious sex, contingent desires and pleasures that infect each others through promiscuous contacts of, with and between sexual prostheses circulating in the free zone of prosthetic identities and sexualities enabled by the prosthetic logic constitutive of the world of the “cyber.”

In the world of the “cyber,” we are living, according to Browning (1996: 43), in the “Metaverse” constructed by Neal Stephenson (1992) by his own linguistic means, a modification of Gibsonian cyberspace. This is an “alternative world to an over-commercialized, unbearably restrictively brand-name real world” (Browning 1996: 43). “In the Metaverse, there is still ‘public’ space, but like in L. A., people enter it prosthetically, through ‘avatars’” (ibid.).

Your avatar can look any way you want it to, up to the limitations of your equipment. If you’re ugly, you can make your avatar beautiful. If you’ve just gotten out of bed, your avatar can still be wearing clothes and professionally applied makeup. You can look like a gorilla or a dragon or a giant talking penis in the Metaverse. Spend five minutes walking down the street and you will see all of these. (Stephenson, quoted in Browning 1996: 43)
Here we are in the world of never-ending possibilities, the world of unlimited options enabled by cyberspace: the sexual universe of cybersex. And if your own imagination is not capable of constructing you a new identity, no problem, there are always "standard types" available, like "Brandy" and "Clint" in Stephenson's "Metaverse":

Brandy and Clint are both popular, off-the-shelf models. When white-trash high school girls are going on a date in the Metaverse, they invariably run down to the computer-games section of the local Wal-Mart and buy a copy of Brandy. The user can select three breast sizes: improbable, impossible, and ludicrous. Brandy has a limited repertoire of facial expressions: cute and pouty; cute and sultry; perky and interested; smiling and receptive; cute and spacy. Her eyelashes are half an inch long, and the software is so cheap that they are rendered as solid ebony chips. When a Brandy flutters her eyelashes, you can almost feel the breeze. (Stephenson, quoted in Browning 1996: 43)

For Browning, the question is: "[w]hy are women in particular marked as prosthetic?" Simply because what is called "woman" is always already a prosthetic construction. The "simulated Brandy calls up the image of 'real' simulated breasts," and thus, "[w]hat she makes you look at is the prosthetic nature of real women's lives" (ibid.: 43–44). But, according to Browning, this is not about "literal prosthetic breasts"; instead, what is at issue here is that "the 'necessity' of implants," in the sense of "prostheses for women who haven't necessarily lost any limbs" (emphasis in the original), points to "women's habitual forced confrontation with the added-on nature of bodies" (ibid.: 44).

To conclude, in terms of the "cyber," there are not, and cannot be, "natural" bodies; there are only prosthetic bodies, bodies for which all that is sexual is an "added-on" property, a prosthetic construction that is the source of desires and pleasures of the prosthetic subject, the subject as its own prosthetic body. It is in this way that cyborgs are sexy.
4.3 Towards the Cybernetics of Sexuality

It has long been clear to me that the modern ultra-rapid computing machine was in principle an ideal central nervous system to an apparatus for automatic control; and that its input and output need not be in the form of numbers or diagrams but might very well be, respectively, the readings of artificial sense organs, such as photoelectric cells or thermometers, and the performance of motors or solenoids. With the aid of strain gauges or similar agencies to read the performance of these motor organs and to report, to “feed back,” to the central control system as an artificial kinesthetic sense, we are already in a position to construct artificial machines of almost any degree of elaborateness of performance.

Norbert Wiener (1961 [1948]: 26–27)

It was very simple, really. If orgasm was binary, it could be programmed. Feed back the sensation through one or more touchpads to program the body. The other thing she knew about human sex was that it was as much cortical as genital, or more so: touch is optional for turn-on. Also easy, then, to produce cortical stimuli by programmed input. The rest was a cosmetic elaboration of the premise.


What is a prosthetic body, a body constructed by prosthetic means, a body that lives with and through prostheses? Whatever it is, it is evident that the prosthetic body, as a body that is based on a body-machine assemblage defined by the principles of prosthetics, is not just a body that is rehabilitated by means of prosthetics (see, for example, Horn 2001, 2002; Ott et al. 2002; Perry 2002, 2005; Berz & Price 2003; Schnalke 2004; Serlin 2004; for a comprehensive overview of contemporary medical prosthetics, see Carroll & Edelstein 2006; in terms of a personal experience of living with a prosthesis, cf. Sobchack 2004: 205–225), but, more fundamentally, a body that is a post-anthropological form of life paradigmatically exemplified by Stelarc and his body-machine experiments (see, for example, Stelarc 1997, 1998, 2002a, 2002b, 2002c; Appleby 2002; Clarke 2002; Poster 2002; Scheer 2002; in terms of cultural anthropology, see Jain 1999; Kurzman 2001; Nelson 2001a, 2001b; Wright 2001), and, as such, a new ontological and epistemological object (in terms of epistemological relativism as a mode of “making found worlds,” cf. Hazelrigg 1989).

From this perspective, the prosthetic body epitomizes the idea of the posthuman, a technoscientific mode of being predicated upon a continual advancement of scientific-technological knowledge as the very condition of possibility of life and living: a body that does not exist neither is intelligible without prosthetics, understood both ontologically and epistemologically: prosthetics as the onto-epistemological definition of the posthuman.

For Theresa Senft (1996a: 9), a feminist cyber theorist promoting what she calls “prosthetic feminism,” however, to understand prosthetic bodies implies the insight that “it’s about ghosts.” In the mid-1990s, as Senft says, she “became
obsessed with writing about Internet, the performance of the digital bodies therein, the ghost stories told by those bodies” (ibid.; in terms of the transubstantiation of the flesh into “digital bodies,” cf. Briggs 2006: 157–158; in the context of the dildo and teledildonics, cf. Foster 2005: 118–119). This kind of postmodern body talk was a revelation for Senft: prosthetic bodies were a new incarnation of the bodies written into being by French feminism in the 1970s, the writerly writing known as écriture féminine (see, for example, Irigaray 1991 [1972], 1994 [1981]; Cixous 1988 [1982], 1990 [1988]; cf., for example, Adam 1998: 88–90; Weedon 1999: 77–98; Moi 2002 [1985]: 89–172).

In a similar way as, for Sherry Turkle (1995), “French theory” suddenly began to make sense as a result of the new mode of being a subject brought about by interactive computer networks, for Senft, the prosthetic dimensions of the computer opened a new way to understand the female body. No longer was the body something one is born with, rather, the body was now a transformative object embedded in technology, a post-body in a state of continuous becoming (cf. Braidotti 2006; in terms of “techno-triumphalism,” cf. McNeil 2000).

From this perspective, even the question, “where does the natural body end and the prosthetic body begin?” (Wilson & Lannaec 1997: 1), is no longer appropriate: in the constellation of prosthetic becoming, prosthesis, like the Harawayan cyborg, is a boundary object (cf. Haraway 2008a [1994]: 48) that is there in order to deconstruct and disrupt all the boundaries, whatever they happen to be (cf. Bowker & Star 2000 [1999]: 292; Lykke 2000 [1996]: 74–75; Lykke & Braidotti 1996a; for the origin of the notion, see Star & Griesemer 1989).49 In other words, in the world of the “post,” a “prosthetic body” is a prosthetic body.

4.3.1 The Promise of “Prosthetic Feminism”

But what was absolutely needed in this situation was a similar revolution in writing as écriture féminine had achieved in the 1970s.

In the 1970s, frustrated with the ways in which their life-stories were being co-opted by medicine, psychoanalysis, and sexology, Continental Feminists exhorted women to produce their own narratives, and to tell their own “bodily truths of femininity.” Visionary texts like Luce Irigaray’s Speculum of the Other Woman were not only trenchant critiques of the technologies of Freud and Hegel – they were also offerings of feminine, embodied writing – l’écriture féminine, it was called. (Senft 1996a: 11)

49 The idea of the “boundary object” is defined by Haraway as follows: “For the complex or boundary objects in which I am interested, the mythic, textual, technical, political, organic, and economic dimensions implose. That is, they collapse into each other in a knot of extraordinary density that constitutes the objects themselves. In my sense, story telling is in no way an ‘art practice’ – it is, rather, a fraught practice for narrating complexity in such a field of knots or black holes. In no way is story telling opposed to materiality. But materiality itself is tropic; it makes us swerve, it trips us; it is a knot of the textual, technical, mythic/oneiric, organic, political, and economic.” (Haraway 2008a [1994]: 48)
Here we have the origin of prosthetic feminism: the insight that, like in terms of French feminism of the 1970s, female bodies are not creations of nature, but cultural constructions, effects of writing, and now embodiments of prosthetic technologies in the era of the cyborg, the era of the posthuman (cf., for example, Wills 1995; Conboy et al. 1997; Terry & Calvert 1997; Mitchell & Snyder 2000; Graham 2002; Smith & Morra 2006; Jahshan 2007; Manning 2007). Senft points out that a desire for a “natural, ‘animal’ body” is, in Gayatri Spivak’s words, a “white, bourgeois fantasy” (ibid.; in terms of “white mythology,” cf. Derrida 1984g [1972/1971]). According to Senft (1996a: 11), in contemporary culture, a “woman of color” who is supposed to have a “natural” body, is easily “equated with the bestial,” or is treated as “a bonded prostitute, a wage slave in a microchip sweat-shop, or figure in yet another political rape” (ibid.; cf. Haraway 1991a: 155–160). On the other hand, as “queer activists point out, lesbians are often forbidden motherhood rights by the same politicians who argue against the ‘unnatural’ act of abortion” (Senft 1996a: 11); thus, “what it is feminists think they are doing, cherishing the womb-filled reproductive body as the ‘authentic, natural’ version of woman, when such a body is turned against them, again and again” (ibid.).

This is the dead-end logic of “natural bodies,” bodies that are articulated by and organized around naturalizing notions, such as “sex” and “gender,” based on the meta-myth of “nature,” the onto-theological premise of all that is designated as “natural.”

The Personal Is Prosthetic

To overcome this unbearable situation, it was necessary to invent a new writing style in order to introduce a paradigm shift in terms of the body and embodiment. As a result of new technologies, the female body was no longer the body of écriture féminine. In this situation, therefore, it became clear that the cyborg and Irigaray did not share the same world, the world of prosthetic embodiment, the world of prosthetic reconfiguration of the female body. As Senft points out:

Even the speculum, technological feminists argue, that gynecological instrument re-claimed by Irigaray in her famous text, is no longer an appropriate icon to describe the struggle of women to resist phallogocentrism, nor is it a useful metaphor for writing about “seeing” femininity. These days, results of the laboratory get more respect than those of the doctor’s office, and the truth-claims of cloning, DNA research, and high-resolution sonograms have replaced older, hand-crafted technologies like specula. (Senft 1996a: 11)

According to Senft, in contemporary technoculture, “personal technologies have become political strategies, as cybernetics – communications technology – determines what constitutes a legitimate body all over the world” (ibid.: 12). Accordingly, “like sexuality, cybernetics is a condition, not a life-style choice” (ibid.; emphasis mine). “If you are disabled, use a sex toy, utilize telephone messaging services, are chemically dependent in any way, if you have sent e-mail or keyed a bank ATM lately, then you are, yourself, a cyborg – a body contain-
ing both organic and technological components” (ibid.; emphasis mine). In fact, this, however, is not new; as Senft says, “cyborgs, like lesbians, have always been among us” (ibid.). Drawing on theories of Haraway and Butler, prosthetic feminism takes the challenge of technoculture seriously. Therefore, “our stories move away from the body politics of l’écriture féminine, and towards a cyborg politics of l’écriture digital” (ibid.: 13).

In these terms, cyborg politics is about the politics of prosthetics; a new mode of body politics, a politics of technological embodiment written into being by “digital writing,” the textual technology of prosthetic feminism, a mode of techno-avantgardist feminism that has claimed and reclaimed what Gabriel Brahm and Mark Driscoll (1995) call “prosthetic territories” (cf. Birringer 1998: 60–63; Gray 2001: 131–142; Sobchack 2004: 207–208; Strathern 2004 [1991]: 105–120; Lury 1998; Landsberg 2004; Davis 2006). If, in the 1970s, the idea was that the “personal is political” (see, for example, Jaggar 1983: 7, 101, 143–151; de Lauretis 1987: 138–139; Giroux 1991: 36–37; Nicholson 1981), in the 1990s, it became clear that the personal is prosthetic (cf. Stone 1995d, 1995e; Browning 1996). As Senft says:

[I]n contemporary feminism, identity is most usefully viewed as prosthetic. Prostheses are artificial devices to replace missing parts of a body. The phrase “phantom limb” comes to mind. Prosthetics, because they are about metonymic replacement – hook for a hand, chip for a brain, strap-on for a penis – are always ghost stories. My mother and I might be cyborgs, but I am also in a prosthetic relationship with her brain chemistry, her memories, her dead body. The site of my prosthetic identity is my hypothetical cyberspace community. (Senft 1996a: 22–23; emphasis mine)

To survive in the face of the demands set by the technological body politics of technoculture, it was necessary to reconstitute the female body in terms of prosthetics. As we can see, Senft’s description of the prostheticization of the female body as a point of departure towards a new kind of subjectivity and agency in a world in which a radical technologization of culture determines the parameters of the corporeal existence of the subject also applies to the technologization of the sexual in terms of prosthetics (cf., for example, Gray 2001: 157–160; Foster 2005: 118–119; Sevenant 2005: 177–119; Gargett 2002, 2003; Persniola 2004 [2000]; with regard to the dildo, cf. Lamos 1995). This is the origin of prosthetic sex, “sex” in the mode of the cyborg, a form of sexual desires and pleasures that, by their very manner of being manifestations of a radical alterity, the “otherness” of the cyborg, deconstruct all inherited notions of sex, gender and sexuality (cf., for example, Balsamo 2000b: 154–157; Campbell 2000: 266–257; Zylinska 2001: 70–99; Schaffer 2002a [1999]: 153–162; Nayar 2004: 289–296; Toffoletti 2007: 156; in terms of “the prosthetic Other,” cf. Downes 37–69).

In the 1990s, only a few years after Haraway’s revolutionary “Cyborg Manifesto,” there was still the issue of what actually constituted a prosthetic body, a prosthetic body in terms of cyborg feminism. As Senft (1996a: 23) says, “(d)ictionaries don’t specify whether a prosthesis must replace a part of a human body;
neither do they specify “whether a prosthesis ought to restore the original body back to what it once was, or if the prosthesis might be something that creates a whole new organic unit.” Moreover, “while prosthesis is a serious component of cyberpunk (think of Molly in *Neuromancer*) it is hardly the sole province of digital culture” (ibid.). In other words, the problem is how to adequately construct a prosthetic body in terms of prosthetic feminism. As Senft points out, “[w]omen who are my age will remember watching the television show *The Bionic Woman* and thinking, ‘Is she a woman? A machine? Both?’” (ibid.)

A serious problem, indeed, considering the fact that the astronautic body in the 1960s had already deconstructed the male body in terms of the cyborg (see, for example, Ordway et al. 1962; Sharpe 1969; Clynes & Kline 1995 [1960]; Clynes 1995 [1970]; Gray 1995; Driscoll 1995 [1963]; Eglash 1995 [1993]; Dick & Launius 2009 [2006]). In other words, while the male as a prosthetic body-machine assemblage had become scientific-technological reality in both the American and Soviet space programmes of the 1960s (see, for example, Eghigian et al. 2007: 155–156; Allen 2009: 198–201; Collins 1999; Launius 2004; Mindell 2008; in terms of feminism, cf. Bryld & Lykke 2000), the technological redesign of the female body had remained a science fiction fantasy, although an important theme elaborated by prominent feminist science fiction authors, such as Octavia Butler, Anne McCaffery, Vonda McIntyre, Joanna Russ, Ursula K. Le Guin and James Tiptree Jr. (see, for example, Ben-Tov 1995: 135–166; Lefanu 1988; Armitt 1991; Barr 1993, 2000; Wolmark 1994; Labalestier 2002, 2006). As Haraway (1991a: 173) says, these writers are “our story-tellers exploring what it means to be embodied in high-tech worlds,” and for this reason they are “theorists for cyborgs.”

During the transition from the 1970s to the 1990s, however, a significant change had occurred in terms of the technological imaginary: firstly, what Patricia S. Warrick (1980) calls “cybernetic imagination” had given way to “prosthetic imagination” (see Jain 1999; cf. Smith & Morra 2006); and secondly, theory had taken the place of science fiction as a writerly way to deal with the world ruled by technoscience (see, for example, Ihde & Selinger 2003: 1–12; Michael 2006: 30–35; Csicsery-Ronay 2008: 8–9, 105–122, 243–252; Marcus 1995; Sassower 1997; Hollinger 2005; Bell 2006). Thus, it is not only, as Haraway (1991g [1988]: 199) says, that science fiction has become a “rich writing practice in recent feminist theory” in postmodern academia, but, more fundamentally, *theory in itself has turned into science fiction in the form theory-fictions constitutive of post-theory*. This is the most radical change in the world of theory since the advent of the postmodern as the theoretical dominant of the 1980s (see Jameson 1984, 1991; with regard to utopia, science fiction and the postmodern, see Jameson 2005).

**Body Options: Strap-On Gender**

In this constellation, the figure of prosthesis, as a highly suggestive trope in post-theory, has become a significant – and excessively *signifying* – linguistic device, in fact, a *prosthetic supplement*, to produce theory by means of fantasy

If, inscribed in the figure of the cyborg, there is, as Haraway (1991a: 181) says, “a myth system waiting to become a political language to ground one way of looking at science and technology and challenging the informatics of domination – in order to act potently” (emphasis mine; cf. Wolmark 1999b: 4–5; Miccoli 2010: 23; in Deleuze-Guattarian terms, cf. Stivale 1998: 125–126), what is “the political” in the postmodern mythopoetics concerning the trope of prosthesis? That is, attempting to redefine, and thus reconstitute, the female body in terms of prosthetics, where are prosthetic feminists “situated,” to formulate the problem in the Harawayan manner (see Haraway 1991g: 186–188)? In other words, where is the “elsewhere” of the prosthetic embodiment suggested by feminist science fiction; to specify, where is it in terms of the real (cf. Foster 1996)? Questions like these remain unanswered for the reason that prosthetic feminism operates with a prosthetic language in which a prostheticization of theory by means of the supplementation of supplementation has taken the place of explanation. “Gender, sexuality, embodiment, skill,” all have to be “reconstituted” (Haraway 1991a: 178), as Haraway says, in the world of the cyborg in which “machines can be prosthetic devices, intimate components, friendly selves” (ibid.). “We don’t need organic holism to give impermeable wholeness, the total woman and her feminist variants (mutants?)” (ibid.). For Haraway, the way ahead follows the “logic of cyborg monsters” to be found in “feminist science fiction” (ibid.; cf. Haraway 1992c).

For Senft, in contrast, while both cyberpunk and The Bionic Woman present the cyborg as a fictional model of body design, the problem still is that the cyborg is not to be reduced to the fictional.

Nor is the prosthesis a fictional device: is an infant who has a baboon heart transplant, properly speaking, a baby baboon, a baby human, or a new hybrid of those two categories? What makes us so sure we know the answers to these questions? The plot thickens, and bodies look different depending on where you stand, which part of your identity you regard as prosthetic. In the logic of the prosthesis, a transsexual is a cyborg, because she changes from one sex to another. A transgendered woman, on the other hand lives a prosthetic sexuality – she points to the fact that all gender is a strap on that you can’t strap off. (Senft 1996a: 23)

But, in fact, what is problematic also in Senft’s “ghost story” is that it is, similarly to Haraway’s mythopoetic figuration in her “Cyborg Manifesto,” performative writing in which linguistic figures, in the manner of textual prosthetics, continually supplement one another. That is, theory, in this context, has turned into what I call prosthetic tropism implying writing as an unending proliferation of prosthetic tropes in both senses of the term (cf. Sobchack 2006: 19–27; Jain 1999; in terms of “narrative prosthesis,” cf. Mitchell & Snyder 2000; with regard to “prosthetic modernism,” cf. Armstrong 1998: 77–105; for “prosthetic gods” typifying the mode of artistic subjectivity in modernism, cf. Foster 2004).
Hence, it is only consequent that Senft’s political programme for prosthetic feminists posits that “[we inscribe ourselves unto our machines” (ibid.: 29; emphasis mine; in terms of “cyborg writing,” cf. Haraway 1991a [1985]; 175–181; Graham 2002: 200–220; Yaszek 2002: 14–15; Schneider 2005: 61–62, 73–75; Olson 1995; Hayles 2002; Inman 2004; from the standpoint of écriture féminine, cf. Moi 1985: 106–117; Osinski 1998: 151–167; Blyth & Sellers 2004: 18–34; Segarra 2010). In this manner, gender and sexual orientation, for prosthetic feminists, is an issue of choice in the sense of rewriting the body in terms of the machinic. In prosthetic feminism, writing is a post-Foucauldian “self-technology” (for the Foucauldian conception of the “technologies of the self,” see Foucault 1988a [1982], 1988b [1982]; cf. Black 1998: 51–55; Larsen 2005: 159–160; Oksala 2005: 162–165) that enables the metamorphosis of the body into an embodiment of prosthetics. In this sense, cyber texts are prosthetic texts, prosthetic writing as a process of writerly self-transformation in the textual space effected by the linguistic prostheses of the “cyber”: in cyber texts, the writing metaphor and the machine metaphor merge in the form of self-technology (cf. Hutton 1988; Turkle 1997; Becker 2000b). In other words, what you write is what you get. It is in this manner that all that is “cyber” is writing in terms of the machine, the terms of machinic writing implying a subject that is an effect of interconnected writing machines, a textual/machinic intersection of what Friedrich Kittler (1987 [1985]) calls Aufschreibesysteme or “dis-course networks” (Kittler 1990 [1985]; cf. Kittler 1986, 1989a, 1989b, 1997).

For this reason, in the world of the “cyber,” the writing machine, in fact, is the only machine, a virtual self-machine that functions in the manner of a post-Lacanian mirror of the self (cf. Lacan 1977f [1966/1949]; Bowie 1991: 21–26, 197–198): the writerly-machinic self-reflection of the subject is an auto-affective process, a prosthetic self-enactment, that constitutes the subject as a prosthetic self that is the very prosthesis of itself, the prosthetic avatar of the subject in terms of prosthetic textuality. It is in this way that the prosthetic self-transformation opens access to what I call sexual cybernetics, sexual desires and pleasures of the cyborg; that is, “sex” in the mode of the “cyber” enabled by the logic of the “post.”

One question still remains: if the cyborg, as a prosthetic assemblage, is precisely a hybrid that in and through itself subverts all the categories that are based on binary oppositions such as, for example, the “dichotomies between mind and body, animal and human, organism and machine, public and private, nature and culture, men and women, primitive and civilized” (Haraway 1991a: 163; Cher- naik 1999: 86–90; Horner 2001: 77; Gunkel 2007: 35–37), what are the female, feminine and feminist in prosthetic feminism but a continuation of feminism by other means: binary thinking in terms of prosthetics? In other words, to what ends do we need the category of “feminism” and all the conceptual binarisms implied by it, a world of binarities that is in itself constructed on a binary opposition between “the feminist” and its various “others” (of the paradigmatic type male/female) (cf. Haraway 1991a: 161–162)? There is no answer to this question in prosthetic feminism since it is unanswerable in terms of feminism in general.
The more the problem concerns what has been called “cyberfeminism” since the late-1990s (see, for example, Hawthorne & Klein 1999; Reiche & Sick 2002; Reiche & Kuni 2004): firstly, if the cyborg as a post-gender figure is the model of cyberfeminism, how does it deconstruct feminism in itself; and secondly, what is the “cyber” in cyberfeminism if the “cyber,” due to its own logic, is always already a signifier that refers to nothing else but to itself?

In these terms, the cyborg is a specific kind of promise: it is a promise that is redeemed by another promise, time and time again, *ad infinitum*. This is the logic of the “cyber,” and, accordingly, the logic of cyberfeminism.

These are not only problems concerning the cyborg as a prosthetic model of the body-subject and the “cyber” as a linguistic prosthesis that functions in the manner of what I call a re-entry signifier, but also problems concerning cybersex, regardless of whatever it is as sex.

### 4.3.2 Cybersex as a Turing Test

What is actually the problem of cybersex? It is the problem of “coming”; a problem, of course, of all sex (in the sense of the practices of sexual pleasure), but especially of sex in terms of the “cyber.” And doubly so: firstly, if the “cyber” signals distance, even the absence of the body, how do bodies come together in cybersex; and secondly, if the idea of sex is “coming,” how do we come together in cybersex to “come together” in terms of the “cyber”? If there are answers to these questions, Matthew Erlich (1996), in any case, has certainly made clear what these problems are all about, and thus opened up a perspective from which to approach them. And what, perhaps, is most remarkable is that Erlich does not remain at the level of abstract theory, but speaks about his personal experiences of prosthetic sex – or so it at least seems to be (one can never be sure in the world of the “cyber” in which everything is always about virtuality or simulation, or both; cf. Turkle 1995).

What is important here, however, is not to try to tell the difference between what is and what seems to be since this difference does not make sense in terms of the “cyber”; instead, what counts is the way Erlich approaches the question concerning “coming” in itself. Never has the problem been posed as stringently as in Erlich’s manner to problematize “coming” in terms of the “cyber”; a mode of “coming” that exceeds all the limits of “coming” in the world of carnal encounters. As Erlich explains in his meditation addressed to an unnamed “you” that proceeds like an inner monologue:

> Was it as good for you as it was for me? I am overwhelmed by the fear that you will say “no.” That you’ll say it to make me think we weren’t fucking at all. *Merely having virtual sex*. God, you must think I’m obsessive to be ranting like this so soon after our performance. It’s just that our coming, our coming together, makes me curious about the very structure of our pleasure together. Was our pleasure… together? (Erlich 1996: 187)
For Erlich, however, the issue is not conventional heterosex; that is, mutual orgasm as the climax of heterosexual intercourse, the normative model of all that is understood to be sex in the framework of the “normal” imposed upon the subject by the normalizing mechanisms of power (see Foucault 1990k [1976]: 150–159; Warner 2000: 35–80; Bhattacharyya 2002: 17–23; Lotringer 2007 [1988]):

sexual act as a straight forward production of orgasm in the mode of what I call the sexual teleology of the rationalized body-machine pertinent to the paradigm of orgasm, the paradigm of “normal sex,” created by modern sexology, the very science of the Taylorized body in terms of desires and pleasures (see Masters & Johnson 1966; cf. Potts 2002: 28–39, 72–73; Béjin 1990a [1982], 1990b [1982]), the sexual rationalism of society organized according to the principles of Fordism (see, for example, Harvey 1989: 121–197; Allen 1994 [1992]; Ash 1994).

The Communicability of Orgasm

No, it is not about that rationalism that Erlich is speaking about; instead, it is about another form of rationality, the mathematical problem of communication deliberated by Alan Turing, the “man who invented both computers and Artificial Intelligence (AI)” (Erlich 1996: 187; cf. Hodges 1992 [1983]: 56–57; Bolter 1984, 1989; Abbas 2006); a problem that, for Erlich, is a problem of sexual rationalism in terms of the machine.


As Erlich (1996: 187) says, Turing thought up a “scenario in which a machine captured him (in a hangar, or a closet) and would make Alan compete with a computer for his freedom”; indeed, a serious communication problem. For Erlich, Turing was “obsessed” with speculating with arrangements in which the problem was how it would be possible to get the computer intelligent enough to appear as human; a communication situation that is known as the “Turing test,” originally “the imitation game;” in order to approach the question “can machines think?” (see Turing 2004a [1950]: 441–443; for a commentary, see Floridi 1999: 134–142; Copeland 2004: 433–436; Franchi & Güzeldere 2005a: 56–58; for an overview, see Moor 2003; for a historical contextualization, see Hook & Norman 2002; cf., for example, Turkle 1984: 263–266, 1995: 85–88, 1990; Kittler 1986: 30–31; Kirby 1997: 136, 177; Halberstam 1998a [1991]: 469–473; Piccinini 2003: 111–114; Gunderson 2004: 151–157; Žižek 2006: 191).

Can machines think? – a question that, in this context, is at odds with machine intelligence – Turing’s problem proper – since the idea of the sexual is the opposite of what is usually deemed “intelligent,” and, as such, not reconcilable with
the rationality of the machine: sexual desire, as the lived-out experience of “the sexual” (whatever it “as such” is), is the apotheosis of unreason, if not the embodiment of irrationality in itself (cf. Bataille 1989 [1961], 2001 [1928]; Pfister & Zweifel 2002).

On the other hand, the Turing test – a test actually testing the authenticity of the interlocutor – can be seen, as Dieter Daniels (2007: 129), referring to Hodges, remarks, as a “bad analogy” that shows the “definitely camp humour” in Turing’s paper on machine intelligence “reflecting his gay identity” (cf. Hodges 2008). Then again, as Jean Lassègue (1996: 49) maintains, the imitation game “should be considered as an unconscious and mythical autobiography and not as a philosophical introduction to the main issues of AI.”

These comments, of course, are relevant; for Erlich, however, what is at issue in the Turing test is “the sexual” in a specific sense: sexual pleasure as an act of communication. In other words, the Turing test, in Erlich’s reading, opens the question concerning sex in terms of the machine, and, by extension, the question concerning the possibility of cybersex, virtual sex experienced through a machinic assemblage controlled by a computer; an intelligent machine that, due to its intrinsic rationality, is capable of even regulating the experiences and expressions of desires and pleasures – which sounds as a quadrature of the circle considering that all that is “sexual,” in its serendipity, is an anathema of rationality.

Before we pursue the problem of “coming together” (in both senses of the expression) in virtual sex as a technological method of coming together, it is appropriate to emphasize that the Turing test was originally a gender test that implied homosexual desire beyond the conventional heterosexual male/female divide, a question concerning same-sex sex; in other words, at issue was the problem of passing (see Saygin et al. 2003: 26–29, 69–73; Sterrett 2003: 80–81, 86–96; Lenat 2008: 273–274; Rebentisch 1997). That is, the couples human/machine and male/female are derivatives of the original Turing problem, the problem of homosexual sensitivity; a problem in which, on the one hand, sex, gender and desire, and, on the other, human and machine intelligence, are in complex and complicated relations to one another (see Lassègue 1996, 2008; Wilson 2004; cf. Hayles 1999: xii–xiv; for Turing “as a queer theorist before the letter,” cf. Foster 2005: 113–114; Hollinger 2008). Of course, the relations of sex,
gender and desire are *always* a problematic constellation (cf. Butler 1990), and therefore one should avoid conflating heterosexual relations with same-sex relations, especially when there is a machine in between – a problematics illustrated by Marcel Duchamp’s *Large Glass*: the idea of *la machine célibataire* or the “bachelor machine” (see Paz 1990: 30–35; Seigel 1995: 86–114; Judovitz 1995; Joselit 1998; Daniels 2000; for a detailed discussion in the historical context, see Henderson 1998: 86–170; Ramírez 1998; in terms of *Sexualästhetik*, see Gorsen 1987: 132–140; for the origins of the idea of *la machine célibataire*, see Reck & Szémann 1999 [1975]; with regard to contemporary “fucking machines” in the constellation of “Cyber-Panopticon,” see Vannini 2006: 79–88).

What is important here is that sex is not so much – perhaps, not at all – a gender problem, but, rather, a problem concerning *sex as sex*. Accordingly, in the first place, sex is a *sex problem*, if it is a problem at all; to be emphasized, of course, in terms of theory, the terms pertaining to the conceptuality in and through which “the sexual” is to be understood – if it can be understood at all.

While, for Turing (2004a [1950]), the question was whether a human observer can tell the machine from the human (or vice versa), in the world of cybersex, the problem is in which sense “the human” is to be understood in a constellation in which the parameters of being, behaving and acting are determined by the machine. In other words, the problem is: if the machine has entirely taken the place of the human how does the perception of the human change? But then again, if the machine is not a natural fact, but a human invention, is it, precisely in these terms, that all that we as humans are doing with machines is *always already* human, whatever the “human” *as such* might be? A question that has radical consequences with regard to what is called “posthuman.” And moreover, whenever we are speaking of machines are we, at the same time, speaking of humans – or was everything just plain talk what Descartes and La Mettrie said about the body in terms of the machine (see, for example, Gunderson 1985 [1971]: 2–37; Wellman 1992: 143–186; Baruzzi 1968, 1973; Sutter 1988)? The same question pertains even more to the way Wiener and Stelarc have approached the problem (see, for example, Giannachi 2004: 44–45, 55–64; Graham 2002: 182–184, 196–199; Dixon 2007: 147–148, 277, 283, 312–317; Wiener 1961 [1948], 1968 [1950]; Zylinska 2002b; in terms of the oxymoron the “vital machine,” see Channell 1991).

But now, after these conceptual deliberations, back to Turing’s world, a world in which humans and machines belong to the same order, the order of machine rationality understood in terms of machine intelligence based on calculation and computation (see Turing 2004a [1950], 2004b [1947]; cf. Cooney 2004: 49–64; Turkle 1990; Lenat 2008), the world of Leibnizian *ars combinatoria*, in other words, the world of what Konrad Zuse called *Plankalkül* (see, for example, Weizenbaum 1976: 207–300; Kling 1996b [1991]: 40–58; Rojas et al. 2004: 215–141; Serfati 2008: 125–135; for a historical overview in terms of “the allure of machinic life,” see Johnston 2008); a world in which the sensory body and
human sensuality are replaced by disembodied cerebrality; that is, the mode of subjectivity resulting from the reconstruction of the subject in the world of the “Turing’s Man” (Bolter 1984). All this is summed up by Kittler (1986: 373) with a pregnant sentence: Computer mit IF-THEN-Befehlen sind [...] Maschinenobjekte, “computers with IF-THEN-commands are [...] machine-subjects.” From this perspective, as Paul A. Youngman (2009) says, “we are the machine” (cf. Haraway 1991a: 180). In this context, the problem is: “What does it mean for a machine to be intelligent?” (Erlich 1996: 188). And, accordingly, in terms of the human: “Can you define intelligence?” (ibid.).

From this perspective, if we trade sex for intelligence we have the problem of cybersex; that is, the problem of what it means for a machine to perform in a manner that we not only call but experience as sexual.

Interestingly, for Erlich, Turing’s communication problem – the question “Can you think what I feel?” – turns into a problem of orgasm, the climax of sexual arousal that, though it can be enjoyed as a shared pleasure, nevertheless literally takes place only in one’s own body. From Turing’s perspective, however, the problem, according to Erlich, is precisely the “communicability of orgasm, of pleasure, of bliss,” and, at the same time, “of the erasure of the subject,” especially in Turing’s personal situation in which “one subject,” Turing the mathematician, is “terribly privileged,” and the “other,” Turing’s “lover, a young working-class boy,” “has little privilege of subjectivity at all” (ibid.).

Sexual Pleasure as Adding Noise

Erlich makes a big leap forward from Turing’s highly personal situation, paradigmatic of both his life and work, into the world of the “cyber.”

Does the “annihilation” of subjectivity in orgasm mean a temporary union in a no-space, perhaps even the no-space of cyberspace, for two lovers so disparate as Alan Turing and Arnold Murray, or as you and I? Was it as good for you as it was for me? (ibid.; emphasis mine)

Leaving aside the question as to who these cryptic “you” and “I” actually are in Erlich’s text (a question that might also be the question as to whether Erlich indentifies himself with Turing, or then again, with Arnold, the “working-class boy”), in my reading, this is a question concerning the possible-impossible reciprocity of sexual experience: my sex is not necessarily your sex, and vice versa; or, reworded in terms of prosthetics, if my prosthesis is your dildo, your dildo is not necessarily my prosthesis. Erlich refers here in passing to Freud’s Civilization and Its Discontent (see Freud 1972a [1930]), and to Freud as a “man obsessed with the prosthesis” as well as with sexuality (Erlich 1996: 188). “Perhaps this is where our orgasms should come, come in” (ibid.), Erlich announces secreatively, only to once again make a big leap forward, this time into the world of Lacan.

Lacan figured out that the bliss of orgasm was intimately connected with signification and its vicissitudes – far from desexualizing psychoanalysis, he brought Freud into the Turing age. He turned the orgasm, less important for Freud, into a
model for the patterns of consciousness itself – of the oscillation of language and identity on the rim of nothingness and non-existence. He foregrounded the similarities between orgasm and suicide, limit cases for identity and consciousness, and sites on the edge of communication. (ibid.: 188–189; emphasis mine; cf. Johnston 2008: 65–103)

Erlich’s short-circuiting of Lacan, Freud and Turing, a typical postmodern gesture, resembles – or is haunted by – Avital Ronell’s (2005: 55) reading of Turing and his traumatic life that ended in suicide (quoting Turing’s words from Hugh Whitemore’s play Breaking the Code).

Alan Turing’s scientific drive was put in gear at an early age, when he was hit with devastation. Chris, the boy whom he adored and idolized, dies suddenly from tuberculosis on Thursday, 13 February 1930. Suddenly gone. As in so many narratives of the scientific drive – the inerasable scene of sudden traumatic awareness is an occultated trope in the history of science – little Turing begins to set up his future lab and labor on the fringes of an unaccountable loss. For starters, he wonders whether Chris’s mind can exist without his body. […] “It was an obsession that stayed with me for many years. What are mental processes? Can they take place in something other than a living brain? In a way – in a very real way – many of the problems I’ve tried to solve in my work lead directly back to Christopher.” The problem of a phantom transmission system – what in post-Freudian psychoanalysis is called “cryptonymy” – goes backward and forward in the case of Alan Turing. (Ronell 2005: 55; emphasis mine; in terms of “the influencing machine,” cf. Tausk 1992 [1919]; Sobchack 1991: 262–270; Armstrong 1998: 101–104; with regard to the case of “Joey, a ‘Mechanical Boy,’” cf. Bettelheim 2001 [1959]; Rickels 2002: 252–256; Downes 2005: 38–41)

A “phantom transmission system” – is it something similar that Erlich describes in his cyber-narrative which, in fact, brings to mind spiritualism constitutive of which are telepathy, clairvoyance, trance speaking and apparitions: an occult séance during which the participants experience the presence of dead persons (see, for example, Luckhurst 2002b; in terms of spiritualistic “channelling,” see Partridge 2003: 20–23; cf. Sconce 2000; with regard to mesmerism, cf. Darnton 1968; Willis 2006).

Orgasm and suicide, jouissance and the extinction of consciousness meaning death: here we are in the middle of the annihilation of subjectivity, the grand theme of all that is “post”; not only as the desire for “decentring” the subject, but, more fundamentally, as the obsession concerning the radical deconstruction and destruction of all the possibilities of being a subject, a self aware of itself in and for itself, that is, the “liberal humanist” subject questioned by the “post” (see, for example, Hayles 1999: 2–7, 85–92, 100–120; Kember 2003: 6–7; Vint 2007: 11–14; Clarke 2008: 3–4). “Mathematics,” “communication,” “orgasm,” “Turing,” “Freud,” “Lacan” and “suicide” – all these apparently disparate issues together constitute a magic circle for Erlich, in the centre of which the sexual disappears – in my reading, into the black box of the “post,” the black hole of post-theory – to come out from the other side as signifiers signifying “the sexual” in terms of the machinic, the terms of a self-producing self without the self. As Erlich says:
I believe I recall William Gibson saying that Sigmund Freud had a lot in common with steam engines. Alan Turing moved us beyond the hydraulic age, and we have moved beyond it in psychological models as well. We can now begin to think in the terms Turing first used to “invent” the electronic computer, and software: information-based, soft-coded, imaginary. Not just structuralism’s linguistic metaphor, but post-structuralism’s code of shifting, ungrounded signifiers. A code-relevant metaphor. (Erlich 1996: 189; emphasis mine)

“Ungrounded signifiers,” exactly; in other words, we are moving here on a familiar and safe terrain, on the scene of the “post” on which everything we have is effected by “free-floating signifiers.” This is the reason why cybersex is not only possible, but, as a prosthetic enactment of the sexual, far more than all conventional, non-machinic sexual practices together. Erlich has, indeed, found the master code of “sex” in the world of the “cyber,” a mode of sexual pleasure that exceeds the limits and limitations of orgasm in the mundane world of the flesh (cf. Plant 1998: 30; Gillis 2004; in the context of “the technology of orgasm” as an electromechanical treatment for hysteria, cf. Maines 1999). Consequently, you have only to put the right questions and you enter the pleasure dome of cybersex:

Did I write the proper kind of software? Would you have preferred to have parallel rather than serial orgasms? Should I have put more meat simulations into my instructions, less abstract representations of jouissance? How did it feel to you? Could you tell my little ingenuity, my little ingenuousness, my little ingenuous, false – not betraying, I hope – gesture? In cyberspace, in cybersex, my perversity remained unnoticed. I responded to you, despite your presence as a recording, a transmission. I still maintain we connected. We came together, no? Was it as good for you as it was for me? (Erlich 1996: 189)

According to Erlich, Turing’s great invention that enabled cybersex, was the idea of “adding noise,” that is, “turning meaning into noise, and noise into signification” (ibid.) – what an excellent definition of post-theory, and, accordingly, of cybersex! Turning meaning into noise and noise into signification – that mutual, reciprocal conversion of noise and signification into one another is the invention that actually constitutes the very idea of not only all that is “cyber,” but the whole paradigm of the “post” as the condition of possibility of the discourse in which cybersex becomes both intelligible and feasible in practical terms. Thus, Erlich’s great merit is to have seen Turing’s decisive role in the invention of cybersex – following Erlich’s logic, one is almost tempted to say that Turing is the very inventor of cybersex.

Auto-Erotic Annihilation in Cyberspace

But what is actually the secret of cybersex? From Erlich’s point of view, the answer is quite obvious: the Turing test, an intelligence test that, in fact, is a linguistic test: a test that is based on the linguistic capability of the entity to be tested for its possible intelligence; a test that purports to testify whether or not an entity behaves in a manner that is called “intelligent.” In other words, the Turing test is a test that tests what it names: a property that is defined by the test itself. In the Turing test, as Erlich (1996: 189–190) says, “what passes for intel-
ligent is intelligent,” and precisely because it is about the “significance of noise, of being able to produce significant noise and to read it.” And not only that, it is “also the noise that is not produced as significant, but received as such, that matters” (ibid.). One can hardly define the constitutive idea of cybersex more clearly. That “noise, the noise which though entirely simulational, evokes the real thing,” is what passes the Turing test for Erlich. In other words, what passes for sex is sex; this is the liberational logic of the Turing test in terms of the “sexual” according to Erlich. That is, if you behave in a manner that is codified as “sexual” it is “sex.” Accordingly, you are not in the position to define your own behaviour; it is the code that decides not only the meaning, but even the very quality of your behaviour (cf. Stone 1994b [1991]: 102–103, 1995c; Turkle 1995; Browning 1996; Bruckman 1996 [1993], 2001 [1998]; McRae 1996, 1997; O’Brien 1996, 1999; Reid 1996 [1994]; Waldby 1998; Gillis 2004).

It is in this constellation that noise takes on its specific meaning for Erlich as the decisive factor to define what is sex and what is not. But at issue is not whatever noise, noise just as noise; to pass as “sexual,” the noise must be significant noise which, in turn, depends on the code used as the key. If the code recognizes the noise, the act can take place: the “other” is accepted as a sexual partner – and the game can begin. As Erlich (1996: 190) excitedly explains: “The noise that bears the accidental trace of a body, of your fleshliness, lips on a microphone, fingertips on a sensor or keyboard, the traces of you thrown into your communication which Barthes loved so,” it is all this that constitutes the significant noise for Erlich, as that “what passes the Turing test for me,” and, finally, this is the very meaning of what Erlich designates as “coming”: “It is why I believe you are, why you came, why you came to me” (ibid.).

This is the orgasmic moment of cybersex, the coming together in and through coming together as the very climax of coming together in the togetherness of coming together: noise codified as significant noise, noise as “sex,” “sex” in terms of the “cyber”: noise codified as “sex” by an appropriate code; in other words: no code, no sex. This is the cybernetic moment of cybersex, the moment behind which there stand the epochal inventions of both Claude E. Shannon and Warren Weaver (1962 [1949]; Shannon 1948) and Norbert Wiener (1961 [1948]; cf. Liu 2011: 84–87, 134–142). That is, the era of cybersex began in 1948, the year in which it became clear that information is not a matter of content but of code, and, accordingly, what passes as information is an issue how it is codified (cf., for example, Mindell 2002: 4–8, 260–321; Mirowski 2002: 68–93; in Lacanian terms, see Nusselder 2009: 66–72). In the light of all this, it should now be clear that cybersex, indeed, exceeds the limits and limitations of all conventional, non-machinic sex, and thus even constitutes a new paradigm of “the sexual”: codified acts of noise – in other words, desires and pleasures which we still, for some unknown reasons, call “sex” constitute a sexual act if they are appropriately coded; that is, digital information in the mode of simulation in the virtual reality of cyberspace (cf., for example, Bogard 1996: 155–160; Vasseleu 1997 [1994]: 53–56; Plant 1998: 30–33; Gillis 2004: 93–98; Parisi 2004: 1–4, 8–9, 194–195).
In the final analysis, as we can see, cybersex is a postmodern derivation of thermodynamics in the sense that it is the idea of thermodynamics, in its historical form as a post-Newtonian conception of the physical world in terms of entropy (see Wiener 1968 [1950]: 28–38, that constitutes the origins of cybernetics as a modern science of “control and communication in the animal and the machine,” as Wiener defined the field of cybernetics in 1948 (cf. Dillon & Reid 2009: 63–69; Lafontaine 2010 [2008]: 79–83). As Wiener (1961 [1948]: 34–38), referring to the new mode of thinking enabled by thermodynamics, says, the main interest of “communication engineering,” the basis of cybernetics, “is not economy of energy but the accurate reproduction of a signal” (ibid.: 39). That is, what matters is not the movements of matter effected by energy, but the circulation of information in systems operating by signal transmission and controlled by communication and feedback (for the problematics of servomechanism as an essential moment in the genesis of cybernetics, see Wiener 1961: 43–44; Bennett 1993: 12, 30, 97–166; Mindell 2002: 156–171; Mirowski 2002: 60–63; Pickering 2010: 6–10; Galison 1994; Meister & Lettkemann 2004).

While entropy – or noise in Erlich’s terminology – is the “enemy” of cybernetics and information its principle of salvation, the world of the “cyber” is a universe of radical contingency in which information implies not so much order, but random encounters of virtual beings each different in their idiosyncrasy. Yet, although, according to Erlich (1996: 190), for genuine cybersex, there are “so few artifacts” of the right type – “variable, blissful artifacts in cyberspace” – that can engender the appropriate kind of jouissance, what, nevertheless, is always available is the Gibsonian unending vastness of cyberspace in itself, a realm in which the experience of virtual corporeality is boundless, exceeding all the constraints of the flesh, the meat, that one must suffer as the carnal creature called the human being. And although the blissful days of textual cyberspace, for which Erlich feels a peculiar longing, are now over, this notwithstanding the future is always better. Referring to Barthes’s ecstatic experiences of jouissance (see Barthes 1974 [1970], 1975 [1973]; cf. Heath 1977: 9; Bowie 1991: 152–157; Iri-garay 1995 [1991]: 43–45. 49, 55–57, 61, 76, 91, 94, 98–105, 108, 112–113, 190; Gallop 1984), Erlich contemplates the secret of writing that is constitutive of the erotic at its most fundamental level.

Perhaps we are nostalgic for cybersex of the letter – without pictures, sound, stimulation – an epistolary, literary romance. But what about communications, simulations, virtual reality software? Was it as good for me as it was for Barthes? Isn’t that what writing is about? (Erlich 1996: 190; emphasis mine)

However, it is “not the orgasm of cyberreality that Barthes champions, but the impossible orgasm, or the orgasm without a subject left to recuperate its breakage back into subjectivity” (ibid.: 196). Nevertheless, it is precisely “cyberspace” that “guarantees a recuperation, and thus it guarantees its own kind of slippery truth” (ibid.). “Slippery truth is, of course, the ground of play – the corruptible body of sensuality”; and for this reason, as Erlich says, “[t]here is, I suspect, room for jouissance, and for Barthes’s brand of auto-erotic annihilation in cyberspace” (ibid.;
emphasis mine). According to Erlich, this is a context in which ejaculation takes on a new meaning: it is now “[ejaculation, as ‘truth,’ what passes for the truth of our body and our sexuality,” and even “provides ‘a death liberated from dying’” (ibid.).

In this connection, Erlich introduces his idea of teledildonics, a variation of cybersex invented by Howard Rheingold. For Erlich, however, teledildonics is not simply an issue of pleasure; it is a matter of “fallenness,” and the “fall” in terms of suicide.

The act of accepting the reality and not simply the virtuality of virtual spaces, like cyberspace, like literature, or more importantly perhaps, the act of accepting the virtuality of real spaces, is the act of suicide’s first fall – a vitally important fall. It is the fall that acknowledges fallenness; the moment that we acknowledge that presence is impossible and that telepresence is no different than the “thing itself.” Teledildonics is not a pale imitation of dildonics is not a pale imitation of a penis is not a pale imitation of the phallus at all. There is no chain of losses in these deferrals, only always-already empty referrals. The first fall is the fall into the Net, the fall into the reality of tele-orgasm. It is also, paradoxically, our first and only successful act until our second, and more tragically successful, fall. (ibid.: 198; emphasis mine)

**Jouissance** as the paramount climax of pleasure, a pleasure that exceeds the limits of genital sexuality, the limits of plain orgasm, even the limits of erotic ecstasy (cf., for example, Bullen & Kenway 2002: 57–65; Kovacevic 2006: 112–142, 183–187, 205–208; Wilson 2008: 55–59), intertwines, in Erlich’s conception of teledildonics, with the idea of suicide as a “fall” of “fallenness,” and finally escapes the paradigm of the phallus. In a miraculous way, the final truth emerges from this configuration: the “reality of tele-orgasm”; this is the truth of teledildonics, the truth of cybersex: the pleasure of telepresence as a fall into nothingness (cf. Barlow 1990a).

**“All Presence Is Telepresence”**

All this, of course, remains incomprehensible without the understanding of Turing’s conception of intelligence in terms of the machine (see Turing 2004a [1950]; cf. Abbas 2006). Obviously, Turing’s machine is the paradigmatic machine of our time, the Ur-machine of the contemporary computer and what is called the computer age (cf., for example, Halbach 1994: 140–146; Kittler 1997: 47–49; Hobart & Schiffman 2000 [1998]: 213–219; for a comprehensive historical overview of Turing’s contribution to the development of the computer, see Herken 1995; Copeland 2004f, 2005). In this sense, Turing, as Kittler (1986: 31) says, als Erfinder der Universalen Diskreten Maschine, “as the inventor of the universal discrete machine,” inaugurated the era of machine intelligence, an era in which the idea of a universal, autonomous and self-conscious subject has been fundamentally questioned (in terms of Lévi-Strauss’s structuralism, information theory and cybernetics, cf. Johnson 2003: 92–100; Liu 2011: 153–199; Lafontaine 2007).

From this perspective, cybersex, as elaborated here by Erlich, is the icon of machinic sex – the machinic in the same sense as it appears in postmodern
techno-theory after Turing’s constitutive work, and not the least in理论 fictions based on Deleuze-Guattarian ideas of the machine, and the whole machinic paradigm under the sign of the posthuman (see, for example, Halberstam & Livingstone 1995; Botting 1999; Hayles 1999; Graham 2002; Zylinska 2002b; Deane-Drummond & Scott 2006; Manning 2007; Toffoletti 2007; Vint 2007; Clarke 2008; Gordijn & Chadwick 2008; in terms of “somatechnics” as a queer paradigm, see Sullivan & Murray 2009). As Hayles (1999: 3) assures us, [i]n the posthuman, there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals” (cf. Koch 1999: 146–158; Kurtz 2002: 114–116).

According to Erlich, it was love that drove Turing to develop machine intelligence, the idea of the Turing test and the codified information and communication systems that made the computer possible – and, in the long run, enabled cybersex, sex in the machinic assemblage of the “cyber.” Turing’s aim was the “packaging of experience,” the “packaging which we find erotic,” the “packaging” that is about “the letter, not the meaning of the word” (Erlich 1996: 190; emphasis mine; cf. Stone 1995c: 243–245, 1995b: 6–11, 17–19, 94–97; Turkle 1998: 411–414; O’Brien 1999: 79–98; Gillis 2004: 96–97; Hartmann 2004: 43–45; Wajcman 2006: 102–105; McRae 1996, 1997). Turing’s love was a “love for language, for the communication, the communicability, the contagion of desire” (Erlich 1996: 190; emphasis mine). It is in this sense that “Turing felt a love for the communication of his desire”: “Can you think what I feel?” – this was a “need to communicate his sexuality” (ibid.: 191).

Fascinated, in a techno-erotic state of arousal, Erlich translates Turing’s speculations on the possibilities of the machine (see Copeland 2004f; for a detailed discussion on Turing’s ideas of intelligent machines, see Teuscher 2002) into a sexual fantasy in which both bodies and machines feel erotic desire, a specific, highly idiosyncratic yearning, for each others (cf. Boon 1996: 164–175). What is at issue here is not only a sexualization of technology, but also a sexualization of the language in and through which technology is experienced as something “sexual” in the first place. In this language, bodies and machines intermingle with each other and create techno-sexual assemblages that bring to mind the idea of the Duchampian machine célibataire at a new level (cf. Henderson 1998: 86–170; Reck & Szeeman 1999 [1975]; Daniels 2000), the level of “the sexual” enabled by the cyborg, cyborgian sex, or, as Haraway (1991a: 151) says, “cyborg ‘sex.’” In this machinic context, not only desires and pleasures, but also the experiences of intimacy are defined anew: you are a machine and the machine is you, or, again in Haraway’s words, the “machine is us, our processes, an aspect of our embodiment” (ibid.). In other words, in Erlich’s machine language:

Was that as good for you as it was for me? Did our transmission hardware cut down on the crackle of my voice, on the fleshiness of my lips as I struggled to wrap them around Turing? Did it add any of its own? Or is it crisp, clean, AI filtered so that the medium can intelligently remove any extraneous data that
From this perspective, for Erlich, “[t]elepresence, and particularly teledildonics, is a field with a tautological name” (ibid.). Namely: “All presence is telepresence” – and “Turing knew it” (ibid.; emphasis mine).

And even in “actual sex,” which itself is virtual (in psychoanalytic reasoning), coming never comes. Are we present at the moment of our own orgasm? Or is it a petit mort, a little death, that assures us that we will never be present at the moment of our own death, at the moment of our own orgasm? Was it as good for you as it was for me? Can I ever know if it was? (ibid.)

Whatever the answer might be, for Erlich, it is certain that in the techno-sexual assemblage what is at issue is always the “mingling of infinite signification and pure data with the prosthetic and the simulation of the material” (ibid.). This is a configuration in which, as astounding as it might sound, you can experience an “orgasm that lasts forever” (ibid.; emphasis mine); that is, through a prosthetic assemblage you can reach a nirvana as a realm of machinic non-being, a mode of supra-ecstatic bliss, an exalting presence of the sublime, a vertiginous shattering of the self, that even exceeds the climax of jouissance (cf. Wills 1995: 286–287; McRae 1997: 83–84; Dean 2000: 118–131; Hollywood 2002: 53–59, 85–87, 162–166; in terms of “sexcrash,” cf. Botting & Wilson 2002b; with regard to Marinetti’s “celebration of war as a ‘furious coitus,’” cf. Foster 2004: 125). This, indeed, is sex beyond the paradigm of “normal sex,” light years away from normalized sex, sex under the disciplinary regime of the “heterosexual matrix” (cf. Butler 1990); this is sex in the world of the cyborg, the world of prosthetic beings, the world of the posthuman.

But, in contrast to feminist readings of the cyborg, in Erlich’s techno-sexual world, binary oppositions do not disappear:

Cyberspace hardly means the end of gender, sexuality, top/bottom, active/passive, to orgasm or perpetual, S/M, for money or for free, casual or regular – in fact, it means an explosion of all these things. But it also means the perpetual slippage of all these things, the continual rearrangement of the territory. In this world of perpetual deterrioralization, you have to keep a little bit of land with you at all times. It’s awfully hard work being a cyborg. (Erlich 1996: 193; emphasis mine; cf. Reid 1996 [1994]: 343)

Thus, to be a cyborg is not a heaven’s gift coming for nothing; it is an achievement of personal commitment, an outcome of an appropriate input: work on oneself to get rid of one’s self, to annihilate one’s own self. It is in this manner that, in Erlich’s world, orgasm is the focus of all being, whether machinic or human, or as their various intertwinnings. Orgasm and death – these are the end points of the spectrum of life, points that always, in the final instance, meet one another, converging into a mystery of existence:

What is the truth that is written or unwritten in orgasm? Can I actually know if it was as good for me as it was for you? We can endlessly recuperate orgasm and death without ever coming close to coming, and without ever coming close to
being present at our own death. Or is that what cyberspace is all about? The impossible coexistence of immortality and embodiment. Maybe we can be present at our own orgasm. We can be present at somebody else’s. Perhaps we always are. So my question is, were you really present at my orgasm? Was I present at yours? Did we really come together? Even for a moment? Or did I just come apart? (ibid.: 194; cf. McRae 1996)


This is the ultimate pleasure of cybersex: sex as the freedom of the self to liberate oneself from the self of one’s “own” self as the “self” of oneself.

4.3.3 “I’ll Be Your Mirror”

The subject of cyberspace is its own object, an object that is an object both in the mirror and of the mirror. What is decisive here is that the subject of the mirror is a reflection of the object of the mirror. Where am I in the mirror image of my self? I am in the mirror, as a mirror image of my self that is not a mirror image of my self, but me, a “me” in which je and moi co-exist in an unresolved tension (cf. Lacan 1977f [1966/1949]; Bowie 1991: 20–26, 88–99). The subject of cyberspace, however, is more than just a “me”; it is an agent in a new subject position in which the objectified subject becomes the subjectified object in a circulatory movement, in which the self is a compound of me, myself and I, all of these components being reflections of the mirror – the never-ending world of cyberspace, an infinite realm of Derridean supplementation (see Derrida 1997 [1967]; 141–164; cf., for example, Stiegler 2001: 240–267; Hobson 1998), a realm of the virtual real in which the logic of simulation determines both the real and the virtual (cf. Baudrillard 1994a [1981]).

But it is not only cyberspace that is the mirror of the self. In the contemporary world, technology in general is not just an extension of being human: in technoculture, under the regime of technoscience, being human is always already an extension of technology (cf. McLuhan 1964; Haraway 1991a). In this sense, the machine is now the mirror of the human being, and the paradigmatic machine in this context is the computer, the “second self” (see Turkle 1984) of the subject in its objectified form: the subject as the project of the self (cf. Flusser 1998), a “self” that is no longer an integral self, a unitary, coherent and stable I, but always already a fragmentary and fragile compound of multiple selves (cf. Haraway 1991a: 177; Jones 1998: 197–240; Mazis 2002: 139–156;
Kolko & Reid 1998; in terms of postmodern morality and the fragmentation of the social in the postmodern, cf. Bauman 1995; Honneth 1995; in the context of Futurism and Surrealism, cf. Orban 1997). It is in this manner that the “second self” has now taken the place of “my self”; in other words, what used to be “myself” as an “I” implying the “self” of “my” self as a “self,” in the self-conscious self-presence of which I was entitled to say I “am,” is no longer possible: today, an “I” in general and in cyberspace in particular has turned out to be a delusion since in an era in which the subject is just “a transient epiphenomenon of language” (Norris 1994: 73), language is the primary sphere of all being, and, accordingly, the “self,” whoever or whatever it ever is, is an effect of language.

I Am Not the I that I Am

For Alan Sondheim (1996), a postmodern mobile person for whom there are no boundaries between work and private life, this transformation of the subject is not only a pleasure; it is also something he calls the “throes of addiction” – a consequence of his prosthetic relationship with his “second self.”

Clutching my notebook computer, I go out, as usual, in 16 degree Fahrenheit weather, heading to the local coffee shop for breakfast/lunch after sleeping fitfully from four o’clock on. It’s around noon, and I hug the computer case close to my body, warming it to keep the battery charged (the last of a dying breed). This is prosthesis in the truest form [...]. (Sondheim 1996: 105)


This is the identity of the postmodern subject, a mode of the subject that is not only always already a split self, but, more fundamentally, a split subject that exists in a fragmentary world in which disconnected and incompatible fragments constitute a “reality” that is entirely empty of meaning, a vacuous universe of contingency.

Prior to the computer, in that distant past preceding the computer age, our age, how was it, in general, possible to be a subject without this postmodern “technology of the self” (see Foucault 1988a [1982], 1988b [1982]; cf. Ortega 1997: 135–191; Schneider 2004: 186–195), the computer; a technology that tells me
the “truth” of “me,” the truth of “myself,” that testifies that I am? “Soon I won’t be able to live without these devices; my speech will become totally encapsulated, the tenor of my voice heard on rare occasions, for the most part a thing of the past” (Sondheim 1996: 106). I am the computer that I am: this is the truth that I am, the truth that I exist. “I continue typing, the words bouncing around somewhere between my mind and the blankness of the screen; they inhabit neither one nor the other, but come to settle, with a false sense of security, on the drive itself” (ibid.: 107). That is, typing the words on the screen entails a becoming “me”: an “I” as an effect of the screen-I, and, accordingly, as Turkle (1997: 145) says, “the self is not only decentred but multiplied without limit,” bringing about “an unparalleled opportunity to play with one’s identity and to ‘try out’ new ones.” In this manner, “my” “second self” is “my” true self (cf. Balsamo 1995b: 358–359; Katz 2003); in other words, I am the no one that I am in the mode a reverse narcissism, the disappearance of the self as the supreme pleasure of the post-subject.

This is fantastic, indeed: “On the Internet, nobody knows you’re a dog” (as a cartoon by Peter Steiner in The New Yorker told us in 1993). That is, after the triumph of poststructuralism in the 1970s and 1980s, it was now the new sphere of being, cyberspace and the whole cultural constellation of the “cyber,” that suddenly made it clear that what you write is what you get. But then again, how else could it be? Over half a century after Lacan’s groundbreaking lectures, over four decades after Derrida’s epochal writings, and over three decades after Foucault’s pivotal texts, how else could it be?

As we know, since the momentous discoveries of all that is known today as poststructuralism (see, for example, Hawkes 1977; Merquior 1986; Sturrock 1986; Harland 1987; Sarup 1993 [1988]; Peters 2001; Rajan & O’Driscoll 2002; Davis 2004; for the inaugurating moment of poststructuralism, see Macksey & Donato 2007 [1970]), the subject is nothing other but an effect of language; language organized into discourses, discourses providing the positions in which “I” can, through the process of subjectification, be a subject; not, of course, a subject of myself, but the subject of discourse that knows better than me who I am. What I am is only a consequence of the fact that I am a mirror of a discourse, a mirror “I,” who says to me who I am, even without my knowing it. But now, in a world in which the computer is the supreme instance of discourse production, it is my writing machine, my personal computer, the PC as the icon of our age, that is the very agency of becoming a subject, in Foucauldian terms, the process of assujettissement (see Foucault 1983b [1982]: 239–242, 1990k [1976]: 60, 1991a [1975]: 30, 1992b [1984]: 27), embracing “those ways in which individuals objectify themselves so as to recognize, and become committed to, a particular sense of their own subjectivity” (Knights 2005: 111; cf. Minson 1986: 111–113; Simons 1995: 1–5, 34–36; for the origin of the idea, see Althusser 1971 [1970]: 163–169).

From this perspective, the subject in terms of the “cyber” is nothing but an effect of an arbitrary algorithm, a non-subjective, non-conscious and non-
reflecting reflex of the computer programme; a mirror-effect of the screen. Or, as Marshal McLuhan (1964: 51–56) already saw it in the 1960s: in the world of “gadget lovers,” what comes after amputation is prosthesis. That is, to be a prosthetic self is “my” destiny in the contemporary world (cf. Lury 1998; Landsberg 2004).

What was once the “internal life of the self,” one’s own inner space, the world inside myself, within my innermost personality, is no longer possible. In the contemporary world, there is no longer the Cartesian certainty of cogito ergo sum, the certainty that, as Descartes (1985b [1637]: 127) says, je pense donc je suis, “I am thinking, therefore I exist” (cf. Descartes 1985c [1644]: 195, 196; Cotttingham 1986: 13–14, 35–36, 112–113; Markie 1999 [1992]), because there is neither a “cogito” (“I think”) nor a “sum” (“I exist”). All that there is, is an effect of language, language organized into discourses, discourses providing “me” the position where “I” am the one I “am.” Instead of an “inside,” there is only an outside, the universe of discourses: discourses that are “my” world, a world in which “I exist.” This is a world of words; as Lacan (1977e [1966/1953]: 65) says, “[i]t is the world of words that creates the world of things”; words that have the power, force and capacity to become things, enact the materiality of signifiers, the only materiality in terms of the “post.” In this world, what was once identity, the very nucleus of my selfhood, embracing the memories that, through the time of my being in the world, constituted the awareness and security that I am, that I am my past being as the basis of my present being – all this is now gone, forever. In the world of the “post,” I am not; instead, “I” exist as a contingent knot point in a discursive matrix of contingent discourses that, in the manner of the “invisible hand” of Adam Smith (1998 [1776]: 291–292), rule the post-historic cal present of the contemporary world. As Sondheim says:

Now my memories are of words and their effects, and the return of words to me, and I try desperately to make that sufficient. (Sondheim 1996: 107; emphasis mine)

We are now living in the world of words, omnipotent words, that not only dictate who I am but, first of all, whether I am or not: words dictate my very existence, my being in the world – the world of words.

51 Describing his thought experiment through which he found the certainty of his own existence as a thinking subject, Descartes (1985b [1637]: 127) says: “I resolved to pretend that all the things that had ever entered my mind were no more true than the illusions of my dreams. But immediately I noticed that while I was trying thus to think everything false, it was necessary that I, who was thinking this, was something. And observing that this truth “I am thinking, therefore I exist” was so firm and sure that all the most extravagant suppositions of the sceptics were incapable of shaking it, I decided that I could accept it without scruple as the first principle of the philosophy I was seeking.” This certainty is no longer possible in the world of the “post”; the only thing that is certain in the world of the “post” is that there is no certainty at all in the first place.

52 This can be compared with the problem of the past in Ridley Scott’s Blade Runner (1982): the true moment of identity equals the ability to recognize one’s own past in photos, photos that are the objective evidence of one’s being in the world, of one’s existence, but not necessarily a testimony of one’s subjective world-relation, of one’s existential mode of being. In contrast, the memory of a person, one’s lived past as an inner world, is the basis and context of his or her identity: if you do not see the photos as an evidence of your past, of your very existence in a time-space continuum, you do not have a past of your own; that is, you do not have an identity (for the prosthetic inscribed in contemporary culture, see Lury 1998; for “prosthetic memory,” see Landsberg 2004).
Now, as I write these last sentences, I am blocked, filtered out from the real again, returned to the writing, desperately trying to ensure its interest for you, seducing you to the very end, by any means available. For to lose you would be to lose myself, although the benefit of the writing, of course, is that I will never know that I am blocked, held taut always *elsewhere* by the computer, which repeats itself, myself, to me. It’s the machine in me that is doing the writing; I, the prosthesis of the machine, the very *practice* of the machine. I am its alpha and omega, I am its life-force. (ibid.: 108)

That I *am the prosthesis of the machine that is doing the writing that I am* – that is self-evident in the age of the computer, our age, *the age of prosthetic subjectivity* (cf. Gray & Mentor 1995a: 228–240; Wilson 1995: 251–255; Hayles 1999: 115–139; Zylinska 2005: 123–124; Sobchack 2006: 18–27; Melzer 2008: 165–169; Stelarc 1991, 1994a, 1998; Smith & Morra 2002b, 2006b; in the context of Marinetti and Jünger, cf. Foster 2004: 109–191; Biro 1994, 2009; in terms of the phallus as a prosthesis, cf. Žižek 1997b: 136, 1999e: 369). But “you” – who or what is this “you” addressed here, and actually, addressed by whom? It is, of course, an effect of words, the power of language, just as everything else, whatever this “you” *as a you* happens to be. What is more important, however, is that there is no “me” without the “you” the “I” is addressing as a “you.” “You” and “I” are always – *always already* – mirror images: the “you” is the mirror of the “I” that is the mirror effect of a “me” that exists only in and through the mirror – the mirror as a double-sided window on the “reality” of the becoming-subject, a subject in a permanent state of becoming in and through its originary specularity (cf. Lacan 1977f [1966/1949]; Bowie 1991: 21–26, 197–198); that is, a “subject” in its radical spectrality.

“I’ll be your mirror” – that is the precondition, the condition of possibility, that there can be such entities as an “I” and a “you” in the first place.

### The Subject at/of the Interface

But what if this “you” is no longer an effect of a computer, but *is* a computer, my “second self” as my true self? According to Sally Pryor (1991), it is about “thinking of oneself as a computer.” For Pryor, the computer is not just a simple writing machine; it is a multifunctional apparatus that opens up “new forms of artistic expression, communication, simulation and extension of the senses made possible by computer graphics and animation,” as well as “related phenomena such as virtual space, interactivity, artificial intelligence and networking” (ibid.: 585). All this embraces, as Pryor says, a “somewhat disembodied landscape surrounding the human and the computer, a landscape in which the computer is increasingly used as a metaphor of the self” (ibid.; cf. Toffoletti 2007: 26–28; Waggoner 2009: 29–34; Turkle 1984, 1995; in terms of *otaku*, cf. Grassmuck 1994: 277–296, 1991; Hebecker 2001: 171–173) – provided, of course, that there is still such an entity that can be called a “self” in the rigorous sense of the term (as we have seen above).

However, what Pryor is speaking about here is not so much the problem concerning the “self” after the “death of the subject” (see, for example, Rosenau...
The most important occurrence in the twentieth century that is still present in our time; rather, by speaking about the “thinking of oneself as a computer” Pryor (1991: 585) provides a description of the basic parameters of what she calls the “human/computer connection”; that is, the relationship between the interface and the subject constituted by it, a subject that has come, and is always, in one way or another, coming, into being through the computer relationship: the position of the computer subject as a subject of the interface (see, for example, Jordan 1999: 44, 60, 122–125; Dodge & Kitchin 2001: 3–12, 91–107, 153–155, 176–178, 184–218; Laurel 1990; Halbach 1994; Hands & Siapera 2004; for “the pleasure of the interface,” see Springer 1991; Angerer 1993; for the body as an interface, see Angerer 1998; Scott 1999; Sielke & Schäfer-Wünsche 2007; in the context of media art, see Sommerer et al. 2008a; in Lacanian terms, see Nusselder 2009; with regard to interactivity and tactility, see Huhtamo 2007; Daniels 2008; from a historical perspective, see Bardini & Horvath 1995; Bardini 2000).

This is a mode of subjectivity in which the subject is an alter-ego of itself, a form of agency in which the agent is no longer a stable self, but a fragmented and heterogeneous assemblage of multiple selves; that is, a paradigmatic manifestation of the postmodern subject. In this sense, the interface is a technocultural metaphor of the postmodern: life at the interface exemplifies the logic of hybridity (see, for example, Rutsky 1999: 19–22; Roden 2003: 91–94; Nayar 2010: 130–134, 146–158; Schneider & Thomsen 1997; Stocker & Schöpf 2005).

If the computer, in the sense elaborated on above, is what I call a mind machine, where, then, is the body in the human-computer relationship? In other words, if the computer-relationship as a relationship between the interface and the subject as its double-faced reflection is a cerebral mode of being, what does it mean in terms of corporeality? According to Pryor:

For cerebral people who are more involved with what is happening inside their heads than inside their bodies the computer provides the opportunity to be even more mind-oriented. Aside from the arms, hands, eyes and brain, it is almost a nuisance to have a body when one is working with a computer. It gets in the way of the mesmerizing interaction between the screen and the mind, unreasonably demanding food and attention, stiffening one’s back and shoulders when one just wants to keep working. (Pryor 1991: 585)

As Pryor says, the “computer provides a very seductive way to extend one’s abilities and senses” (ibid.) – to the extent that one really begins to think of “oneself as a computer” (ibid.), exactly in the manner Sondheim (1996) above feels (or imagines, which does not make here any difference) that it is the “machine in me that is doing the writing,” and, as a consequence, “I, the prosthesis of the machine,” become the “very practice of the machine”: “I am its alpha and omega, I am its life-force.” This is the way in which what Pryor calls “cerebral people” think about themselves, people for whom the body, as she says above, is “almost a nuisance” (cf. Springer 1991: 312). Here, it is not only
that the machine appears to be a prosthetic extension of me, but that I am the prosthesis of the machine (cf. McLuhan 1964: 51–63).

In this seductive, mesmerizing relationship with the machine, the machinic me, the self as a prosthetic subject, extends beyond its material constraints, the living body in the time and space of everydayness, its banal gravity of the thingness of things, and roaming in the virtuality of cyberspace invents itself all time anew. The “space” behind the interface, beyond the screen, appears as an extension of the disembodied mind and turns into the imaginary realm in which the “second self” can enjoy its limitless existence beyond the time-space grid of material reality. This is the seduction of cyberspace: the prothesis turns into a mirror of the self; a mirror in which one no longer sees the mundane, embodied self of oneself, but an enormously enlarged “me,” the virtual embodiment of one’s ego as a phantasmatic self; that is, me, myself and I as a self-mirroring Self. “I’ll be your mirror,” cyberspace signals in a suggestive manner to the subject that wants to be what Freud (1987a [1923]: 247–267) calls the “ideal ego” of oneself more than anything else, the form of the self appearing as its ego-ideal, an idealized incarnation of the self: an imaginary double of the mundane me (cf. Lacan 1977f [1966/1949], 1977h [1966/1960]; Bowie 1991: 92–93). In this situation, the body loses its meaning as the site of the self and is replaced by a phantom body living in a symbiotic relationship with the interface; that is, a cerebral self mesmerized by the affective flow emanating from the vastness of the virtual world.

This is the birth of a new mode of the subject: an algorithmic subject that is an effect of the algorithms that are running the web universe: algorithm, as Friedrich Kittler (1997: 144) sums up, referring to the computer scientist Robert A. Kowalski’s formula, is “the sum of logic and control,” the very logos of computer networks (in terms of biological metaphors, cf. Terranova 2004: 114–117, 124–129; Wilson 2008: 84–85).

What does this mean? If, long ago, during the heyday of structuralism, Claude Lévi-Strauss (1983 [1964]: 12) declared that it is not that “men think in myths,” but, on the contrary, “myths operate in men’s minds without their being aware of the fact,” and “it would perhaps be better to go still further and, disregarding the thinking subject completely, proceed as if the thinking process were taking place in the myths, in their reflection upon themselves and their interrelation” (cf. Althusser 1971 [1970]; Castoriadis 1998 [1975]: 135–146), what is the situation today, in the era of global communication and information, is that algorithms have taken the place of myths as thinking without subjects: nothing, literally nothing, takes place in the universe of computer networks without appropriate algorithms (see, for example, Munster 2008: 409–411; Pomberger & Dobler 2008; Lewis 2009). Algorithms are the invisible codes that codify our dreams, desires and fantasies generating the unconscious of the postmodern “network society” (Castells 1996) or “network culture” (Joyce 2001; Taylor 2003; Terranova 2004), which, for this very reason, Alexander R. Galloway (2006) calls “algorithmic culture.”
This brings us back to the computer subject being subjectified by what I designate as the *ego-mirror created by the interface*, the algorithmic subject positioned in the world by the algorithms constituting the codes of our entire cultural environment, our post-Heideggerian Umwelt (cf. Heidegger 1977d [1927]).

“In the *trompe l’oeil*, be it a mirror or painting, we are bewitched by the spell of the missing dimension” (Baudrillard 1990f [1979]: 67). What is my “missing dimension” in the computer-relationship, in the position in which I am face-to-face to the interface? It is, of course, the “me” that I want to be, the object of my desire, my prosthetic extension that is the virtual “me” as the real “me” in its *real virtuality*, the compound of *me, myself and I*. And it is missing because I am not what my ideal ego says I could be if I only could. “I’ll be your mirror,” I hear cyberspace seductively whispering, showing me a bit of my missing dimension, the “second self” that I am desiring, that I am desiring to become by incorporating it. This, in Baudrillard’s words, is what “establishes the space of seduction and becomes a source of vertigo” (ibid.).

In the light of Baudrillard’s insight, Haraway’s (1991a: 178) question suddenly becomes intelligible: “Why should our bodies end at the skin, or include at best other beings encapsulated by skin?” (cf. de Kerckhove 1997 [1995]; Benthien 1999, 2001; Ahmed & Stacey 2001; Curtin 2003; Wegenstein 2006; in terms of “American technological transcendence,” cf. Ben-Tov 1995: 145–149). The imaginary me/I as the ideal ego of the self is the *virtual body of the interface-subject*, a postmodern subject constituted by and at the interface; that is, a *specular subject as an effect of the self-aggrandizement elicited by the virtual reality of cyberspace*. “I’ll be your mirror” – the mirror is an extension of me that is the “I” that I am as a fractal me-ness of me, my “second self” that constitutes “me” as a constantly changing configuration of *me, myself and I*: I am no longer “encapsulated” by and within my skin, constrained by my corporeality, but as a disembodied “me” I am able to exceed the limits of myself. As Haraway (1991a: 177) says, “to be other is to be multiple, without clear boundary, frayed, insubstantial,” and therefore, “[o]ne is too few, but two are too many.”

Yet, this multiplication of the self, a multidimensional extension of the subject, takes place at the cost on my corporeal being: while my body at the interface is an inert entity, a zombie, my mind floats as a disembodied avatar in the non-space of cyberspace. It is in this way that facing the interface I become “insubstantial,” a “multiple” self, a being “without clear boundary.” That is, my immobile body at the interface withers away at the same time as my imaginary me celebrates its virtual mobility in the unending vastness of cyberspace.

In the virtual abundance of cyberspace, it does not even matter that my *me, myself and I* may “lose themselves in appearances in the seduction of their image” (Baudrillard 1990f: 67), because in cyberspace I am reborn: I have become, as Baudrillard says, “Narcissus” (ibid.), the love object of my self.

Seduction cannot possibly be represented, because in seduction the distance between the real and its double, and the distortion between the Same and the
Other, is abolished. Bending over a pool of water, Narcissus quenches his thirst. His image is no longer “other”; it is a surface that absorbs and seduces him, which he can approach but never pass beyond. For there is no beyond, just as there is no reflexive distance between him and his image. The mirror of water is not a surface of reflection, but of absorption. (ibid.; emphasis mine; cf. McLuhan 1964: 51–54)

From the Baudrillardian perspective, this narcissistic seduction is not only the state of desire constitutive of the postmodern subject; it is the state of the Western world in its entirety, a state in which everything is immersed in the “ecstasy of communication” (Baudrillard 1988d [1987]); a state in which the “I” and the “you” are seductive reflections of one another. In the postmodern, there is no I without its double, the mirror image of the I, the ego-ideal as an ideal ego. According to Baudrillard, there is “no longer any transcendence or depth, but only the immanent surface of operations unfolding, the smooth and functional surface of communication” (ibid.: 12). “Mastery, control and command” – these are the forms of activities that dominate the operations of the self and society, resulting in the “transformation of the subject himself into a driving computer” (ibid.: 13), the machine that drives me forward in the world, a “world” that is my reflection, a prosthetic extension of my prosthetic ego without which I am nothing.

In this new order of things, the world of objects has turned into an “uninterrupted interface” (ibid.: 14).

Private telematics: each individual sees himself promoted to the controls of a hypothetical machine, isolated in a position of perfect sovereignty, at an infinite distance from his original universe; that is to say, in the same position as the astronaut in his bubble, existing in a state of weightlessness which compels the individual to remain in a perpetual orbital flight and to maintain sufficient speed in zero gravity to avoid crashing into his planet of origin. (ibid.: 15–16)

What happens in this societal constellation, in the ecstasy of communication, to the subject? Along with a “satellisation of the real itself” (ibid.: 16), the self of the postmodern subject becomes absorbed into a general satellisation, into an all-encompassing circuitry of inter-dependences without a centre, a realm of imaginary interconnections the paradigmatic form of which is the virtual network of intersubjectivities which is cyberspace: the very non-space of the postmodern.

Who Is the “I” on the Mirror?

This is the “era of hyperreality”: everything that was “previously mentally projected, which was lived as a metaphor in the terrestrial habitat is from now on projected, entirely without metaphor, into the absolute space of simulation” (ibid.: 16; emphasis mine). Consequently, in the era of the “subject at odds with his objects and with his image,” the very mode of our existence has changed: “we no longer exist as playwrights or actors,” but as “terminals of multiple networks” (ibid.). Things happen now according to the logic of “telematic power,” a “capacity to regulate everything by remote control” (ibid.: 16–17), through the systems of telepresence (cf. Hillis 1996: 83; Lemos 1996: 37; Nguyen & Alexander 1996: 116–117; Shade 1996: 16; Shields 1996b: 5; Bogard 1996; Robins 1996;
This is the seduction of cyberspace. At the interface, in front of the screen, mesmerized by the universe of objects on the display that await to turn into dimensions of the subject, the self loses its contours, melts down into an all-absorbing no-body that, being in a curious (in both senses of the word) state of mind, indulges itself in the “ecstatic, solitary, and narcissistic” (Baudrillard 1988d: 25) pleasure of being seduced by cyberspace (cf. Hayles 1993b; Jamison 1994; for a contextualization in terms of “millennial seduction,” see Quinby 1999).

In these terms, if cyberspace is a “space,” it is a mirror space, a monadic space, in which the subject always encounters only itself, a self that is its own reflection. This is a “space” of de-spacement, a “space” of non-spatiality, which “exists” in pure nothingness, in its absolute no-thing-ness, precisely due to its spatial emptiness. As a mirror space, cyberspace is a virtual space, not in the sense of three-dimensional visual space, but, paradoxically, a depthless place in its multidimensionality; or, in terms of virtual reality, a computer simulation, appearing as an “immersive” sense experience that, paradoxically, is “real” because it is imaginary, precisely in the sense of the virtual: a computer-generated image-space in which representation (as far as there is representation at all in the sense of re-presentation) is subordinated under the principle of simulation (cf. Cubitt 2001; Shields 2003); in other words, cyberspace is a space in which, as William Gibson (1988: 48) says, “[t]here’s no there, there” (cf. Dodge & Kitchin 2001: 199–203). In contrast to virtual reality, the virtual space of the computer screen is first and foremost a cerebral space, a mental reality, a Vorstellung, of the interface-ego constituted by the interface-relationship: an imaginary space reflecting the libidinal economy of the subject. In this sense, in cyberspace, the subject is present only to itself; but this presence is nothing but a reflection of the subject that is an unending reflection of itself in itself: the postmodern subject that “believes” only in the mirror image of itself.


It is in this sense that cyberspace is a mirror world, a subjective universe, in which, in fact, there is no communication in the genuine sense of communication; rather, what there is in the subjective-objective paraspace of cyberspace is self-reflective autocommunication in the process of which the computer subject, preoccupied with its ephemeral ego, is obsessively working on its “own” subjectivity and identity; in this manner, cyberspace is a post-communicational
realm in which *monadic* subjects reflect the windows of each others. To be a subject in cyberspace is to be a subject of a cyberspace, a “space” of one’s “own” as an imaginary realm of a monad existing in and for itself, in its planetary seclusion, in its cosmic solitude, in its *nomadic* non-territoriality in the unending vastness of virtuality.

Accordingly, the nomadic mode of being of the cyber subject is the self-reflective soliloquy of a monad – a monad as its “own” reflection: “I’ll be your mirror.”

### 4.3.4 Don’t Worry, Be Yourself

Cyberspace is a global Turing test (cf. Turing 2004a [1950]): if you cannot tell the “body option” (cf. Angerer 1999a) appearing on the screen from the real life body, subject and agency behind it – whether male or female, human, animal or machine – the body presented passes as the person which it seems to refer to (cf. Hansen 2000: 14–18; Nayar 2004: 65–86; Flieger 2005: 230–234; Nakamura 2001; Vint 2007; in terms of the avatar, cf. Waggoner 2009; for the idea of passing, see, for example, Bornstein 1994, 1998; Halberstam 1998a [1991]; Hostert 2007; Ferreday 2009). Accordingly, in terms of the sexual, cyberspace is capable of generating “sexual intelligence,” a mode of machine intelligence intelligent enough to be taken at face value (cf. Dery 1996: 181–225; Botting 1999: 147–164; Kurzweil 1999: 184–188; Boon 1996; Dorsey 2002 [1988]; Klein 2002; with regard to the “tamagochi,” cf. Žižek 2006: 190–193); though, not necessarily at what Sherry Turkle (1995: 131–145) calls “interface value.” What matters is not what you are, but what someone believes you to be. In cyberspace, seeing is believing and believing is being. In sexual terms: my “body” is your body if it is a body for you, and, conversely, if not, there is no body at all. In this sense, to be a body in cyberspace is an issue concerning whether or not you and I (whoever or whatever these entities happen to be) mutually manage to create a presentation that passes as a body.

That is, whatever I see on the display is a mirror of myself, my ego-mirror that reflects the imaginary space of my desire. Therefore, in cyberspace, the Turing test always tells the truth: the truth is an option, a body option that is as contingent as the “body” behind its appearance.

53 As shown above, the test proposed by Turing is essentially a passing test. Thus, the Turing test is not about whether a machine is intelligent or not; what counts is its ability or inability to pass the test: if a machine can pass the test it is intelligent; in other words, the Turing test does not ask what intelligence is, it only asks can a machine “behave” as if it were intelligent in the sense that it cannot be discerned from the human being (which, as we can see, is taken as the measure of intelligence). By implication this means that Turing’s (2004a [1950]: 441) question “Can machines think?” in fact, is not concerned of the thinking capabilities and, in this sense, of the intelligence of the machine so much as of the possibility that a machine, on what grounds ever, is deemed to be intelligent. That is, whatever “machine intelligence” is in itself, it is more a relational than an internal quality or capability of the machine. Paradoxically, “in principle,” as B. Jack Copeland (2004d: 437) says referring to the intelligence test proposed by Turing, “therefore, an unthinking, unintelligent computer can pass the test” (for discussion on this problematics, see, for example, Moor 2003; Shieber 2004; Teuscher 2004; Epstein et al. 2008).

In this sense, the 1990s was an epochal decade, a short period in human history when everything was possible: the subject was just “decentred,” the body was about to “disappear,” and, accordingly, the mode of being someone that matters was to be one of the “multiple personae” (O’Brien 1996: 56, 1999: 82), a virtual personification of an imaginary “person” on the other side of the screen inhabiting a new realm of freedom, cyberspace. In cyberspace, it became possible to be a personality without being a subject, a self without being a self, a body without being a body, a woman without being a woman, a man being a woman without being a man without being a woman: everything was possible.

It was a fantastic time when to be was to enjoy the liberties of agency without being an agent. Cyberspace was your space to be, your place to have fun (see, for example, Heim 1993; Benedikt 1994 [1991]; Dery 1994, 1996; Rushkoff 1994; Featherstone & Burrows 1995b; Jones 1995, 1997; Stone 1994b [1991], 1995c; Turkle 1995; Boyer 1996; Shields 1996a; Porter 1997; Harcourt 1999; Jordan 1999; Wolmark 1999a; Bell & Kennedy 2000; Kirkup et al. 2000). If, in RL – the realm of unfreedom called “real life” (cf. Turkle 1995: 186) – your “body is a barrier to experiencing a wider range of interactions” (O’Brien 1996: 56), no problem, enter cyberspace and you are what you want to be: you can enjoy life without the nuisances of the RL body: your body is your virtual playmate.

“Bedded” by “Hotpants”

Seen from the standpoint of the present, the time from the mid-1980s through the 1990s was the emergence of a new age, the age of the “cyber,” which, from the very beginning, was a fantastic era of the hyper, an era in which what Fredric Jameson (1984, 1991), speaking about “postmodernism,” called “the cultural logic of late capitalism,” was, in fact, the logic of hyperization, the logic of contemporary technoculture, the era of the technological sublime in the sense of the “post” (see Jameson 1991: 6, 34–38, 48; Bukatman 1995; Tabbi 1996; Zylińska 2001; Mosco 2004; Giblett 2008; from a historical perspective, cf. Kang 2011). That is, what in the beginning was science fiction became theory-fiction, a mode of postmodern theory as a post-utopian, post-futurist manner of writing, techno-textual écriture constitutive of the ego-politics of the post-subject as an avatar of the present future brought about by the “cyber” (in terms of “cyborg writing,” cf. Haraway 1991a: 175–177; Graham 2002: 200–220; Yaszek 2002: 14–15; Schneider 2005: 73–75).

In this constellation, “the sexual” and “the theoretical,” in complicated interrelations, became redefined in terms of language, as manifestations of “the linguistic,” that is, as effects of “the textual” (see, for example, Schwab 1989, 1994; Cranny-Francis 1995; Sobchack 1995; McRae 1996, 1997; Reid 1996 [1994]; Dietrich 1997; Danet 1998; Ryan 1999; Sorensen 2001; Sundén 2002b; Eubanks 2004; Waskul et al. 2004; Koh 2005; for a theoretical contextualization, see Young.

In the light of the development outlined above it is understandable that nobody knows what you are in cyberspace: you are a “body” that can be any body, your body as a no-body, anybody you choose to be. In other words, “choose yourself” as a kind of neo-Sartrean call for freedom, this is the ethos of the postmodern ego-politics in terms of the “cyber” as an outcome of the logic of the “post”: the post-identitarian imperative of multiple selves, the politics of alterity as the post-ethical principle of being me, myself and I, as becoming a post-subject in the mode of the shattering the self (for the Sartrean ethos of existence implying that “for human reality, to be is to choose oneself,” “[o]ne must be conscious in order to choose, and one must choose in order to be conscious,” “to love is to choose oneself,” cf. Sartre 1972 [1943]: 440, 462); this is the post-utopian wish-image of a self that you can select from an unending variety of “selves” that are as “decentred” as yourself as a postmodern “decentred subject” (see, for example, Smith 1988: 117–120; Elliott 1999: 2–7; Ruccio & Amari-glio 2003: 13–16, 166–168; Barvosa 2008: 5–17, 84–89, 194–203).

It is in this sense that the postmodern subject always lives in diaspora, and the best place to live in diaspora is to be in cyberspace, to float in its virtual vastness, enjoying its radical alterity: the jouissance of non-place.

This is the world of the “cyber,” a helium-light world of free choice in which the laws of RL, the laws of physical reality, have lost their meaning; a world that has existed in the post-social realm of the “cyber” since the 1990s, the post-utopian paraspace of cyber discourse, the world of the “post.” No longer are there constraints limiting the free play of post-political multiple selves pursuing their personal happiness in the non-space of the “cyber,” the realm of unending becoming (cf. Braidotti 2006); instead, the world is now open in its radical contingency, in its multiplicity of random encounters. It is in this world that cyber-sex is intelligible just because it is possible in cyberspace. As Jodi O’Brien (1996: 55) says, cyberspace is about “changing the subject”; accordingly, the existential question, in terms of the sexual, has now a new meaning:

Does it matter that I have a penis between my corporeal brown, hairy legs if I am having fabulous online sex as Wanda the recent virgin who is blonde and buxom? (ibid.: 56)

No longer the Hamletian question “to be or not be?” troubles the subject, but, instead, one can follow the call of ultimate freedom, the freedom to be what one wants, to be oneself. This is the beginning of an entirely new kind of sexual subject:

If I, as a biological male, log onto a dateline as “Hotpants,” a “36-24-34 red-headed female looking for some stiff action” and am pursued and “bedded” by someone whose biography reads: “young black male body-builder looking for a woman who can take all of me,” does it matter that I am really a white, forty-
something male middle-manager? Does our sexual ranting constitute a hetero-sexual or homosexual encounter? (ibid.: 62)

For O’Brien, the idea that the “body is a barrier” is part of the “hype about cyberspace” (ibid.: 56). Yes, what else? But the problem is that this “hype” was not only taken seriously in American cultural theory throughout the 1990s, but that it also turned into a hyperbolic “theory” in itself, the theory of the technological avantgarde that in the twenty-first century is still doing well in postmodern academia (for a critical discussion, see, for example, Stallabrass 1995; Robins 1996). In short, what was “hype” became a post-theoretical mode of writing around the “cyber” that I call cyber discourse – of which O’Brien’s own contribution is a telling example in its own way. As O’Brien (1996: 55) says, “[c]urrent research, science fiction, and wishful thinking suggest that cyberspace will be a realm in which physical markers such as sex, race, age, body type, and size will eventually lose their salience as a basis for the categorization of self/other.”

Precisely in this manner cyber discourse is not about science fiction, but about theory-fiction, a mode of thinking in terms of the “post,” the terms of post-theory.

As O’Brien points out, because sex, race, age, body type, and size “are not obviously discernible in cyberspace, the logic runs, they will cease to be a primary means of structuring interaction” (ibid.: 55–56). Typically, as some cyber enthusiast at the beginning of the 1990s explained, “words and thoughts and people’s ideas are the most important thing about a person,” and thus, “[o]nline reality gets to the core of things” and creates a situation in which, “in some ways,” in cyberspace there is “so much less racism, sexism, lookism” (ibid.: 56; cf. Nakamura 2002, 2008) – and all this, although we all know that originally, in Gibson’s dystopian fantasy in his seminal Neuromancer, cyberspace was “a future of no future” (Bromseth & Sundén 2010: 270); in other words, cyberspace was a “cyberpunk fiction” dealing with “new urban experiences of crime, drugs, sex, rock and roll, a high-tech and commercialized environment, and low-life and underground subcultures proliferating and fighting for wealth and survival” (Kellner 1995: 303), a “future where megacorporations control all aspects of life for nefarious purposes, where technology allows for more intense systems of control, but is always resisted by underground and countercultural forces, where everything has become commodified and life is dirt cheap” (ibid.).

Yes, this is an accurate description of cyberspace in Gibson’s Neuromancer, but cyberspace redefined in terms of the “cyber” according the logic of the “post” is quite another matter. From this standpoint, the “cyber,” indeed, is the shibboleth of our salvation, the key to a New Age, a world in which we are all equal under the sign of the “post,” a post-Dantean Vita Nuova in virtual reality.
What Happened in a Sex Shop?

It is in this mind-set that cyber discourse has its origin: a waiting for redemption, a hope of final deliverance, a faith in a future in which “[w]e will all become angels, and for eternity!” (Stenger 1994 [1991]: 52).

In retrospect, the most important thing – which one should not forget in the twenty-first century in which the fictions of the 1990s have turned into the theory-fictions of today, visions of the present future under the sign of the “cyber,” celebrated by post-theorists in postmodern academia all over the world – is that the global network culture, the realm of cyberspace, was originally a textual “world,” a “space” written into being and through Internet communication. In cyberspace, through the 1990s, there was nothing but written texts, words upon words, complemented by graphic signs and figures, and later on, by pictures and simple animations (see, for example, Abbate 2000; Gillies & Cailliau 2000; Schröter 2004; for the history of computing, see Ceruzzi 2003 [1998]; in terms of “the Internet imaginaire,” cf. Flichy 2007a [2001]). At the time, cyberspace was, as Hartmut Winkler (1997: 10), referring to the term created by Ted Nelson, says, a “docuverse,” a universe of texts referring to one another, or, in Nelson’s words, an “ongoing system of interconnecting documents” (ibid.; emphasis mine, for the primary source of this vision entitled “As We May Think,” see Bush 2001 [1945]; for commentary, see, for example, Floridi 1999: 117–119; Zachary 1999: 261–277; Galloway 2004: 59–60; Goody 2011: 121–122).

In this writerly universe, a textual space of free-wheeling wishes and fantasies, desires and longings, the material body and gender seemed to lose their meaning. As O’Brien asks, though in a somewhat sceptical tone, in the mode of cautious incredulity, but nevertheless as if the world of the “cyber” were still, somehow, more than just words on the screen:

> If I traverse the netscape as a GWM named Lestat and you fall in love with me, are we content to linger and love forever in a text-based realm where our romantic energy is carried by standard electronic impulses across wires we will never see? Will we be living together in “a fiction” or an alternate reality? If most of my acquaintances/friends/lovers exist online, does it really matter whether my online characterizations of myself “match” my physical attributes? (O’Brien 1996: 56)

These questions are the introduction to O’Brien’s travesty concerning the “penis” and “Wanda,” cited above, an ironical summary of the “gender swapping” hype in the 1990s (see, for example, Turkle 1995; Bruckman 1996 [1993]; McRae 1996, 1997; Reid 1995, 1996 [1994]; Kendall 1996, 1998; cf. Bornstein 1994, 1998; Rothblatt 1995; Case 1996; Ainley 1998). “Opposing the hype,” O’Brien (1996: 57) remarks, “constructionist theorists argue that all interaction, as we currently experience and represent it, is predicated on symbolic cues that derive largely from face to face communication: gestures and voice.” In other words, “whether someone is present or not, we conjure up and make sense of ourselves and others in terms of embodiment” (ibid.; in terms of sex, sex workers and virtual experience, see Stone 1994b, 1995c, 1998).
To make her case stronger, O’Brien (1996: 57), for her part, takes a “materialist-constructionist approach” (emphasis mine), and, referring to the theories of Butler and Stone, assumes that “bodies, selves, technologies, and cultures are mutually constitutive.” From this perspective, O’Brien’s question is: “what happens to gender as a primary cultural distinction when the narrow bandwidth of a technology precludes the common visual/audible transmission of gender cues?” (ibid.: 58). Or, in Stone’s (1995e: 38) words: “How do people without bodies make love?” For O’Brien, this is the world of Harawayan “boundary transgressions,” the world of technological embodiment (cf. Haraway 1991a: 151–155); a world in which one literally reconstructs oneself by means of prosthetics.

In my reading, O’Brien’s “materialist-constructionist approach” is just another version of theory writing in terms of écriture, writerly theory in the mode of post-modern textualism as a post-literary form of what I call linguisticism; a theoretical position, typical of post-theory, that believes that everything – literally everything – in the world consists, in the final analysis, of writing in the form of texts (cf., for example, Tabbi 1996: 120–121, 205–206, 210–211; Ward 1996: 17–35; Terdiman 2006: 7–9, 13–15, 51–54; Norris 2000: 60–64, 72; for a paradigmatic example, see Kirby 1995; for a comprehensive critique of the textualist position in terms of critical realism, see López & Potter 2001; for a critical reading of the textualism constitutive of theories concerning cyberspace, see Higham 2001); that is, a view according to which texts are not only an epistemological way of approaching reality, but, more fundamentally, texts in and through themselves constitute all that is real, and hence, are the ontological groundwork of all that exists.

In this world, of course, it is possible that “people without bodies make love.” If the body is text, all you need for a sexual encounter is writing: you write yourself into existence, you write all you need for yourself, and enjoy the textual pleasure your own textuality in a textual relationship to somebody else in the textual space of cyberspace. And in this world, of course, “gender switching” (O’Brien 1996: 59) is only a question of writing. What you write is what you get, even in terms of the sexual. If technology, like reality as a whole, consists of texts, and if texts constitute a technology, and if gender is a techno-textual issue, your sexual body, of course, is a “body option” that you can expand limitlessly by means of prosthetics, by the technological extensions of your body – just as McLuhan (1964) already theorized in the 1960s (for a contextualization in terms of contemporary cultural theory, see Genosko 1999, 2005a, 2005b, 2005c; Theall 2001; Cavell 2003; Marchessault 2005a).

What is specific, however, to the techno-textual body as a techno-sexual body is that “the sexual,” as a phantasmatic theory object, revolves around the figure of the dildo as a paradigmatic sex prosthesis. In this sense, techno-sex is dildo-sex, and indeed, it is precisely the dildo that, during the 1990s, turned not only into an all-round sex-toy, but also – under the sign of the “post” – into a post-theoretical theory-toy (see, for example, Case 1996: 89–96, 177–179; Findlay 1996: 152–164; Griggers 1997: 45–47, 52–53; Inness 1998: 130–132; Creed
A piece of conversation (fictional or factual, it is not credited, and, in fact, here it does not make any difference), presented by O’Brien, illustrates fantastically (in both senses of the word) a world in which textuality constitutes the technological and technology in itself consists of textuality:

We are in the sex shop because my lover wants a dildo so that we can have boy-boy sex. Or at least that’s what I had in mind when I agreed to get the thing. But now that we have acquired the “purple penis” it turns out that she wants to perform “heterosexuality” with me positioned as the girl.

“Take off your pants,” she commands. “And bend over on your knees. I’m going to enter you from behind.”

“Do you want me to take off the rest of my clothes?” I ask.

“No, this is just a quickie for me,” she snaps. “And you are just a very bad girl who wants it more than she should.”

Girl?! I feel something in me shift. I really don’t know if I could do it; be a girl to her boy. In our repertoire this means letting her (playing as boy) control the sexual activity. But the experience is amazing. I’ve never “let go” like that before. Now I’m wondering why we don’t just think of these acts as variations on submission-dominance sex. Why do we position ourselves as some combination of boy-girl? And what is it about the shifting that makes our sex so thrilling? Are we having sex in our heads or in our bodies? (O’Brien 1996: 59; emphasis mine)

This, indeed, is fantastic (in both senses of the word): you just buy a dildo and you get rid of gender (cf. Hamming 2001), entirely regardless of whether you happen to be a male or a female, categories that anyhow, in themselves, are only cultural constructions that you can deconstruct and reconstruct at will over and over again.

“Did you really think you were the girl when I fucked you with the dildo?” my lover wants to know.

“I don’t really know what I was thinking. I felt like a girl, or at least what I think a girl feels like when she has sex with a very eager boy,” I answer, and then inquire further: “Do you feel like a boy when you wear the strap-on?”

She gives me a coy grin and blushes. “Depends on what I’m wearing and what the story is going on in my head.” She stretches and then pulls off the calf-length silk skirt she is wearing and continues to undress until she has on only a pair of sheer black thigh-high stockings. “Right now I feel like becoming a dominatrix,” she announces over her shoulder as she grasps the harness from the edge of the bookshelf where it is hanging. “When I get back I’m going to want a boy to play with,” she adds as she goes in search of her leather jacket. I feel my body stir and look down to see that she had already undone the top two buttons of my jeans when she kissed me earlier. (O’Brien 1996: 60)

In this context, “strap-on,” both as a verb and a noun, is the keyword of sexual prosthetics, a term in which, in fact, the idea of the cyborg is crystallized. Instead of cyberspace hype, what we have here is the hype concerning the cyborg, especially the liberatory effects of the dildo as a gender/sex component of the sexual cyborg or the cyborg in terms of the sexual. But, here again we see that it is precisely cyber-hype that amounts to the theoretical substance of cyber discourse: all that is cyber is a writerly effect of the “cyber” (cf. Valovic
From this perspective, what does it matter that, as O’Brien (1996: 60) says, for “[m]any champions of cyberspace as utopia, the desirability of erasing gender as a form of organizing interaction is based on the premises that gender is a hierarchical form of differentiation,” if such terms as “utopia,” “hierarchical” and “differentiation” are nothing but words, figures of language, effects of textuality? And what is the use of criticizing cyber-hype, if the alternative is postmodern gender rhetorics (for the epochal texts that set the scene and the tone for postmodern gender theory, see, Butler 1990, 1993; Salih 2002; Posser 2006; Lloyd 2007; Carver & Chambers 2008; Jagger 2008; from the perspective of canon formation, see Winders 1991)?

Although the fluidity of gender is often recognized as an aspect of certain types of cyber interactions, the distinction between “real” and “fictitious” remains tightly writ. If we agree that morality in interpersonal relations is based on the premise that persons can trust one another, a partner who constantly shifts shape is not only unpredictable, but through the very act of shape-shifting repositions the other as well. For this reason, the tension that arises in online gender switching may be less about the possibility that persons can transcend the physical and author themselves in myriad forms and more about the expectation that we maintain fixed positions that others can depend on. Is the line between “fact” and “fiction” immutable? When is multiplicity not a threat to authenticity? (O’Brien 1996: 61; emphasis mine)

For O’Brien, the way to break away from the spell of cyber-hype is to enter into the world of queer theory; a strand of postmodern theory which came into being, not accidentally, but along with the theory discourse of the “post” of which cyber discourse is a part: what the “cyber” is for techno-utopianism the “queer” is for … yes, what, in fact, is the “queer” a manifestation of?

The “Cyber,” the Queer and No-Name Sex

According to O’Brien (1996: 62), the problem is what she calls “authentication.” In sexual situations you can use either “the physical” or “the imaginative” as the “site of authentication” (ibid.). The problem is that “if the interaction is successful,” “we have formed an agreement about the definition of the situation and have enacted the script that accompanies this definition” (ibid.; emphasis mine). At the same time, we are aware of “our physical reality” and “we have participated in a successful ‘fiction’” (ibid.). “Even if neither of us suspects (or cares) that the other’s character is different than her/his anatomy, we both know the script,” and “[w]e can name the act and our respective positions”: “in so doing, we have reproduced conventional gendered sexual intercourse” (ibid.; emphasis mine).

To illustrate the problem of naming and the way to overcome it, O’Brien gives an imagined example of a “self-identified lesbian: a thirty-something woman who dons her leather jacket over white t-shirt and jeans and heads for a RL sex party.
At this party she meets a gay male who asks her to shed her leather jacket, don a leather harness, and fuck him in the ass with a dildo. What have they just done? Is she having sex as a woman with a man? Is she having sex as a woman-man with a man-woman? Is this a heterosexual encounter? Most likely, and I speak from experience here, they see themselves as doing something *unnamed*. Queer sex is about following the desires of the flesh into an unnamed, un categorized, uncharted realm, and doing something that neither of you can “code.” It is about uncoded desire as the impetus for departure from conventional forms of containment [meaning] “points of departure” [that] mark a frontier where embodied sensations seek definitional encoding, the imagination is roused and new forms are etched. *Queers are, by definition, those for whom the conventional connections between desire/body/mind/self do not fit.* In order to enact alternative forms, one must have comprehending partners. The dance of the queer is a generative improvisation at the same time that it is based on a shared experience of the “unnamed.” (ibid.: 63; emphasis mine)

I certainly agree with this definition; and I certainly subscribe to the implied attempt to break down all the codes that restrict the experiences and expressions of the sexual by *naming* them, by codifying them into a codex of the allowed and the denied. For me too, queer sex is about “following the desires of the flesh into an unnamed, un categorized, uncharted realm, and doing something that neither of you can ‘code.’” And I also see that the problem is that there are rules which “simultaneously allow for the possibility of multiple gender renderings within a single body unit, but reinforce the distinction between fact and fiction” (ibid.: 63).

What I am highly suspicious of, however, is that cyberspace and the cyborg could be solutions to this problem; rather, both cyberspace and the cyborg are part of the problem: the problem of textual reductionism or textualism which, in turn, is part of the larger problem constitutive of the “post,” the problem of what I designate as linguisticism. Yes, I understand and agree that the problem in terms of gender as the basis of identity is, as Theresa Senft (1996a: 24) says, that “[y]ou may not believe in gender, but gender believes in you.” This, indeed, is the problem of *sexual codification*: you can turn your back to gender, but what you face is a gender in another guise. However, I definitely disagree that cyberspace or the cyborg would provide a solution to the problem of gender and associated sexual codification. Why? Because gender and sexuality are not matters of language and technology; instead, they are matters of corporeality, and it is exactly the *materiality* of the body that matters here: there is neither gender nor sexuality outside the body, except, of course, as categories, conceptual constructions, that by way of naming try to constrain our desires and pleasures time and time again.

In my reading, it is precisely for this reason that you may not believe in gender, but gender believes in you. Gender and sexuality are embodiments of discourses, but they are not “strap-ons” that you can put on in cyberspace or by being a cyborg.
Part Three
Nature (the Art whereby God hath made and governs the World) is by the Art of man, as in many other things, so in this also imitated, that it can make an Artificial Animal. For seeing life is but a motion of Limbs, the beginning whereof is in some principal part within; why may we not say, that all Automata (Engines that move themselves by springs and wheels as doth a watch) have an artificial life? For what is the Heart, but a Spring; and the Nerves but so many Strings; and the Joynts, but so many Wheels, giving motion to the whole Body, such as was intended by the Artificer? Art goes yet further, imitating that Rational and most excellent worke of Nature, Man.

Thomas Hobbes (1998 [1651]: 7)


Michael Pfister and Stefan Zweifel (2002: 212)

What if my life is just a life of an organism, a life of a biological input/output system constructed around the mouth and the rectum? We recall Nietzsche’s (1968a [1883–1885]: 8) words, his thesis of human evolution: *Ihr habt den Weg vom Wurme zum Menschen gemacht, und vieles ist in euch noch Wurm*, “You have made your way from worm to man, and much in you is still worm.” The worm as the model of the human being: life as the most direct way from the mouth to the rectum. The worm: the epitome of the “postmodern condition” (Lyotard 1984 [1979])? The worm as the emblem of our abundance? The worm as the terminal point of the human being, the true telos of human evolution in its emerging devolutionary form? The worm as a post-Nietzschean *ecce homo* (cf. Nietzsche 1969b [1888–1889/1908]; for a historical contextualization, see Ansell Pearson 1991; for Nietzsche as a “profound physiologist,” see Brown 2004: 63–68; in terms of “transactional bodies” in feminism, cf. Sullivan 2001: 111–132)?

The worm as an accurate model of contemporary capitalism, the global order of the political economy of neoliberalism – that is a level of life at which extreme poverty is the reverse side of spectacular consumerism, the negative of excessive affluence, the very positive of which is precisely the very excess of consumer capitalism, the economic regime of the commodity form. In this manner,
poverty and affluence are the two sides of the same thing: they are intrinsic to a way of life in which the body is just a conduit, a transit duct, which trans-substantiates desires into pleasures by transforming one form of matter into another. In other words, *biological metabolism as the constitutive process of society* is the rationale and the functional principle of an economic system that is based on relentless accumulation of material wealth as the very ethos of “good life.” As soon as the body is reduced to this level, there is no longer *vita activa*, nor *vita contemplativa* (cf. Arendt 1958); what there is is an alimentary canal that has attained an unproportional importance in relation to the rest of the body; that is, *vita consumptiva* as the superstructure of *vita excrementiva* rules the life of the postmodern body-subject, a subject for which life is constructed around the mouth and the rectum: *life as excessive metabolism*.

The whole range of biochemical processes that occur within any living organism, life as metabolism based on the circular movement of anabolism and catabolism – that is the essence of postmodern capitalism, the idea of productive consumption and commodification as its elementary mode of operation: the production of wealth by means of the accumulation of capital, the process of surplus value, produces not only human suffering through wars, diseases, poverty and famine, but also the destruction of nature and finally the devastation of the entire planet.

In short, if we take “the postmodern” seriously it is the signifier for a form of life that celebrates excrement, a form of life for which the functional connection between the mouth and the rectum is the very meaning of life. That is, life in neoliberal capitalism is *excremental*, it is the highest degree of excessive metabolism, life as pure waste, in both senses of the word.

This is the logic of life under the supremacy of the political economy of neoliberalism: life in excessive affluence based on extreme poverty, life as constantly expanding and accelerating productive consumption producing exponentially increasing misery and suffering on a global scale. It is in this manner that the contemporary world is ruled by the Nietzschean *Wurm*: despite, or even because of, its scientific-technological superiority, our world is the world of the “worm.”

Thus, if the human body, as a bio-body in terms of what Giorgio Agamben (1998 [1995]) calls “bare life,” is just a biological organism (which does not make any difference between a virus and the human being), in which sense it is the body of the human being (cf. Edkins & Pin-Fat 2004: 4–17; Elliott 2009: 3, 346–348; in terms of disability, cf. Reeve 2008: 204–206; for the body as *corpus*, cf. Nancy 1994)? That is, if “bare life” is the result of neoliberalism, covered up by the excessive abundance of contemporary capitalism as the camouflage of what Pierre Bourdieu (1999 [1993]) calls *la misère du monde*, “the misery of the world,” held up by the discursive configuration of Enlightenment reason, the principles of civility and human rights, and the protection of personality and individuality guaranteed by the idea of *habeas corpus*, if this is the achievement of the idea of humanness and humanity inscribed in and safeguarded by democratic legislation, legal and legitimate government policy and international agreements
5.1 The Body in the Neo-Fordist Order of Global Capitalism

In these terms, life in postmodern capitalism is liminal life: life on the border of death; life that conceals death by excessive affluence (in terms of “postmortal society,” cf. Lafontaine 2010); that is, life under the disciplinary regime of neo-Fordism, life ruled by the political economy of neoliberalism (cf. Gertenbach 2007), is life that has only economic value implying that what cannot be economized has no value at all. In other words, the extreme vitalism of postmodern capitalism is based on tacit thanatology. And it is in this sense that the smiling face of the cyborg conceals the face of death.

But where is barbarism today, in the contemporary world in which the limes, the ultimate borderline between “us” and “them,” runs within “Western culture,” inside our glorious empire of reason, deemed to justify the neoliberal state, the executor of the will of financial capital, as the sovereignty wielding the supreme power based on decisionism in the name of law and order: the state as the omnipotent arbiter deciding, on behalf of capital, who shall live and who shall die (cf. Schmitt 1979a [1932]; Jay 1993b: 49–60; Passavant 2004a: 104–106). Thus, in the contemporary world, life is a political question more than ever. This, in short, is today the idea of what Foucault (1990k [1976]: 138–145) calls “biopolitics” in the power constellation of “biopower” (cf. Petersen & Bunton 1997; Noys 2005; Gehring 2006; Reid 2006; Rose 2007; Taupitz 2007; Nadesan 2008). It remains, however, yet to be seen what happens when biopower assumes the power of the omnipotent sovereignty; that is, the day when the laboratory, under the omnipotence of capital, is not only the model of all life, but the highest instance of the political; in other words, the day when the cyborg is the sovereignty who has the power to decide over the state of emergency in the sense of Schmittian Ausnahmezustand (see Schmitt 1979b [1922]: 11) – or, to put the whole problematics into one image: the day when Monsanto has turned into the omnipotent superpower in the sense of what Haraway (1997: 6–7) designates as the “New World Order, Inc.,” a global technoscientific regime that owns all key bio-patents, human bio-engineering included, driving organic farming in the manner of the Manhattan Project.

5.1.1 What Is the Difference between the Human and the Animal?

From this perspective, what is clear now is that in the boundary situation defined by the limes, we are confronted by the final question: what is it that makes the human being human? That is, when life in itself, life in its elementary
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Where Is the \textit{limes} of the Posthuman?

If, then, my body, indeed, is just a biological input/output system, a bio-body constructed around the gastro-intestinal tract, where is the life that I, nevertheless, am entitled to call \textit{my} life, and, more fundamentally, \textit{what} precisely is it as my life? That is, if my life consists just of elementary biological needs satisfied by equally elementary life supporting means, do I still live human life? And does it, then, make any difference if my life, instead of being seen as a life of an organism, is defined in terms of the machine; in other words, if my body is a bio-apparatus, an “assemblage” consisting of “couplings and connections” in the sense of what Deleuze and Guattari (1998 [1972]: 1–9, 36–41) call “desiring-machines” – “machines” that we are entitled to enjoy as our bodies, here, at our side of the \textit{limes}?

According to Deleuze and Guattari, what is specific to the desiring-machine is its ubiquity, its all-pervasive presence in the life of the body that constitutes our life as the life of the body that we inhabit by both \textit{having} and \textit{being} a body in our incorporated embodiment: embodiment as the incarnation of the body that embraces our carnal existence in its machinic connections and relations:

It is at work everywhere, functioning smoothly at time, at other time in fits and starts. It breaths, it heats, it eats. It shits and fucks. What a mistake to have ever said \textit{the} id. \textit{Everywhere} it is machines – real ones, not figurative ones: machines driving other machines, machines being driven by other machines, with all the necessary couplings and connections. An organ-machine is plugged into an energy-source-machine: the one produces a flow that the other interrupts. The breast is a machine that produces milk, and the mouth a machine coupled to it. The mouth of the anorexic wavers between several functions: its possessor is uncertain as to whether it is an eating-machine, an anal machine, a talking-machine, or a breathing-machine (asthma attacks). Hence we are all handymen: each with his little

Desire as the pleasure of being a body, a body as a desiring-machine that generates the pleasure promised by desire – that is our existential condition, our inalienable privilege, if we happen to live on this side of the limes, the side of affluence and well-being in which desire and its excessive production by means of productive consumption constitute the meaning of life, its very Sinn, and in which the body is defined by innumerable “body options” (cf. Angerer 1999a), all signifying ever-new chances to enjoy the pleasures of life in their excessive abundance. But, as soon as the politics of the biohuman becomes the supreme principle of the politics of life all over the world, on both sides of the limes, defining the parameters of what is called the “human condition” (what an irony the term implies in the contemporary world ruled by the political economy of neoliberalism), the Deleuze-Guattarian “desiring-machine” turns into its opposite, a controlling and ruling machina mundi, a scientific-technological “world-machine,” that, in the name of Life, reduces life to the level of biological organism, regardless of whether we happen to live on this or that side of the limes.

Of course, in the historical situation, in the aftermath of the événements of May 1968 in Paris (see, for example, Fink et al. 1998; Feenberg & Freedman 2001; Ross 2002; Seidman 2004), which is the political context of Deleuze and Guattari’s (1998 [1972]) socio-philosophical science fiction, the “desiring-machine” appeared as a vehicle of liberation, as a “machine” to unleash libidinal energies as a new form of the political (cf. Lyotard 1993a [1974]). In this situation, and its subsequent mythologization in post-theory, the “desiring-machine” actually became an eulogy to life that we can live beyond the limits of the human, as it is understood at this side of the limes, in the midst of our affluence, somewhere in the post-Christian paradise of the posthuman, in the heavenly beatitude and bliss dreamt by Bunyan. But then the question arises: if the body that we, as post-humans, experience and enjoy as our body, is a Deleuze-Guattarian “desiring-machine,” what is it that makes desire machinic? That is, if, under the disciplinary regime of neo-Fordism, the human body is reduced to a bio-body, the body as the survival machine of the post-subject, what is the desire of the machine?

By extension, if we change the terms by transposing the question into the language of human experience (if there still is anything like that), what is the language that Deleuze and Guattari speak? What else it is if not the language of capital; not as a postmodern camouflage, not as a metaphorical translation, but directly, openly, frankly (cf. Marx 1983 [1867]: 391–461; Shell 1993 [1982]: 105–110; Casarino & Negri 2008: 9–11). Capital, the greatest transformer of all being ever seen in history, capital as post-Heideggerian “Being” after the ultimate Seinsvergessenheit, “the oblivion of Being” (see, for example, Heidegger 1983 [1935]: 21–22, 53–55, 1999 [1938/1939, 1946/1948]: 148–150) – that is the substance of Deleuze-Guattarian language, a libidinal language that produces the desire that
it speaks about: *the desire for the machine*, the machinic desire of contemporary capitalism. In these terms, Deleuze and Guattari (2000: 430), in fact, betray themselves by saying that language is “made for translation, not for communication.” Deleuze and Guattari are a two-tongue entity, a writing machine, that works as a medium of capital; a writerly machine that communicates the desire of capital in its own language. This is the very sense of Deleuze-Guattarian theory poetry.

This is the triumph of the “post”: language is no longer capable of making distinctions; instead of distinctions what we have in the world of the “post” are suggestive evocations, phantasmatic visions, evoked by linguistic figuration based on the libidinal language constitutive of post-theory. In other words, if you cannot understand the difference between *the human being* and the machine, you are, indeed, a machine. But, what if it is now precisely the machine that “communicates” to the human being that if you cannot understand the difference between *the machine* and the human being, then… then what? Then, no doubt, we have entered a world in which the differences between humans and machines have evaporated once and for all. This is the world of the “cyber,” enabled by the linguistic matrix of the “post,” a world in which to be and to have a body is an effect of writing the body. In these terms, the very corporeality of the body dissolves in textuality (see, for example, Kirby 1997; Conboy et al. 1997; Davies 2000; Irwin 2010); in other words, the metaphor of writing incorporates the body, turns it into the material of writing, writerly writing in the mode of écriture, in which “the pleasure of the text” (Barthes 1975 [1973]) replaces the pleasure of the body.

In this constellation, the difference between the machine and the human being disappears, and, as a result, every-body is now a “desiring-machine” that produces its own distinctive pleasures by means of “free-floating signifiers” that are the very substance of the corporeal.

But, in fact, is this a world which one has all the reasons only to greet with relief and joy? For now the very idea of *limes* has disappeared. And if there is no longer any difference between the human and the non-human, are we, at last, living in a world in which the political has not only entirely lost its meaning, but, more fundamentally, become obsolete altogether? In other words, is this the world of what Nietzsche (1968a [1883–1885]) designated as *der letzte Mensch*, “the last man,” a world of radical in-difference (cf. Kojève 1980 [1947]: 159–160; Joisten 1994: 191–194; Smith 1996: 92–116)?

The questions raised here, of course, have many ramifications, but what is most important from the standpoint of the present study is that the human body, in fact, is an organism that is quite similar to all living beings in its basic functions. Accordingly, the question, then, is what is the difference between the human and the animal? Machine. Humans construct machines in order to overcome their organic constraints and limitations: to be human is transgressive, not in an act of some transgression, but in itself, always already, from the very beginning of the human: we are not humans from the birth, we are becoming human until the last breath (cf. Gehlen 1997 [1940], 1957; Plessner 1975 [1928], 1985 [1924]; Deege
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But, of course, this does not mean that the difference between the human being and the animal is now solved; neither does it mean that the difference is dissolved as a result of technoscience, the paradigm of the cyborg, as Haraway (1991a 149–154) claims, or as a consequence of *différance* (cf. Derrida 1982 [1972]: 24–33, 39–47, 1984a [1972/1968], 2002b); on the contrary, the difference between the human and the animal is today more complex than ever: it is possible that the biohuman is posthuman, but does it imply that the posthuman belongs to the order of the animal?

**The Logic of the Modern: The “Perfectibility of Man”**

From the point of view of cybernetics, however, the human being, the animal and the machine are similar precisely in that they are *organisms* (see Wiener 1961 [1948]: 39–44, 58–59, 155–161, 1968 [1950]: 48–63; cf., for example, Van de Vijver 1992b: 106–113; Bynum 2008: 10–15; Johnston 2008: 20–58). But what is specific to cybernetics is that it, in fact, redefines the notion of the organism in terms of the machine, which, in turn, is redefined in terms of information: both organism and machine are systems the constitutional mechanisms of which are based on the circulation of information as a mode of communication that enables control as the regulation of their functions; that is, organism and machine maintain themselves by means of *feedback* (see Wiener 1961: 6–8, 12, 19–21, 24, 95–97, 103–115, 1968: 48–50, 57–63; cf. Hughes 2000: 6–7; Hughes & Hughes 2000: 22–24; for a historical study of the interrelations of organism and machine as mutually constitutive entities, see Canguilhem 1992 [1952]). In this sense, the basic idea of cybernetics, *the equalization of organism and machine as information systems*, draws on systems and control engineering (see, for example, Klir 1991: 32–39; Skyttner 2001: 69–75; Hammond 2003).

This is the idea of cybernetic organism in the sense of cybernetics; an idea that both historically and conceptually should be kept apart from the mythopoetic metaphor of the cyborg in post-theory and cyber discourse (cf. Muri 2007: 86–92; Mayr 1986; Des Chene 2001). For the same reason, contrary to the cyborg visions celebrated by post-theorists and cyber enthusiasts, the Harawayan cyborg (see Haraway 1985, 1991a) has nothing to do with the Clynes-Kline cyborg (see Haraway 2000a: 137; for Clynes and Kline's conception of the cyborg
in the 1960s, see Clynes 1995 [1970]; Clynes & Kline 1995 [1960]); while the former derives from science fiction and popular culture of the 1970s and the 1980s (for an overview, see, for example, Seed 2005a, 2005b), the latter is based on technoscience emerging in America in the wake of the Second World War (see, for example, Galison & Hevly 1992; Edwards 1996; Franchi & Güzeldere 2005b; Guzzetti 2010), especially on the notions of cybernetics pertaining to the idea of control enabled by information and feedback (see, for example, Heims 1993 [1991]; Mindell et al. 2003; Pias 2003, 2004), current in the 1950s and 1960s in American medicine, neurology, physiology, psychiatry, psychology and pharmacology as well as in natural sciences in general, all of which had more or less adopted the cybernetic paradigm as a specific “experimental” approach to the problematics of the human organism (cf., for example, Orr 2006: 165–209; Orr 2010: 358–377; in terms of cybernetics, the Cold War and the military model in American scientific thought, cf. Light 2005 [2003]: 35–51, 65–90, 110–113, 172–184).

From this perspective, all organisms are machines; and it is precisely this machine-like, or, rather, machinic, constitution of biological organisms that distinguishes cybernetics as a scientific approach from other disciplines (see Wiener 1961 [1948]: 1–28, 1968 [1950]: 45–66). Thus, differences notwithstanding, seen as cybernetic systems, that is, cybernetic organisms in the sense of Wienerian cybernetics, the human being, the animal and the machine are equal in their functional constitution and the mode of operation as systems that circulate information by means of communication based on a circular causal control mechanism or feedback (cf., for example, Mindell 2002: 4–7; Franchi & Güzeldere 2005a: 15–26, 69–75, 108–140; Pickering 2005: 231–244; Mazis 2008; in terms of cybernetics, the Cold War and the military model in American scientific thought, cf. Light 2005 [2003]: 35–51, 65–90, 110–113, 172–184).

To already anticipate here the discussion on cybernetics in the next chapter, it is appropriate to recall that from the very beginning, from the first drafts in the early 1940s concerning the basics of what soon became cybernetics, Wiener stated the analogy between the organism and the machine time and time again. In his founding document of the new discipline, Cybernetics or control and communication in the animal and the machine, Wiener (1961 [1948]: 11) draw attention to the constitutive insight of cybernetics: “…as far back as four years ago [1944], the group of scientists about Dr. Rosenblueth and myself had already become aware of the essential unity of the set of problems centering about communication, control, and statistical mechanics, whether in the machine or in living tissue” (emphasis mine). Therefore, as Wiener went on, “[w]e have decided to call the entire field of control and communication theory, whether in the machine or in the animal, by the name Cybernetics, which we form from the Greek χυβερνήτης or steersman” (ibid.). This is the machinic in organisms in the Wienerian sense of the term; and, accordingly, in this sense, also the humans, as organisms, are machines.
ics takes the view that the structure of the machine or of the organism is an index of the performance that may be expected from it” (ibid.; emphasis in the original).

What is important here is that the way a machine or an organism is constructed determines its functional capacity (cf. Descartes 1985a [1647]: 314–316, 1985c [1644]: 288–291, 1985d [1664]: 103–108; Des Chene 2001: 93–102; Sutter 1988; Bast 1997). That is, in cybernetics, in principle, there is no difference between the machine and the human being, or between the animal and the machine, or between the human being and the animal; what is decisive is the structure. Thus, according to Wiener:

Theoretically, if we could build a machine whose mechanical structure duplicated human physiology, then we could have a machine whose intellectual capacities would duplicate those of human beings (Wiener 1968 [1950]: 53).

In the same manner, but even more apodictically, Warren McCulloch (1965 [1955]: 157), one of the leading figures of cybernetic thought in its heyday, stated the fundamental similarity of organisms and machines in his paper concerning the analogy between brains and “computing machines,” with the Biblical title “Mysterium iniquitatis of sinful man aspiring into the place of God,” that along with the advancements of cybernetics, it had become clear that “the brains were Turing machines, and that any Turing machine could be made out of neurons,” and accordingly:

Everything we learn of organisms lead us to conclude not merely that they are analogous to machines but that they are machines. Man-made machines are not brains, but brains are a very ill-understood variety of computing machines. Cybernetics has helped to pull down the wall between the great world of physics and the ghetto of the mind. (ibid.: 163; emphasis mine; cf. Abbas 2006: 60–71; Boden 2006: 182; Turing 2004a [1950], 2004b [1947], 2004c [1936]).

From this perspective, of course, if brains are but neuronal machines, what is the human being today, in the era of biotechnology, but a conglomeration of cells, each ruled by the logic of genes, the logic of stochastic information?

However, in a decisiv manner, the human being is different in comparison to the animal and the machine due to the fact that being human is not pre-determined: the human being is flexible in its life history. In other words, the human being is always, always already, a posthuman being, a being that is constitutionally not being but becoming. In other words, the human being is constituted by the posteriority of itself; this is the telos of being human, not in the sense of teleology, but in the sense of contingency. This flexibility, fundamental

56 I use the word “becoming” here in its literal sense, not as a postmodern term deriving from the philosophy of Deleuze and Guattari (1998 [1972], 2000 [1980]). For me, becoming is essentially human from the very beginning; that is, anthropologically, in terms of its evolution, the human being is not a biological being, but a cultural being in which nothing, apart its organic constitution, is “natural.” In other words, what is called “human nature” is entirely unnatural, thoroughly artificial: human through and through. In this sense, the human being as a species does not live in nature, is not part of nature, and can never “return to nature”; if the human being has any “essence” it is that it has no essence; it is its radical “eccentricity” in the sense of Helmuth Plessner’s (1975 [1928]) Ekzentritität that defines the human being from the very beginning as an “ex-centric” being (cf., for example, Gamm et al. 2005; Mitscherlich 2007), as a being that is “outside-itself.”
to being human, is clearly manifested by the way in which the human body is constructed by culture. But there is a paradox: in its very culturality, from the very beginning, the human being is a product of machine in a primordial sense; machine understood in its original Greek context, defined by the notions of technē (τεχνή) and mechanē (μηχανή) (see Aristotelle 1983; Baruzzi 1973; Bammé et al. 1983; Berr 1990; Meyer-Drawe 1996). That is, in terms of anthropology, the human being becomes human by being a technological being that, in itself, is nothing but perpetual becoming; a being that is “constructed” by and around the machine, in an interaction with tools constructed by the human being itself. In this sense, similarly to human inventions, the human being is a human invention in and of itself (cf., for example, Schiffer 2001; Sternberg & Preiss 2005; Carlson 2008). In the human world, there is nothing a-human (although, of course, there is an immeasurable amount of inhumanity in the human world); the human world is a human construction through and through.

This is the origin of the human body as a body that is thoroughly human; that is, as a body that is a non-animal non-machine; a body that, in its very culturality, can exceed its own limits and limitations time and time again; a body that due to its very constitution is able to continually reconstitute itself. Yet, the human body, in its abilities and capabilities, is always already a product of its own machines (whatever they happen to be in various historical constellations). There is no human life outside the order of the machinic. In this precise sense, the human being is always already a posthuman being that, due to its machinic constitution, is always in a state of becoming; this is the very mode of existence of being human.

It is only since the Enlightenment, however, that the human body exists in its contemporary, modern, sense, in the sense of the conceptuality that defines the human teleologically, as a purpose that has its purpose in its becoming, a notion of the human epitomized by the idea of la perfectibilité de l’homme, the “perfectibility of man” (see, for example, Garrett 2006: 178–179; Passmore 1970; Douthwaite 2002): the body as an entity that is moulded and shaped, formed and reformed, by the machinations constitutive of what Foucault (1991a [1975]: 135–169) calls “disciplinary practices” by which the animality of the human being is “civilized,” driven out from the body, and made thus to adopt qualities understood to constitute the humanity and humaneness of the human being, and thereby, by means of culture as its own creation, to adapt to its ever-changing environments. These disciplinary practices, according to Foucault, are tied to peculiarly modern forms of organizing bodies and their capacities and capabilities: the army, the school, the hospital, the prison and the manufacture (see Foucault 1991a: 170–307; Brieler 1998: 316–331; Smart 2002 [1985]: 85–93; Schneider 2004: 125–133), the aim of which is to increase the utility of the body, to augment its forces, to make it more productive in a given disciplinary order.

This, in short, is the genealogy of the modern body without which there would be no postmodern body, and, as a corollary, the posthuman body paradigmatically exemplified by the idea of the cyborg.
In this sense, the postmodern body is an achievement of the Enlightenment, the process of civilization (cf. Elias 1980a [1939], 1980b [1939]; Weber 1993 [1904–1905]), as a result of which the human animal finally turned into the human being in the sense of rationality constitutive of the modern, the very condition of possibility of the postmodern. Accordingly, the modern body is an invention of the Enlightenment; an invention that implies the idea of the machinic in its original Greek sense. Thus, according to Foucault:

> What was then being formed was a policy of coercions that act upon the body, a calculated manipulation of its elements, its gestures, its behavior. The human body was entering a machinery of power that explores it, breaks it down and rearranges it. A “political anatomy,” which was also a “mechanics of power,” was being born; it defined how one may have a hold over others’ bodies, not only so that they may do what one wishes, but so that they may operate as one wishes, with the techniques, the speed and the efficiency that one determines. Thus, discipline produces subjected and practiced bodies, “docile” bodies. (Foucault 1991a: 138).

This is the origin of the modern body; a body that from the very beginning has internalized the idea of the machine; a body that is an achievement of both technē and mechanē. And it is precisely this body, a product of modernization understood as an on-going process of rationalization, that the postmodern body, in its contemporary form, is the prevailing embodiment of the modern body. It is only in this sense that “the postmodern,” as a characterization or an attribute of the human body, is intelligible.

Accordingly, “the sexual” in what I call post-sex is a product of modernization, a manifestation of Fordism, an idea, a category and a notion that, in the postmodern, defines and determines desires and pleasures in terms of productive consumption, the economic order of neo-Fordism that is the contemporary matrix of the body in the global constellation of the political economy of neoliberalism.

**The Micropolitics of the Body in Neo-Fordism**

If, as a result of modernization, sex is a technique, why could it not be a technology? Cybersex is an imaginary answer to this question reflecting the real specific to the sexual condition of the postmodern; a condition determined by the political economy of neoliberalism. As a hybrid of the corporeal and the machinic (cf. Bogue 1989: 130–135; Goodchild 1996: 50–62, 69–71, 108–125, 139–147, 159–170; Deleuze & Guattari 1998 [1972], 2000 [1980]; Braidotti 2006), cybersex is about the “sex appeal of the inorganic” (Perniola 2004 [2000]). As such a phantasmatic projection, be it in the form of popular fantasy or academic theory-fiction, cybersex is a technological form of post-sex, “sex” as a simulation of itself, posthuman desires and pleasures experienced in virtual reality by means of the prosthetic organs of the cyborg; in other words, a techno-imaginary derivation of desires and pleasures constitutive of contemporary capitalism, the economic and political regime of neo-Fordism based on productive consumption (cf., for example, Featherstone 1991a, 1991b; Ritzer 1993; Allen 1994 [1992], 1996; Amin 1994; Falk 1994; Harvey 2005 [2003], 2007 [2005]).
In these terms, cybersex is a manifestation of the surrational, the imaginary mode of the rational constitutive of the postmodern.

As the very apogee of the ideal of post-sex, the idea of cybersex, in the form of technological rationality, is the paragon of sexual wish-images prevailing presently in Western culture, visions of anonymous, promiscuous and instantaneous sex propagated by the commodified imagery of desires and pleasures in the economic order of the postmodern, the order of productive consumption. Like a distant echo of Charles Baudelaire’s (1976 [1863]: 695, 1981 [1863]: 403) modernity, cybersex, as a techno-imaginary form of post-sex, implies an intensification of sexual experience in which things have become transitoire, fugitif and contingent. Thus, cybersex is instant sex in a world in which not only the bodies, their desires and pleasures, but also human relations follow the logic of the commodity form: everything is now available on the condition that you can afford it; that is, money, as the constitutive medium of all social relations, is the hard core of the sexual in the postmodern. In this world, sex is about to turn into a service on-demand, a product that can be customized at will, an act of fleeting gratification without any commitment: sex, in the mode of post-sex, is the climax of the performance principle constitutive of economization, that is, economic rationalization purporting to increase both the efficiency and productivity of labour force and the usability of the body as the agency of expanded consumption; not only of the working body, but of the body in its entirety, as the resource of both the subject and the process of commodification (see, for example, Radin 1996; Jeannot 1998; Altman 2001; Ertman & Williams 2005; Lemert & Elliott 2006; Zelizer 2007; in the context of “American bodies,” see Johnston 2001a: 66–73).

What is at issue here is the intensification of the economic process through which capital penetrates the human body by transforming its desires and pleasures into ever-new manifestations of the commodity form constitutive of postmodern culture; a body that is not only understood to be, but also experienced as intimacy, in fact, is simultaneously an object of market speculation and a product of lifestyle industries. This is the idea of what I call the Taylorization of the libido that, at the same time, entails a libidinalization of reason: sexual desires and pleasures following the logic of the self-optimization distinctive about the political economy of neoliberalism. The postmodern body is thus a body that has internalized, in a true sense of the word, incorporated, the demand to adapt to the commodity form, the form of libidinal intensities brought about by productive consumption (see, for example, du Gay 1996a, 1996b; from the perspective of management and managerial subjectivity, see Hancock & Tyler 2001, 2009; Tyler 2004; in terms of “calculating hedonism,” see Featherstone 1991b: 171–174, 186–187).

Post-sex, the real context of the imaginary project of cybersex, “sex” under the sign of the “cyber,” is a manifestation of the sexual rationalism peculiar to the postmodern, the rationalism of the performance principle constitutive of the economic order of neo-Fordism (cf. McKenzie 2001; Berthoud 2007; from the historical perspective of American consumer capitalism in the 1950s, cf.
In this respect, the idea of cybersex reflects the implicit rationality of the postmodernization of the body in an explicit manner: the machinic logic of the modern in terms of the corporeal. Rationalization, efficiency, reliability, in a word, *control* – that is the ethos of the organization not only of work, production and consumption, but also, in the very same terms, of the sexual in the postmodern. In this sense, post-sex is the reverse side of the working conditions prevailing in the economy of productive consumption, the body politics of the “libidinal economy” (Lyotard 1993a [1974]), based on commodity production under the seductive power of capital specific to the political order of neoliberalism: the sexual body as an extension of the working body, the double-body of the postmodern subject living under the disciplinary regime of neo-Fordism (cf., for example, Prechel 2002: 51–54, 60–66; Allen 2004 [1996]: 550–562; O’Brien 2005: 91–99; Kitay & Lansbury 2006: 82–83).

In these terms, cybersex, as a technoscientific phantasm typical of postmodern technoculture, is the logical consequence of the imperative of instrumental reason, the reason of means-ends calculation, a mode of reason beyond value considerations, except, of course, the value of surplus value (see, for example, Held 1980: 148–174; Beniger 1988: 161–166; Amadae 2003: 32–33). The constitutive idea of cybersex is a technological rationalization of sexual act, an assemblage of machinic bodies enjoying machinic sex, following the logic of neo-Fordism: working bodies as machinic bodies in the thoroughly rationalized machinery of production and consumption. *The will of the machine is my desire* – that is the libidinal reason of contemporary capitalism.

The process that has produced the postmodern has now resulted in a cultural constellation in which the questions pertaining to the meaning of life, the very sense of life, are replaced by the questions concerning the reasonable that, in the last instance, is always an issue of the rational. All forms of existence have become something that can be brought under the control of reason, taken as a matter of calculation and appropriate production: in contemporary technoculture, things do not just exist, rather, they are *made*, they are there as technological artefacts. Under the imperative of artificiality, the libido of the postmodern is the software of the body: adapted to the control of *libidinal rationality* as the highest form of reason in the postmodern, the body can – and *must* – be repeatedly readjusted to the changing demands of the prevailing economic order, that is, be *reprogrammed* time and time again. In this sense, the postmodern body functions as a post-Barthesian “writerly text” (cf. Barthes 1974 [1970]), constantly rewritten by the reading subject, the subject of the postmodern body as an embodiment of the scientific-technological rationality constitutive of the disciplinary regime of neo-Fordism.

It is in this manner that not only in contemporary technoculture (see, for example, Penley & Ross 1992c; Robins & Webster 1999; Cooper 2002; Shaw 2008), but in the condition of the postmodern in general, the body has turned into a machine. No longer the Cartesian *corps-machine*, “body-machine” (Descartes 1985a [1647]: 315),
is at issue, neither the La Mettriean *l’homme machine* (La Mettrie 1912 [1747/1748]),
nor the “human motor” of the nineteenth century natural sciences (see, for exam-
1986; Sutter 1988; Rabinbach 1990; Wellman 1992; Sarasin 1995, 2001; Christensen
1996; Roger 1997 [1963]; Jauch 1998; Sarasin & Tanner 1998; Des Chene 2001;
Irrgang 2005; Muri 2007); instead, the body is now a high-powered and achieve-
ment-oriented production apparatus, a *Leistungsapparat*, capable of efficient work
performance, and as industrious in pursuing fun and pleasure during leisure time,
the time dedicated to productive consumption, the precondition of postmodern.

The will of the machine is my desire – that is the driving force of postmodern
technoculture promoted by the libidinalization of technology intrinsic to the
political economy of neoliberalism.

In this sense, postmodern capitalism, indeed, has realized the Deleuze-Guattari-
ian idea of the “desiring-machine” (Deleuze & Guattari 1998 [1972]: 1–22, 36–50,
322–339; cf. Goodchild 1996: 78–83), although not in the sense intended by the
authors; instead of being a vehicle of liberation, the body-machine of the post-
modern body-subject as a “desiring-machine” is the agency of the Foucauldian
*assujettissement*, “subjectification” (Foucault 1983b [1982]: 239–242, 1990k [1976]:
60, 1991a [1975]: 30, 1992b [1984]: 27), through which the subject incorporates
the imperative of productive consumption, the promotion of the commodifica-
tion of desires and pleasures in the name of economic growth as the globally

What is important here is that in the postmodern there is actually no longer
“free time,” time-off of the duty. According to the logic of economism, the very
logic of the maximization of surplus value, “free time” means wasting time,
an idea absolutely contrary to the ideal of the postmodern, the ideal of effi-
ciency and productivity. “Free time” is now totally integrated into productive
consumption as the matrix of the reproduction of labour force, which, in turn,
functions as the mechanism of the reproduction of capital. Accordingly, the
principle of work determines both the time at work and the time in privacy:
they are mutually conditioned by the imperative of productive consumption. In
the postmodern, time is an immaterial resource the regulation of which deter-
mines the regulation of the material resources, human bodies included.

In these terms, postmodern fun society is a society of intensified work that
holds the body in its grip also in “free time.” This is the micropolitics of the
body constitutive of neo-Fordism: the postmodern body is a Taylorized body
around the clock, the body-machine of the post-subject.

### 5.1.2 Towards the Body-Machine Complex of the Postmodern

This is the principle of what I call the *psychophysics of capital*: the body is brought
into a position in which it is always under the regime of production, the disci-
plinary regime of productivity which is the precondition of the reproduction of the capitalist system as a whole in the postmodern: the economic growth as an intensification of productive consumption that is the condition of possibility of the economic dynamics of the prevalent system. This is the logic of the economization of the body in the order of postmodern capitalism: the consuming body is the prerequisite of the working body, and vice versa. The producing body does not work without the consuming body which, in turn, necessitates the producing body. As a result, the psychophysical conditions of work determine now the psychophysical conditions of the desires and pleasures of the body. For this reason, the postmodern body is not so much a free-time body, but, rather, a working body that must be a well-organized body in order to survive under the pressures of all-encompassing market forces, the driving forces of capital. In this manner, the postmodern body is a living laboratory not only of ever-more efficient working methods, but also of increasingly rationalized forms of desires and pleasures (cf. Crossley 2001, 2006; Martin 2002).

The postmodern body as a living laboratory is a contemporary instantiation of the Foucauldian “docile body” (see Foucault 1991a: 135–169; cf. Leonard 1997: 41–47; Ziguras 2004: 124–126; Siebers 2008: 57–59); pleasure is now a form of discipline, a form of self-discipline that follows the logic of productive consumption: increase your performance capacity and you will have more pleasure, increase your pleasure and you will improve your performance. What Russell Keat and Nicholas Abercrombie (1991) call “enterprise culture” implies, in my reading, a new mode of Foucauldian *assujettissement* (cf. Minson 1986: 111–113; Simons 1995: 1–5, 34–36), a postmodern self-technique as a personal body management: the neo-Fordist form of “the care of the self” (Foucault 1990h [1984]). Body experimentation in terms of body optimization – that is the principle of postmodern work society that is a fun society for the same reason. In this manner, the imperative of productivity, in terms of the reproduction of both labour force and capital, dictates the uses of the body in the postmodern, in the political economy of neoliberalism, an *economy of intensified time*: time compressed to the extreme, to the rationalized form of Lyotardian “intensities” (see Lyotard 1993a [1974]; cf. Williams 1998: 40–62, 89–103, 112–117; Potts 2002: 236–243; in Nietzschean terms, cf. Haberkamp 2000).

**The Modernization of the Body in the Postmodern**

*Be a body and you are somebody* – that is the first commandment of the postmodern body theology.

*In the economic order of the postmodern, the expansion of capital means an intensification of the body.* But because the body as a working instrument is now about to reach its limits of efficiency, the utilization of the “free-time body,” the body as a medium of desires and pleasures in the disciplinary order of neo-Fordism as the body-economic management system of productive consumption, is increasingly important for the reproduction of capital. This is the
economic context of post-sex: the working body is simultaneously the production machine of its own desires and pleasures that, in turn, are organized by the commodity form, the economic form of pre-programmed consumption (cf. Keat 1994: 23–27; Hancock & Tyler 2001, 2009; Tyler 2004).

As such, the optimization of the psychophysical abilities and skills of the body, of course, is nothing new. It was already during the first decades of the twentieth century that the human body as the working body became an object of scientific investigation purporting to find out the most rational methods to condition the body in order to optimize its performance at work, paradigmatically exemplified by Frederick Winslow Taylor’s (1967 [1911]) doctrine of “Scientific Management” (see, for example, Maier 1987: 19–52; Cooper 1990 [1981]; Nelson 1992; for a historical contextualization, see Turner 1992b: 115–118, 125–209; Williams & Bendelow 1998: 25–48; Featherstone et al. 1991; Nolan 1994; Mellor & Shilling 1997). Whether under the name of behaviourism or, as in Germany, Psychotechnik (see, for example, Ash 2003: 260–261, 268; Gundlach 1996; in terms of the “human factor” in German industry between the wars, see Homburg 1991; with regard to early Soviet industrial culture and avantgarde art, see Vöhringer 2007), the idea was to increase the efficiency of the working body in order to more fully adapt it to the rationalized production machinery (see, for example, Shilling 1993: 163–167, 173–174, 2005: 73–100; Turner 1997 [1984]: 9–24, 96–100; in the context of Taylorism and Fordism, see Yanarella & Reid 1996; in terms of Foucauldian biopolitics as welfare policy, see Hewitt 1991).

In the postmodern, in the constellation in which the body is an integrated agent of production-consumption, it is no longer possible to practice “social engineering” by means of coercion as in the world ruled by the industrial relations constitutive of the modern factory system (see, for example, Podgórecki et al. 1996; Thompson & Findlay 1999; Etzemüller 2009; Jordan 2010); the body is now under the control of the ego-politics of the subject: the body is an intimate part(ner) of the postmodern politics of efficiency and productivity (from the perspective of the history of desire, see Falk 1994: 92–150, 2004 [1985]).

In this regard, it is illuminating to recall in short the efforts to turn the body into a scientifically trained working instrument, in fact, a human machine. Here, an example of the rationalization of the body-subject in the mode of what I designate as life in the laboratory in terms of what was called Psychotechnik in Germany in the first part of the twentieth century:

Wie die Seelenkunde des 19., so hat auch die Psychotechnik des 20. Jahrhunderts sich als eine Höchstbewußtseinerkenntnis entfalten müssen. Wie vor die Seelenkunde, so traten auch und treten immer dringlicher vor die Psychotechnik die Fragen des Unbewußtseins und verlangen, sich mit ihnen zu befassen. Keine leibseelische Leistung von Rang kann höchstbewußt bleiben; in bestimmten Stadien muß sie zwar höchstbewußt erlernt werden, aber, was “Meisterschaft” heißt, setzt immer eine “Transrationalisierung” der rationalen Könnenbestandteile voraus; der Ganzeitsablauf der Leistung ist dem “Unbewußten” überantwortet. An verschiedenen Beispielen der “Mnemotechnik” (Gedächtniskunst), den Sprachenerverfahren, der Erziehung zu bestimmten Lebenshaltungen wird gezeigt, wel-
The performance of the body, in this context, in contrast to the Freudian conception of the unconscious, is reconceptualized in terms of “transrationalization” predicated upon a conscious memorizing of adequate and optimal movements and reactions, an internalizing the whole register of psychophysical abilities and facilities appropriate at work. This is the body under the scientific-technological regime of production, a body that is productive at its maximum as a result of a machine-like training, a rationalized dressage in the form of “psychotechniques”: a body that has incorporated the machine (cf. Foucault 1991a [1975]: 136–138). That is, the modern body is the body model of the postmodern body, the body constitutive of neo-Fordism; this is the import of what I call the Taylorization of libido, the rationalization of desires and pleasures in the service of productive consumption.

Today, the imperative of psychotechnical body optimization is increasingly important, but not only in terms of work; what counts now is a body that is productive both at work and during leisure time: the time-off of production is the time of reproduction spent in productive consumption. By reproducing one’s own working body one reproduces not only oneself as the subject of the prevailing economic order but, at the same time, that very order in itself: the order of neoliberal capitalism as the order of the ego-politics of the subject. This is the postmodern dialectic of the working body as a body that, for its part, maintains the flows of desires and pleasures necessary for the prosperity of the whole system. Therefore, one cannot merely be a body, one must have a body, an appropriate body, to be a body at all in the first place. In this manner, the survival of the subject increasingly depends on the performance efficiency of the body (cf. McKenzie 2001): the rationalized body is the survival machine of the subject, a machine that, on the one hand, works for pleasure, and on the other, enjoys pleasure in order to be able to work.

What Max Horkheimer and Theodor W. Adorno (1994 [1944]), drawing on their experiences of the thoroughly rationalized culture constitutive of the American way of life, called the “dialectic of Enlightenment” (Dialektik der Aufklärung) (cf. Jay 1973: 253–280; Held 1980: 121–126), is now, only in an intensified form, the dialectics of the postmodern: the scientific-technological rationality as the disciplinary regime of the postmodern, organizing, among other things, the operative principles of the psychophysics of capital: the psychophysical conditioning of the body-subject subjected to the Taylorization of the libido, and, by that, the rationalization of desires and pleasures compatible with the economic and political requirements of productive consumption. In this manner, the postmodern subject is integrated to the political economy of neoliberalism: the postmodern body has internalized the the imperative of neo-Fordism: increase your performance and you will be rewarded, in other words, work hard and be happy.
This is the logic of neo-Fordism, the double bind of work and pleasure: the *raison d’être* of contemporary capitalism.

Neo-Fordism? But are we not, in fact, living now in a *post*-Fordist world, a world after the imperative of rationalization and control according to the machine model, after the total and totalitarian organization of industrialism, after the standardization of production and consumption in the form of mass market, after the comprehensive administration and regulation of the way of life in its entirety, in a word, after the subjugation of the subject under the factory order constitutive of the modern, the order of the assembly line and streamlined working processes, the order of the disciplinary body as the body of the modern subject (see, for example, Harvey 1989, 99–112, 125–197; Shilling 2005: 78–99; van der Loo & van Reijen 1992 [1990]; Sayer 1991)?

No, as far as at issue is the administration and regulation – in Foucauldian terms, the micropolitics of *governmentality* (Foucault 1991b [1978/1979]), a mode of controlling and ruling the body by means of the market-oriented biopolitics of the neoliberal state (see Lemke 1997: 126–255, 2007; Dean 1999: 134–141; Bröckling et al. 2000; Nadesan 2008) – concerning desires and pleasures, that is, the parameters of the whole sphere of corporeality and sensuality, we are presently living in a society in which the Fordist body politics has reached its final triumph: the private body has become a public body, a resource in the form of “human capital,” in the matrix of social services that guarantee its disposability as labour power for capital; that is, the human body has been economized as a production unit maintained by government measures that secure its usability as a *working body able to consumption*. This is the idea of the Taylorization of the libido ensuing from the modernization of the economic mechanism of postmodern capitalism: capitalism with a “human face,” the smiling face of productive consumption (see, for example, Hancock & Tyler 2001; Berstein & Schaffner 2005; Padilla et al. 2007; Zelizer 2007). In this order, desires and pleasures are no longer a private matter, they are a public good, a general energy resource and a commodity for the benefit of the economic system as a whole.

Paradoxically, postmodern capitalism entails a *radical socialization of the libido* – of which socialism could only dream – which, at the same time, is a rationally organized exploitation of libidinal forces, an intensified utilization of the corporeal and psychic resources of the postmodern body-subject.

This is the birth of what is called the “entrepreneur of the self” or the “entrepreneurial self” (see, for example, Gordon 1987: 300; du Gay 1996a: 62–73, 181–183, 1996b: 156–157; Besley & Peters 2007: 155–174; Rose 1999 [1990]); that is, the postmodern subject as an embodiment of governmentality in the form of self-promotion, that is, the self-management and self-marketing of oneself as potential and actual labour force that, at the same time, is a productive agent of productive consumption; in other words, a *self-accommodation to the commodity form* as the very form of the subject (see, for example, Peters 2001: 73–136; in terms of “the new individualism,” see Elliott & Lemert 2006).
In the neo-Fordist order of capitalism, work and pleasure, production and reproduction, are subsumed under the same imperative, the imperative of productive consumption the precondition of which is an efficient body, the body-machine of postmodern capitalism; a body the sensations and affections of which are organized by, and geared to, the rationally organized system of market forces; a desiring body that can never be satisfied, a body that lives permanently in an unruly state of lack, always ready to consume something in order to satisfy desires that are not possible to satisfy, desires that are the very products of the system to the maintenance of which the subject is engaged – for its own assumed benefit. This is the idea of the economism ruling the neo-Fordist order: the idea of body management dictated by the psychophysics of capital. In this order, the reproduction of labour force turns, in its totality, into the reproduction of capital. For this reason, work and pleasure are now intrinsically intertwined: fun society is a work society, and vice versa; both relay on the body-machine of the postmodern subject, a subject that is conditioned to work harder to get more pleasure (see, for example, Aronowitz & DiFazio 1994; Aronowitz & Cutler 1998; Hancock & Tyler 2001; in terms of the performative body and body performance, see McKenzie 2001).

The ideal subject of the postmodern is a body-subject that is subjectified as an object able to conform to the commodity form; a subject the freedom of which is to adapt itself to the rationality of the system or to become an outsider, a drop-out of fun society: a subject that is no longer the subject of its own life. For this reason, the reality of the postmodern, in contrast to postmodern mythology, is not an order of “anything goes”: in the postmodern, nothing goes without an order, the order of control. According to Gilles Deleuze (1992b [1990]), we are now living in a new socio-technological formation that he calls “control society.” In my reading, this is an order in which the political and technological are predicated upon an increasingly tightly regimented micropolitics of the body in terms of economic rationalization, the imperative of a specific economization of human life at all the levels of existence (cf. Holland 1998; in terms of “rational choice theory” and the Cold War, cf. Amadae 2003; from a historical perspective, cf. Beniger 1986). In this order, the body is a resource more than ever, not as a reservoir of forces given by nature, but a programmable biome-machine with adjustable capabilities; an organic work engine that the better regenerates the energy it is giving out as labour force the better production and reproduction as productive consumption are integrated with one another. Thus, paradoxically, the economization of life in contemporary capitalism does not mean only more work under increasingly rigorous discipline (although this is one of the consequences of rationalization), but, at the same time, the urge of seeking more pleasure as a reward earned by a more efficient work performance under the control of self-discipline: an extended form of hedonism as a commodified form of desires and pleasures, is the other side of the economization of the human body within production and working processes (in terms of
“calculating hedonism,” see Featherstone 1991b: 171–174, 186–187). This is the economic basis of post-sex: a comprehensive sexualization of desires and pleasures as a thorough libidinalization of economy: productive consumption entails work that is done in order to both maintain and intensify the libidinal flows of the body. In this manner, the Taylorization of the libido as the very principle of postmodern economy produces the desire for pleasure that, at the same time, is a pleasure of desire that reproduces the desiring subject as a machine of productive consumption, and as such, as a machine of production.

In the Western world, there would be a collapse of economy without the Taylorization of the libido and what I call the psycho-social kinetics organized around it; that is, the forms of leisure time and sociality that are subsumed by the commodity form (see Rojek 1995, 2009). The libido, of course, is not the substance of capital, but it is its highest form, its motivating force, its working principle and principal aim: the libido as a subtle form of discipline, the libido as the sublimation of the compulsory power of productive consumption.

It is for this reason that in the economic order of productive consumption, as Zygmunt Bauman (1998: 25), quoting Mark C. Taylor and Esa Saarinen, says, “desire does not desire satisfaction,” on the contrary, “desire desires desire” (emphasis mine); “the desire of an ideal consumer at any rate” (ibid.). In this constellation, the pleasure of desire creates a new form of discontent, a postmodern fear of the loss of desire: “The prospect of the desire fading off, dissipating and having nothing in sight to resurrect it, or the prospect of a world with nothing left in it to be desired, must be the most sinister of the ideal consumer’s horrors” (ibid.). It is precisely in this context that the psycho-social kinetics of productive consumption takes the postmodern body-subject in its soft but firm grip:

To increase their capacity for consumption, consumers must never be given rest. They need to be constantly exposed to new temptations in order to be kept in a state of a constantly seething, never wilting excitation and, indeed, in a state of suspicion and disaffection. The baits commanding them to shift attention need to confirm such suspicion while offering a way out of disaffection: “You reckon you’ve seen it all? You ain’t seen nothing yet!” (ibid.: 26)

Ever-new promises of desire, a constant regeneration of the pleasure of desire, a continuous state of pleasurable restlessness, the readiness to indulge in the vertigo of productive consumption over and over again – that is the importance of the libido today, the idea of the sexualization of desires and pleasures peculiar to the postmodern; that is, the necessity of the politics of the sexual in the disciplinary order of neo-Fordism.

In these terms, post-sex is an issue of economic efficiency and, as such, a political precondition of postmodern capitalism.

The Dialectics of the Libidinal and the Rational

What is the economic basis of post-sex is an all-embracing sexualization of the body as an imaginary body that is the lived reality of the postmodern subject:
the lived reality of the imaginary body, the body as an embodiment of the liquid libido constitutive of the imaginary reality of productive consumption.

In this manner, the sexualized body is the driving force of the libidinalization of economy. The Taylorization of the libido, at the same time, is both a product and a precondition of the increasing productivity of production in the economic order of neo-Fordism: a mode of production produced by extended and intensified consumption, effected by the continuous flow of sensations and affections of the body manifesting the disciplinization of the libido under the regime of productive consumption, and the whole psycho-social and psycho-physical kinetics organized around the desires and pleasures of the body. It is precisely for this reason that contemporary capitalism does not imply post-Fordism, but, on the contrary, it is an economic order in which not only labour force, but also – and increasingly – the forces of affective and sensuous body are rationalized, brought under the imperative of instrumental reason.57

It is as Antonio Gramsci (1971 [1929–1935]), elaborating on his ideas of the factory order and the concomitant rationalization of labour force constitutive of industrial capitalism, said during the break-through of the Fordist principles in the early twentieth century:

The truth is that the new type of man demanded by the rationalization of production and work cannot be developed until the sexual instinct has been suitably regulated and until it too has been rationalized (ibid.: 297).

Accordingly, the imperative of the rationalization pertaining to production and work processes colonizes the realm of the sexual: the working body is redefined as a libidinal body, a body that must adopt a self-discipline, a control of its own corporeal sensations and affections (in terms of “cybernetic capitalism,” cf. Pfohl 2005: 553–556). This is the origin of the Taylorization of the libido constitutive of postmodern capitalism, the order of productive consumption, an order in which to produce entails an increase of consumption, and, in turn, the increase of consumption necessitates an intensification of production based on the intensified efficiency of the performance capacity of the working body. This circular accumulation of production and consumption constitutes the economic logic of the Taylorization of the libido as a comprehensive sexualization of desires adapted to the productionist regime of neo-Fordism (cf. Turner 1992a: 115–159; Hancock & Tyler 2001: 150–176; Miller 2002; O’Brien 2005): in contemporary capitalism, the desiring body is a sexualized body.

Just as in the modern industrial world, emerging as a result of a scientific-technological reorganization of production in which the “norms and habits of order, exactitude and precision” (Gramsci 1991: 303), dictated by the machine and the

57 It would be important to discuss the issue that at the same time as the economic system in real socialism was not Fordist but command economy, how far the stagnation, and as its ultimate result, the collapse of socialism, was also due to the waning of the libido and the atrophy of libidinal forces. What seems to be sure is that the economic incentive in socialism was not pleasure but the sheer necessity of survival.
assembly-line, not only had become internalized properties of the working body, but these disciplinary requirements extended to the sphere of private life as well, it is necessary also in the contemporary neo-Fordist system of work and leisure to breed, as Gramsci says, a “stable, skilled labour force” that forms a “permanently well-adjusted complex” (ibid.) in which production is an integral part of consumption, and vice versa. Similarly to the times of Gramsci, during which the “human complex,” the “collective worker,” of an enterprise was a “machine” (ibid.; cf. Bhattacharyya 2002: 86–88), today, in the world of global capitalism, well trained and adequately disciplined employees are an absolute necessity for the frictionless running of the system (cf., for example, Munck 2002: 24–50, 93–105; Jessop 2007: 101–117); only that now the politics of the body is integrated into the economy of productive consumption: the disciplinary regime of the post-modern is part of the commodification of the body, and the other way round.

What happens in postmodern capitalism is a reorganization of the libido according to the logic of productive consumption; a transformation that pertains to the relations of sexuality and what Herbert Marcuse (1987 [1955]) calls “Eros” as a social and cultural force. Discussing Fourier’s utopian society in terms of the sexual and erotic organization of community life, Marcuse wanted to open a perspective from Fourier’s past utopia to the future conditions of a “fully mature civilization” (ibid.: 216) in which Eros would have a prominent position.

The transformation of sexuality into Eros, and its extension to lasting libidinal work relations, here presuppose the rational reorganization of a huge industrial apparatus, a highly specialized societal division of labor, the use of fantastically destructive energies, and the co-operation of vast masses. [...] The idea of libidinal work relations in a developed industrial society finds little support in the tradition of thought, and where such support is forthcoming it seems of a dangerous nature. The transformation of labor into pleasure is the central idea in Fourier’s socialist utopia. [...] However, in his detailed blueprint for the realization of this idea, he hands it over to a giant organization and administration and thus retains the repressive elements. (Marcuse 1987: 216–218)

In contemporary culture in which productive consumption is the organizational form of both production and consumption, that is, of both work and leisure time, of both labour relations and social relations, the “rational reorganization of a huge industrial apparatus,” thematized by Marcuse, has now reached a level on which sexuality and Eros have changed places: Eros has turned into sexuality. This is precisely the reorganization of the whole sphere of the sexual that I designate as post-sex, “sex” in the mode of its simulation. What Marcuse, referring to Fourier’s utopia, calls “libidinal work relations” and “transformation of labour into pleasure” characterize the present post-sexual constellation of productive consumption. And if there are still today “repressive elements” in the “giant organization and administration” of contemporary capitalism, they can be understood only as a postmodern modification of Marcuse’s (2002 [1964]: 59–86 “repressive desublimation”: “sex” in the form of the commodity form is the most pleasurable mode of adaptation to the unconditional demands of global capitalism ruled by the political economy of neoliberalism.
If the Taylorized working body, necessitated by the factory order constitutive of industrialization and organized according to the rational principles of Fordism, was both the precondition and the result of modern capitalism, its imperative of efficiency (see Cobley 2009), the working body in the economic constellation of postmodern capitalism is the product of the Taylorization of the libido constitutive of productive consumption. That is, without discipline there is no pleasure: without pleasure there is no discipline – that is the logic of neo-Fordism, the logic of the liquid libido intensified according to the model of the machine, the model of the modern. Accordingly, the libidinal body required by productive consumption is a body that functions as a “desiring-machine” (see Deleuze & Guattari 1998 [1972]), a machine that by itself produces the desire for pleasure that keeps the machine running.

Thus, what has changed is that, whereas in Gramsci’s Fordist project it was important to bring sexuality under strict control, to rigorously regiment sexual desire, in contrast to that, in the neo-Fordist order of the postmodern it is precisely the production of the sexual, a production that stages and enacts – in the sense of the German word Inszenierung – “sex” that provides for desires and pleasures evoking libidinal reactions compatible with the efficiency of production. This, of course, is a quadrature of the circle, an effort to reconcile the opposites with one another: the unreason of the sexual and the reason of economic rationality. But it is possible precisely due to the extreme creativity of contemporary capitalism: capital, this most horrible destructive force, has always had “civilizing effects” (Mandel 1995 [1980]: 119; Hancock & Tyler 2001: 156–157; Árnason 2003: 68), but now capital has subsumed the whole idea of civilization, the very principle of civility. And it is here, in the “civilisatory” power of the sexual cultivated by capital, in which the neo-Fordist order consistently invests: invests by means of productive consumption.

This is the idea of the Taylorization of the libido: desires and pleasures are productive forces that guarantee the sustenance and proliferation of consumption, and accordingly, the increase of profit and the consolidation of the financial power of capital.

Under these conditions, the working body is today a “consuming body” (see Falk 1994): an intensification of desire is the precondition of an efficient and productive working process. Thus, the libido is no longer outside work, within the intimate sphere of private life; instead, in the postmodern, the libido is an intrinsic moment of the working process, its very motivation, entailing not only an economization, but also a colletivization of libidinal forces. To be a body in the postmodern is to be a machine, a functional part of the socio-political machinery of a society that is organized according to the economic interests of neoliberal capitalism, interests that are dictated by the principle of profit maximization constitutive of the financial markets (for an overview, see, for example, Comaroff & Comaroff 2001; Harvey 2005 [2003], 2007 [2005]; Dworkin & Wachs 2009; with regard to “dromoeconomics,” see Armitage & Graham 2001; in terms of “hypercapitalism,” see Graham 2006). In this context, the pleasure of
the body is the prerequisite of the working body, and vice versa. Therefore, it is no longer mechanical conformity that is required, but, instead, flexible adaptability, a creative compliance. This is the idea of fun as the guarantee of the appropriate psycho-sexual kinetics of neo-Fordism: the fun body of the postmodern is the working body that has incorporated the logic of the commodity form, the logic of efficiency of both production and consumption.

For this reason, to specify, the reason to secure the sustenance and stability of the dynamics necessary for the constant expansion of the prevailing economic system, the “decentred” subject of the postmodern – contrary to the ideology of the postmodern – has to be centred: the postmodern subject has to be re-modernized in order that it will not lose its position as a subject altogether. Thus, neo-Fordism entails a re-subjectification of the subject, a rehabilitation of the self as the agent of its own survival that is the precondition of the survival of the system in its entirety, the system of productive consumption as the very form of postmodern capitalism.

In these terms, the body is today a high-valued production instrument, a precision apparatus, that at the same time is an instrument of extended, comprehensive reproduction: the reproduction of labour power, the reproduction of production relations, the reproduction of productivity, and last but not least, the reproduction of desire, the most important production force in the economy of the postmodern; a production force that is organized according to the imperative of the constant increase of efficiency. Therefore, in the order of neo-Fordism, what is rational is libidinal; and what is libidinal is rational. This is the double bind of postmodern capitalism: there is an economy of work, and there is an economy of the libido. The one cannot exist without the other; both follow the logic of productive consumption, an economic system in which consumption produces production and production produces consumption.

What counts is the consecutive order of these two economies: in Fordism work came first, then the libido; neo-Fordism entails an inversed order: it is the libido that determines both work and the reproduction of labour force. In fun society, the libido is the driving force of work, not for the sake of work in itself, but work as a means to the end, work as the economic precondition of fun. This is the controlled dynamics of the economy of productive consumption, the precondition of post-sex, and inversely, a product of it. Productive consumption necessitates the body as a form of capital, both the personal capital of the working subject and the productive capital for production: the body as an all-important object of investment; investment both as the investment of capital and the libidinal cathexis of the subject (for the idea of Besetzung or cathexis, see, for example, Freud 1972f [1926]: 120, 204–205, 1977d [1893]: 54, 1987d [1900]: 572, 600, 604–612, 622; Breuer & Freud 1977 [1895]: 92, 107; cf. Laplanche & Pontalis 1998 [1967]: 92–96; Borch-Jacobsen 1989 [1982]: 94–100).

It is this extended mode of investment that constitutes the libidinal economy of neo-Fordism (cf. Lyotard 1993a [1974]). At the levels of both productive con-
Where I Was, There the Machine Shall Be

The body is an investment object that requires a specific postmodern mode of work: work on one’s own body (see, for example, Lowe 1995; Johnston 2001b; McKenzie 2001; Gimlin 2002; Pronger 2002; Shilling 2005; in terms of the “trans-body,” see Caysa 2003: 57–75). In this context, “sex” – the ideal model of desires and pleasures constitutive of post-sex – turns into an ego-medium, a private-public vehicle of individuality and identity, a relay system mediating the libidinal flows of productive consumption; a means of cultivating and enjoying corporeal sensations and affections compatible with market forces. In this manner, the libidinal body of the postmodern is adjusted to experiencing and expressing both the desire for pleasure and the pleasure of desire. This is the instrumentalization of the body as the means of the ego-politics of pleasure: the modernization of the body to make it both fit for fun and flexible to the requirements of production and productive consumption.

This is the mode of operation of postmodern body management that, at the same time, is the precondition and result of the modernization of the postmodern, the order of neo-Fordism. In this order, both work efficiency and sexual pleasure follow the same logic; the principle of performance efficiency, the all-important principle under the regime of capital (cf. Marcuse 1987 [1955], 2002 [1964]).

The “Spirit of Capitalism” as the Postmodern Weltgeist

What is the postmodern body? As we have seen above, it is a body compatible with the body-machine complex constitutive of the economic order of neo-Fordism. No longer, as in Freud’s (1990c [1933]: 86) model of the unconscious, ‘Wo Es war, soll Ich werden,’ “where id was, there ego shall be,” instead, where I was, there the machine shall be. This is the idea of modernization (see, for example, Lash 1990b: 5–15, 194–210; Bertens 1995: 116–122, 179–182, 215–216; Kumar 1995: 24–28; Owen 1997: 11–16; Bauman 2000: 28–31), the very condition of the postmodern; as Jameson (1991: ix) says, “postmodernism is what you have when the modernization process is complete and nature is gone for good.” An anthropomorphizing of the machine, a disciplinization of the human being, a rationalization of the body, and finally, the necessity for the subject to internalize the machine: these components are constitutive of the reason of the modern, the reason of scientific-technological body management that has produced the condition of possibility of the economic order that has enabled the productive consumption constitutive of the postmodern (cf. Pronger 2002: 53–118; Shilling 2005: 82–99; Lowe 1995; Farquhar 1996; Davis-Floyd & Dumit 1998; Lay et al. 2000; Shevory 2000; Johnston 2001b; Gimlin 2002; de la Peña 2005).

In this sense, the postmodern body is a neo-Fordist body, a body that must constantly produce itself in order to be a productive body necessitated by productive consumption. Therefore, rather than consumption, it is production, in its expanded form as productive consumption in which the reproduction of production is predicated upon a continuous modernization of both production and consumption by means of rationalization and innovation, that rules con-
temporary culture under the sign of the postmodern. Thus, the postmodern designates the cultural superstructure of the modern the hard core of which is modernization. In this constellation, the human body and technology surrounding it as a technoscientific technosphere are in the key position.

All this began already long ago, at the threshold to the modern, in the seventeenth century, the outset of the Enlightenment. As Foucault, quoting contemporary military ordinances, describes the century-long process as a result of which the figure of the soldier emerged as a “body-machine” – the soldier as the model of the human being in the modern:

By the late eighteenth century, the soldier has become something that can be made; out of formless clay, an inapt body, the machine required can be constructed; posture is gradually corrected; a calculated constraint runs slowly through each part of the body, mastering it, making it pliable, ready at all times, turning silently into the automatism of habit; in short, one has “got rid of the peasant” and given him “the air of a soldier.” [...] “Recruits become accustomed to holding their heads high and erect; to standing upright, without bending the back, to sticking out the belly, throwing out the chest and throwing back the shoulders; and, to help them acquire the habit, they are given this position while standing against a wall in such a way that the heels, the thighs, the waist, and the shoulders touch it, as also do the backs of the hands, as one turns the arms outwards, without moving them away from the body [...]. Likewise, they will be taught never to fix their eyes on the ground, but to look straight at those they pass [...] to remain motionless until the order is given, without moving the head, the hands, or the feet [...] lastly to march with a bold step, with knee and ham taut, on the points of the feet, which should face outwards.” (Foucault 1991a: 135–136)

If this is the end result, what was the beginning? What was the process of the rationalization of the body that is constitutive of the modern?

The classical age discovered the body as object and target of power. It is easy enough to find signs of the attention then paid to the body – to the body that is manipulated, shaped, trained, which obeys, responds, becomes skilful and increases its forces. The great book of Man-the-Machine was written simultaneously on two registers: the anatomico-metaphysical register, of which Descartes wrote the first pages and which the physicians and philosophers continued, and the techno-political register, which was constituted by a whole set of regulations and by empirical and calculated methods relating to the army, the school and the hospital, for controlling or correcting the operations of the body. These two registers are quite distinct, since it was a question, on the one hand, of submission and use and, on the other, of functioning and explanation: there was a useful body and an intelligible body. And yet there are points of overlap from one to the other. La Mettrie’s L’Homme-machine is both a materialist reduction of the soul and a general theory of dressage, at the center of which reigns the notion of “docility,” which joins the analysable body to the manipulable body. A body is docile that may be subjected, used, transformed and improved. The celebrated automata, on the other hand, were not only a way of illustrating an organism, they were also political puppets, small-scale models of power: Frederick II, the meticulous king of small machines, well-trained regiments and long exercises, was obsessed with them. (ibid.: 136; cf. La Mettrie 1912 [1747/1748])

Here we have the origin of the modern body in one image, the genealogy of the disciplined body, the “Big Book of the human being as a machine,” written
in two registers: in an *anatomico-metaphysical* and a *technico-political*, the registers that in the condition of neo-Fordism have reached their final accomplishment: the *interconnections of the forces of labour and the libido*. Precisely for this reason, there is no postmodern without the modern; and precisely for this reason, the modern is the very condition of possibility of the postmodern subject, a mode of the subject that has objectified itself in terms of the machine, by internalizing the machine as the very model of its subjectivity. In other words, the *machine is the will of my desire, my desire is the will of the machine* – that is the logic of the postmodern subject that is the body-machine of productive consumption, the working body that is the consuming body, a body that has *incorporated* the political economy of neoliberalism, a body that has adopted, in Foucault’s words, the *automatism of habit*. That is, the ethos of commodification, the spirit of postmodern capitalism, is the “ghost in the machine” that rules the body-subject of neo-Fordism (cf. Sayer 1991: 92–133).

The modern as the precondition of the postmodern subject – that, in short, is the idea of neo-Fordism. But, then, what does it actually mean *to be modern*? At the outset of the twentieth century, Max Weber (1993 [1904–1905]: 122–155) saw a radical transformation in terms of being human going on with an irresistible force as a consequence of the advancement of capitalism (cf. Giddens 2003 [1971]: 119–183; Guttandin 1998: 128–166; Schöllgen 1998: 45–60). The modern individual was in the process to be born under the regime of the “protestant ethic” implying the “spirit of capitalism.”

It was this ethos that created what Weber called the *Berufsmensch* (Weber 1993: 153), a mode of being a person dedicated to vocation, living according to the rational rules of rationalized society, a system governed by instrumental reason (see, for example, Mitzman 1985 [1969]; Lichtblau 1993). The “spirit of capitalism,” as a manifestation of the internal logic of capital itself, was the driving force of a new social order based on the idea of limitless growth, expansion and progress. This order was constitutive not only of an adequate conduct of life in which the meaning of being human was replaced by the calculation of the interest and profit; it also brought about a corresponding subject thoroughly dedicated to work and efficiency, a subject living for the benefit of its own existence. As a result of the “protestant ethic,” the modern subject was thus unfolding; a subject acting as the agent of its own destiny in accordance with the moral order on which its constitution and consolidation was based (cf. Holton & Turner 1989: 68–130).

Yet, in this world of modern asceticism – *asketischer Rationalismus*, as Weber (1993: 154) says – though informed as it was by reason, the traditional religious

58 What Weber has before his eyes, of course, is *das bürgerliche Subjekt*, the subject formation of the *Bürger*, in both senses of the notion: citizen and bourgeois, the latter in its original meaning as townsman, burgess or burgher, a free citizen as an entrepreneur, a free man as the economic and political agent of his own destiny. Ingenuity, diligence, industriousness, enterprise and thriftiness – these were the ideals of the “bourgeois,” the ideals that have their origin in the eighteenth century, the era of the Enlightenment. This is the background of Tissot’s idea of the squander of corporeal forces, of a wasteful way of life, dissipation and extravagance as the ruin of the healthy body, and its rational opposite: the idea of laborious working man who has control over his desires and pleasures.
mortification of the flesh still lived on in the form of rigorous self-discipline strictly controlling all the forms of pleasure, especially temptations of the carnal, be they sensual or sexual (Sayer 1991: 123–129). 59 This is the utilitarian mode of asceticism: the care of the self as the principle of survival in the secularized, disenchanted world (cf. Foucault 1990h [1984]: 45–68, 1992b [1984]: 30, 72–77, 126). Hence, the pursuit of happiness under the imperative of the protestant ethic leaved no choice for the modern subject.


Ein stählernes Gehäuse, a “steel-hard casing,” or an “iron cage” as it is usually rendered in the translations of Weber’s works (see, for example, Ofte 2005 [2004]: 43–60; Scaife 1989) – that is the habitus encasing the subject under the power of capitalism. 60 A century later the “spirit of capitalism” – a Hegelian Weltgeist materialized in the substance of global capital, in the most spectral manner in financial capital (cf. Hegel 1986d [1837]: 11–105; in terms of posthistoire, cf. Niethammer 1989) – has now become objectified in the form of technology constituting a new order of being human, the world of technoculture, the world of the cyborg living in the economic and political constellation of what Haraway (1997: 4–7, 42–65, 75–78, 202–208) calls the “New World Order, Inc.” (cf., for example, Michael 2006: 31–32; Ihde & Selinger 2003).

59 Weber constructs his analysis of the ideal of asceticism in the new capitalist order on a comparison between religious Puritanism and the rational regimenting of the conduct of life characteristic of the modern Berufsmenschen or “vocational humanity.” As a paradigmatic example of Puritanism, Weber (1993: 122–134) refers to the Christian Directory by Robert Baxter, a pastoral compendium for the care of souls, a religious hand-book highly influential in Western moral theology since the seventeenth century (see, for example, Lehmann & Roth 1993). What is important here is the way Baxter emphasizes the moral value of work not only as the basis of self-discipline favourable for utilitarian vita activa, but, first of all, as the source of the redemption of the soul.

60 The term “iron cage” represents “Weber’s most famous metaphor and has taken on a life of its own in contemporary social theory” (Swedberg 2005: 132). The term was chosen by Talcott Parsons, the prominent American sociologist, who was the first to translate Weber’s work into English. As a metaphor, the term refers to “the harsh capitalist order that the individual is forced to live in, with its unrelenting demand that he or she work hard and methodically”; simultaneously, the term also suggests “a prison that is impossible to break out of” (ibid.). In this sense, the general idea in Weber’s text is that “the Puritan saint was supposed to wear his worldly goods ‘like a light cloak which can be thrown aside at any moment,’” but “this light cloak has today become ‘an iron cage’” (ibid).
Life in the Laboratory

Through the modern, the machine, the “other” of the human, the second nature of the subject, has become the measure of all things. Now it is, as Haraway (1991a: 180) says, about a new order of things in which the “machine is us, our processes, an aspect of our embodiment.” What we presently have, as a result of a thorough postmodernization of Western culture, is a new order in which the human and the machinic are determined by the same terms: technology, the perfection of the second nature, the machine world, has brought about the paradigm of technomorphism. It is this new order that I call – drawing on Foucault’s (1978e [1977]: 119–123) idea of “dispositive” – the techno-dispositive of the postmodern constitutive of technoculture that is the configuration in which human corporeality is redefined in order to be adaptable to an environment that functions according to the logic of the technological.

If, in the modern, technology was an extension of the human being, in the postmodern this relation has been inverted: the human being, as a being reduced to a body, is about to turn – in the theory-fictions of cyber discourse, already turned – into an extension of technology. At the same time, the body is reduced to an organism, but the organic in itself has become technological: the future of the body is to become transformed into a techno-organism. This is what I call life in the laboratory. Scientific experimentation guided by the idea of the potential to be made actual, producing new entities through analysis, manipulation and design of all kinds of “materials” including the human organism, is the idea of laboratory. In the laboratory, human life is no longer human life, but biological processes to be productively controlled and regulated by means of technoscience, the means of scientific-technological management (see, for example, Cregan 2006: 141–165; Aronowitz et al. 1996; Haraway 1997; Ihde & Selinger 2003; Michael 2006; Asdal et al. 2007; in terms of biomedicalization, see Clarke et al. 2010).61

In postmodern technoculture, under the regime of technoscience, “bare life,” la nuda vita (Agamben 1998 [1995]), is the rationale of an emerging societal formation in which human life is stripped off of all the human and reduced to techno-biological processes from birth to death. That is, while the overarching metaphor of the hard core of the political rationality based on instrumental rationality constitutive of the modern in terms of radical modernization was the concentration camp, the laboratory has become the epitome of the postmodern; that is, where the camp, from Auschwitz and the Gulag to Pol Pot and beyond, manifested the idea of “the New Human Being” (der Neue Mensch) (see, for example, Küenzlen 1997 [1994]; D’Idler 2007) by excluding and exterminating

61 The concept of technoscience was introduced by Bruno Latour (1987) in science studies to point out that what counted as laboratory (and research practices of the natural sciences in general) is not confined in the field of science itself; rather, the boundary lines between science and society are always already reciprocally breached: both are constitutive of each other. For her part, Haraway (1997: 280) draws attention to how for Heidegger (2000b [1953]) the internal logic of technology, technicity, turns “all the world into resource, into fund”; in this sense, technoscience, by utilizing and exploiting resources, in the end empties everything. This is the idea of “nature entered up” (Haraway 1997: 285; emphasis mine).
the adversaries and “useless” people or people belonging to a race deemed to be “below” the human worth (cf., for example, O’Brien & Penna 1998: 60; Sofsky 1999 [1993]: 276–281; Traverso 1999: 14–18, 69–71), the laboratory, in contrast, is a postmodern derivation of the Enlightenment idea of the “perfectibility of the human being” by means of science and technology (see, for example, Garrett 2006: 178–179; Passmore 1970; Douthwaite 2002).

All that is “cyber” reflects the real situation of contemporary capitalism in the manner of the imaginary; a situation in which science and technology, constituting a specific postmodern constellation of technoscience and technoculture, have transformed “nature” and “real life” into a scientific-technological para-world, a world as a laboratory, a world as material-discursive construction. Especially the contemporary “life sciences” (see, for example, Bowring 2003: 67–86; Dillon & Reid 2009: 28–29, 46–48, 145–146; Stocker & Schöpf 1997, 1999; Clarke 1998; Nadesan 2008; Keinan et al. 2004; Bauer & Wahlberg 2009; for a historical overview, see Magner 2002) – that is, biology as technology, biological experimentation as technological projects and enterprises, life as commodity, and all this dominated by transnational investment and financial capital – exemplify what Foucault (1990k: 143–150) calls “bio-power” in an advanced form. What is at issue here is the law of laboratory ruling all life in the postmodern. In other words, this is the governmentality of the postmodern, its peculiar mode of administering and regulating living beings by scientific-technological means (cf. Lemke 1997: 161–170; Opitz 2004).

This is life in the world of the cyborg, a world under the regime of omnipotent techno-capitalism ruling all that is organic in the manner of the technological; a scientific-technological power regime that entails, in the form of biotechnology turned into techno-biology, an appropriation of life in its all forms and spheres, from genes to higher organisms (see, for example, Thackray 1998; Rose 2007; Suarez-Villa 2009). As a consequence, what is human is now a question concerning technology – a question to be answered in the laboratory. This is the logic of the scientific-technological management of all the living as the constitutive imperative of the world of the cyborg, a world under the regime of techno-capitalism: an appropriation of all forms of life as resource.

Whereas in the premodern, according to Foucault (1990k: 138), there prevailed the “ancient right to take life or let live,” in the dawn of the modern it was replaced by a “power to foster life or disallow it.” No longer wasting but producing life under the control of reason, science and technology was now the highest rationale of society. This is the result of “bio-power,” the order of an “anatomo-politics of the human body” and a “bio-politics of the population”; that is, if the former is about “disciplines” centred on the “body as a machine,” the latter means “regulatory controls” focused on the “species body, the body imbued with the mechanics of life and serving as the basis of the biological processes” (ibid.). In other words, under the regime of bio-power, whereas the individual body is an object of “disciplining, the optimization of its capabilities, the extortion of its forces, the parallel increase of its usefulness and its docil-
ity, its integration into systems of efficient and economic controls,” in turn, the human body as the species body is an object of biological regulation concerning “propagation, births and mortality, the level of health, life expectancy and longevity” (ibid.). Under the regime of bio-power, the body is never alone, it is part of the system, permeated by the forces of what Deleuze and Guattari (1998 [1972]: 139–149) call the *socius* (cf. Bogue 1989: 93–100; Patton 2000: 89–96).

Since the coming into being of the modern, being human has increasingly been an object of rationalization. The human body and human life, the individual and the species, have been under the supervision of bio-power, the regulation and administration of all that is human through scientific-technological procedures.

Thus, what is postmodern is only an intensification of this imperative. Increasingly, to live is no longer a private matter; it is a matter of a *politics of life* (cf. Shevory 2000; Rose 2007; Cooper 2008), the politics of survival in a global constellation in which *life is cheap but living expensive*, too expensive particularly for those who have no access to the resources of survival: cheap death is a result of expensive life. In contrast, in the affluent Western world, life is a matter of technoscience: never before both birth and death have been so dependent on scientific-technological procedures, to the extent that today death can be postponed while premature birth can be made more safe. This is life in the laboratory: the laboratory is everywhere where life and living beings are defined by the parameters of technoscience. Thus, in the *postmodern*, the laboratory constitutes a control regime under which *life is an object of scientific-technological management*. Precisely in this sense, the human body is more and more an important resource of postmodern capitalism; a resource the maximal usability and utilization of which is the objective of the politics of life; a politics in which the human being is increasingly defined as an object. In the laboratory of life constituting postmodern technoculture, to be a subject implies the necessity to consider oneself as an object of scientific-technological rationality, a mode of reason specific to technomorphism (in terms of medicalization, see, for example, Lupton 1994a; Conrad 2007; Miah & Rich 2008).

What does this mean in terms of the sexual? The sexual body – both as an individual body and the species body – is more than ever a discursive construction, an object-body, in which private desires and the demands of society encounter one another in a contradictory manner. What is at issue here is the sexual-technological complex of the postmodern, a technoscientific assemblage of means and measures that both manage the desires and pleasures of the individual body (post-sex as the model of the sexual) and police the reproduction and composition of population (procreation as a technoscientifically rationalized enterprise). What is significant in this constellation is that what Foucault (1990k: 51–73) calls *scientia sexualis* now embraces the general horizon of intelligibility in terms of the sexual: not only sexuality has been subsumed by a comprehensive scientification, but, first of all, sex has turned into a theory object in the postmodern; as a result, never has there been as much theory of sex as today (see, for example,

If the scientification of sexuality predominantly concerns the species body, the individual body is the theory object of postmodern sex theory. And while “sex” in the mode of post-sex manifests the libidinal economy of productive consumption, postmodern academia enjoys the pleasures of what I call theory-sex, “sex” as a jouissance of theory in the mode of the “post.”

Cybersex, as a post-utopian, high-tech extrapolation of post-sex, reflects in an imaginary form the political economy of desires and pleasures pertinent to the sexual-technological complex of the postmodern (cf., for example, Gray 2001: 87–97, 104–107, 131–138; Marshall 2003: 123–131; Bernstein 2005: 104–106; Firestone 1970; Corea 1985; Hausman 1995; Springer 1996; Waskul 2003, 2004a; Loe 2004; Ferrer 2006; Davis 2009; Attwood 2010; from a historical perspective, see Maines 2001). Whereas in cybersex “the sexual” is about a prosthetic form of post-sex, “sex” as simulation of itself by means of technological extensions of the body, the “cyber,” as a mythopoetic and reified signifier, is an expression of an imaginary configuration in the virtual reality of language, the figures of which manifest the desire for and the pleasure of leaving the material body behind in the immaterial realm of cyberspace. What is at issue in both dimensions of cybersex is a technological reconstitution of the human being as the posthuman.

In these terms, the figure of cybersex is in its own way a shorthand for the transformation of the position of the human being in relation to technology in contemporary technoculture; a historical transition from the era of the modern, symbolized by the Weberian idea of the “iron cage” (Weber 1993 [1904–1905]), to a new cultural constellation under the sign of the “post” in which being human is ruled by scientific-technological rationality. Accordingly, also the idea of the machine has changed: what is now the machine is the body in itself under the economic-political rule of the body-machine complex constitutive of neo-Fordism. In this constellation, performative capacity is the highest principle of life: be performative if you want to survive is the ethos of the post-subject under the disciplinary regime of neo-Fordism.

5.1.3 After the “Iron Cage”: The Soft Machine

If the mode of rationality in the modern, as critical theory after Adorno and Horkheimer calls it, is “instrumental reason” (see Horkheimer 1967 [1947]; Horkheimer & Adorno 1994 [1944]; cf., for example, Jay 1973: 60–65, 156–166, 259–279; Held 1980: 59–75, 148–174, 250–254), what, then, is its promise from the standpoint of the subject; the subject, at least at the first glance, as something different to the systems rationality constitutive of instrumental reason? Is it a new level of freedom, substantially different to the premodern way of life? Is it a more efficient manner of the “pursuit of happiness,” the principle of principles of the bourgeois revolution in its historical sense? A free enjoyment of
pleasure? A rationalism of desire? Or a desire for rationalism, the driving force of the Enlightenment, elevated now, in the form of the surrational, to the highest form of rationality in the postmodern?

In fact, instrumental reason, in the condition of the postmodern, promises all of that: a thorough rationalization of the corporeal, of all experiences and expressions of the sensuous and affective body, the whole sphere of the personal and intimate relations under the imperative of the scientific-technological rationality constitutive of the body-machine complex of the postmodern. Yes, there is evidently a mode of reciprocal intimate affection and attachment that Anthony Giddens (1992: 58, 94–96) calls “pure relationship” (cf. Schmidt 1998: 15–17; Illouz 1997; Featherstone 1999a). But, what is there behind this new form of passion, a passion to enjoy one’s own private happiness as an erotic and sexual intimacy?

Angst, a fear to fall into a nothingness in a world in which everybody has become replaceable for someone else: in the postmodern, in the global economy of transnationally rationalized production, each subject, instead of being an autonomous individual, is only a nameless number in the profit calculus, a mere cost item in the cost-benefit analysis, for which another subject/item can always be substituted. In this situation, a projective self-calculation, a rational self-management, is the ideal and the ethos of the postmodern subject: a subject as an object of itself, a subject as an entrepreneur of one’s own life. Hence, what is distinctive to the postmodern sensibility towards one’s own existence is a sophisticated disciplinization of emotions: the emotional life of the postmodern subject has to be adequate to the strict body performance necessary at work as well as in human relations affiliated with it (cf. Sennett 1998, 2007; Illouz 2007). In the postmodern, more than ever, the subject needs an all-time functional body, a body that is always available, ready for the use, in the manner of the machine.

Performance capacity and self-management are therefore the most important duties of the postmodern subject. In other words, the Weberian “iron cage” is still there, only in an other form, in the form of neo-Fordism (cf. Ray & Reed 1994; McKenzie 2001).

I Orgasm, Therefore I Am

In postmodern fun society, a society producing fun in an industrial scale never seen before, fun is a continuation of work, and work is a precondition of fun; reciprocally conditioning one another, both following the imperative of performance principle as the life principle of the individual as well as the society as a whole (cf. Marcuse 2002 [1964]). The efficiency of performance, the constitutive imperative of Fordism as a manifestation of the reason of the modern, is the highest value in the economy of the postmodern, the economic order of neo-Fordism. In other words, what Evelyn Cobley (2009) calls “the culture of efficiency” constitutive of “modernism” has returned with a vengeance in postmodern fun society.
In addition to flexibility, what a working subject today absolutely needs is a disciplined body, a body perfectly under control, a control that, of course, has to be thoroughly internalized by the subject. Thus, the subject is now a postmodern incarnation of the Foucauldian “docile body” (see Foucault 1991a: 135–169), a subject that is an object in a world in which everything has value only as an object, as a property, resource and asset. This is an objectified world, a world that Kraftwerk, the most visionary avantgarde group that gave an adequate form to the sound of technological culture (see Inkinen 1999: 170–201), saw coming in the 1970s, at the time the computer was just about to become the model not only of rationally organized society – Nummern, Zahlen, Handel, Leute… Computerwelt… Denn Zeit ist Geld – but of all living: Wir sind die Roboter… Wir sind auf alles programmiert… Und was du willst wird ausgeführt… Ich bin allein, mal wieder ganz allein… Ich brauch ein Rendez-vous… and what I get… is Computerliebe…

This is the sound of post-sex as the imperative of cybersex; “sex” in a world in which rationally organized performative functionality is the ideal of the self-management of the subject, the world of the post-subject as the managerial self (see, for example, Bauman 2001: 220–237; Hancock & Tyler 2001: 150–176; Tyler 2004: 81–83; Abbott et al. 2005 [1990]: 206–210; Weeks 2007: 127–126; Brown 2003; in terms of the “new barbarians,” see Hardt & Negri 2000: 214–218). In this world, sex in the mode of post-sex is not the opposite, but the very reverse side of work, similarly as work is the reverse side of the ego-politics of pleasure constitutive of the post-subject. “Sex” following the logic of performance efficiency, sexual desires and pleasures rationalized according to the cost-benefit analysis – that is the ethos of post-sex. As such, post-sex, in fact, is the intrinsic model of fun society based on the libidinal economy of productive consumption. As a result, the postmodern body is an embodiment of the logic of economization, the economic rationality of neo-Fordism. In this manner, the post-subject is thoroughly subjected and subjectified by work in the manner of Foucauldian assujettissement (Foucault 1983b [1982]: 239–242, 1990k [1976]: 60, 1991a [1975]: 30, 1992b [1984]: 27): an objectification of work performance, a product of labour process. It is under these conditions that pleasure is a continuation of work by other means, by the means of fun as a commodity form.

62 As Sam Inkinen (1999: 170–201), in his historical articulation of the tradition of “machine music,” summarizes the import of Kraftwerk: “Russolo’s musical and aesthetic fantasies were a preliminary step in aims to produce music that would be influenced and even dominated by a machine – which actually means: by modern technology. Much later, in the early 70s, the German experimental avantgarde group Kraftwerk brought futurism to the Atomic age by accepting computers, nuclear power stations, highways, express trains and pocket calculators as significant signs of futuristic avantgarde music.” (ibid.: 193) What in Kraftwerk’s music can be understood as an ironic comment, in the sense of, as Friedrich Kittler (1986: 149, 170), in the context of rock music, says, a Mißbrauch von Heeresgerät, a “misure of army equipment,” on the thoroughly rationalized industrial society in its transition to what is called the “information society” (see, for example, Masuda 1980; Nora & Minc 1980 [1978]; from the perspective of contemporary critical discussion, see May 2002; Webster 2002 [1995]; Webster et al. 2004), has turned into reality in the postmodern condition; a mode of reality that is most adequately understood in terms of Baudrillardian “objective irony” (see Baudrillard 1988b [1987]: 41–42, 1990b [1983]: 182, 1994b [1992]: 16–17, 51–52, 1996 [1995]: 70–73, 127, 1997c: 13, 2000b: 54, 77–78).
This is the world in which cybersex as a techno-imaginary projection of post-sex becomes intelligible: a world in which computerized sex perfectly corresponds to the rational calculation of all life constitutive of the logic of global capitalism, the political economy of neoliberalism.

Accordingly, in the contemporary Western world, a thoroughly Weberian universe (in the sense elaborated on above), in addition to, and as a substitution for, the “pure relationship” of Giddens, there is now a tendency to pure sex, rationally organized desires and pleasures, sensations and affections, principles and practices, introduced and enacted by the paradigm of post-sex. In this respect, there is no longer eroticism since in the glaring light of postmodern fun society nothing is any more secret, the less enigmatic (except, of course, the very idea of “the sexual” in sexuality). There is no love, instead, there are partnerships as a functionalized form of the rationalized conduct of life. And, instead fate, there is life management as the paragon of totally rationalized life in a living condition called by Horkheimer and Adorno (1994 [1944]) the “totally administered world” (cf. Alway 1995: 35–42; Honneth 1995: 85). In this world, everything is reasonable because it is rational.

This is a world living under the imperative of comprehensive rationalization, the modern reason of the postmodern. As Marcuse already saw it in the early-1940s:

Let us take a simple example. A man who travels by automobile to a distant place chooses his route from the highway map. Town, lakes and mountains appear as obstacles to be bypassed. The countryside is shaped and organized by the highway: what one finds en route is a byproduct or annex of the highway. Numerous signs and posters tell the traveller what to do and think; they even request his attention to the beauties of nature or the hallmarks of history. Others have done the thinking for him, and perhaps for the better. Convenient parking spaces have been constructed where the broadest and most surprising view is open. Giant advertisements tell him when to stop and find the pause that refreshes. And all this is indeed for his benefit, safety and comfort; he receives what he wants. Business, technics, human needs and nature are welded together into one rational and expedient mechanism. He will fare best who follows its directions, subordinating his spontaneity to the anonymous wisdom which ordered everything for him.

(Marcuse 1941: 419; emphasis mine; for a contextualization, see Thomson 2003)

Here we have arrived in a world that is perfectly rational. If, for Marcuse, the idea of instrumental reason is a mode of reason that results in a society in which life is thoroughly organized according to the principles of efficiency and rationality, indeed, for the “benefit, safety and comfort” of citizens (cf. Marcuse 1987 [1955], 2002 [1964]), what, then, is the world of the postmodern, a world living after the implosion of the “grand narratives” of the modern based on Enlightenment reason (Lyotard 1984 [1979])?

To answer this question it is appropriate to have a closer look at what Marcuse is actually saying by speaking of the rationality constitutive of the modern; the mode of rationality under the regime of which, as Marcuse (1941: 419) says, the subject “receives what he wants” by “subordinating his spontaneity to the anonymous wisdom which ordered everything for him.”
The decisive point is that this attitude – which dissolves all actions into a sequence of semi-spontaneous reactions to prescribed mechanical norm – is not only perfectly rational but also perfectly reasonable. All protest is senseless, and the individual who would insist on his freedom of action would become crank. There is no personal escape from the apparatus which has mechanized and standardized the world. It is a rational apparatus, combining utmost expediency with utmost convenience, saving time and energy, removing waste, adapting all means to the end, anticipating consequences, sustaining calculability and security. (ibid.; emphasis mine)

In this world, rationality has attained the utmost degree, to the extent that it would be absolutely irrational to say No. The “Great Refusal” (see Marcuse 1987 [1955]: 160, 170, 236), dreamt about, in one way or another, by not only all avantgarde movements, but also the New Left following the utopian visions of Marcuse (see, for example, Katsiaficas 1987; Breines 1989 [1982]; from the contemporary perspective, see McMillian & Buhle 2003), does not make any sense in the world of the surrational, a world in which the imaginary is the highest form of reason, a world in which fun is the reverse side of work and work makes sense only if it enables fun. This is the logic of productive consumption, the logic of the commodity form.

If we substitute sex for Marcuse’s “automobile” we have not only the idea of the postmodern body, but also the model of post-sex, sex functioning according to a rational calculus, “sex” according to the machine model of postmodern technoculture.

This is the idea of cybersex: it is an imaginary form of post-sex; “sex” as a thoroughly rationalized and instrumentalized practice of “sexual” pleasure, sex as a form of technology: auto-sex at the interface between the body and the machine. In the constellation of Marcusean “automobility,” in the configuration of auto-control elevated to an automatism of the body, in a cultural situation in which the body-subject has turned into a post-behaviouristic automaton working according to the idea of post-Pavlovian auto-conditioning, in a world in which an “anonymous wisdom” has ordered everything for us, in the world of instrumental rationality, sex is a technical procedure, an act of reason in terms of pleasure. In this manner, post-sex follows the logic of performance principle; it is about the most efficient way to produce orgasm, a reward for an efficient performance at work and in social relations.

complex of the postmodern: sex as a means to avoid becoming a dysfunctional body, a body not capable of adequate work performance. This is the paramount achievement of the scientific-technological rationality ruling the postmodern, the imperative of fun society under the reason of the surrational, the reason of the new model of life in the name of the posthuman.

Accordingly, in the postmodern, the structure of desire goes through a transformation: it is now not so much about hedonism, but, rather, about the right of enjoyment turned into an obligation to orgasm: *I orgasm, therefore I am*. This is the ethos of the post-subject in terms of post-sex, the very logic of postmodern orgasmology.

Similarly to the ancient principle of *mens sana in corpore sano*, the Nietzschean “physiological” project of *die grosse Gesundheit*, “the great health” (see Nietzsche 1969b [1888–1889/1908]: 335–336, 1973a [1882/1887]: 317–318), implies today the necessity to have a cool mind in an orgasmic body, a body perfected by training and appropriate psycho-physiological conditioning, a mode of post-Pavlovian personality management (cf., for example, Schwitzgebel 1973; Schwitzgebel & Traugott 1973; Feingold 1973; for the idea of management in the postmodern, see Hancock & Tyler 2001, 2009; in terms of behaviourism, see Spillane & Martin 2005: 120–144; for Pavlov’s idea of “conditioning” in the framework of his physiological psychology in the historical context, see Todes 2002 [1990]). It is an everyday experience at present that capital cannot accept anything else but a perfect body, a body that in itself is the capital of the post-subject. This is the rational order of *reibungslose Sexualität*, “frictionless sexuality” (Kamper 1984), a mode of sexuality that follows the smooth functionality of consumer markets: in post-sex, others have done the thinking for me, and “perhaps for the better.” I am a sexual subject on the condition that my body has internalized the idea that pleasure and duty are not the opposites, but the two sides of the same thing: the principle of adequate performance. It is in this world that sex is a customized commodity, customer sex that, ideally, is always available by request, as a product on-demand.

This is sex in which emotions are replaced by effects, “sex” in which the sensations and affections of the body are adequate responses to a pre-programmed procedure organized according to the stimulus-response model of behaviourism (see, for example, Lowry 1982 [1971]: 197–229; Masters & Johnson 1966; O’Brien et al. 1982). In the postmodern, there are, in fact, no longer emotions; instead, there are external and internal movements of the body that manifest the psychophysics of capital, psycho-social kinetics as a mode of motility and mobility in which time has been replaced by acceleration and experience by moments of intensities.

This is life in the laboratory in terms of the sexual. This is life under the regime of techno-dispositive, the order of scientific-technological rationality constitutive of postmodern society as the final accomplishment of the project of the modern (see Habermas 1967, 1968, 1994 [1981], 1998e [1985]; cf. Giddens 1990: 138–144; Reese-Schäfer 2001: 137–148).
“Sex” as a Duty of the Postmodern Subject

What was once for Leibniz (1985 [1710]) *die beste aller möglichen Welten* to be achieved by the advancement of science under the auspices of mathematics (cf. Hober 2001: 18–26), is now the reality of postmodern technoculture, a reality made possible by post-reason in the mode of the surrational. If, for Marcuse, the idea of instrumental reason is a form of reason that results in a society in which life is well-organized according to the principles of rationality and instrumentality, in the postmodern we are living in a culture that has made the generation of desires and pleasures to a large-scale scientific-technological enterprise, a kind of society-wide master plan in the mode of post-socialist socialism, maintaining and reproducing a perhaps as yet most subtle form of libidinal economy, an economy in which the libidinal equals economic efficiency, and vice versa (cf. Baudrillard 1975 [1973]: 41–51, 1998b [1970]; Lyotard 1993a [1974]).

This is the triumph of the modern *within the postmodern*, the ultimate form of rationality: desires and pleasures are brought under the control of a mode of rationality constituted by the imaginary following the logic of post-reason. This is the culmination of instrumental reason in the realm of the surrational. And it is in this world that the promise of the post-Christian resurrection of the body becomes true. Under the auspices of the surrational, all that is corporeal is delivered by the “cyber” in the last instance; the “cyber” signifying the principle of a new mode of embodiment by means of disembodiment (cf. O’Leary & Brasher 1996: 259–260; Robins 1996: 29–32; Green 1997: 65–66; James & Carkeek 1997: 107–110; Kitchin 1998: 21–79–82; Muri 2003: 73–79, 82, 89; Bell et al. 2004: 11–12; Eubanks 2004: 156–157; Eisenstein 2007: 43–44; Perrin 2007: 312–313; Ferreday 2009: 5–6, 71–72; Nayar 2010: 8, 66–67, 76–78).

In this sense, paradoxically, the form of rationality Marcuse saw peculiar to modern capitalism, has only presently gained its full power: it is at last in the postmodern that the very instrumental reason that was constitutive of the modern, has resulted in a cultural formation that is “not only perfectly rational but also perfectly reasonable” (Marcuse 1941: 419). This is a world in which the self-relation of the subject entails a *functional self* that is not only capable of adapting itself to systems rationality, but, more fundamentally, that from the very beginning is constituted as a functionalized body-subject by the all-consuming *non-personal* technological apparatuses of the postmodern economic order, the order of economism. Not so much the politics of the Althusserian “ideological state apparatuses” wielding the power of “interpellation” (see Althusser 1971 [1970]: 121–143, 163–169), but, rather, the *libidinal politics of productive consumption* constitutive of the postmodern is now the post-political process that accommodates the subject to the prevailing order, the disciplinary regime of neoliberal capitalism.

In this world, to conceive of oneself as a subject means an ability to voluntarily subordinate oneself to the “anonymous wisdom” that has “ordered everything” for the objectified subject (Marcuse 1941: 419; cf. Gandesha 2004: 188–197;
Where I Was, There The Machine Shall Be

Yanarella & Reid 1996; in terms of the postmodern, cf. Holliday & Hassard 2001). Here, technology as an omnipotent agency works like nature according to its irresistible laws, and the pleasure of the post-subject is to live in harmony with the second nature, the non-subjective realm of technology. Thus, not only the psychic structure and the moral self-perception of the subject, but, first of all, the technoscientifically in-formed and re-formed body are now adjusted to the system in which being a functional body-subject in its very constitution has become a part of the scientific-technological organization of life; a rationally organized body-machine system that constitutes the objective-subjective embodiment of the postmodern subject (cf. Hassard et al. 2000). As a consequence, to be a body is not just a pleasure, but a duty, of the post-subject, and, thus, in technoculture, more than ever, the body is the survival machine of the subject.

This is the imperative ruling the post-body of the post-subject: the internalized ethos of being a body as the very instrument in the ego-politics of survival; in other words, the body in its entirety has become, as Hayles (1999: 3) says, the “prosthesis” of the subject in a manner that implies a radical objectification of oneself.

This is the context of the phantasm of cybersex, the most avantgardist mode of postmodern “sex,” post-sex as a technological extension of the sexual in its hyper-form of prosthetic seduction, the “sexyness” of prosthetics in the phantasmagoric world of simulation and simulacra in terms of “the sexual” (cf. Baudrillard 1990g [1979]: 129–162, 1990f [1979], 1994a [1981]).

If the condition of possibility of the form of personality emblematic to the modern was characterized by Weber with the metaphor of the “iron cage,” the mode of the subject appropriate to the postmodern can be thematized with the idea of the “soft machine,” to apply here a figure used by David Porush (1985) in his seminal study of “cybernetic fiction”; that is, literary forms working according to the principles of cybernetics (cf. Wiener 1961 [1948], 1968 [1950]; Bukatman 1996 [1993]: 30–32; Holland 2001: 26–27; Graham 2002: 181–184; Featherstone & Burrows 1995b; Clarke & Henderson 2002; Yaszek 2002; Katz 2003).63

In reference to the idea elaborated by Porush, I read the “soft machine” as a figure that manifests both the body ideal and the ideal body of the post-subject as

63 Originally the idea of the “soft machine” comes from William S. Burroughs who in his novel The Soft Machine (1961) – similarly to his poetic odysseys in Naked Lunch (1959), The Ticket That Exploded (1962), Nova Express (1964) and The Wild Boys (1971) – explores the delirious reality created by his transgressive, highly avantgardist language. The question Porush (1985: x) considers in his study is “why is the image of a soft machine – a construction of part human and part machine [cf. Haraway 1985: 66] – so prevalent in postmodern fiction?” What he calls “cybernetic fiction” represents a genre in which, beside technocultural themes, the authors – for Porush so different writers as Raymond Roussel, Kurt Vonnegut, Jr., William S. Burroughs, Thomas Pynchon, John Barth, Samuel Beckett, Joseph McElroy and Donald Barthelme – focus on the “machinery or technology of their fiction, remaining uniquely conscious that their texts are constructed of words, that words are part of the larger machinery of language, and that language is shaped by the still larger machinery of their own consciousness and experience” (ibid.: 19). The idea, in short, is that the writer, text and reader constitute a kind of literary machine that functions like a cybernetic system, through self-reflexion and feedback (cf. Mikkonen 2001).
the precondition of subjectivity in a paradigmatic manner in postmodern technoculture. Instead of a strictly delimited and steadily maintained integrity of the modern subject, the post-subject – to emphasize, as an ideal – is fluid and flexible, constantly in flux, absolutely adaptable to the demands of global capital; in other words, in postmodern culture, as Mark Poster (1995: 90–91) says, “the subject as coherent, stable, rational center” pertinent to the modern is “refuted by heterogeneity, dispersion, instability, multiplicity” constitutive of the postmodern (cf. Case 1996: 204; Dunn 1998: 175–220). Instead of having a well-established, self-identical identity based on a self-conscious self as a solid personality, the post-subject is a soft entity, a compliant self for which the way to survive is to be a nomadic subject (cf. Braidotti 1994a; for the origin of the idea, see Deleuze & Guattari 2000 [1980]: 23–34, 53–54, 351–431, 474–500; cf. Bogue 1989: 90–95; Holland 1999: 36–39, 119–120; Elden 2006: 49–51), a self always ready to negate itself, to become a non-subject in its pure objectivity: the resurrection of the subject in the world of the “post” is a mode of subjectivity the embodiment of which is technology, a continuous process of technoscientific becoming.

But, as the leading theorist of postmodern nomadism, Rosi Braidotti (1994a: 36), says, nomadism “is not fluidity without borders,” it is rather “an acute awareness of the nonfixity of boundaries.” It is the intense desire to go on trespassing, transgressing. As a figuration of contemporary subjectivity, therefore, the nomad is a postmetaphysical, intensive, multiple entity, functioning in a net of interconnections. S/he cannot be reduced to a linear, teleological form of subjectivity but is rather the site of multiple connections. S/he is embodied, and therefore cultural; as an artifact, s/he is a technological compound of human and posthuman; s/he is complex, endowed with multiple capabilities for interconnectedness (ibid.; cf. Braidotti 2002, 2006; in the context of the “new barbarians,” cf. Hardt & Negri 2000: 210–218; in terms of postmodern theology, cf. Daniell 2002: 148–158).

In these terms, we are now living in a postmetaphysical world, in the “post-phallic’ era” (see Weber 1999; Barr 2000) of post-bodies in their continuous metamorphosis, the era of the cyborg in which the parameters of the subject are defined by nomadic cyborgism based on cyborgic nomadism (cf., for example, Chernaik 1999: 84–85; Poster 2002: 16–17). This is the mode of becoming of the post-subject. The post-subject does not ask, who am I? Instead, it is driven by the question, who or what can I become? Not so much the present as the future is the post-foundational condition of being of the post-subject as a continuous becoming. For this reason, the post-subject is a desiring subject through and through, a “desiring-machine” (Deleuze & Guattari 1998 [1972]) in the matrix of the body-machine complex of the postmodern.

But what is the machine here? It is a body-machine the driving mechanism of which is the Freudian “pleasure principle” in its heightened form, in the form of performance principle dominating all that is “post,” incorporated by the post-subject into its very corporeality, into the machinic assemblage that functions as its techno-body interfaced to the techno-imaginary world of technoculture.
by its technological extensions and amplifications, as its prosthetic augmentation and empowerment, in a configuration of desires and pleasures driven by the libidinal forces of the “post.” This is the post-body working as a multiple sex-machine, a machine producing consumption as its non-identitarian mode of libidinality in the economy of postmetaphysical desires and pleasures, and, accordingly, productively consuming “sex,” post-sex as libidinal phantasms in the form of “sexual” simulacra circulating in the imaginary world of productive consumption, the all-consuming phantasmagoria of the postmodern.

This is the body in the world of the “post”: a soft machine that functions – not in terms of functionality, but of heterogeneity – by the driving force of the liquid libido. This is the logic of the posthuman become “flesh,” the artificial “carnality” of the subject as an artefact produced by the body-machine complex of the postmodern.

Yet, a question arises as to whether the posthuman being as an endlessly malleable entity is a manifestation of the very instrumental reason analysed by Weber at his time, now even in a highly advanced, perhaps ultimate form. Indeed, in contemporary technoculture in which the “posthuman” is experienced, as Hayles (1993c: 34) says, as “an everyday lived reality as well as an intellectual proposition,” one is entitled to ask whether instrumental reason has become not only the guiding principle of science, but the very scientific-technological condition of possibility of the prevailing political economy of desire, and hence, of the libidinal imperative imposed on the subject by the postmodern “fit and fun” ethos pertinent to the neoliberal ego-politics, the ethos of neo-Fordism.

Accordingly, does this entail a Taylorization not only of desires and pleasures in general, but of the realm of the sexual in particular, implying a reversal of the Gramscian work discipline (see Gramsci 1971 [1936]: 297–305) turning sex – whatever it as such, in its various configurations, might be – into a duty of the postmodern subject?

The Rationality of “Anonymous Wisdom”

In this world in which the Weberian Entzauberung, a disenchantment based on the triumph of reason (see Weber 1995 [1917/1919]: 44), has already reached the innermost cellular structure of the human organism in the sense of biology as technology, the principle of the scientific-technological management of the corporeal penetrates the whole fabric of the body politic. In consequence, the “style of life” that, according to Weber, was “spiritually ‘adequate’” for the formation of modern capitalism (ibid.; cf. Schroeder 1992: 111–113, 153; for a discussion, see Schluchter 2009; in terms of the postmodern, cf. Gane 2002), has now turned into a modus vivendi typical of technoculture, a way of life appropriate to the “postmodern condition” celebrating the performativity of science and technology (see Lyotard 1984 [1979]; cf. Murphy 1989: 133–135; Bertens 1995: 111–137; McKenzie 2001: 155–172; McGuigan 2006 [1999]: 10–15; Best & Kellner 2001), and, accordingly, enforcing an appropriate performance of the subject.
Hence, what in the Weberian modern was a *stahlhartes Gehäuse*, an “iron cage,” has been replaced by a flexible, multifaceted and variable system of interfaces between the organic and the inorganic, functioning as the organizing sub-stratum of a postmodern hybrid self; a modifiable and adaptable form of subjectivity and agency being ready to conform to the demands of the scientific-technological regime of global capitalism ruled by the transnational financial markets for which, more than commodity production, it is the production of money in the form of shareholder value that is its first priority. This is the logic of global capitalism, the rule of the political economy of neoliberalism (see, for example, Dierckxsens 2000; Plehwe et al. 2006; Albritton et al. 2010; Liodakis 2010): we are living in a new world order in which the *economization of life according to the biopolitical imperative of technoscience* has resulted in a situation in which the value of life, as Melinda Cooper (2008) says, is “life as surplus.” In other words, life has value as far as it is usable as the biomaterial for capital, as *biomass* serving the financial interests of global capitalism.

This is the “Empire” postulated by Hardt and Negri (2000); an order of global capitalism in which, contrary to the utopian hopes of the authors pertaining to a counter-subject able to resist the power of capital, the intrinsic rationalism of capital has made the subject into an embodiment of reason, that is, an incorporation of systems rationality.

It is instructive, however, to see that while the flesh was the source of the moral panic from the early Christianity to the Weberian high capitalism, in the age of postmodern “biopower” (Foucault 1990: 138–145; cf. Rygjel 2006: 146–163; Nadesan 2008; Tyner 2009), all that in the old world was carnal has now been demystified under the dictates of the ultimate *Entzauberung*, a thorough scientification of life. No longer the Christian mortification of the flesh (see, for example, Weeks 1997a [1981]: 11; Porter & Teich 1994a: 9; Hawkes 2004: 42–60; Crawford 2007: 62–63) is at issue, instead, a scientific production and reproduction of all living matter as the raw material of artificial life; material that consists of microbiological structures and processes able to be manipulated and reworked by the life sciences, the very matrix of scientific-technological rationality in the postmodern (see, for example, Rose 2007: 27–54; Bauer & Wahlberg 2009; Clarke et al. 2010; from the historical perspective, see Thackray 1998).

In the postmodern, Foucauldian biopower – a discursive-political assemblage of disciplinary control of bodies and regulative policy of population – is implemented by the methods of technoscience (see, for example, Haraway 1997; Ihde & Selinger 2003; Burri & Dumit 2007; Mazis 2008).

Accordingly, a postmodern, scientifically managed self-design has replaced the care of the self pertinent to the moral order of the modern. That is, the subject as a liquid entity, as a post-moral – or, ideally, *amoral* – form of being without established and permanent limits has been substituted for the mode of subjectivity based on the Weberian ethos of utilitarianism, the guiding principle of the protestant ethic. Where there was once a subject that knew what to do,
there is now a subject that has to do what it does not know, since in the postmodern the final consequences of all subjective doing are always beyond personal knowledge, in the realm of scientific-technological reason constitutive of technoscience managed by a technocratic elite in charge of the implementation of biopower.

In this world, it is, in Marcuse’s (1941: 154) words, precisely the “anonymous wisdom” of a thoroughly rationalized societal order that always already has decided for the subject what the right thing to do is, “and perhaps for the better.” The task of the postmodern subject is not to realize itself, instead, all one has to do is to enjoy oneself by obeying the computer-generated algorithmic wisdom that constitutes the supreme intelligence of scientifically managed society. The only difference being, of course, that while, for Marcuse (2002 [1964]: 59–86; cf. Kellner 1984: 257–258; Abromeit & Cobb 2004), the systems rationality of the modern entailed oppression and suppression in the form of “repressive desublimation,” in contrast to that, instrumental reason has been elevated in the postmodern to a means of general life enhancement and intensification of individual well-being according to the demands of the technoscientific systems rationality specific to the political economy of neoliberalism, a mode of post-Marcusean “anonymous wisdom” in the sense of artificial intelligence: the prescient panopticon of the global world.

That is, today repression, both in the sense of Freudian Verdrängung (see Freud 1991b [1915]) and of Adorno-Horkheimerian instrumental reason (see Horkheimer & Adorno 1994 [1944]), does no longer make any sense. Instead, what we now have is pleasure thoroughly rationalized: the subject rationalized according to the pleasure principle of the postmodern is the best way to adapt it to a societal order in which the machine is the model of all being.
5.2 The Modernization of the Body as the Origin of Post-Sex

Intense pleasure in skill, machine skill, ceases to be a sin, but an aspect of embodiment. The machine is not an it to be animated, worshipped, and dominated. The machine is us, our processes, an aspect of our embodiment. We can be responsible for machines; they do not dominate or threaten us. We are responsible for boundaries; we are they.

(Haraway 1991a: 180)

Physiologically, man in the normal use of technology (or his variously extended body) is perpetually modified by it and in turn finds ever new ways of modifying his technology. Man becomes, as it were, the sex organs of the machine world, as the bee of the plant world, enabling it to fecundate and to evolve ever new forms. The machine world reciprocates man's love by expediting his wishes and desires, namely, in providing him with wealth.

(McLuhan 1964: 55–56)

What was there, in the old world, before the desires and pleasures constitutive of "next sex" (see Stocker & Schöpf 2000b; cf. Mey 2007: 146–158), the paradigm of post-sex as the postmetaphysical matrix of cybersex; that is, before the ascendancy of the discursive order of the "post" as the epistemo-ontological register of "sex" in the world of the cyborg? Before this postmodern paradigm of "sex" and "sexuality," all that was sexual was organized by the principles of the modern, in its pre-postmodern form: the societal formation of the high modern, the constellation of industrial society under the disciplinary regime of Fordism, a political system of economic rationalism in which the human being was defined in terms of the machine (see, for example, Harvey 1989: 125–140; Savage et al. 1995 [1992]: 59–61; Allen 1996: 281–303; Yanarella & Reid 1996: 182–183, 193–195; Jones 1997: 23–50; Lüthje 2004: 62–6; for the social consequences of Fordism implying thoroughly rationalized living conditions as "Taylored lives," see Banta 1993).

This is the disciplinary order of economism in the sense of modernization based on what came to be known as “managerial capitalism” constituting the welfare state in post-war America as the model of modern capitalism (for the origin of the term, see Marris [1964]; cf., for example, Kaen 2003: 11–16; Caire 2006: 88–90; Freyer 2007; Galbraith 2007 [1967]; in terms of the “managerial state,” cf. Clarke & Newman 1997); a biopolitical regime implemented in Western industrial societies since the 1950s. In this sense, to be and to have a body was redefined in a new order of the body politic in which not only production and consumption were organized according to the principles of the maximization of efficiency and profitability, but in which desires and pleasures were entirely integrated to the politics of economic rationality (cf. Marcuse 1941, 1987 [1955], 2002 [1964]); that is, a production system of intensified labour performance and heightened productivity in which economic and libidinal investments follow the same logic, the reason of capital (cf. Lyotard 1993a [1974]), and, accordingly, in which the human body is thoroughly economized as the source of sur-

It is in this order that sex finally turns into post-sex, “sex” determined by the commodity form, “sex” as its own simulation manifesting the logic of productive consumption. In other words, the “spirit of capitalism” (Weber 1993 [1904–1905]) takes over all spheres of life, from science to religion, from basic education to sports, from art and culture to health and social policy, and, as a result, like everything else, sexual desires and pleasures become integrated into the circulation of capital; that is, “the sexual” turns into an essential factor of production. As Tony Blackshaw (2008: 118–122, 130–132), referring to Zygmunt Bauman’s idea of “liquid modernity,” characterizes the living conditions under the regime of capital: we lead “market-mediated life” to the extent that “with the advent of postmodern consumer society, capitalism becomes so pervasive that there is nothing left that is not commodifiable” (ibid.: 131). It is in this economic constellation that what Mike Featherstone (1991b: 171–174, 186–187) designates as “calculating hedonism” constitutes the driving force not only of the body politics of individual subjects on the markets of desires and pleasures, but, more fundamentally, the very functionality, the modus operandi, of the body politic becomes transformed into the management of market society under the imperative of economism (in terms of the management of the subject and managerial subjectivity, see, for example, du Gay 1996a, 1996b; Hancock & Tyler 2001, 2009; Tyler 2004; for “the sportive-dynamic body as a symbol of productivity,” see Hoberman 1994).

5.2.1 “Love-Goddesses” from the “Assembly Line”

What is important here is that capital has its own intrinsic logic that originates in the logic of money, which, in turn, is a materialization of desire, the “psychic energy” driving Western culture forward, a cultural formation in which, seen historically, monetary transactions and financial interests have always defined the human value in the last analysis, behind the scenes of Christian humanism. In these terms, money and sex have the same origin, the relentless and insatiable power of desire. “In God We Trust,” proclaims the American dollar; in other words, capital is our religion. Just as “more” is the divine ethos of money, unending accumulation is the logic of capital. Thus, in the logic of capital, according to Bill Livant (1989), consumption and cannibalism are mutually related in a manner that is constitutive of consumer society, first initiated by American capitalism. As Livant writes, analyzing what he calls the “Imperial Cannibal” peculiar to American culture:

There is something about money which appears to devour everything. And we members of consumer culture can never get enough; appetite for it seems insatiable. This dissatisfaction in personal consumption reflects a particular form in which money exists, a form in which by its very nature it can never eat enough, in which it inherently must be perpetually dissatisfied. And that is Capital. Capital
is the commodity which embodies the passion for more and only more. In the culture of capitalism, consumer culture, the various commodities for personal consumption mediate the insatiable appetite of capital. Personal consumption tends to be driven by capital, not simply into continual variation but continual accumulation of commodities, which mirrors in personal consumption the accumulation of capital. And so what we call a consumer society seems more to resemble a consumed one. (ibid.: 34; cf. Waldby 1998; Nelson 2002 [1999])

All-consuming consumption, that is, what I call an enforced dissatisfaction as the driving force of postmodern capitalism under the power of self-proliferating capital as an abstract commodity that in itself works in the mode of desire – that is the connection between sex and capital, a thoroughly rationalized sexual economy based on market exchange: sexual desires and pleasures determined by the imperative of economism; that is, the logic of the political economy of neoliberalism.

What Has Sex to Do with Cybernetics?

This is the origin of modern sex as the deep structure of postmodern sex, the logic of the paradigm of post-sex, “sex” as a manifestation of the commodity form. In other words, sex as the hard core of the psychophysics of capital constitutive of Western culture in its American form. It is in this context that the Taylorization of the libido manifests the Americanization of desires and pleasures; that is, a thorough sexualization of culture by means of the all-embracing commodification of the body in the economic order of productive consumption under the disciplinary regime of neo-Fordism (cf. D’Emilio & Freedman 1997 [1988]: 239–343; Turner 1997 [1984]: 46–59; Brewis & Linstead 2000: 206–212; Mitchell 2000: 171–198; Hawkes 2004: 21–23, 147–148; Schur 1989; Rousseau 1999; Fessenden et al. 2001; Reis 2001; Bailey 2006).

As the most developed instantiation, in fact, the Ur-model, of this new order of the body politic, American society produced a highly modern consumer culture in the 1950s; a cultural formation based on the newly achieved prosperity and affluence resulting from the economic boom launched by the Korean war (see, for example, Patterson 1997: 311–320; Woods 2005: 121–122; Dunar 2006: 167–202), which, in turn, was based on the enormous production capacity of the American military production that enabled the American war effort as the decisive factor contributing to the Allied victory in the Second World War (for an overview, see Overy 2012 [1996]).

In these circumstances, the female body, similarly to the automobile, became a spectacular object of libidinal investments integrally intertwining the economic and the sexual as a manifestation of commodity fetishism (see, for example, Stratton 1996: 153–155; Schutzman 1999: 15, 128–133; Apter 1991; Apter & Pietz 1993 [1991]; Miklitsch 1998; Fernbach 2002; for a detailed history of American body culture 1945–1960, see Brandt 2007; in terms of the “sex goddess,” see Jordan 2009; from the perspective of the “body myth,” cf. Maine & Kelly 2005). Thus, “[b]y the mid-twentieth century,” “the female body as sexual symbol per-
meated American popular culture,” leading to “the commodification of sexual images,” to a “growing market of sexual spectacle,” and finally to a “new code of mass-produced sexual display” (Meyerowitz 2004: 324).

As a consequence, “the sexual” in the form of “sex appeal” became the most important immaterial product, the engine of economic growth, the driving force of progress, the emblem of wealth and fortune in the America of the 1950s (cf. Hall 2005: 41; Black 2006: 200–203; Steigerwald 2008: 58–59).

This is the world in which plain sex, as the hard core of post-sex, was originally invented; a world in which personal success, redefined in terms of “sex appeal,” was organized as the key to national prosperity: a world in which sex and capital penetrated one another in an inextricable manner, and thereby, as the reverse side of productive functionalism constitutive of capitalism, brought about the form of sexual reason that I call the sexual utilitarianism of the modern as the historical precondition of the sexual rationalism of the postmodern (in a broad historical perspective, cf. Owen 1994: 182–188; in the context of Fordism as the apotheosis of “Americanism,” cf. Gramsci 1971 [1934]: 296–305; in terms of the postmodern, cf. Baudrillard 1990g [1979]: 129–130). In this constellation, sexual performance was rationalized as an integral part of market-mediated society, even as a driving force of commodification, as a result of which, “sex,” in the sense of “sex appeal,” in addition to being a commodity form in itself, became an essential marketing factor giving a spectacular aura to other commodities. In this manner, as a specific modern mode of excitement, commodified sexual arousal, “sex” was functionalized according to the principles of market rationalism as an intrinsic component of the reason of capital, the logic of relentless proliferation and accumulation inscribed in surplus value, the highest value of capitalism.

In these terms, what is constitutive of American capitalism as the paradigmatic protoform of contemporary capitalism in general is that its modus operandi is based on a thoroughly rationalized form of libidinal economy (cf. Lyotard 1993a [1974]) in which the production and consumption of desires and pleasures are interrelated in a complicated manner within the mutual dynamics of sex and capital.

“Sex appeal” – the genuinely American form of the sexual, one of the greatest American inventions along with (in a historical lineage) the assembly line, the Ford Model T, the atomic bomb, the military-industrial complex, the personal computer, the Internet and, last but not least, everything that is “cyber” – was as important a growth factor in the America of the 1950s, epitomizing a prototypically modern society based on the Taylorized organization of industry and economy, scientific product design, marketing and advertising, and all-encompassing popular culture comprising Hollywood, television and industrialized music production (for a comprehensive overview, see Halliwell 2007; cf., for example, Angus & Jhally 1989; Campbell & Kean 1997; De Victoria 2005; in terms of “American genesis,” see Hughes 2004a [1989]). This is the economic, political and cultural context in which the deployment of “sex appeal,” parallel
to the commodity form as the functional principle and the rationale of consumer culture, resulted in the specific American conception of the body as the vehicle of the self, human corporeality as the true expression of “personality” in general, manifested in the most spectacular way by the celebrity cult, and its apotheosis, the star system (see, for example, Harrington & Biely 2001; Redmond & Holmes 2007; in terms of Madonna as a postmodern “parody” of American sex, celebrity and stardom, cf. Guilbert 2002: 148–185).

This is the social-cultural matrix in which “the sexual" became a highly esteemed value in human relations in the America of the 1950s, a value comparable to the value of surplus value – paradoxically, in the midst of puritanism, prudery and sexual panic characteristic of American mentality (see Rousseau 1999; from a historical perspective, see Pivar 1973; Haller & Haller 1974; Sokolow 1983; Fessenden et al. 2001b).64

That is, Playboy could only have been invented in America, in a culture in which sex and capital live in an extremely productive cohabitation (cf. Preciado 2004; Fraterrigo 2009).

This is the order of things in which “sex appeal” turned into a universal quality: to be “sexy" is an American idiom implemented today all over the world as a result of globalization.

For the reasons outlined above, one should never forget that like cybernetics, sex is an American invention. In a world in which life in its entirety is a scientific-technological project, and in which the machine is the measure of the human being, the sexual follows the logic of cybernetics, the logic of rationality and reliable performance, guided by teleological predictability, input/output efficiency and the calculability of all subsidiary functions of the society as a whole, all under the principle of feedback, the very idea of control (see Wiener 1961 [1948], 1968 [1950]; Heims 1993 [1991]; cf. Masters & Johnson 1966). Like cybernetics, American sex is an embodiment of reason, an incorporation of the ideal of scientific-technological rationality manifested by the machine as the modern form of organism (cf. Canguilhem 1992 [1952]; Gane 2003: 130–136; Fraser & Greco 2005a: 9–35). In this sense, American sex is the reverse side of American work efficiency; work not only as the source of economic value, but as the very

64 What George Rousseau (1999) calls “erotophobia” has already a long tradition in American culture. From the very beginning, from the “Founding Fathers” and the time of colonies onwards, the American way of life has been dominated by a peculiar propriety in sexual matters turned into prudery; a puritan mind-set based on religious morality, according to which a respectable American citizen is a person who, in his or her speech and behaviour, obeys the rules of purity, decency and chastity, and avoids filthiness, defilement and bawdiness, in a word, obscenity. Hence, in American culture, a common denominator for all that is “impure” has been “the sexual” (whatever it as such has been), manifested not only by “smut” and “dirt" understood as “pornographic," but by words and deeds that have been interpreted as lustful, lascivious and voluptuous, that is; experiences and expressions of sex and sexuality. Paradoxically, American liberty, liberalty and liberalism, the ideas of freedom, have always, from the very beginning, implied an intolerance against and a fear of libertinage seen as libertinism that was part of the hard core of the Enlightenment (for a historical overview, see Darnton 1994, 1996, 2002). This is the American version of “Victorianism” (see, for example, Pivar 1973; Sokolow 1983; Schur 1988; Seidman 1992; Fessenden et al. 2001).
basis for the construction of the self: “body work” (Gimlin 2002) as the work on oneself is thus the work of the working body to become a subject of itself as “a body” that is “one’s own self” (cf. Blood 2005): a body that is the medium and the vehicle of the promotion of the self, the most valuable expedient and agency in the service of the ego-politics of the subject.

In these terms, the “self-made man” is an all-American ideal – like sex, a true embodiment of American values: a mode of being a subject as an embodiment of everyday ethos according to which my way is the American way (cf., for example, Tyson 2006: 301–316; Decker 1997).

Accordingly, in highly rationalized American culture, as it came into being in the 1950s and the 1960s, in which the modernization of the body was – as it is today more than ever, although now under the sign of the postmodern – a national endeavour, it is understandable that the invention of the cyborg, as the ideational and ideal model of being a body in the constellation of technoculture, finally became not only possible but necessary. There is no cyborg without the American mode of the sexual: the sexual as a manifestation of reason. In the America of the 1950s, sex became the emblem of the modern, the symbol of the appropriate performance: the idea of the body as a machine (cf. Canguilhem 1992: 63; Rabinbach 1990; Armstrong 1998; Wosk 2003; Kurzweil 1990, 1999, 2005); the body as a thoroughly rationalized performative apparatus in both senses of the notion: as a highly disciplined instrument of work performance and a psycho-physically conditioned body-subject capable of attractive self-presentation according to the rules of prevailing conformity, the all-encompassing societal ideology of Americanism (see, for example, Kazin & McCartin 2006; for Americanism as “the fourth great Western religion,” see Gelernter 2007; from the perspective of anti-Americanism, see, for example, Ross & Ross 2004).65

Behaviorism and the “Love Machine”

This was a world in which the female body was not yet a Harawayan cyborg body, but nevertheless, it was a scientific-technological designer body, an industrial product, representing the streamlined efficiency of modern technocratic society, the ideals of reliability, uniformity and interchangeability based on the productivist principles of Taylorism and Fordism, the regime of “scientific management” (see, for example, Smith 1993: 15–56; Rupert 1995: 59–82; Guillén 2007: 5–11; Cooper 1990 [1981]; in terms of post-Fordism, cf. Gilman 2006: 118–130). The female body, like the male body in body building, became a personal project, a prop-

65 It is not a coincidence that Erving Goffman (1959) (although a Canadian), with his 1959 bestseller The Presentation of Self in Everyday Life, came to crystallize the Zeitgeist of American culture in the 1960s. Goffman’s idea that in their “normal” mode of behaviour people, in fact, were engaged in an elaborate “theatre,” preferred to define their very “identity” in human relations by gestures and words that unnoticeably mixed a “genuine person” with a “role.” In short, intentionally or not, it makes no difference, Goffman was able to accurately describe the artificial “personhood,” the way of conformist behaviour, elevated to the model of the ordinary citizen in American culture brought about by the highly rationalized, scientifically and technologically organized societal order constitutive of modernization carried through in post-Second World War America.
erty, an economic-libidinal investment, a personal asset as one’s own “capital.” In this cultural constellation, to be woman implied being both a model for self-construction and its successful implementation: the self conceived of in terms of the machine, the body-machine of the rational subject. In this sense, the female body was a Butlerian performative body *avant la lettre* (cf. Butler 1990, 1993; McKenzie 2001) in a culture in which body management was a manifestation of the ethos of modernization; that is, in the America of the 1950s and the 1960s, the striving for a perfect instantiation of the gendered body was a discursive effect reflecting the prevailing societal order: *the body as an embodiment of capital*.

To get all this in a perspicuous perspective, it was needed, ironically, a Canadian professor of English literature, Marshall McLuhan, a contradictory personality in a genuinely modern manner, a proto-postmodernist at home in the world both of Catholic thought and the subversive radicalism of Wyndham Lewis, Ezra Pound and James Joyce (see, for example, Marchand 1989; Gordon 1997; Theall 2001; Cavell 2003; Marchessault 2005a), who already in the 1940s clearly saw how American female bodies were made, in fact, produced, by the methods of commodity production. McLuhan, a witty and open-minded scholar intrigued by American culture as the most dynamic expression of the spirit constitutive of modern capitalism, published a book entitled *The Mechanical Bride: Folklore of Industrial Man* (see McLuhan 2002 [1951]) at the beginning of the 1950s, an all-time source book of the American way of life (comparable to Leary’s *Chaos & Cyber Culture* as the compendium of psyche/cyberdelic “counterculture” of the 1990s), reflecting the amazing world of popular culture, the truly American mode of culture in general: a world in a process of turning into the ultimate ideal of itself, into the reality of utopia, that is, a Disneyland come true in its very essence (see Baudrillard 1988a [1986]: 75–105, 1994a [1981]: 12–13; cf. Perry 1998: 69–70, 78–80).67

66 As Donald F. Theall (2001: 22) sums up “McLuhan’s schizoid approach to his world” as an approach that is even generally significant “in typifying the split-person of the twentieth century”: not only “the division between the new technoculture and ‘Culture’ (‘high’ culture),” but also “the division between a traditional, pietistic Catholicism and a fascination with the Nietzschean abyss as well as the split between a commitment to the basically reactionary poetics of Wyndham Lewis and Ezra Pound and a transgressive attraction to the seriocomically rebellious, carnivalesque, and ‘patently offensive’ ‘pornographic’ wit of James Joyce.” Thus, McLuhan was a contradictory personality who, although “disturbed by the genuine (to borrow a ‘joycing’ from the Wake) ‘ambivio-lence’ of the intellectual in the modern world, nevertheless was able to understand intuitively the radical power of communications technology in transforming a person’s lifeworld in an era when most people were preoccupied with the atom bomb, the Cold War, and later the war in Vietnam” (ibid.; cf. Cavell 2003: 101–135; Marcassault 2005: 35–41).

67 The point is that, according to Baudrillard, it is Disneyland that is the real America; in other words, it is now America in itself that has turned into a Disneyland. “Thus, everywhere in Disneyland the objective profile of America, down to the morphology of individuals and of the crowd, is drawn. All its values are exalted by the miniature and the comic strip, Embalmed and pacified.” (Baudrillard 1994a [1981]: 12) That is, America paradigmatically exemplifies the “simulation of the third order,” and, therefore, “Disneyland exists in order to hide that it is the ‘real’ America that is Disneyland” (ibid.): “Disneyland is presented as imaginary in order to make us believe that the rest is real, whereas all of Los Angeles and the America that surrounds it are no longer real, but belong to the hyperreal order and to the order of simulation” (ibid.). What is important here is that it is no longer “a question of a false representation of reality (ideology) but of concealing the fact that the real is no longer real,” and, paradoxically, “thus of saving the reality principle” (ibid.: 13).
Thus, what is at issue here is a new epistemology established by American capitalism: the epistemology of the postmodern, the reality principle of the “post”: what is real is hyperreal, and what is hyperreal is simulation – that is the epistemological order of postmodern capitalism in its American genealogy, the genealogy of global capitalism; in Jameson’s (1991: 5) words, “this whole global, yet American, postmodern culture is the internal and superstructural expression of a whole new wave of American military and economic domination throughout the world: in this sense, as throughout class history, the underside of culture is blood, torture, death, and terror” (cf. Leitch 1996: 125; Gray 2001: 16; Buchanan 2006: 79; Bibby 2000; in Baudrillardian terms, cf. Baudrillard 1988a [1986], 1994a [1981]; Genosko 1994a: 41–54, 117–137, 157–158).

All this, of course, already began before the postmodern, in the 1950s, in the America of the economic boom prevailing in the aftermath of the Korean War. In this constellation of growing affluence, the female body became a test laboratory of the modern, the body as an object of radical economization in terms of Fordism (cf. Gramsci 1971 [1934]: 279–313; cf. Clarke 2007: 45–51; Denning 2009: 72–79). While Henry Ford (2006 [1922]: 180) deemed that “a business is men and machines united in the production of commodity, and both the man and machines need repairs and replacements,” in post-war America, female bodies were taken as products in themselves. As the title of McLuhan’s book – in a hilarious post-Duchampian manner, as a reference to Duchamp’s enigmatic work The Bride Stripped Bare by Her Bachelors, Even (1915–1923) (for a detailed close reading see, Henderson 1998: 71–206; cf. Schwarz 1989: 55–57; Zabel 2004: 27–37; Ramírez 1998; in terms of digital culture, cf. Flanagan 2004: 155–163) – indicates, the figure of the female body turns into a mechanical construct in a world in which the cultural imaginary is dominated by masculine fantasies, embodied by the modern type of being human, the “industrial man,” with all its gender connotations (for a contextualization of McLuhan’s idea, see Marchand 1989: 80–110; Lupton 1993: 7–12; Theall 2001: 190–193; Cavell 2003: 31–48).

Fig. 77. Five decades after Marshall McLuhan’s media visions in the 1960s, we are more than ever living in a McLuhanian century: the place of the television screen has now been taken over by the computer display with its multiple derivations; an imaginary space in which we can enjoy the millennial saga of “new media” (whatever they happen to be). More than ever before, “the medium is the message” in “the global village” of computer networks, digital information and ubiquitous communication. And more than ever, this is an age of “cool media,” an era ruled by the logic of mediatic omnipresence, the imperative of inescapable inclusion, involvement and interaction, an era of total immersion.

This is the era of a post-McLuhanian “gadget lover,” the era of postmodern “Narcissus,” a world living under the spell of “narcotic culture” in which each and everyone is “impelled to extend various parts of his body by a kind of autoamputation” (McLuhan 1964: 51–52). Continually externalizing ourselves, we enjoy the ever-expanding maze of self-replicating and self-reflecting media as our “central nervous system” (ibid.: 53). In the ecstasy of millennial mediatism, interfacing is the face of the time. This is the New Age of face-to-face communication in telespace in which “we wear all mankind as our skin” (ibid.: 56; cf. Levinson 1999; Theall 2001; Cavell 2003, 2010; Marchessault 2005a).
In the title essay, “The Mechanical Bride,” McLuhan (2002: 98) embarks upon an analysis of what he sees, in American popular culture, as a “dominant pattern composed of sex and technology,” embodied, for example, by female legs as a symbol of rational design, life management and calculated career. “To the mind of the modern girl, legs, like busts, are power points which she has been taught to tailor, but as parts of the success kit rather than erotically or sensuously”; in this sense, American legs are “merely display objects like the grill work on a car” (ibid.). “A car plus a well-filled pair ofnylons is a recognized formula for both feminine and male success and happiness” (ibid.); a formula dissected into its constituent parts by McLuhan, as shown in the advertisements fornylons, a selling strategy that by disintegrating and fragmenting the female body objectifies it, turns it into a technological product (cf. Kroker & Kroker 1988c: 20–33; Caputi 2004: 230–238; Berger 2005: 90–97; Marchessault 2005b: 169–178; in comparison to Villiers de l’Isle-Adam’s L’Ève future, cf. Mikkonen 2001: 149–183; Kelly 2007: 125–152; Kang 2001: 243–246; Hustvedt 1998; Lindauer 2008).

Industrially designed female legs as a *pars pro toto*, as the very paragon, of scientific-technological body management – that is an admirable achievement of instrumental reason (for the idea, see Horkheimer 1967 [1947]; Horkheimer & Adorno 1994 [1944]; cf. Theunissen 1994 [1969]) enabling a society in which the atomic bomb and nuclear weapons are the highest form of scientific-technological rationality. The working methods of both laboratory and research and design departments typical of American industrial enterprises, intertwined with the principles of scientific rationalization of production lines and behaviouristic marketing psychology, all that driven forward by the ethos of progress and success, and finally leading to a pervasive fetishization and reification of the female body as a cultural dream object – that is a world in which, as the advertisement posters analysed by McLuhan declare, “a long-legged gal can go places” – provided that she has “Phantom Pencil Seam Nylons” (McLuhan 2002: 98).

Ads like these not only express but also encourage that strange dissociation of sex not only from the human person but even from the unity of the body. This visual and not particularly voluptuous character of commercially sponsored glamour is perhaps what gives it so heavy a narcissistic quality. The brittle, self-conscious pose of the mannequin suggests the activities of competitive display rather than spontaneous sensuality. And the smartly turned-out girl walks and behaves like a being who sees herself as a slick object rather than is aware of herself as a person. (ibid.: 99; emphasis mine; Cavell 2003: 92–93)

This kind of sexualization of women’s legs as mechanical, machine-like parts in a cultural constellation in which “human engineering” (see, for example, McCormick 1957; Lenihan 1975; for a classic study, see Korzybski 1921; cf. Boggs 1993: 82–83; Henthorn 2006: 8–9, 49; Clarke 2007: 45–47), in fact, means a constant re-engineering of all the parameters of being woman by becoming the embodiment of “the woman” as the condition of successful life (cf. Beauvoir 1972 [1949]), functionalizes female sexuality in its entirety into a construction element of modern technological society, the all-embracing ideal of Ameri-
can culture (see, for example, Green 1968 [1952]: 122–123; Pursell 1995: 203–250, 299–320; Segal 2005 [1985]: 98–140; Nye 1996; Noble 1997; Galison 2001; Hughes 2004a [1989]). That is, the female body as a standardized scientific-technological product, a rationalized body-machine, turned into a constitutive component of American capitalism in the 1950s and the 1960s. This is a rational society in its highest form, a society in which the reason of economism is the measure of all things, a “perfect society” in which utopia has finally become reality as the ultimate result of the Enlightenment project (see Horkheimer & Adorno 1994 [1944]; cf. Baudrillard 1988a [1986]; Marcuse 2002 [1964]).

All this, of course, had consequences, also at the micro-level of individual identity; as McLuhan explains in reference to female sexuality:

> When sex later becomes a personal actuality, the established feminine pattern of sex as an instrument of power, in an industrial and consumer contest, is a liability. The switch-over from competitive display to personal affection is not easy for a girl. *Her mannequin past is in the way.* (McLuhan 2002: 99; emphasis mine)

A complete internalizing of the mannequin (cf. Hegener 1992), a becoming a perfect embodiment of the prevalent rationality, the incorporation of the reason of the machine – that is the condition of possibility of being “woman” in a society in which, according to Marcuse (1941: 419), the subordination of one’s “spontaneity to the anonymous wisdom” of the ruling system is the premise of personal happiness.
The rationally organized design and management of female sexuality shows the streamline logic of what McLuhan (2002: 99) aptly calls "abstract sex," implying a rationalized order of the sexual in which "sex has been exaggerated by getting hooked to the mechanisms of the market and the impersonal techniques of industrial production" (ibid.; cf. Harvey 2006; for the idea of "abstract sex" in terms of the posthuman, cf. Melzer 2006: 188–191; Waters 2006: 36–37;
In this constellation, the human body turns into a “sort of love machine capable merely of specific thrills,” manifesting an “extremely behavioristic view of sex, which reduces sexual experience to a problem in mechanics and hygiene” (McLuhan 2002: 99; emphasis mine). Thus, “[i]n the era of thinking machines, it would be surprising, indeed, if the love machine were not thought as well” (ibid.; cf. McLuhan 1995 [1969]: 253; Genosko 1999: 28; Saenz 1992; in terms of experimental cybernetics, cf. Hayward 2001).

This is the logical conclusion of a systems rationality that transforms the female into the “mechanical bride,” a “sex machine” embodying the reason of capital (cf. Marchessault 2005a: 45–83).

“What Makes a Gal a Good Number?”

It is in this world, illuminatingly analysed by McLuhan, that the idea of the cyborg as the model of the female body in the disciplinary order of the postmodern modernization of society and culture under the imperative of technoscience becomes intelligible (the real world of commodity form of which “cyberfeminism,” dazzled by the fascinating figures of its own post-theoretical puppet plays, has nothing to say).

In a chapter, entitled “Love-Goddessess Assembly Line,” characteristic of McLuhan’s style to compress complex interrelations of things into a concise formula expressing the essential of an issue under consideration, McLuhan (2002: 93), referring, among other things, to “[t]he voice of the lab” as a decisive factor with regard to the “rapid changes of erotic styles,” poses a question concerning the increasing pressure of industrial body modification: “Can the feminine body keep pace with the demands of the textile industry?” To demonstrate this pressure, McLuhan analyses two marketing visualizations, an “Ivory Flakes” advertisement as a part of a campaign promoting a detergent which is promised to make “a gal a good number,” and an underwear advertisement “Nature’s Rival,” featuring a new type of corset, “Four-in-one proportioned girdles,” which, taken together, will “practically engirdle the globe of the interests of industrial man” (ibid.: 93; emphasis mine), the living conditions of the “industrial man” of the re-modernized industrial society of postwar America as the paradigmatic model of affluent society (cf., for example, Meadows 1950; Kerr et al. 1960; Drucker 2002 [1942]; for a contextualization, see Lichtenstein 2006; for a thorough critique, see Marcuse 1941, 2002 [1964]).

“When Bergson first introduced his philosophy of flux and élan vital to Paris,” McLuhan (2002: 93) explains the idea of his approach to American industrial culture, a “wit is reported to have said that ‘Bergson has put a corset around the Absolute.’” According to McLuhan’s conclusion, “[w]e expect rather less of philosophy today, since we are content to regard as the Absolute whatever corsets and bras embrace” (ibid.; emphasis mine); that is, in the culture of the “industrial man,” female bodies are the manifestation of the “Absolute,” provided, of course, that they are products of industrial design. In this respect, sci-
ence and technology are now the matrix in which female bodies are reborn, in fact, born in the sense of scientific-technological body production organized by the assembly line.

As McLuhan points out, he has taken these ads as examples of the industrialization of the female body:

because of their insistence on technique and also because of the special technique they employ. The “good number” item is presented in an X-ray method familiar to motorcar engine displays of “working models.” For a while the same ad carried the caption: “What’s the trick that makes her click?” “Nature’s Rival,” by its shadow technique, evokes the aura of science and intercellular photography. (ibid.)

In other words, in these advertising pictures, being iconic images of American industrial-commercial culture, three technologies combine with one another: firstly, the textile industry, driven by market research and fashion cycles, as the machinery manufacturing women’s underwear that functions as cultural “corsets” into which female bodies are pressed to be female bodies at all according to the prevailing model; secondly, the display methods of modern advertising in which the female body is presented as a machinic assemblage, corresponding machines, motors and engines of everyday life; and, thirdly, not the least, the large-scale industrial enterprise consisting of fashion, cosmetic and medical industries developing ever-new means to technologize the female body, to make the body design of women ever-more sophisticated: the female body as a scientific-technological design object integrated to the body-machine complex of modern capitalism (cf. Turner 1997 [1984]: 44–59; Capo 2007: 29–30; Swenson 2010: 137–142; Berr 1988; Brueggemann 2000; in terms of the “plastic bodies” of the postmodern, cf. Bordo 1995 [1993]: 245–275; from the perspective of the posthuman, cf. Toffoletti 2007: 64–72; in the context of Walter Benjamin’s “Arcades Project,” cf. Leslie 2006: 94–106; for various female body models, see Goldstein 1991).

These female bodies, as technologically produced embodiments of ideal bodies appropriate to modern industrial capitalism manifesting the fantasies of the “industrial man,” these thoroughly industrialized body-machines as the body models of American women, incorporating pure femininity as a market product in itself, are, indeed, as McLuhan indicates in the title of his essay, “love-goddesses” from “assembly line” (cf. Faurshou 1988: 82–83; Dery 1996: 192–197; Redfield 2007: 151–156; Wilson & Laennec 1997). Here we can see how “sex appeal” functions in practice: the purported overwhelming attractiveness of female bodies, their rationalized enactment as machinic assemblages, the entire industrialization of being woman in the sense of a model body as a design object epitomizing the ideal of “the feminine” is a product of scientifically-technologically organized way of life in the wonder-land of unlimited possibilities. In this constellation of modern capitalism, it is precisely sex, the potentially subversive counter-force of instrumental rationality that is the driving force of a society based on rational control.
That is, instead of manifesting the subversive potential of the sexual, the American model of rationalized sex embraces sexual desires and pleasures as a realm of corporeality that is *subservient* to the reason of capital; a mode of being a body that conforms to the logic of the commodity form.

In a genuine American manner, this is a scientific approach in order to provide an adequate answer to a question posed by one of the advertisements analysed by McLuhan: “What makes a gal a good number?” Here, the sexual and the technological are already integrated into the symbiosis characteristic of American culture – the culture of mechanization, industrialization and commodification, driven to its logical conclusion: the cult of the machine as the very *raison d'être* of production and consumption in the economic order of Fordism; the machine as the epitome of a standardized assemblage of standardized parts, the body-machine as the standardized form of behaviour constitutive of the modernization of American culture in the 1950s and 1960s; a cultural formation that, along with the rise of the postmodern, has become a global model of modernization (see, for example, Harvey 1989: 121–197; Bertens 1995: 223–227; Jessop 2007: 110–117; Zeitlin & Herrigel 2004 [2000];
from the historical perspective, see Giedion 1948; Marx 1970 (1964); Rabinbach 1990).

In this context, the modernization of sex and sexuality as a constitutive part of the rationalization of the body is conceived of in terms of the machine as it is seen in American culture, as the very model of all being. As McLuhan points out:

These two ads help us to see one of the most peculiar features of our world – the interfusion of sex and technology. It is not a feature created by the ad men, but it seems rather to be born of a hungry curiosity to explore and enlarge the domain of sex by mechanical technique, on one hand, and, on the other, to possess machines in a sexually gratifying way. (McLuhan 2002: 94; emphasis mine).

In other words, the ideal bodies deployed and displayed by marketing strategies suggest a new age of scientific-technological body management that, in the rapidly developing industrial culture of the America of the 1950s, implies not only the idea of enhancing the chances of women in the struggle for success and personal happiness, but also of liberating them from the constraints of nature by remodelling their corporeal habitus, their very bodily presence, by industrial-technical means. In this context, the female body is an embodiment of the rationality peculiar to the modern: the logic of serial production, standardization and efficiency, the imperative of streamlined life (cf., for example, Mulvey 1996: 47–49; Fry 1999: 105–146, 171–204; Noble 1979 [1977]; Cogdell 2004). In the mode of machine culture, female underwear is designed to “really give control with comfort at and below the waist line,” as the “Nature’s Rival” ad asserts (McLuhan 2002: 94); that is, by engirdling her body with these achievements of scientific-technological body design a woman can enjoy the pleasure of rebirth – the pleasure of becoming a “love-goddess” from the “assembly line.”

This is the origin not only of the comprehensive scientific-technological body design constitutive of contemporary body management as the body politics of the postmodern in terms of the psychophysics of capital, but also of the idea that “sex times technology equals the future” (Ballard in Springer 1996: 50).

What in the America of the 1950s and 1960s implied a sexualization of technology under the sign of “sex appeal,” the emblem of the politics of the commodity form, turned into the phantasm of the technologization of sexuality in the imaginary order of postmodern capitalism, exemplified most spectacularly by the idea of cybersex.

5.2.2 “Gadget Lover” and “Spinning Jenny”

If McLuhan’s observations of the industrial-technological redesign and reorganization of the female body, its sensual and corporeal reconstitution, and its seamless integration into the American “body-machine complex” (Seltzer 1992b), was, at the beginning of the 1950s, a close-reading of the dynamics of the continuous modernization characteristic of the American enterprise, fifteen years later the publication of his Understanding Media: The Extensions of Man
Where I Was, There the Machine Shall Be

(see McLuhan 1964) presented a comprehensive theory of an epochal break, the coming into being of an entirely new era that McLuhan called the “electric age” in which “we wear all mankind as our skin” (ibid.: 56).

A tremendous transformation, indeed: if, in the 1950s, the female body was a laboratory of industrial culture, only a decade later the human body in its entirety, as a scientific-technological product, had become, from the perspective of the American way of life, an object of scientific-technological redesign (see, for example, Lowe 1995; Rail 1998b; Zita 1998; Johnston 2001b; Pronger 2002; Gimlin 2002; de la Peña 2005; Brandt 2007; Magdalinski 2009), and in the end, during the following decades, a utopian project of transforming everything that is human into a posthuman being, a being for which, as Hayles (1999: 3) says, the body is the “original prosthesis” (cf., for example, Kurtz 2002: 115–118; Mitchell & Thurtle 2002: 4–6; Waters 2006: 41–45; Manning 2007: 155–158; Dyens 2001; Lischka & Sick 2007), finally resulting in the technologically enhanced and modified post-subject, a prosthetic body-machine assemblage, the cyborg, living in a world in which prosthesis has become “a fundamental category for understanding our most intimate selves” (Haraway 1991f: 249).

Towards the Post-Subject: The Desire for Self-Amputation

What is important here is that in the 1950s and 1960s, when this transformation began to take on the dimensions we can observe in the contemporary world, the cultural change was not only about rational body management. According to McLuhan (1964), what was now at issue was a radical redesign of the body and its sense organs constituting the bio-physiological embodiment of the central nervous system, into a modernized body-machine, entailing a return of the Cartesian and La Mettriean corps-machine in what McLuhan called the “electric age” (ibid.: 19–21; cf. La Mettrie 1912 [1747/1748]; Descartes 1985a [1647], 1985d [1664]; Baker & Morris 1996: 35–38, 89–100; Mayr 1986; Des Chene 2001); a transformation that implied a technological reorganization of the functional relations of the body as a senso-neural switchboard, a prosthetic body machine-system, expanding its operative range no more no less than on a planetary scale (cf. Lyotard 1991 [1988]: 47–57; Armstrong 1998: 77–105; Candy & Edmonds 2002: 115–124; Dinello 2005: 115–127; Virilio 2005 [1998]: 11–13; in Heideggerian terms, cf. Heidegger 1983 [1935]: 208; Müller-Lauter 2000: 12–15; Morat 2007: 176–186).


After three thousand years of explosion, by means of fragmentary and mechanical technologies, the Western world is imploding. During the mechanical ages we had extended our bodies in space. Today, after more than a century of elec-
electric technology, we have extended our central nervous system itself in global embrace, abolishing both space and time as far as our planet is concerned. Rapidly, we approach the final phase of the extensions of man – the technological simulation of consciousness, when the creative process of knowing will be collectively and corporately extended to the whole of human society, much as we have already extended our senses and our nerves by the various media. (McLuhan 1964: 19)68

According to McLuhan, “[a]ny extension, whether skin, hand, or foot, affect the whole psychic and social complex” (ibid.). In this entirely new situation of being human, the “action and the reaction occur almost at the same time,” and, for this reason, we “actually live mythically and integrally” (ibid.: 20). But the problem is that “we continue to think in the old, fragmented space and time patterns of the pre-electric age” (ibid.). For McLuhan, the immediate task is now to learn that in the “electric age, when our central nervous system is technologically extended to involve us in the whole of mankind and to incorporate the whole of mankind in us, we necessarily participate, in depth, in the consequences of our every action” (ibid.).

After three thousand years of specialist explosion and of increasing specialization and alienation in the technological extensions of our bodies, our world has become compressional by dramatic reversal. As electrically contracted, the globe is no more than a village. Electric speed in bringing all social and political functions together in a sudden implosion has heightened human awareness of responsibility to an intense degree. (ibid.)

In this new cultural constellation, the “aspiration of our time for wholeness, empathy and depth of awareness is a natural adjunct of electric technology,” and therefore, we are “suddenly eager to have things and people declare their beings totally” (ibid.: 21). As a consequence of the electric extension of our bodies and senses, the technologization of our central nervous system, according to McLuhan, a new understanding of humanity has emerged, a “faith that concerns the ultimate harmony of all being,” to be found “in our own extended beings in our technologies” (ibid.; cf., for example, Cavell 2003: 85–87; Shilling 2005: 173–180; de Kerckhove 1997 [1995]; Zylinska 2002a; Youngman 2009; in comparison to the cyborg, cf., for example, Plant 1998: 31; Yaszek 2002: 10–14, 23–24, 37–42, 48–49; in terms of cyberspace, cf., for example, Shaviro 1995: 39–45; Jahshan 2007: 4–13, 25–27; in the mode of virtual reality, cf., for example, Biocca & Delaney 1995: 57–59; Theall 2001: 142–145; in the context of prosthet-

68 It is not difficult to see that this planetary vision is a recurrent theme in various theories and theory-fictions pertaining to the transformation of culture as a consequence of new technologies; whether in ecstatic, utopian or dystopian form, the technological redesign of the body and its senses is a repeating idea, for example, in the technocultural visions of Baudrillard, de Kerckhove, Virilio, Haraway and Stone. This technological conception of culture is not only to be found in Jünger’s (1961 [1920], 1980 [1930], 1982 [1932]) cold-blood techno-millennialism after the First World War, but even in Heidegger’s philosophy – in negative terms – in the 1930s and after the Second World War. In this sense, the origin of the contemporary techno-euphoric theorizing around the figure of the “posthuman” is already to be seen in the thinking of what is called the “conservative revolution” and “reactionary modernism” in the German context in 1920s and 1930s (see Mohler 1950; Herf 1990 [1984]; Zimmerman 1990); that is, a vision of a total change of culture based on a scientific-technological reorganization of human life, paradigmatically exemplified by the all-encompassing triumph of cybernetics in the 1940s and 1950s (see Heidegger 2000h [1965]: 622–623; cf. Pias 2003, 2004).

It is in this manner that McLuhan, the “patron saint” (Genosko 1999: 13; Wolf 1996a) of all that is “cyber,” haunts postmodern theory long after his death in 1980; as a phantom of postmodern theory McLuhan is at the same time its prosthesis; that is, in terms of the redesign of the body and its sensory capacities, postmodern theory is a hauntological project (cf. Derrida 1994 [1993]: 10, 51, 161), it is haunted by “McLuhanism” and by that it haunts every effort to make itself as theory and its theoretical objects intelligible. This is the spectralization of McLuhan and McLuhanism in the Derridean sense (ibid.: 6–8, 127–148, 154–160) in the world of post-theory, the world of the “cyber.”

As fantastic (in both senses of the word), in their unbounded optimism, as McLuhan’s visions of the radical changes pertaining to the human sensorium and self-perception in relationships to the surrounding world brought about by the media are, it cannot efface the fact that for these technologies as the extensions of the human body and its senses, promising to bring all humans into a global harmony, there is a high price to be paid that, in fact, threatens to nullify the achievements of this technological revolution: technological extensions of the body in the mode of prosthetics amount, in one form or another, to a defunctionalization of the original body in the sense of an integrated organic structure (from a historical perspective, cf. Kapp 1877; Gehlen 1997 [1940]), even to an “amputation” of body parts in the sense of the loss of their original function.

As McLuhan (1964: 52–54) argues, the augmentation and enhancement of human capabilities entail, at the same time, their “autoamputation”; a sensual-corporeal self-amputation following the sensory over-load brought about by the technologically increased sensory capacity (the negative reverse of new technologies usually omitted in discussions on McLuhan). This simultaneous autoamputation of the technologically redesigned human body and its senses is not an unfortunate side effect, but a built-in consequence of the very same technologies that enabled the new senso-corporeal capacities of the human body in the first place, its enhancement in terms of functional and performative capabilities (cf. Cavell 2003: 87; Angus 2005 [2000]: 7–8; Marchessault 2005a: 182–183; Wiener 1969, 1989 [1988]; Benthen 1999; Sreen 1999; in the context of the Freudian “prosthetic God,” cf. Ronell 1991 [1989]: 88–90).

69 To recognize the colossal naivety of this vision, one must only remember that at the same time as McLuhan was dreaming of a new “electric harmony” of the world, the American global military machine was just about to escalate the conflict in Vietnam into a full-scale war (see Gibson 1986; Logevall 1999) that, during the following ten years, demonstrated in its extreme brutality, not in spite but because of new technology, that in the “electric age” we do not “wear all mankind as our skin”: as a subhuman enemy, the Vietnamese were not included in any kind of global “harmony” in the McLuhanian sense, but on the contrary, absolutely excluded of it. Like so many techno-theorists, McLuhan was also mesmerized by his own theory in so far as he could not distinguish the reality from its mythopoetic rendering, from the virtual reality of his own techno-philic visions.

The Greek myth of Narcissus is directly concerned with a fact of human experience, as the word Narcissus indicates. It is from the Greek word narcosis, or numbness. The youth Narcissus mistook his own reflection in the water for another person. This extension of himself by mirror numbed his perceptions until he became the servomechanism of his own extended or repeated image. The Nymph Echo tried to win his love with fragments of his own speech, but in vain. He was numb. He had adapted to his extension of himself and had become a closed system. (McLuhan 1964: 51; emphasis mine; cf. Cavell 2003: 44–47, 84–90; Žižek 1999b: 151–152; for the idea of servomechanism in cybernetics, see Wiener 1961 [1948]: 43–44; Bennett 1993: 12, 30, 97–163; Mindell 2002: 141–180; Bousquet 2009: 107–112)

As McLuhan (1964: 51) remarks, the “wisdom of the Narcissus myth does not convey any idea that Narcissus fell in love with anything he regarded as himself”; instead, the “point of this myth is the fact that men at once become fascinated by any extension of themselves in any material other than themselves” (emphasis mine). To make his point clear, McLuhan reminds us that “[i]t is, perhaps, indicative of our intensely technological and, therefore, narcotic culture that we have long interpreted the Narcissus story to mean that he fell in love with himself, that he imagined the reflection to be Narcissus!” (ibid.: 51–52). This means that, according to McLuhan, each extension, each augmentation and enhancement of the senso-motoric abilities and capacities of the human body, brings about a “new intensity of action” precisely “by its amplification of a separate or isolated function”; but such “amplification is bearable by the nervous system only through numbness or blocking of perception” (ibid.: 52).

This is the sense of Narcissus myth. The young man’s image is a self-amputation or extension induced by irritating pressures. As counter-irritant, the image produces a generalized numbness or shock that declines recognition. Self-amputation forbids self-recognition. (ibid.; emphasis mine)

In this sense, “Narcissus is numbed by his self-amputated image” (ibid. 53). “With the arrival of electric technology, man extended, or set outside himself, a live model of the central nervous system itself” (ibid.). This is a “development that suggests a desperate and suicidal autoamputation”; a situation in which it is “as if the central nervous system could no longer depend on the physical organs” functioning as “protective buffers” against the increasing sensory overload of the external world (ibid.). The “successive mechanizations of the various physical organs” have made “too violent and superstimulated a social experience for the central nervous system to endure” (ibid.; emphasis mine; cf. Baudrillard
That is, the McLuhanian prosthetic body can have its technologically extended capabilities only at the cost of its nervous capacities to process the sensory overload caused by its expanded perception of the world surrounding it.

The Sex Organs of the Machine

This is the fate of the Narcissus of the technological world, the “gadget lover” who has fallen in love to his own extensions, his artificial organs that overwhelm him with ever-new sensations (in both senses of the word) (cf. Kroker 1997: 91–92; Marchand 1989: 168–169; Cavell 2003: 85–86; Dery 2005: 97–98; Zylinska 2002a).

“Any invention or technology is an extension” of “our “physical bodies,” and as such an externalization it is a “self-amputation” of that “sense or faculty” that is “extended technologically” or “autoamputated,” effecting its “closure” that, at the same time, “demands new ratios or new equilibriums among the other organs and extensions of the body” (McLuhan 1964: 54). Accordingly, as an “extension and expediter of the sense life, any medium at once affects the entire field of the senses” (ibid.). In the end, these technological extensions of the human being, these amplifications of human senses and faculties through technological arrangements or media, turn into human “idols” that, like the self-image of Narcissus, take the form of a misrecognized self-reflection (cf. Lacan 1977f [1966/1949]; Ragland-Sullivan 1986: 93, 113–114, 262; Eagleton 1997 [1983]: 142–144; Homer 2005: 24–26). As a consequence, the “beholding of idols, or the use of technology, conforms men to them” (ibid.: 55; emphasis in the original; in terms of the Freudian “prosthetic God,” cf. Freud 1972a [1930]: 450–451; Levinson 1999: 60–61; Cavell 2003: 81–83).

Therefore, all “technologies are self-amputations of our own organs” (McLuhan 1964: 55); in other words, any extension of the body effects a correspondent loss and closure: as “self-amputation of our organs” by means of technological substitutions, “each organ becomes a closed system of great new intensity” (ibid.; emphasis mine).

To behold, use or perceive any extension of ourselves in technological form is necessarily to embrace it. To listen to radio or to read the printed page is to accept these extensions of ourselves into our personal system and to undergo the “closure” or displacement of perception that follows automatically. It is this continuous embrace of our own technology in daily use that puts us in the Narcissus role of subliminal awareness and numbness in relation to these images of ourselves. By continuously embracing technologies, we relate ourselves to them as servomechanisms. That is why we must, to use them at all, serve these objects, these extensions of ourselves, as gods or minor religions. An Indian is the servomechanism of his canoe, as the cowboy of his horse or the executive of his clock. (ibid.; emphasis mine)

What ensues from this mutual interchange between the technological extension of human sense organs or their faculties and their self-amputation, that is,
from the reciprocal double bind between the human body and technology, is a technological reconstitution of the human being as a whole that, according to McLuhan, has a sexual meaning.

Physiologically, man in the normal use of technology (or his variously extended body) is perpetually modified by it and in turn finds ever new ways of modifying his technology. Man becomes, as it were, the sex organs of the machine world, as the bee of the plant world, enabling it to fecundate and to evolve ever new forms. The machine world reciprocates man’s love by expediting his wishes and desires, namely, in providing him with wealth. One of the merits of motivation research has been the revelation of man’s sex relation to the motorcar. (ibid.: 55–56; emphasis mine; cf. Balsamo 1996: 173–174; Plant 1998: 30–32; Grant 2002: 114–115; Marchessault 2005a: 212–214; Cavell 2010: 158)

This sexual relationship between the human being and technology, a new form of attraction that McLuhan describes with the expression (implying the title of the novel by Choderlos de Laclos) les liaisons dangereuses between humans and their technological love objects, also brings a new effecting force, “hybrid energy,” into culture, for McLuhan, as powerful – no more no less – as the energy released by “fission or fusion” known from nuclear physics (McLuhan 1964: 57; cf. Cavell 2003: 89–90; Marchessault 2005a: 180–181; de Kerckhove 2005a, 2005b; in the context of “postcolonial cultural praxis,” cf. Ajayakumar 2004: 147–149; in Derridean terms, cf. Fekete 2005: 406–407).

According to McLuhan (1964: 38), sexual connotations of technology are, however, peculiar not only to modern times. While Newton, living in the “age of clocks, managed to present the physical universe in the image of a clock,” poets like Blake, being “far ahead of Newton in their response to the challenge of the clock,” rejected this mechanical and repetitive world-view (ibid.). In McLuhan’s interpretation, Blake saw Newton to be similar to Locke in that both of them were “hypnotized Narcissus types quite unable to meet the challenge of mechanism” (ibid.). It took Yeats, as McLuhan says, to understand the full Blakean meaning of the technological narcissism of Locke and Newton: in Yeats’ view, for both scientists, according to McLuhan, technology appeared as a “spinning jenny” (ibid.).

Eighteenth-century man got an extension of himself in the form of the spinning machine that Yeats endows with its full sexual significance. Woman, herself, is thus seen as a technological extension of man’s being. (ibid.; emphasis mine)

“Spinning jenny,” Jenny the Machine – this is the sexualized image of technology that appears time and time again, in one form or another, in the visions constitutive of ideas that posit technology in terms of the sexual, including, of course, the visions of McLuhan himself (see, for example, Jones 1998; Wosk 2003; Jones 2006; Biro 2009). “Spinning jenny,” the asymmetric pendant of the “Narcissus type,” is the counter agent of the “bachelor machine,” the paragon of frustrated sex epitomized by male/masculine desire (see, for example, de Certeau 1988 [1984]: 150–153; Mikkonen 2001: 21–32, 125, 193; Tenhaaf 2001 [1992]: 378–380; Reck & Szeemann 1999 [1975]).
5.2.3 The “Love Machine,” or, The Future of Sex

In March, 1969, McLuhan, the future “patron saint” of cyberculture (Wolf 1996a: 129), gave an interview to Playboy Magazine (see McLuhan 1995 [1969]). The highly detailed and diversified interview was introduced by a well-informed presentation of McLuhan’s life and work (cf. Kroker 1987b [1984]: 52–86; Stearn 1969 [1967]; Marchand 1989; Sanderson & MacDonald 1989; in terms of the Canadian intellectual landscape, see Palmer 2009: 139–177). What makes the interview still interesting is that, from the perspective of today, one can enjoy it as a lively prelude to the sound of the sixties (see, for example, Gitlin 1987; Farrell 1997; Gosse 2005). These were the times, indeed – just like in the late-1980s, when the “cyber” revolution started to gain momentum (for a contextualization, see Levinson 1999). No wonder that the cyber-enthusiasts found a fellow-soul in McLuhan, the “hottest academic property around,” as Playboy, referring to the characterization of San Francisco Chronicle, honoured him in the opening words of the interview (McLuhan 1995 [1969]: 233).

“I don’t explain – I explore” (Levinson 1999: 24), McLuhan explained his “method” to those who were perplexed of his observations, or “probes,” as he himself preferred to call his “explorations” into the amazing world of the media in the late 1960s (McLuhan 1995: 233); a “method” that opened up the way to postmodern media and technology theory in the 1980s and 1990s; a mode of theory that was not interested in explanations, but in self-reflecting metaphoricism, “the theoretical” of theory.

The media as something specific, characteristic of the techno-optimism of the 1960s – the media not just simply as means of information and communication, but as technological “extensions” of the human being, not only as the augmentation and enhancement of the sensual and operative capabilities of the human body, but as an externalization and branching-out of the central nervous system, was the great, all-encompassing theme of McLuhan – as it is in the enthusiastic visions and theory-fictions projected by cyber discourse, a postmodern version of McLuhanian technological modernism (see McLuhan 1962, 1964, 2002 [1951]; McLuhan & Fiore 1967; McLuhan & Powers 1989; Levinson 1999; Theall 2001; Genosko 2005a, 2005b, 2005c), reinterpreted in terms of the prosthetic and the posthuman, the most spectacular and seductive terms of postmodern techno/cyber-theory (see, for example, Halberstam & Livings-ton 1995; Hayles 1999; Rutsky 1999; Gray 2001; Graham 2002; Zylinska 2002b; Deane-Drummond & Scott 2006; Smith & Morra 2006; Waters 2006; Manning 2007; Riskin 2007; Toffoletti 2007). In this sense, what today are called “new media,” explored by media art and the theory formation surrounding it, as well as the discursive constellation of cyber discourse, comprise a postmodern revival of McLuhan’s theoretical legacy, its rewriting in terms of the “post.”
The Modernization of the Body and the “Psychosexual Weitschmerz”

In the 1960s, the paradigmatic medium, a medium in and through itself a “message,” was not yet the computer but television; a medium that, according to McLuhan (1964), effected a fundamental upheaval of culture, from a one-dimensional locality to a multi-dimensional globality, a networked and omnipresent “global village,” introducing a new sensibility along with the expanded artificial sensorium, brought about by electronic media technology ranging from the transnational live satellite transmissions of the 1960s to the World Wide Web of the 1990s and beyond (see, for example, Harasim 1993; Jones 1995a; Surratt 2001; Herman & McChesney 2001; in McLuhanian terms, cf. de Kerckhove 1997 [1995]). That is, a mode of being and perceiving in a state of “all-at-oneness” and “all-at-oneness (McLuhan 1995 [1969]: 254); as McLuhan says: “‘Time’ has ceased, ‘space’ has vanished” – “[w]e now live in a global village... a simultaneous happening” (McLuhan & Fiore 1967: 63; cf. Kroker 1997: 89–93; Theall 2001: 9–14, 68–78, 133–135, 168–171; Cavell 2003: 37–45, 208–213; Marchessault 2005a: 202–206, 212–220; Willson 2006: 66–81).

This radical change of culture and sensibility, an instantaneous participation in occurrences around the world, a dramatic acceleration of interconnected events around the globe – all that had contributed, in American culture, to a new perceptual environment in which, from childhood on, the individual was exposed to things in everyday life that, regardless of one’s own intentions and aspirations, irrevocably turned into a part of one’s personality. In this manner, one was not just living in a media culture, but what one considered to be one’s own identity was, in fact, a “mediatized” subjectivity, a product of “media events,” a result of the all-intruding presence of the media in the contemporary world in which mediated reality in the form of “media reality” increasingly appears as the only reality, or even the reality proper, the very substance of “media culture,” a form of culture in which the dominant mode of experiencing consists of consuming (see, for example, Morley & Robbins 1995; Fornäs 1995; Fornäs et al. 2007; Morley 2007; in terms of “new media, “ cf., for example, Wegenstein 2006: 68–69; Rice 2007: 112–119; in the context of the “Lacanian cyborg,” cf. Nusselder 2009: 51–53).

This is what we call “culture” today; in other words, we are all Teletubbies in postmodern media culture (cf. Poster 2004: 96–100).

All this comprised the birth of what McLuhan (1995 [1969]: 250) in his Playboy interview called the “TV child” in the 1960s; a mode of being child that, in terms of the psychic constitution of being a subject, in fact, is not only the prototype of subjectivity conceived of by the postmodern cyber-theorists with regard to themselves as mediatic/prosthetic post-subjects in their radical “postness” enjoying the pleasures of “postality,” but also the model of postmodern childhood from the 1980s on in general: a new type of personality who learns to live globally through the media appearing as the true reality in its mediated immediacy, in its media presence experienced as the presence of reality (for

You must remember that the TV child has been relentlessly exposed to all the “adult” news of the modern world – war, racial discrimination, rioting, crime, inflation, sexual revolution. The war in Vietnam has written its bloody message on his skin; he has witnessed the assassinations and funerals of the nation’s leaders; he’s been orbited through the TV screen into the astronaut’s dance in space, been inundated by information transmitted via radio, telephone, films, recordings and other people. His parents plopped him down in front of a TV set at the age of two to tranquilize him, and by the time he enters kindergarten, he’s clocked as much as 4000 hours of television. As an IBM executive told me, “My children had lived several lifetimes compared to their grandparents when they began grade one.” (McLuhan 1995: 250–251)

As McLuhan, theorizing, in his visionary and prophesising manner, the comprehensive cultural impact of television in America in the 1960s, emphasized, the “mosaic image of the TV screen generates a depth-involving nowness and simultaneity in the lives of children that makes them scorn the distant visualized goals of traditional education as unreal, irrelevant and puerile” (ibid.: 251). That is, television, as a new medium, created both individually and collectively a new kind of technological sensorium that not so much reflected the world, but was actually a world in itself; a prosthetic world in the form of telepresence, a mediatic form of the presence of the absent (in terms of visions concerning cyberspace as a new mode of reality and subjectivity, cf., for example, Featherstone & Burrows 1995b; Jones 1995a; Mitchell 1995; Boyer 1996; Shields 1996a; Crang et al. 1999; Jordan 1999; Bell & Kennedy 2000; Bell 2001; Foster 2005).

Therefore, it was clear to McLuhan (1995: 252) that “few adults really comprehend the intensity of youth’s alienation from the fragmented mechanical world and its fossilized educational system, which is designed in their minds solely to fit them into classified slots in bureaucratic society.” This was a “new generation” consisting of “TV children,” “alienated from its own 3000-year heritage of literacy and visual culture” (ibid.). In McLuhan’s view, “TV children” were, in fact, a reincarnation of the 1960s hippie generation, their subversive counterculture, LSD and psychedelia, and, in this sense, children sitting in front of television were exposed to the world-view of a new era that reflected the political radicalization of a whole generation and the concomitant “sexual revolution” as a mode of sensuality and hedonism defiant against the prudery of prevailing culture (see, for example, Roszak 1969; Seidman 1989; Allyn 2001 [2000]; Braunstein & Doyle 2002; for American black culture as the background of countercultural sensibility, see Donaldson 1997: 138–140; for a critique of counterculture idealism, see Shi 2001 [1985]: 248–276); a historical era that returned two decades later in the form of cyberdelia, the technological utopianism of Californian computer culture, celebrating the newly-found McLuhan as the progenitor of the
technological revolution of the computer age (see, for example, Rojas & Hashagen 2002; Ceruzzi 2003 [1998]; Campbell-Kelly & Aspray 2004; for “computers” before the computer, see Grier 2005; cf. Balsamo 1996: 133; Hayles 2005).

Asked by the *Playboy* interviewer whether McLuhan thought that the “surviving hippie subculture is a reflection of youth’s rejection of the values of our mechanical society,” McLuhan made clear that what was going on at the time was a multi-faceted cultural upheaval, affecting also the ways sexuality was experienced and expressed.

Of course. These kids are fed up with jobs and goals, and are determined to forget their own roles and involvement in society. They want nothing to do with our fragmented and specialist consumer society. Living in the transitional identity vacuum between two great antithetical cultures, they are desperately trying to discover themselves and fashion a mode of existence attuned to their new values; thus the stress on developing an “alternate life style.” We can see the results of this retribalization process whenever we look at any of our youth – not just at hippies. Take the field of fashion, for example, which now finds boys and girls dressing alike and wearing their hair alike, reflecting the unisexuality deriving from the shift from visual to tactile. The younger generation’s whole orientation is toward a return to the native, as reflected by their costumes, their music, their long hair and their sociosexual behavior. Our teenage generation is already becoming part of a jungle clan. *As youth enters this clan world and all their senses are electrically extended and intensified, there is a corresponding amplification of their sexual sensibilities*. Nudity and unabashed sexuality are growing in the electric age because as TV tattoos its message directly on our skins, it renders clothing obsolescent and a barrier, and the new tactility makes it natural for kids to constantly touch one another – as reflected by the button sold in the psychedelic shops: IF IT MOVES, FONDLE IT. The electric media, by stimulating all the senses simultaneously, also give a new and richer sensual dimension to everyday sexuality that makes Henry Miller’s style of randy runting old-fashioned and obsolete. Once a society enters the all-involving tribal mode, it is inevitable that our attitudes toward sexuality change. We see, for example, the ease with which young people live guiltlessly with one another, or, as among the hippies, in communal ménages. This is completely tribal. (McLuhan 1995: 252; emphasis mine)

Even though McLuhan admitted that most tribal societies, according to his knowledge, might be sexually restrictive rather than permissive, he found that in the highly developed American culture a “retribalization” was going on – with its intrinsic contradiction: “It’s paradoxical that in the transition to a retribalized society, there is inevitably a great explosion of sexual energy and freedom; but when that society is fully realized, moral values will be extremely tight” (ibid.: 253). Nevertheless, according to McLuhan, the all-encompassing sexualization of culture under the impact of media was not to be impeded, and, as a result of the increasing mediatization of sexual experiences and expressions the technologization of sex in itself seemed to be a logical consequence.

Today, meanwhile, as the old values collapse and we see an exhilarating release of pent-up sexual frustrations, we are all inundated by a tidal wave of emphasis on sex. Far from liberating the libido, however, such onslaughts seem to have induced jaded attitudes and a kind of psychosexual *Weltschmerz*. No sensitivity of sensual response can survive such an assault, which stimulates the mechanical view
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of the body as capable of experiencing specific thrills, but not total sexual-emotional involvement and transcendence. It contributes to the schism between sexual enjoyment and reproduction that is so prevalent, and also strengthens the case for homosexuality. Projecting current trends, the love machine would appear a natural development in the near future – not just the current computerized datefinder, but a machine whereby ultimate orgasm is achieved by direct mechanical stimulation of the pleasure circuits of the brain. (ibid.; emphasis mine)

What is important here with regard to the technologization of sexuality is that the “tidal wave” of sex in the America of the 1960s – scourged a few years later by Foucault (1990k [1976]) in his radical attack on the illusions of the “sexual revolution” – amounted not, as McLuhan points out, to a liberation of the libido, but, on the contrary, to a “psychosexual Weltschmerz,” thus only emphasizing the “mechanical view of the body” – a view characteristic of contemporary cyberculture. Rehearsing his basic tenets of media evolution, McLuhan (1995: 264) pointed out that “whenever we use or perceive any technological extension of ourselves, we necessarily embrace it.” But the problem is that “we can’t escape this perpetual embrace of our daily technology unless we escape the technology itself and flee to a hermit’s cave” (ibid.).

As we know, to escape technology is no longer possible: the “hermit’s cave” is now inside the technology that is our technoscientific and technocultural environment, our habitat proper; like the atmosphere surrounding the globe, technology is today our survival system: the technosphere is our biosphere.

The Legacy of McLuhan: a “Polychromatic Girl”

As a result of the increasing permeation of new technologies in our daily life, according to McLuhan (1995: 264), by “consistently embracing all these technologies, we inevitably relate ourselves to them as servomechanisms,” and just as the “cyberneticist” is a “servomechanism” of “his computer,” this is soon the fate of the “entire world”: we all are servomechanisms of our technologies, and at the same time, the “continuous modification of man by his own technology stimulates him to find continuous means of modifying it,” leading to a situation in which “man thus becomes the sex organs of the machine world” (ibid.; cf., for example, Feenberg 1995: 59–60; Kroker 1997: 97–98; Pettman 2002: 70–71; Cavell 2003: 42–43).

Man’s relationship with his machinery is thus inherently symbiotic. This has always been the case; it’s only in the electric age that man has an opportunity to recognize this marriage to his own technology. Electric technology is a qualitative extension of this age-old man-machine relationship; 20th Century man’s relationship to the computer is not by nature very different from prehistoric man’s relationship to his boat or to his wheel – with the important difference that all previous technologies or extensions of man were partial and fragmentary, whereas the electric is total and inclusive. Now man is beginning to wear his brain outside his skull and his nerves outside his skin; new technology breeds new man. A recent cartoon portrayed a little boy telling his nonplused mother: “I’m going to be a computer when I grow up.” Humor is often prophecy. (McLuhan 1995: 264–265; emphasis mine)
Today, this kind of desire to *become a computer* is inscribed in technoculture – at least in the visions of techno/cyber theorists. In these terms, after the introduction of the new technology of the computer and the whole digital paraphernalia ensuing from it, the *sexualization of technology* as a wish-image of a technologization of sexuality has become a staple figure in technoculture. And today Jenny the Machine entices not only male theorists, it is also a female attraction, a feminist fantasy in techno/cyber discourses, culminating in the salvation figure of the cyborg. As Haraway says, the cyborg is a “polychromatic girl,” the “cyborg is a bad girl, she is really not a boy,” she is a “girl who’s trying not to become woman” (Penley & Ross 1992a: 20).

There is, however, a difference, on the one hand, between the techno-sexual visions in the manner of McLuhanian futurology, and the prosthetic fantasies and theory-fictions under the sign of the “cyber,” on the other. The border line, of course, is not clear-cut; but whereas futurology draws on extrapolation from the existent to the future, cyberculture moves entirely in the realm of the imaginary. Thus, Jenny the Machine appears to both of them differently: while futurology speculates on the coming world in terms of the present, cyber-futurism lives in the future already today, in its imaginary presence.
5.3 Deregulation: The Sexual Economy of the Postmodern

Eyes and mouth, long accepted as the last refuge of intimacy, will be integrated in a feedback logic which is not ours, but that of the machine. The affect of VR would not be so unsettling if we did not realize that we are being observed by something that we cannot acknowledge as subject or persona in the traditional sense, and which nonetheless constantly demonstrates that it sees us without revealing itself.

Friedrich Kittler (1992: 135)

I am looking at a wireless digital mobile present with no portal to channel us; built in memory flash and gigabyte hard drive as delivered at birth; genetic mutation for ALL NEW GEN. The merge is complete. We ride on the fantasy. Living comfortably with the monster within, I assign my body as a self-programmed, self generative sexual unit. This body functions with an operating system that requires version update and memory upgrade. The unlikely future has come and gone. The retro future could be the next comeback.

Shu Lea Cheang (2000)

In the twenty-first century, we are living in a world ruled by the ruthless and relentless expansion of transnational capitalism, the global regime of neoliberalism (see, for example, Jameson & Miyoshi 1998; Sklar 2001; Berberoglu 2002; Petras & et al. 2006; Harvey 2007 [2005]; Atasoy 2009); a complex world of chances and threats in which, from the perspective of the “post,” it is no longer possible to think in inherited categories of the human condition (see Arendt 1958; Janicaud 2005 [2002]; from the standpoint of medical technology and bioengineering as a body-utopian project, see McKenny 1997; Baillie & Casey 2005; Sargent 2005; for a critique of naturalism and/as scientism, see Olafson 2001). This is a world in which, according to post-theory, it is now the posthuman condition that dictates the parameters of our life (see, for example, Taylor 2003: 105–107; Halliwell & Mousley 2003: 181–195; Terranova 1996b; Hayles 1999; Graham 2002; Toffoletti 2007; with regard to “the neocybernetic posthuman,” see Clarke 2008: 193–196; for a theological view, see Waters 2006), and, as a consequence, what was once understood to be the politics of being is now about a mode of existence that implies a radical change in terms of the body-subject: the politics of the post-subject as the politics of becoming (see Pope 2005: 157–158; Patton 2000; Braidotti 2002, 2006).

Along with this global transformation, the very notion of “the political,” as previously discussed, has changed resulting in what I designate as the politics of theory. To see what is paradigmatic in this context, it is appropriate to return to the idea of “Empire,” as Michael Hardt and Antonio Negri (2000) call this new political order of globalization. As outlined above, a postmodern configuration of power relations is about to displace not only the old system of nation-states, their territories and boundaries, and their sovereignty based on national identity, but also the oppressive politics of imperialism in its traditional form (for a classical view, see Lenin 1961 [1917]; cf. Baran & Sweezy 1966; Brewer 1980;
Harshé 1997; for contemporary discussion, see, for example, cf. Chandra et al. 2004; Harvey 2005 [2003]).

What is specific to Hardt and Negri’s (2000: xii–xiii) idea of “Empire” as a decentered and deterritorialized global order is that it “manages hybrid identities, flexible hierarchies, and plural exchanges through modulating networks of command.” All over the world, as they argue, a new post-political order is supplanting old structures implying that, instead of “industrial factory labor,” economy is increasingly consisting of “communicative, cooperative, and affective labor,” as a result of which the “creation of wealth” increasingly tends towards a “biopolitical production, the production of social life itself” (ibid.: xiii; cf. Seidman 2004: 270–272; for a critical discussion on Hardt and Negri, see, for example, Urry 2003: 128–132; Parry 2004: 93–103; Passavant & Dean 2004; Borón 2005).

Although “Empire” thus opens up “new possibilities to the forces of liberation” (Hardt & Negri 2000: xv), it is, however, not as such a better mode of democracy; on the contrary, “Empire” implies a mode of the political that is no longer compatible with the inherited forms of democratic politics. For surviving under this neo-capitalist power system, the conventional forms of resistance and revolt are obsolete. What is needed, therefore, are what Hardt and Negri call the “creative forces of the multitude” that, by constructing a “counter-Empire,” will invent “new democratic forms” and “one day take us through and beyond Empire” (ibid.; cf., for example, Ritzer 2010: 132–135; Balakrishnan 2004).

From this perspective, it is clear that if the entire idea of the political is about to undergo a radical transformation, not only the conception of the body politic, but, more fundamentally, what is understood to be the politics of the body is also about to change, recalling the principle of radical feminism in the 1970s: “the personal is political” (see, for example, Jaggar 1983: 7, 101, 143–151; Zita 1998: 308–312; Nicholson 1981; for “political personalism” in the 1960s, see Farrell 1997: 5–20; for the idea of the political redefined as a response to globalization in terms of “networks, swarms and multitudes,” see Thacker 2004).

5.3.1 The Posthuman: Beyond the Anthropological

From the standpoint of the present study, what is most relevant here is Hardt and Negri’s (2000: 205–218) conception of a new kind of subjectivity and agency as a radical political force (understood, of course, in terms of the post-political) able to resist the power politics of “Empire,” not so much by means of stable organizations as by subversive actions emerging from below, by way of ad hoc initiatives, local non-party groups and radical movements that resist global capitalism, in short, extra-parliamentary forms of politics practiced by the “multitude.” As we saw above, what Hardt and Negri designate as “counter-Empire” (ibid.: 207) is a post-revolutionary movement that consists of the “new barbarians” (ibid.: 213–215), that is, of all those who have “the will to be against”
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What is at issue here is the emergence of the micropolitical assemblage of the posthuman body, a post-biological hybrid body as an entirely new kind of political body, a transformative body that is able to transgress the boundaries that separate the human, the animal and the machine (from the standpoint of classical cybernetics, cf. Wiener 1961 [1948]; in the context of cyberpunk, cf. McCarron 1995; in terms of feminism, cf. Bryld & Lykke 2000; with regard to “animal sex,” cf. Grosz 1995a; for the idea of “the postmodern animal,” cf. Baker 2000; for a discussion from a phenomenological perspective, cf. Mazis 2008); that is, an artificial body as a technoscientific embodiment of the post-subject that redefines the entire spectrum of the corporeal in terms of the political, thus readjusting the premises of both the politics of the body and the body politic.

In this context, it is appropriate to recall the key points of Hardt and Negri’s politicization of the body discussed above in order to see that the post-political body radicalism of the “new barbarians,” in fact, follows the logic of the self-management and self-optimization of the postmodern subject under the disciplinary imperative of the political economy of neoliberalism, that is, the ego-politics of the post-subject (with regard to the “entrepreneurial self,” see du Gay 1996a: 62–73, 181–183, 1996b: 156–157; Peters 2001: 73–81, 109–111; Besley & Peters 2007: 155–174; Rose 1999 [1990]; Bröckling 2007; in terms of “the well-tempered self,” see Miller 1993; for a contextualization from the perspective of American neoliberalism, see Ventura 2012; in the context of technoscience, see Pellizzoni & Ylönen 2012); thus, to begin with:

Conventional norms of corporeal and sexual relations between and within genders are increasingly open to challenge and transformation. Bodies themselves transform and mutate to create new posthuman bodies. The first condition of this corporeal transformation is the recognition that human nature is in no way separate from nature as a whole, that there are no fixed and necessary boundaries between the human and the animal, the human and the machine, the male and the female, and so forth; it is the recognition that nature itself is an artificial terrain open to ever new mutations, mixtures, and hybridizations. (ibid.; emphasis mine; cf., for example, Hollinger 2009: 272–277; Sanbonmatsu 2004)

70 By elaborating on the idea of the “new barbarians” – a term they borrow from Walter Benjamin’s vocabulary – Hard and Negri (2000: 214–218), in a genuine postmodern fashion, draw on, beside Haraway’s cyborg mythology, a range of “theoretical” work much of which is science fiction or theory as science fiction (cf. Bukatman 1994a, 1994b), a mode of “theory” that has been done “across the boundaries of human, animals, and machines” and on the “political potential of corporeal nomadism and transformation” (Hardt & Negri 2000: 448; emphasis mine).
In their struggle against "Empire," inspired by an unprecedented political radicalism as a postmodern mixture of Bakunin-Kropotkinian anarchism and New Left voluntarism (cf., for example, May 1994; Newman 2001; Woodcock 2004), the "new barbarians" not only "consciously subvert the traditional boundaries," but they also "move in a creative, interdeterminate zone au milieu, in between and without regard for those boundaries" (Hardt & Negri 2000: 215). What is radical in this post-political political activism is that, rather than attacking the power of capital, its transnational class system based on exploitation and oppression and safeguarded by the state, governmental structures and social institutions, the "new barbarians" fight against the prevailing forms of subjectification, that is, against the body politic as the politics of the body maintaining the power of "Empire"; in other words, at issue is not the political subject in the sense of the citizen and the state, but the post-political body-subject as an embodiment of the corporeal politics and political corporeality instrumental to "counter-Empire" (for comparable feminist conceptions of "the political" in terms of "the body," cf., for example, Jacobus et al. 1990; Bordo 1995 [1993]; Price & Shildrick 1999a). Accordingly, the "new barbarians" are engaged in an entirely new mode of combat in which "corporeal mutations constitute an anthropological exodus" (Hardt & Negri 2000: 215), an "ontological mutation in action," amounting to a "concrete invention of a first new place in the non-place" (ibid.: 215–216).

While, according to the Great Chairman Mao Zedong, the "Political power grows out of the barrel of a gun" (Li 1995: 325–326), in the post-revolutionary struggle of the "new barbarians," the body in itself is a political weapon, or, in terms of the posthuman, as Hayles (1999: 3) says, “the original prosthesis” for “doing away with the ‘natural’ self.”

**The Body as the Survival Machine of the Post-Political Subject**

The “first new place in the non-place” that the "new barbarians" fight for is a political topos never seen before; a post-territorial territory in which a radical transformation of the entire existence of the "new barbarian" subject takes place. This post-utopian field of action, instead of being a *u-topos* or *eu-topos*, is a "non-place" constituting a postmodern topology of power relations, a reterritorialization of subjectivities that brings about a “creative evolution,” a fundamental transformation of ordinary subjects to "new barbarian" body-subjects as a mode of revolt that “does not merely occupy any existing place, but rather invents a new place” (Hardt & Negri 2000: 216). In this manner, the barbarian way of combat, as a postmodern politics of the body, is a matter of a “desire that creates a new body,” a “metamorphosis that breaks all the naturalistic homologies of modernity” (ibid.; emphasis mine; cf. Negri 1999; Doyle 2003; Ettinger 2006; Manning 2006; in terms of “neuropolitics,” cf. Connolly 2002; for psychedelic “neuropolitics,” see Leary et al. 1977; Leary et al. 1988; for a contextualization, see Lee & Shlain 1992).

In the world ruled by “Empire,” under the attacks of the “new barbarians” constituting the insurgent force of “counter-Empire,” the reality of capital has trans-
formed into the imaginary of desire, a radical desire desiring for a continuous metamorphosis of the body as a trans-political aspiration to a new subjectivity of the post-subject: a body-subject that lives from and for an enduring self-transformation as a subversive form of the ego-politics of the subject typical of the postmodern (with regard to “the totally mobilized hypermodern body,” cf. Armitage 2004; in terms of Trotsky’s idea of “permanent revolution” as a “continuous revolution” adopted by Mao Zedong, cf. Brugger 1985: 172–173; Sharma 1989: 11–22).

Thus, if the “post” has been without an appropriate territory up until now, without a place allowing for a mode of politics radical enough for the “anthropological exodus” constituting the post-revolutionary existence of the “new barbarians,” it is certainly the “non-place” of the “creative evolution” inaugurating the New Age of “counter-Empire” that is the territory in which the redesign of the body can be implemented in the most appropriate way, in the manner of the “post”: the “post,” in its radical “postality” based on an unending “postness,” as the very idea of “the political” enacted and performed by the post-body corporeality as the agency of post-political action.

Here, as we can see, the human body, in its posthuman form, is now the new topos of utopia: the body in itself is the utopia of postmodern political radicalism in the name of a new subject, a post-collective subject of the “multitude” as a subject that is constituted by “machinic metamorphoses” (Hardt & Negri 2000: 367; cf. Smith & Morra 2002b; Clarke 2008; Johnston 2008):

> The scientific, affective, and linguistic forces of the multitude aggressively transform the conditions of social production. The field on which productive forces are reappropriated by the multitude is a field of radical metamorphoses – the scene of a demiurgic operation. This consists above all in a complete revision of the production of cooperative subjectivity; it consists in an act, that is, of merging and hybridizing with the machines that the multitude has reappropriated and reinvented; it consists, therefore, in an exodus that is not only spatial but also mechanical in the sense that the subject is transformed into (and finds the cooperation that constitutes it multiplied in) the machine. This is a new form of exodus, an exodus toward (or with) the machine – a machinic exodus. (Hardt & Negri: 366–367; emphasis mine; cf. Haraway 1991a: 149–155, 161–165, 176–181; in terms of the techno-imaginary and the related idea of “new man” released by the Russian revolution, cf. Groys & Hagemeister 2005)

“Merging and hybridizing with the machines” by means of “a demiurgic operation” – that is the way to “a machinic exodus,” the way to the rebirth of the human being in the name of the posthuman; in other words, our post-futural corporeality which is already present in “the new virtualities” implying “the naked life of the present,” has now “the capacity to take control of the processes of machinic metamorphosis” (Hardt & Negri 2000: 367; emphasis mine; cf. Gil 1998 [1985]; Featherstone 2000; Sobchack 2000; Hayles 2004a). That is:

In Empire the political struggle over the definition of machinic virtuality, or really over the different alternatives of the passage between the virtual and the real, is a central terrain of struggle. This new terrain of production and life opens for labor a future of metamorphoses that subjective cooperation can and must

As we can see, in “Empire,” through the struggle of “counter-Empire,” life in itself becomes redefined: “new virtualities” are now the real of reality. In this “reality,” the material of materiality evaporates, and, accordingly, “the political” of politics turns into an unending variety of possibilities, and thus the very possible of possibilities is determined by the actuality of the potential; in other words, a new reality comes into being by radical acts of will in the sense of postmodern voluntarism.

What is most important here is that the political subject is no longer a mere hypokeimenon, a substrate or a presupposition underlying an abstract and anonymous power; no, on the contrary, each of the “new barbarians” is an active agent in the true sense of the term, a body-subject as a subject of itself, a post-subjective subject that is able not only to invent itself anew, but to redesign itself by its own will and time again. Accordingly, the body is now the real focus of politics, the very source of “the political” of the political. This is a new form of radical politics that invests not so much in the abolishing of the capitalist power regime, but, instead, in the subversion of the body produced by the industrial order constitutive of the modern, the factory system established by Fordism (cf. Cooke 1990: 58–84, 119–162; Marsh 2006 [1996]: 150–152; Berberoglu 2002; Jessop & Sum 2006; in terms of biopolitics, cf. DeGiorgi 2006: ix–xiv, 41–65; from the perspective of the “McDonaldization of society,” cf. Ritzer 2004: 192–202; for post-Fordism as “enterprise culture,” cf. Keat & Abercrombie 1991).

Thus, what is at issue in the body politics of the “new barbarians” is a historical transition that signals a post-Gramscian order, an order of a post-disciplinary body; a body that, in the final instance, is the ultimate realization of the Foucauldian project of body liberation, the post-Enlightenment emancipation of “bodies and pleasures” from the terror regime of “sex,” the “austere monarchy” of le sexe (Foucault 1990k [1976]: 159, 1994a [1976]: 211, 1996m [1977]).

The new political “methods” suggested by Hardt and Negri (2000: 216), the means of “hybridization and mutation,” however, are in themselves controversial because they are the “very methods employed by imperial sovereignty,” the power regime of “Empire.” Interestingly, instead of the political reality of global capitalism, that is, the relentless exploitation of human labour and natural resources, unscrupulous financial speculation, and the power politics of war and terror, it is the “dark world of cyberpunk fiction” (ibid.) – paradigmatically exemplified by Gibson’s Neuromancer, the science fiction fantasy constitutive of all that is “cyber” – that is the frame of reference of the world-model outlined by Hardt and Negri. In the world of cyberpunk, as Hardt and Negri point out, the “freedom of self-fashioning is often indistinguishable from the powers of an all-encompassing control” (ibid.; cf. Schram 2002: 232–235; Shershow 2005: 76–77). The more the imperative of survival of the “new barbarians” is the need
“to change our bodies and ourselves, and in a perhaps a much more radical way than the cyberpunk authors imagine” (Hardt & Negri 2000: 216; emphasis mine).

Yet, what is “self-fashioning,” or, what Sanford Schram (2002: 284), in his reading of Hardt and Negri, calls “micropractices” that serve “self-construction,” if not precisely what I designate as the ego-politics of subject, a mode of micropolitics in which one’s own body is the navel of the world; in other words, it is expressly the focus on me, myself and I that defines the politics of the body in the political radicalism of the “multitude”: one’s own body as the obsession of the “new barbarians,” an obsession that in Hardt and Negri’s “counter-Empire” attains a global scale (in terms of Deleuze-Guattarian “micropolitics,” cf. Busk 2001; Pisters & Lord 2001; Read 2003).

But, more concretely, what are actually Hardt and Negri’s practices of self-fashioning and what is “the political” in them? The “now common aesthetic mutations of the body, such as piercing and tattoos, punk fashion and its various imitations, are all initial indications” of the “corporeal transformation” (Hardt & Negri 2000: 216) in the global order of “Empire”; a “radical mutation,” however, to be radical in the mode of the “new barbarians,” needs more than that. The “will to be against” requires a “body that is completely incapable of submitting to command”; that is, it is a “body that is incapable of adapting to family life, to factory discipline, to the regulations of traditional sex life” (ibid.). “If you find your body refusing these ‘normal’ modes of life, don’t despair – realize your gift!” (ibid.), as Hardt and Negri, referring to Félix Guattari’s therapeutic experiences as a radical antipsychiatrist, exhort the new subject to self-fashion itself through a radical act of will, an act of subversive desire (cf. Guattari 1977 [1974], 1992, 1993; in the context of the cyborg and body transformation, cf. Jones & Sofia 2002: 56–61; Foster 2005: 141–201; Featherstone 2000; Gray 2001; Pitts 2003; Chorost 2005; in terms of “terminal identity” and the micropolitics of cyberspace, cf. Bukatman 1996 [1993]: 328–329; Travis 1998: 97–98).

Do not hesitate, act now! Take your chance, change yourself – your body is the resource of the new! That is the ethos of the post-revolutionary radicalism pertinent to the body politics of the “new barbarians.” In other words, Hardt and Negri’s “counter-Empire” is based on a politics of desire instead of the economy of needs: a radical desire, a self-indulgent mode of desire in the sense of post-Christian luxuria (in Christian terms, cf., for example, Berry 1994: 14, 64–68, 89–98; Rogers 1999: 100–101; in the context of the seven deadly sins, cf. Lyman 1989 [1978]), is simultaneously brought about by and empowering the body in the form of the ego-politics of the post-subject: a body-subject that is obsessed with its own enhancement by means of a constant self-management and self-optimization of its own capacities and capabilities as an ego-ideal of itself; an ideal that is a mirror image of the ideal subject of the political economy of neoliberalism promoted by productive consumption constitutive of postmodern culture (in terms of Deleuze-Guattarian “micropolitics of desire,” cf. Best & Kellner 1991: 93–97; Genosko 2002: 10–17, 87–91, 111–123; Goodchild 1996; Busk
Where I Was, There the Machine Shall Be

In addition to being radically unprepared for normalization, however, the new body must also be able to create a new life. We must go further to define that new place of the non-place, well beyond the simple experiences of mixture and hybridization, and the experiments that are conducted around them. We have to arrive at constituting a coherent political artifice, an artificial becoming in the sense that the humanists spoke of a homohomo produced by art and knowledge, and that Spinoza spoke of a powerful body produced by that highest consciousness that is infused with love. The infinite paths of the barbarians must form a new mode of life. (Hardt & Negri 2000: 216; cf. Deleuze 1988 [1970/1981], 1992a [1968]; Spinoza 1996 [1677]) To achieve that, a shift of focus “from the question of form and order to the regimes and practices of production” must take place in the new political order of “counter-Empire”: the new political will, the desire for radical change, emerges from the “common productive experience of the multitude” (Hardt & Negri 2000: 217), a new kind of collective, a post-subjective agency, as the real political subject of the “anthropological exodus.” What is needed is a form of nomadism that goes further than that of the nineteenth-century proletarians who were “recognized as the nomads of the capitalist world” (ibid.). Now as then, however, it is about “corporeal and ontological migrations,” that is, a mode of subversive body politics that constitutes the basis of a “new barbarian” existence as a hoped-for real alternative to the global order of “Empire”. What is the challenge today is the technological reconstitution of the working body as the precondition of the “barbarian” subject: the prosthetic body as the post-evolutionary mode of being.

As Hardt and Negri summarize the “anthropological exodus” enabled by a specific mode of metamorphoses of the entity formerly called the human body:

The anthropological metamorphoses of bodies are established through the common experience of labor and new technologies that have constitutive effects and ontological implications. Tools have always functioned as human prostheses, integrated into our bodies through our laboring practices as a kind of anthropological mutation both in individual terms and in terms of collective social life. The contemporary form of exodus and the new barbarian life demand that tools become poietic prostheses, liberating us from the conditions of modern humanity. (ibid.; cf. Haraway 1991a: 178; Fortier 1997: 119–120; Cortiel 1999: 210–211; Bell 2001: 147–148; Betcher 2001: 36–51; Malpas 2005: 77–79; Stellarc 1991, 1992; Weinstone 2004)

Prostheses assembled to a prosthetic body – that is the salvation of the subject in the world of “Empire,” poietic prostheses that enable our entering the world of the posthuman, a world in which the artificially extended and augmented body is the survival machine of the post-political body-subject, the subject in terms of “counter-Empire.”

To attain the new “posthuman” condition of existence what is needed are “new and increasingly immaterial forms of affective and intellectual labour power, in the community that they constitute, in the artificiality that they present as a
project” (Hardt & Negri 2000: 217). For the posthuman mode of living, however, the “deconstructive phase of critical thought,” the tradition “from Heidegger and Adorno to Derrida” – although it provided adequate theoretical means for the “exit from modernity” – is now only a “closed parenthesis” and as such not capable of grasping the new challenge: the task of “constructing, in the non-place, a new place,” implying “ontologically new determinations of the human, of living,” that is, a “powerful artificiality of being” (ibid: 217–218; emphasis mine; cf., for example, Gray 2001; Zylinska 2002b; with regard to “the dada cyborg,” cf. Biro 2009; from the perspective of the “romantic cyborg,” cf. Benesch 2002; from the standpoint of “cyberfeminism and artificial life,” cf. Kember 2003; for a historical contextualization in terms of artificial intelligence, cf. Franchi & Güzeldere 2005b).

In the world of the “new barbarians,” the rules of survival are simple: if you have no prostheses you are not an artificial being, and, consequently, you have no chances in the struggle for the survival of the fittest (cf., for example, Hakken 1999: 26–27; Friedrich 2003: 11–13; Cass & Mullet 2007: 164–165; Mazlish 1993; Clark 2004; Vint 2007; for scientific visions of human “bioengineering” in the 1920s, cf. Haldane 1924; Bernal 1970 [1929]; for Haldane’s “technological futurism,” cf. Dronamraju 1995). Therefore, love your prosthesis as yourself, the very ethos of the scientific-technological redesign of the human being, implies the highest form of self-love, the love of oneself as the most appropriate means of one’s own survival. This is the idea of the “powerful artificiality of being”: as a prosthetic subject, one is not only a survival subject, but, moreover, as an act of a new kind of civil courage, the ultimate form of postmodern entrepreneurship of the self in terms of the ego-politics of the post-subject, one has taken the responsibility of one’s own survival; in other words, at issue is a form of posthuman nomadism in which the cyborgian post-subject constitutes a world in and of itself, the only world, a world entirely of its own making (for New Age individualism enhanced by technological self-transformation, cf., for example, Ziguras 1997: 198–208; 2004: 34–42, 140–179; for New Age ego-politics, cf. Hanegraaff 1996; Heelas 1996; in terms of New Age “nomadism,” cf. D’Andrea 2007; in the context of transhumanism, cf., for example, Birnbacher 2008; Bostrom 2008; Rubin 2008).

It is in this manner that the mode of thinking constitutive of the “new barbarians” is “constructive”: the politics of “counter-Empire” is an issue of a comprehensive reconstruction of all being (for Jüngerian techno-avantgardist political radicalism in terms of die totale Mobilmachung, Arbeiter and Gestalt, cf. Jünger 1980 [1930], 1982 [1932]; Heidegger 2004). Thus, instead of Derrida’s deconstruction, it is now Haraway’s “cyborg fable, which resides at the ambiguous boundary between human, animal, and machine” (Hardt & Negri 2000: 218), that provides the “new barbarians” with a subversive politics of theory that is needed for the “anthropological exodus” in the world ruled by the power regime of “Empire.” Although Haraway’s cyborg myth is a “fable and nothing more” (ibid.), nevertheless, elaborated on by the common experience of the “multitude” it opens the way to the right direction: the “plastic and fluid terrain
of the new communicative, biological, and mechanical technologies” (ibid.), the theoretical terrain of “counter-Empire” that is the “non-place” of liberation, the ultimate emancipation in the name of the posthuman (cf. Palmeiri 2006: 170–171; Allatson & McCormack 2008: 14–15; Armstrong 2009: 223–224).

Cyborgs, Nomads and Posthuman Bodies

As we can see, Hardt and Negri’s radical politics is essentially about the body, its forces and experiences, its sensations and passions, a body that in its singularity is a contingent part of posthuman collectivity, of the new political subject, the “multitude”: a chaotic conglomeration, an aleatory swarm, a post-communal hive, consisting of nomadic monads, each embracing its own universe of political radicalism in terms of the politics of affectivity (cf. Gandhi 2006; Clough & Halley 2007). In other words, as Hardt and Negri say above, the “new barbarian” mode of life is based “first and foremost” in corporeal relations and configurations of gender and sexuality that enable the emergence of post-human bodies by bringing about mutations, mixtures and hybridizations of the human, the animal and the machine. Finally, this transformation process that constitutes the “new barbarian” mode of life is facilitated by tools that in themselves have transformed into “poietic prostheses” (cf. Zylinska 2002c: 214–217; Abbas 2006: 122–123; Romanow 2006: 132; Johnston 2008: 284–286; Wills 1995; in terms of “the prosthetic aesthetic,” cf. Smith & Morra 2002b), politically defined prostheses that enable a post-utopian mode of existence in which the only utopia is the posthuman body in its radical singularity: a prosthetic body celebrating the prosthetic ethos of the cyborg: love your prosthesis as yourself.

Without new technologies, without auxiliary organs of the prosthetic body, without artificial redesign of whole life, there is no posthuman (cf. Hayles 1999, 2004b; Graham 2002; Deane-Drummond & Scott 2006; Vint 2007; Gordijn & Chadwick 2008). The deployment of “poietic prostheses” is the birth of the posthuman as the key to the ego-politics of prosthetic subjects practiced by the “new barbarians” as a politics of subversion, a politics of a permanent reconstruction of one’s own prosthetic being: the logic of prosthesis does not recognize limits, and, consequently, exceeding the limits is the imperative of prosthetics, the survival ethos in the world of the cyborg.

In this sense, Hardt and Negri’s biopolitical programme, the politics of posthuman bodies, the political radicalism of the “new barbarians” as the biopolitical production of social life itself, is predicated upon Harawayan cyborg politics, the politics of prosthetics. Accordingly, the postmodern political avantgarde of the “new barbarians,” in Haraway’s (1991f: 249) words, implies “an allegory for the personal and political in the historical mythic time,” “the era of techno-biopolitics.” In these terms, the new collective subject established by the “multitude” that is the subject of the “anthropological exodus,” projects an epochal transition that is about to lead those who have the will and desire to be against to a new world beyond the constraints of modernity, in order to entirely exceed the limits.
of the mode of being restricted by the notion of the subject as an individual self. It is precisely in this configuration that, as Haraway says, “[p]rostheses becomes a fundamental category for understanding our most intimate selves” (ibid.).

Therefore, the politics of prosthetics as a politics of will is not about the will in the inherited sense, not that human ability of volition, the capability of conscious striving for, that is, a purposeful act to attempt to reach an object of a mental projection; instead, it is now about a radical form of voluntarism: free will as the will to freedom, the will of liberating oneself from all the obstacles of one’s own self-realization, the will as the ego-politics of the post-subject to create oneself as a “Self” by transforming oneself into a non-self by means of the “multitude,” the collective subject of the “new barbarians” (in terms of the annihilation of the subject in post-theory, cf. Rose 1991: 71–72, 95–96; Bertens 1995: 6–7; Hammond 2007: 128–149; Terada 2001).

What is at issue in this political radicalism that revolves around the prosthetic ego as a transformatory non-subject is a politics of will in a post-Nietzschean sense, a “will to power,” not, of course, in the sense of power as a means of domination, oppression and subjugation, but in the sense of intensification of the forces of life defined by radical individualism, a heroic life of heroic individuals, in terms of Nietzschean “physiology” (see Nietzsche 1968b [1886]: 21–22; cf. Groddeck 1991: 179, 211–212; Christians 1999: 188–199; Rosciglione 2005: 338–340; Brobjer 2008: 53–54; Gerhardt 1992: 92–93; Gasser 1997; Brown 2004; Riccardi 2005). This is the Nietzschean idea of the body as the very self of the subject, the body as the true Ich, the body-self as the source of an authentic world experience, the body as an intelligent being capable of unmediated apprehension of the world. As Nietzsche (1968a [1883–1885]: 35) says: Der Leib ist eine grosse Vernunft, “the body is a great reason”:

“Leib bin ich und Seele” – so redet das Kind. Und warum sollte man nicht wie die Kinder reden […] Leib bin ich ganz und gar, und Nichts ausserdem; und Seele ist nur ein Wort für ein Etwas am Leibe […] Der Leib ist eine grosse Vernunft […] die sagt nicht Ich, aber thu ich […] Es ist mehr Vernunft in deinem Leibe, als in deiner besten Weisheit (ibid.).”

It is this “physiological reason” of the body, this “great reason” of the body as the real self of the subject, that is the spectre haunting all that is “cyber.” It is in this sense that by speaking about the hybridization and mutation, a fundamental transformation and metamorphosis, of the body in terms of, as the authors say above, the “dark world of cyberpunk fiction,” Hardt and Negri demand that we must change ourselves by changing our bodies in a much more radical way than the cyberpunk writers have ever imagined in their science fiction visions (see, for example, Balsamo 1994: 127–139; Bell et al. 2004: 8–9, 38–46, 104; Dery 1992, 1996; McCaffery 1994d [1991]; Featherstone & Burrows 1995b; Bukatman 71

71 It should be noticed that the German language makes an essential difference between the concepts of Leib und Körper; while the former refers to the body as a subjective experience (I am a body), the second designates the body as an objective entity (I have a body) (see, for example, Caysa 2003: 36–78, 2000; Gugutzer 2004: 146–155, 2002, 2006).
In this respect, it is obvious that Hardt and Negri’s techno-euphoric neo-futur-ism is a genuine postmodern bricolage of Haraway’s cyborg “myth,” post-left-ist political radicalism, and the pathos of the événements of May 1968 in Paris with its celebration of chaos and the creative anarchy of “intensities,” all this in the spirit of Charles Fourier, Wilhelm Reich, Freudo-Marxism and cyberpunk, now recycled through the Deleuze-Guattarian linguistic universe, the rhetorical realm of “becoming.” In this manner, Hardt and Negri’s construction of the world of the “new barbarians” is a theoretical remix consisting of recycled and appropriated ideas from the treasury of theory accumulated by the postmodern theory avantgarde during the past three decades; a postmodern avantgarde of linguistic practices in terms of the “post” celebrating all that is subversive (see, for example, Grosz 1989; Suleiman 1990; Best & Kellner 1991; Docherty 1993b; Hoß & Steinert 1997; Zima 1997; Genosko 1998; Selden et al. 2005 [1985]).

As Hardt and Negri (2000: 447–448) say, in addition to Haraway’s writing on the cyborg (the “Cyborg Manifesto”) and Gibson’s “seminal text” (Neuromancer), the “primary texts” that thematize the “boundaries of humans, animals and machines” are, among others, Gilles Deleuze and Félix Guattari (“desiring-machines”) and Rosi Braidotti (the “nomadic subject”), and in terms of transgressive sexuality, for example, François Peraldi (“polysexuality”), Arthur and Marilouise Kroker (the “subversiveness of bodies and sexualities that refuse purity and normalization”), Judith Halberstam and Ira Livingston (the “posthuman body”), and, with regard to the topic of body modification, of course, the performance artist enjoying a cult status on the postmodern theory scene, Stelarc (“the body is obsolete”), as well as the subversive author Kathy Acker, the “best source for experiments of corporeal and sexual mutations” (ibid.: 447). For all this, Haraway’s cyborg mythology – the grand récit of all that is “cyber” – constitutes the general framework.

In other words, Hardt and Negri’s theory politics in the name of the “new barbarians” is a postmodern theory mix that operates within the canon of contemporary theory in terms of the “post.”

Traversing through the textual configuration outlined above, Hardt and Negri’s text oscillates, in a typical postmodern manner, as an aleatory theory poetry, between political utopianism, science fiction and theory-fiction, hybridizing poststructuralism, cyber fantasies and technological millennialism into a latter-day version of the New Age, recycled by “Californian ideology,” the techno-euphoric discourse of cyber-avantgarde. All this, mixed with the radical rhetorics of the theoretical politics of the New Left, is based on micropolitical voluntarism as a postmodern form of political romanticism stemming from the événements of May 1968 in Paris: a postmodern hybrid of Leninist revolutionary pathos and the Maoist vision of the “Great Leap Forward” (cf., for example, Lowe 2000: 235–239; Li 2009: 81–104; Seidman 2004; Lih 2006; Thaxton 2008); in short, a postmodern manifestation of revolutionary nostalgia in which Mao-

In this sense, Hardt and Negri’s theory world – a world as theory – is about the return of the Freudian Prothesengott in the sense of the “post.”


All these linguistic figures are evocative and suggestive signifiers that contribute to a grand narrative of salvation, a great vision of redemption through the metamorphosis of the subject into a “new barbarian” self-transformer, a new mode of the political subject, a subject for which not so much society as its own body constitutes “the political” in the politics of subversion, a radicalized form of the ego-politics of the post-subject as a post-political transmutation of the egocentrism of the ”entrepreneurial self” (see, for example, Peters 2001: 73–81, 109–111; Besley & Peters 2007: 155–174) characteristic of neoliberal capitalism.

Taken together, what we have in Hardt and Negri’s post-political radicalism is a postmodern revival of political messianism (cf. Wolin 2004: 153–255; Toth 2010), the political theology of the postmodern “Left” as a post-political politics of a post-Enlightenment emancipation.

This is the millennial idea of Hardt and Negri’s “poietic prostheses”: they are techno-textual figures produced by prosthetic poetics, poetic writing working as the prosthetics of theory.
In the World of “Cyborg Monsters”

In Hardt and Negri’s world, we are already living those “future ages,” anticipated by Freud (1972a [1930]: 450–451) in his conception of the Prothesengott, that will bring with them “new and probably unimaginable great advances” of science and technology enabling an augmentation and extension of the organic body with “auxiliary organs,” that is, by means of prosthetics: prostheses that enhance and amplify the capabilities of the body beyond all that is organic, to the technoscientific universe of the “prosthetic God” (see, for example, Marsh 2000: 178–185; Graham 2002: 200–209; Rickard 2002: 91–101; Stewart 2005 [1999]: 357–358; Davies 2006: 120–183; Kull 2007: 58–67; Brahm & Driscoll 1995; Zylinska 2002a; in the context of the First World War, cf. Carden-Coyne 2009: 189–191). This is the idea of Hardt and Negri’s “poietic prostheses,” technological supplements that reconstitute the human body as the embodiment of the posthuman.

What is most problematic here, however, is that not only lies the Nietzschean “physiological body” in ruins in the prosthetic world, but the very carnal corporeality of the somatic body has entirely lost its meaning in the theory radicalism of post-theory, and what has thus been simply left behind is what Bryan S. Turner (1992b: 11–12, 32–33, 42–43, 84–85, 1997 [1984]: 1, 6) calls “somatic society” (cf. Brown 2006: 45–48; Diprose 2009: 118–128; Blondel 1991 [1986]; Shusterman 2008). Proudly the cyborg presents its prosthetic body, its posthuman techno-body, its body-machine assemblage of a technologically upgraded post-body constructed around its cybernetic prostheses, a techno-scientific construction capable of experiencing sensations and affections entirely beyond the human. This is the jouissance of techno-organs, the bliss of being more than the human. This is the pride of the cyborg, its overwhelming feeling of being the ultimate embodiment of the Nietzschean Übermensch (see Nietzsche 1968a [1883–1885]: 8–10; Owen 1995: 105–131; Ansell Pearson 1997: 90–92; Conway 1997: 20–27, 51–52, 120–124; White 1998: 3–14; Ehrlcher 2001: 44; Williams 2001; Pettman 2002), the true avatar of the Nietzschean “will to power” (see Nietzsche 1968a [1883–1885]: 143–145, 1968b [1886]: 21–22, 31–33, 1968c [1887]: 332, 1973a [1882/1887]: 267–268): the incarnation of posthuman God in the form of prosthetic God as the very immanence of cyborgian omnipotence (cf., for example, Waters 2006: 2–5, 90–97).

This is the liberation theology of the “post”: no longer is a promise just a promise, but the promise is now redeemed by way of technoscientific voluntarism implying its own post-teleological teleology of emancipation as the deification of the posthuman in its radical form of transformative and transgressive individualism. This is the liberation propagated by the techno-messianism of the cyborg, the liberation brought about by becoming as the becoming of
one’s own becoming as the becoming divine in one’s own being: the mode of being as becoming after the human.

Thus, what is freedom in the world of the “post”? It is the freedom of will, the will to empower oneself by means of one’s own will, the “will to power” in the Nietzschean sense (see Nietzsche 1968a [1883–1885]: 143–145, 1968b [1886]: 21–22, 31–33, 1968c [1887]: 332, 1973a [1882/1887]: 267–268; cf. Ansell Pearson 1991). That is, the will of the cyborg is the highest form of voluntarism; that is the freedom of the “post,” the freedom of the cyborg: the freedom to choose oneself by way of a permanent becoming oneself as the “other” of oneself: the “prosthetic God” of one’s own making.

In these terms, the liberation theology of the “post” is not a question concerning technology as technology, neither a matter of teleology in its conventional sense of telos as the causa finalis, for the reason that the world of the “post” is the opposite of all that is teleological since the contingent defines the logic of the “post”; instead, the liberation of the human in the name of the cyborg is a question concerning the body as an open form, and thus as the very condition of possibility of being posthuman implies becoming the most radical embodiment of technology as both natura naturans and natura naturata (see, for example, Kashap 1987: 25–29; Lermond 1988: 6–8; Rothenberg 1993: 59–65; cf. Böhme & Böhme 1985 [1983]: 139–146, 2004 [1996]: 13, 34–50); that is, a being as becoming constitutive of the prosthetic world of the “post.” It is in this sense that the cyborg as a paradigmatic manifestation of the posthuman is an issue of finally accomplishing the Nietzschean idea of the human being as die Brücke, “the bridge,” between the lower and the higher order of life, the ultimate Übergang, “transition,” from the human to the posthuman (see Nietzsche 1968a [1883–1885]: 10–11; cf. Joisten 1994: 91–97; Brusotti 1997: 537, 554–566; in Heideggerian terms, cf. Magnus 2000: 311–312).

Accordingly, the Nietzschean “will to power” as the will of the posthuman is decisively more than just a will: the will of the posthuman is a supreme mode of desire, the desire for affirming oneself by negation of oneself: the negation of oneself as human. This is the post-evolutionary emancipation of the human being in terms of the posthuman.

From this perspective, it becomes understandable why the posthuman is a theory project in the sense of the politics of theory: in terms of the “post,” theory is both a manifestation and a medium of desire, its expression and vehicle: desire as the very driving force of becoming (cf. Butler 1999b [1987]). The politics of theory is the politics of desire effected by “the theoretical” as a postmodern mirage, the ignis fatuus of “the political” that has enchanted postmodern academia. Thus, in the theory matrix of the posthuman, a theory discourse based on the libidinal language of the “post,” the prosthetic body is a libidinal object, a phantasm driving the desire for theory forward; along with it, what is at issue here is the posthuman as a postmodern form of sexual-political radicalism typical of the
modern; a radicalism no longer in the mode of the Reichian *SexPol* politics, but in the manner of Harawayan “cyborg ‘sex’” (see Haraway 1985: 65–66). Precisely for this reason, Stelarc, “the foremost exponent of *cybernetic body art*” (Dery 1996: 153; emphasis mine), that is, the most avant-gardist techno-artist and a pre- eminent cult figure on the theory scene of techno-futurist post-theory, is the very embodiment of the posthuman prosthetic God, a being for which evolution is no longer about biology but technology, technology as a new biology entailing, at the same time, biology as technology (see, for example, Graham 2002: 196–198; Massumi 2002: 89–132; Murphie & Potts 2003: 131–133; Giannachi 2004: 55–63, 2007: 65–70; Cooney 2004: 142–145; Munster 2006: 130–136; Carr 2008 [1993]: 10–15; Farnell 2000a, 2000b; Featherstone 2000; Montano 2000; Zylinska 2002b; Smith 2005).

What is constitutive of the discourse on posthuman bodies as prosthetic bodies is the idea of subversive sexuality, the idea of sexual transgression as a form of both political and theoretical radicalism that is enacted by writing, *writing the body in terms of post-sex*, in the name of “sex,” resulting in a “sexual body” that is absorbed by and merges into writing, a “body” that is conjured up by the “writerly” of the written in terms of the “cyber,” a body the very corporeality of which is “figural”; that is, the “body as the scene of writing” (cf. Kirby 1997: 51–81; Suleiman 1986a; Potts 2002; Parisi 2004). Similarly to the cyborg as a textual figure, the posthuman body is an effect of writing that I call *desire-writing*, writing that is both writing about desire and desire as writing, writing as a Deleuze-Guattarian “desiring-machine” (see Deleuze & Guattari 1998 [1972]: 1–50; Goodchild 1996: 78–79, 82–83) that produces the desire it is writing about as well as the writing it is desiring for: *writing as a Derridean scene of writing rewritten into a scene of desire* (cf. Derrida 1978c [1967/1966]).

As a result of desire-writing, a new sexual order appears, an order in which the sexual is thoroughly reconstructed through a radical deconstruction. A mode of deconstruction, it is to be emphasized, implies a linguistic-technological rewriting of the body, a translation of the corporeal into the terms of the posthuman. In this linguistic-theoretical realm of the techno-imaginary that I call *the discursive transposition of the “cyber,”* the machinic and the prosthetic intertwine to reconstitute the subject as the object-subject of the post-body, as a non-identical and non-identitarian identity; an assemblage of ever-changing fragments of techno-corporeality, the prosthetic organs of the cyborg each of which can always be upgraded or changed altogether (see, for example, Metcalf 1998: 112; Clarke 2002: 39–44; Mirowski 2002: 443–448; Muri 2007: 84–85; Smith-Windsor 2008: 279–281; Helman 2004). It is in this manner that in Hardt and Negri’s world, the world of the “new barbarians,” as Haraway (1991a: 162) says, “[a]ny objects or persons can be reasonably thought of in terms of dis-assembly and reassembly; no ‘natural’ architectures constrain system design.” In other words, the body is no longer about being; instead, the body is now
about “becoming,” a body that time and time again is “disassembled” and “reassembled” by means of prosthetics.

It is in this manner that the “sexual” in the world of the cyborg always becomes redefined in terms of prosthetic sex; it is customized “sex” in contingent constellations emerging from the chance encounters of cyborgs; “sex” in the mode of Harawayan “cyborg ‘sex’”: the prosthetic organs of the cyborg, whatever they happen to be, are the “sexual organs” of the posthuman, techno-organs that can be “disassembled” and “reassembled” at will, according to one’s own sexual idiosyncrasies, one’s own particular proclivities, according to one’s own subversive desire as a desire for the subversive. That is, your sexual body is not your body; it is a prosthetic assemblage that is a post-identitarian construct with its own logic, a postmodern logic of undefinable desires and pleasures, the logic of the heterogeneous that is the very logic of the cyborg (in terms of “heterotopia,” cf. Siebers 1994a).

A desire to disrupt the confinements of heterosexuality, a desire to get out of heterosexuality altogether, a desire for a new world of polysexuality – that is the imperative of the sexual in terms of advanced body modification, the sexual in the world of the cyborg as the paragon of transgression, the cyborg as the very embodiment of the subversive. This is the desire turned into the will of resistance, the will of insurrection against the existent, the will of becoming; in other words, the will to revolt, a desire to be a rebel with a cause, the cause of one’s own: one’s “own” post-body as an alien body, the object and subject of posthuman desire.

This is the imperative of posthuman bodies, the imperative to transform and mutate oneself. In the world conceived of by Hardt and Negri, the modern, paradoxically, has resurrected by way of implosion; this is the Hegelian List der Vernunft, the “cunning of reason,” that haunts the postmodern: the postmodern is a revival of the modern in its ultimate form (see Hegel 1986a [1830]: 365, 1986d [1837]: 49, 1986f [1812–1816]: 452; cf. Siemek 2002: 196–205).72

In the world of the posthuman, envisaged by Hardt and Negri, the organism, understood as a technologically enhanced post-body, takes on the position of the first mover of posthuman life: to become posthuman and live as a posthuman body-subject necessitates a reconfiguration of the body as a hybrid

72 Of course, from the standpoint of the human (which, of course, is the premise of the posthuman), as obsolete as it is now, a skeptical question can arise: as marvellous as prosthetic sex ever is, nevertheless, if the cyborg, as a prosthetic body-machine-assemblage, is, per definitionem, a cybernetic organism, what is it that makes it able to experience sensations and affections constitutive of desires and pleasures, also in the mode that is designated as “sexual”? The problem is that the human (and consequently, the posthuman) is more than an organism, supposedly even as a cybernetic organism in the manner of the cyborg. What is an organism as the condition of possibility of the human body is the very substratum that, though it enables human experience, is not the substance of the human in the human being: all that is human is cultural, not “natural” in the sense of the organic. That is, organism does not experience, it functions. Although the organism of the human being is the precondition of the experiences that constitute the human in the human being, the experiences in themselves are not organic (and, as such, not “natural”); they result from culture as the very “nature” of being human.
organism; as Hardt and Negri say above, the new body must “be able to create a new life,” and, in this sense, the “infinite paths of the barbarians must form a new mode of life,” life as an ongoing transformative process (cf., for example, Dyer-Witheford 1999: 177–180; Lettow 2003: 50–56; Read 2003: 131–132; Hawkesworth 2006: 137–138; Bath et al. 2005). It is this unending redesign of the body by means of scientific-technological body modification that constitutes the body experience of the “new barbarians.” In other words, instead of being a human being, the posthuman being, indeed, is a cybernetic organism, a cyborg in the Harawayan sense; as Hardt and Negri maintain, a hybrid of the human, animal and machine, and, accordingly, it is this post-organic transformation, implying an endless experimentation in the body laboratory of one’s own self, that establishes the experiential world of the “new barbarians.”

“For us,” as Haraway (1991a: 178) says, “in imagination and in other practice, machines can be prosthetic devices, intimate components, friendly selves.” Therefore, we no longer need “organic holism,” a dream of “impermeable wholeness” (ibid.). The emerging new world is a world of “cyborg monsters” (ibid.: emphasis mine; cf. Haraway 1992c). Thus, what is now happening is that we are approaching a new order of “the personal and political in the historical mythic time,” the time of the cyborg, “the era of techno-biopolitics” (ibid.: 249; cf. Foucault 1990k: 138–145; cf. Rygiel 2006: 146–163; Nadesan 2008: 184–191; Dillon & Reid 2009: 30–41; Tyner 2009: 31–32, 44–45; Lykke & Braidotti 1996b).

For Haraway, it is precisely the prosthetic augmentation and extension of the body that makes possible to get out from the constraints of the biological body, to break out from the prison of the flesh (cf. Hayles 2004a: 238–246; Abbas 2007: 244–250).

This is the context in which Hardt and Negri’s radical transformation of the world in terms of the ego-politics of the “new barbarians” becomes intelligible.

In this sense, the prosthesis is not just an enhancement and restructuring of the body; in epistemological and ontological terms, it constitutes an entirely new paradigm of the subject: in the world of the cyborg, as Haraway reminds us, the prosthesis “becomes a fundamental category for understanding our most intimate selves” (Haraway (1991f: 249; emphasis mine).

5.3.2 The Cyborg Subject and Prosthetic Love

In this post-cybernetic configuration, the body turns into an interface of various body-technologies, paradigmatically exemplified by Stelarc’s prosthetic experimentation (see, for example, Stelarc 1991, 1997, 1998, 2002a, 2002b, 2002c; cf. Dery 1996: 153–170; Wegenstein 2004: 221–224; Zylinska 2005: 132–134; Appleby 2002; Clarke 2002; Gray 2002; Jones & Sofa 2002; Poster 2002); a techno-body as a prosthetic body constantly in a state of transformation and transgression; in other words, the body not in a condition of being, but all the

Thus, the cyborgized body is a technoscientific, post-cybernetic prosthetic system, a post-organic body-machine assemblage, working at the same time according to the principles of negative (stabilizing homeostasis) and positive (adaptive alteration) feedback, the basic principles of all cybernetic or self-regulating systems (see Wiener 1961 [1948]: 6–8, 95–115, 128–133, 1968 [1950]: 24–27, 32, 45, 54–57, 86); with the difference, of course, that, while in the world of Wienerian cybernetics, the body in itself was a machine (see Wiener 1961: 14–15, 26–27, 40–44, 95–97, 120–122, 1968: 18–36, 43–66; cf. Taylor 1993: 227–228; Cordeschi 2004: 186–188; Depew 2004: 62–63; Johnston 2008: 26–27), in contrast to that, in the world of the cyborg, the world of the posthuman, the body, instead of being a machine, is a techno-organism (see Haraway 1991a: 149–155): a post-organic substratum, a malleable form of matter, upon and around which the prosthetic constructions, constitutive of the cyborg, are assembled and reassembled.


It is in this constellation that all that is called “sexual” goes through its final demystification: what for three centuries since the invention of “the sexual” (see Foucault 1990k [1976]; Stanton 1992a; Davidson 2001) was deemed to be obscure and arbitrary excitations of the body beyond the control of reason, turns into a manifestation of the rationality of the machine in the world of the cyborg.

73 As Haraway (1991a: 149) says, the “cyborg is a cybernetic organism, a hybrid of machine and organism” (emphasis mine); in this sense, “modern medicine” is “full of cyborgs, of couplings between organism and machine, each conceived as coded devices, in an intimacy and with a power that was not generated in the history of sexuality” (ibid.: 150; emphasis mine). For this reason, “we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs” (ibid.; emphasis mine). And although “the boundary between human and animal is thoroughly breached” (ibid.: 151) in contemporary culture to the extent that the “cyborg appears in myth precisely where the boundary between human and animal is transgressed” and where the “distinction” “between animal-human (organism) and machine” has become “leaky” (ibid.: 152), this notwithstanding, as a hybrid, the cyborg, in terms of technology, consists of two entities, the organism and the machine. In contrast to that, organisms are machines and machines are organisms in Wienerian cybernetics (see Wiener 1961 [1948], 1968 [1950]; Browder et al. 1988 [1966]; Masani 1990; Jerison et al. 1997; Mandrekar & Masani 1997; Pias 2003, 2004). It is expressly this distinction, implied by the notion of hybrid, that makes Haraway’s cyborg problematic, even a step backwards, in comparison to Wiener’s cybernetics.
**Being a Body sub specie machinae**

Under these circumstances, cybersex, in the last analysis, has the same objective as the advanced military systems based on high technology: “to take the human out of the loop” in order to let the intelligence of the machine take command over decisions that are too complicated and time-consuming to be carried out precisely and quickly enough by the human being (see, for example, Edwards 1996: 65–66, 271–273, 328–331; Mirowski 2002: 284–285; Johnston 2008: 128–130; with regard to Stelarc’s prosthetic performances, cf. Scheer 2002: 87–89; for a historical contextualization in terms of “the military information society,” see Levidow & Robins 1989a; from the perspective of the Vietnam war, cf. Gray 1999: 186–191; Kellner 1999; for the systems and control thinking typical of American culture in the 1960s, see Brick 1998: 128–145; for the logic of “the absent warrior” in the context of nuclear weapons, see Chaloupka 1992: 25–49; for the networking of military actions, see Kaufmann 2003, 2005, 2006, 2007; for the emergence of the contemporary military-technological society, see Spreen 1998b, 2008). In other words, from the perspective of the scientific-technological rationality constitutive of military design, humans are simply too slow and unpredictable for a reliable performance. In highly complex systems, such as the military systems are, humans are basically not reasonable enough and thus incalculable: humans are a high risk factor, a permanent source of systems errors.


Accordingly, as we can see, it is only the posthuman that can survive in the world of the cyborg established by the imperative of technological functionality, the reason of the machine. That is, under the scientific-technological regime of what Steve Dixon (2007: 305–306) calls “cyborgism,” only a perfect body is a body at all; therefore, the body has no alternative but to become a machine in order to survive (cf., for example, Mason 1995: 225–228, 237–240; Badley 2000: 74–76; Rose 2007: 20–21; in Heideggerian terms, cf. Zimmerman 1994: 355–372).

In this respect, if sex still has any purpose at all (in general, and in technoculture in particular), it is feasible in the age of post-cybernetic systems only if it follows the logic of scientific-technological functionality, the rationality of optimized performance: the rationality of the body that has become an embodiment of technoscientific reason, the very same reason that drives forward the political economy of neoliberalism under the disciplinary regime of neo-Fordism. In this sense, instead of Foucauldian “disciplinary society,” cybersex is sex in what Deleuze (1992b [1990]) calls a “society of control” (cf., for example, Peters 2001: 97–112; Conley 2006: 103–104; Marks 2006: 207–211; Lyon 2007: 60–61, 86–87). That is, the “human” body which in itself, in its atavistic
spontaneity, is unpredictable and thus unreliable, is an, if not the, anathema of machinic reason: left to its own devices, the body, every body, is sooner or later not only out of control, but, what is more disastrous for the control paradigm, it is beyond control altogether, moved to the free zone of the wilful flesh in which the irrationality of the body wields its power uninhibited by the rule of reason (see, for example, Lacan 1977b [1966]; Freud 1986d [1915–1917]; Bataille 1997; Botting & Wilson 1998).

In other words, the body set free from the reason of control is a body that has its own rationality, the reason of being a body in the sense of Leib; as we recall Nietzsche (1968a [1883–1885]: 35) saying, [d]er Leib ist eine grosse Vernunft, eine Vielheit mit Einem Sinne, ein Krieg und ein Frieden, eine Heerde und ein Hirt, “the body is a great reason, a plurality with one sense, a war and a peace, a herd and a shepherd,” [e]s ist mehr Vernunft in deinem Leibe, als in deiner besten Weisheit (ibid.), “there is more reason in your body than in your best wisdom.”

In the society of control, in contrast, the body is – or, is assumed to be – a high-performance machine always under control, an automaton that follows the reason of the machine (for the origin of the body-machine metaphors in the Renaissance and Cartesian philosophy, see Sawday 1995: 22–38, 129–131, 156–158, 170, 2007; for a critical discussion of the machinic conception of the human body from the perspective of the phenomenology of the body, see, for example, Leder 1990; Todes 2001 [1990]). This is the universe not of sex but “sex,” a universe in which not only the flesh – now understood, of course, to be but meat74 – is merely a poor residue of the old world, doomed to live in the lower spheres of nature entangled with its organic contingencies; but moreover, in this fantastic realm of “sex,” sex is turned into post-sex, which, in turn, paradoxically, is there only to disappear altogether. In this respect, as William Bogard (1996: 154–155) says, “sex ‘itself’, ‘real’ sex is already long dead,” and, therefore, instead of sex (whatever it is, in the first place), what we have now – or, soon will have – is precisely “sex” experienced in post-cybernetic systems, in the cyborgian configurations of posthuman desires and pleasures, desires and pleasures that are effected by the reason of control.

According to Sadie Plant (1998: 30), sex after sex as we have it now is “virtual sex.” This new kind of sexual experience, as Plant with a certain understatement remarks, is commonly held to be the “epitome of disembodied pleasure,

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74 This kind of disdain and contempt towards the carnal body, the flesh, is paradigmatically expressed by William Gibson in his Neuromancer (1995 [1984]) in which the hero, the “console cowboy” Case, experiences withdrawal symptoms when prevented of enjoying the pleasures of disembodiment in cyberspace: “For Case, who’d lived for the bodiless exultation of cyberspace, it was the Fall. In the bars he’d frequented as a cowboy hotshot, the elite stance involved a certain relaxed contempt for the flesh. The body was meat. Case fell into the prison of his own flesh.” (ibid.: 12; emphasis mine) According to Mark Dery (1996: 234–235), this kind of “body loathing” is typical of whole cyberculture celebrating the idea of being beyond the body (cf., for example, Morse 1994: 157–158; Wilson 1996: 224; Botting 1999: 8, 17, 150–153, 158–169, 181–186; Cavallaro 2001: 147–150; in the context of “medical ethics and feminism,” cf. Rothfield 1995: 168–169).
contact-free sex without secretions in a zone of total autonomy” (ibid.). For Plant, it is, indeed, all of that; but, in fact, it is more: virtual sex is technological sex, sex in the pleasure dome of prosthetics, and it is thus, as Plant asserts, entirely purified from the irrational arbitrariness of conventional sex, that is, sexual desires and pleasures constitutive of the practices of meat sex that always create high hopes, but, in the end, reward the subject only with frustration and despair, and, in the final instance, turn out to be just reflections of a mirage, a fata morgana (ibid.: 30–32; cf., for example, Hassan 1975: 136; Bogard 1996: 158–160; Kroker & Kroker 1996a: 37–43; Cavallaro 2000: 126–132; Parisi 2004: 1–4, 8–10; Perniola 2004 [2000]: 28–36; Angerer 2008b: 232–242; Stenslie 1994b, 1996, 1997, 2000b, 2006). In contrast, virtual sex embraces a “safe environment free from the side-effects and complications of actual intercourse: transmittable diseases, conceptions, and abortions, and the sad obligations of emotional need” (Plant 1998: 30).

Instead of being a “meat thing,” cybersex is techno-sex that takes place in a “closed circuit, a sealed elsewhere, a virtual space to be accessed at will” (ibid.). Whatever you dream about, it is there for you, virtually. Thus, in the postmodern artificial paradise constituted by cyber technology, as Plant explains:

[… cybersex is well advanced: the hardware is fetishized, the software is porn, and vast proportions of the telecommunications system are consumed by erotica. But these are merely the most overt – and perhaps the least interesting – examples of a generalized degeneration of “natural” sex. As hard and wetwares collapse onto soft, far stranger mutations wrack the sexual scene. The simulation of sex converges with the deregulation of the entire sexual economy, the corrosion of its links with reproduction, and the collapse of its specificity: sex disperses into drugs, trance, and dance possession: androgyny, hermaphroditism, and transsexualism become increasingly perceptible; paraphilia, body engineering, queer sex, and what Foucault calls “the slow motion of pleasure and pain” of SM […]. (ibid.; cf. Foucault 1990e [1984])

As for Pat Califia, to whom Plant (1998. 30) explicitly refers, what we have now is “high-technology sex.” And it is as if Norbert Wiener, the founding father of perhaps the last modern science, cybernetics (see, for example, Heims 1975, 1980, 1993 [1991]; Masani 1990; Pias 2003, 2004), would have been resurrected in this new world under the regime of the “cyber,” for it is the phantasm of cyborgian reason emerging from the popularization and hyperization of the scientific-technological rationality of cybernetics in the American counterculture of the 1960s and 1970s (for an overview, see, for example, Ross 1991d; Dery 1996; Turner 2006; Diederichsen & Franke 2013; in terms of “cyberpop,” cf. Matrix 2006), that is, a post-rational, imaginary reason in the mode of the surreal, that, at the same time, is able to both overcome and rescue sex – but, of course, in the form of post-sex, sex entirely extracted from the sexual paradigm of humans, that is, desires and pleasures predicated upon “meat.” As Plant (1998: 30) asserts, “[c]ybernetics reveals an organism cross-cut by inorganic life – bacterial communication, viral infection, and entire ecologies of replicating patterns which subvert even the most perverse notions of what it is to be ‘hav-
5 WHERE I WAS, THERE THE MACHINE SHALL BE


This is the new world of “next sex,” “sex in the age of its procreative superflu- ousness” (Stocker & Schöpf 2000b), a world in which Baudrillardian “sexual rea- son” (see Baudrillard 1990g [1979]) at last has turned into reality, of course, the reality of virtual reality. This is the posthuman world of the prosthetic being, the world of the cyborg. In this world of technological body design as the ultimate free zone of post-subjects (cf. Rosenau 1992: 42–61; Peters 2001: 3–15, 60–70; Smith 1988; in terms of post-Heideggerian “subject,” cf. Critchley 1999: 51–82), a realm of post-sexual ego-politics, as Haraway (1985: 66) says, “[c]yborg ‘sex’ restores some of the lovely replicative baroque of ferns and invertebrates” that, beside a new mode of sexual pleasure, bring about “such nice organic prophylactics against heterosexism.” This is the promise of the post-feminist cyber- borg: “The cyborg is a creature in a post-gender world” (ibid.: 67; cf., for example, Mirowski 2002: 4–7; Sofoulis 2003: 89–92; Badmington 2007: 27–30 36–37; Genz & Brabon 2009: 146–147). That is, the cyborg only acknowledges pleasures that are beyond the bourgeois regime of the Oedipal body, in other words, beyond the law of the “Father” (cf. Lacan 1977e [1966/1953]: 67, 1977h [1966/1960]: 310–311).

Instead of the project of the modern attempting to achieve a thorough mech- anization of life, what we have now, in the world of the “cyber” following the logic of the “post,” is a “sex-appeal of the inorganic” (see Perniola 2004 [2000]). This is a world in which not only nature has ultimately lost its illusory “naturalness,” but, more fundamentally, in which all the ideological delusions manifested by humanism have lost their validity once and for all. This is a post-biological, post-organic world based on artificial constructions, a universe of technological artefacts dominated by the rule of the posthuman paradigm: where I was, there the machine shall be. Here, the machine is no longer an external structure to which the body has to adapt; instead, the body as a whole is a prosthetic system, a post-body for which integrity means an integral relation- ship to technology.

This is the Leitmotiv of the new order of life under the auspices of the Machine – or, as Arno Baruzzi (1973) says, sub specie machinae – redefining human sub- jectivity not in terms of corporeal abilities but prosthetic potentialities.

Prosthesis as a Theoretical Sex Object

In this configuration, it is the cyberization of prosthetics in terms of the “post” that informs the idea of the posthuman being, a being genealogically intelli- gible in the context of what Mark Seltzer (1992b) calls the “body-machine com- plex” (cf., for example, Yuan 1997: 78–80; Bayer 1998: 202–204; Mikkonen 2001: 199, 209–212; Gaughan 2006: 141–142, 150–151; Yanarella & Reid 1996). In the
background of this idea, there is a long tradition of philosophical and literary themes and topics concerning the construction of the man-machine and the machine-man from the automata of Antiquity through the Golem and android figures of Jewish and European folklore and mythology, as well as Cartesiasian, La Mettriean and Sadean “body-machines” to the contemporary cyborgs (see, for example, Baruzzi 1968a, 1973; Bammé et al. 1983; Berr 1988, 1989, 1990, 1994; Sutter 1988; Beaune 1989; Hénaff 1995 [1975], 1999 [1978]; Meyer-Drawe 1996; Bammé 1998; Pfister & Zweifel 2002; for the complexity of the idea of the machine in the Sadean context, see Glaser 1988; Hénaff 1995 [1975]; Krewani 1998a; Treusch-Dieter 2005).

Most clearly this transformation of the human into the posthuman is manifested in cyber discourse. All that is “cyber” – from cyberpunk science-fiction visions (see, for example, Benedikt 1994 [1991]; McCafferey 1994 [1991]; Bukatman 1996 [1993]; Dery 1996; Crang et al. 1999; Cavallaro 2000; Foster 2005) to theory-fictions concerning the cyborg and cyberspace in terms of the “post” (see, for example, Wolmark 1999a; Bell & Kennedy 2000; Kirkup et al. 2000; Flanagan & Booth 2002; Zylinska 2002b) – is a discursive catalystor for a technomorphist avantgarde playing with ideas pertaining to the post-natural body, the techno-imaginary post-body as a prosthetic body-machine assemblage. In this sense, cyber discourse rewrites human corporeality into a posthuman morphology of the subject, a subject that is living in a new kind of artificial paradise constituted by prosthetic supplementation of all that was once human. In this technomorphic paradise, prosthesis is sexualized and sexuality is prostheticized; that is, desires and pleasures, circulated and recycled in and through the discursive matrix of the “post,” are predicated upon machinic constructions defined in terms of the “cyber.”

Whether prosthetic love is a postfeminist version of affects and emotions traditionally ascribed to mythical feminine figures and literary fantasies in masculine imagination, ranging from Pygmalion and Pandora in the mythology of Antiquity to the woman as an automaton, or as a machine, dreamt of, for example, by E. T. A. Hoffmann and Auguste de Villiers de l’Isle-Adam in their fantasy stories (see, for example, Glaser & Kaempfer 1988; Gendolla 1992; Wittig 1997; Drux 1999; Mikkonen 2001), or whether it is just a postmodern conceit based on a playful linguistic figuration, is an open question.

In terms of the linguistic approach constitutive of the present study, what is at issue here is that prosthesis is a textual entity in the universe of techno/cyber-theory proliferating post-theoretical mythopoetics; that is, écriture-writing that through linguistic figuration mythologizes all that is technological. In this respect, the Urtext of all post-theoretical theory-fictions playing with the idea of the technologization of the human body, of course, is Haraway’s (1985) “Cyborg Manifesto,” an extremely popular source of post-theoretical fantasy writing in postmodern academia (“popular” in both senses of the word), and, in this sense, the origin of popular “cybernetics” that dominates contemporary
academic discourse with regard to the transformation of the human being in
terms of the posthuman. It is thus understandable that prosthesis has now
turned from a medical aid into a theory prosthesis of post-theory (see, for ex-
ample, Brahm & Driscoll 1995; Wills 1995; Woodward 1997b; Lury 1998; Foster 2004;
Landsberg 2004; Smith & Morra 2002b): in the world of the “post,” “prosthesis”
is a linguistic figure, a discursive supplement (cf. Derrida 1997 [1967]: 141–164),
deployed in order to produce theory; that is, a phantasmatic object that, like
a phantom limb, is present in its absence. This is the logic of “the prosthetic” in
post-theory: prosthetic writing as prosthetic theory, a postmodern mode of the-
ory that, by means of ever-new prostheses, prostheticizes itself in order to exist
as theory in the first place.

In this sense, as a libidinal object, prosthesis has in post-theory become a
postmodern sexual supplement, a fantasy object cathedged by a sexual charge
generated by textuality that functions in terms of “the sexual” in the mode
of the textual. Thus, prosthesis has turned into a new kind of sexual projec-
tion: a theoretical sex object. In comparison to biologism typical of the biopol-
itics of eugenics and related visions of the improvement of society by means of
sociobiological planning and regulation (see, for example, Dean 1999: 134–141;
Esposito 2008 [2004]: 127–142; Rose 2007; Morton & Bygrave 2008), this kind
of sexualization of prosthetic technology manifests, for its part, an emergent
dispositive that I call the biopolitics of technomorphism, a politics of the body
defined by the discursive figures of the body-machine complex; a configura-
tion of ideas that, although being a genuine product of the postmodern, has
its roots deep in the modern (for the problematic of this kind of thought see-
ing technology not only as a panacea, but also as the ultimate destiny of the
human, see, for example, De Landa 1991; Mazlish 1993; Rohkrämer 1999; Brou-
wer & Hoekendijk 1997; Franchi & Güzeldere 2005b).

In these terms, technomorphism, be it in the form of postmodern utopian
fantasies or post-theoretical theory-fictions, reactivates the celebration of the
 technological characteristic of the first decades of the twentieth century; that
is, the cult of the machine typical of avantgarde movements, most spectacu-
larly in Italian and Russian Futurism (see, for example, Stites 1991 [1989]; Perloff
1986; Bowlt & Matich 1996; Hellebust 2003; Poggi 2009), reaching, in the end, to
the mystification of the machine in the manner of what Richard Coyne (2001)
calls “technoromanticism” constitutive of all that is “cyber.”

No doubt, the prosthetic body, as a technoscientific reform-body, is the lat-
est, if not the final, instantiation of what Dietmar Kamper and Christoph Wulf
(1982) call die Wiederkehr des Körpers, “the return of the body,” discussed time
and time again, since the early 1980s, as a figure in the discourse on a post-
Enlightenment “civilization process” (cf., for example, Gugutzer 2004: 45–48;
Moser & MacLeod 1996; McKenny 1997; Armstrong 1998; Dyens 2001; Pronger
2002; Shilling 2005; in terms of the Freudian Wiederkehr des Verdrängten, cf.
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[1926], 1987e [1920]; Laplanche & Pontalis 1998 [1967]: 631–632), a technoscientific process forming the body no longer in the image of God but the image of reason, an embodiment of the rational: the self-image of the human being as an omniscient and omnipotent creator of itself in the form of a “prosthetic God” in the sense of the posthuman and, at the same time, as its reverse side, repressing the experience of the carnal body, the realm of the revolting flesh: a counter-body as the “other” of reason. Thus, what is at issue now is not so much the return of the repressed, rather, the final repression of the repression, that is, the ultimate triumph of the artificial (see, for example, Adam 1998: 1–8, 107–129; Morris 1998: 90–96; Best & Kellner 2001: 100–204; in terms of literature and technology, see Greenberg & Schachterle 1992; for the idea of artificial paradise in science fiction, see Ben-Tov 1995; in the context of postmodern theology, see Waters 2006).

The perfect body as the ideal of the postmodern body cult is increasingly promoted by technoculture: the body as a technological artefact, a body that is propagated as a reasonable option because it is based on a rational design, on technoscientific body engineering.

The body as a scientific-technological product, as an embodiment of the calculative reason of neoliberal capitalism – that is the ultimate level of what poststructuralism has celebrated as the “death of the subject” (see, for example, Rosenau 1992: 42–61; Terada 2001: 1–8), now in the form of what Gabriele Schwab (1994) calls “subjects without selves.” From this perspective, if the body, from the very beginning, is an assemblage of body parts produced by scientific-technological means, that is, organs without the autopoiesis of bios, but, instead, as artificial organs manufactured by the methods of techno-poiësis, it is evident that there is no possibility for the Oedipus complex (cf. Freud 1972d [1925]: 21–23, 28, 1972h [1931]: 515, 522–523, 1981c [1905]: 127, 1983a [1938/1940]: 116, 121, 1987a [1923]: 261–262, 1987b [1924]: 395–398, 401; Clough 2000: 11–20, 50–53; Farnell 2000a: 113; Flieger 2005). This is a “third space for cyborg politics” (Wood 2000), a realm of hybridity in which all binary oppositions are disrupted, a post-political site of resistance against normative identity in which the post-subject, embodying its technologically enhanced post-body, enjoys the pleasures of non-identity (see Haraway 1991f; cf. Bhabha 1994 [1984]).

For this reason, what in Freudian discourse are called Partialtriebe, “partial drives,” (see Freud 1981c [1905]: 67–68, 93, 98–101, 1981d [1905/1906]: 157, 1987f [1923]: 220), have now entirely new possibilities since the prosthetic body, a body put together of prosthetic organs that in themselves are expressly partial, is a body that, as a fragmented assemblage, enjoys the pleasures of affective fragmentation intrinsic to the whole Triebstruktur of technoculture.

What is at issue here is a body that is driven by a new kind of desire: a desire for organs without a body. As the opposite of the Deleuze-Guattarian “body
where I was, there the machine shall be


This is a post-Oedipal situation, indeed, since organs without a body as organs of separate drives, cannot ever, per definitionem, constitute a unification of drives as a resolution of the Oedipus complex (cf Freud 1972d [1925]: 21–23, 28, 1972h [1931]: 515, 522–523, 1981c [1905]: 127, 1983a [1938/1940]: 116, 121, 1987a [1923]: 261–262, 1987b [1924]: 395–398, 401); instead, these organs are driven by partial drives constitutive of the cyborg (see Haraway 1991a: 150–155; in Deleuze-Guattarian terms, see Deleuze & Guattari 1998 [1972]: 42–68, 273–296; Flieger 1999: 228–235; Mullarkey 1999: 61–63). What we have in this techno-sexual constellation is prosthetic sex; that is, post-organic “sex” by means of prosthetic organs, artificial extensions and amplifications of the post-body, that are the sex organs of the cyborg.

Then again, if the sexual, in one way or another, is bound to the organic, to the specific ability of the organic body that Freud (1986d [1915–1917]: 335–336, 1990c [1933]: 104–105, 1991d [1915]: 217–218) calls Organlust, “organ pleasure,” it is obvious that the body is a sine qua non of sexual pleasure (cf. Brown 1985 [1959]: 45–46, 120–121) – provided, of course, that “the sexual” in general has something to do with the corporeal. But with regard to cybersex – tele-tactile sex in cyberspace or virtual reality by means of prosthetic organs – this is not the issue. Instead, the question is now: how do you make yourself a post-body, a post-corporeal aggregate of organs without a body? That is, in terms of “the sexual”: how do we appropriately conceptualize – let alone, experience – the mode of pleasure in which the genitals have lost their primacy, and other organs – whatever they happen to be, and regardless of whether they are organic or prosthetic – have taken over their function; or, as Freud (1986d [1915–1917]: 335) says, whether die Genitalien für die Lustgewinnung durch andere Organe vertreten werden können is a question that concerns the very possibility of the sexual. If they can, it is obvious that, in Freuds words, es stehen einfach die Genitalorgane gegen die anderen Organe (ibid.; cf. Freud 1991g [1914]: 150–151), which, in the
final instance, opens up the possibility of prosthetic sex. That is, a fundamental substitutability of the genitals by artificial organs is constitutive of prosthetic sex as the posthuman mode of “sexual” desires and pleasures, provided, of course, that there is still any need for the designation “sexual” in this context.

That is, there is no difference between the organs in prosthetic sex: all organs can adopt a sexual function, whatever the sexual in this context might be (cf. Plant 1998: 30–33; Preciado 2003; Perniola 2004 [2000]; in terms of “counter-pleasures,” cf. MacKendrick 1999; with regard to “polysexuality,” cf. Peraldi 1997 [1981]). It is in this manner that, in the world of the cyborg, “the sexual” is re-articulated, reconstructed through a radical deconstruction. In other words, instead of what Freud (1981c [1905]: 98–101) designates as “the sexual organization” of drives becomes disorganized in prosthetic sex: desires and pleasures are no longer attached to the genitals, but are instead distributed all over the post-organic body-machine assemblage that functions as the “body” of the cyborg. In this sense, prosthetic sex is “cyborg-‘sex’” (Haraway 1991a: 150), post-corporeal “sex” by means of the prosthetic organs of the cyborg; techno-logically constructed artificial organs the libidinal cathexis of which is predicated upon the realm of the polymorphous perverse and the autoerotic (cf. Freud 1981c [1905]: 81–82, 91–92, 108, 134, 136, 1986d [1915–1917]: 213). As Haraway (1991a: 150) says, “[c]yborg ‘sex’ restores some of the lovely replicative baroque of ferns and invertebrates (such nice organic prophylactics against heterosexism),” and the cyborg is thus “resolutely committed to partiality, irony, intimacy, and perversity” (ibid.: 151).

It is in this manner that post-organic cyborg “sex,” paradoxically, follows the logic of organ-pleasure in which “each part of the body is capable of generating an independent erotic urge and physical reaction based on the pursuit of gratification in a direct response to the external situation” (Connell 1998: 75).

Self-Sex Against the Threat of Nothingness

“I am a person who fell in love with her own prostheses” (Stone 1995e: 3). As we recall, this is the way Allucquère Rosanne Stone, playing with ideas concerning “sex, death, and machinery” (ibid.: 1–32), celebrates prosthetic embodiment in her treatise on, as the title puts it, the “war of desire and technology at the close of the mechanical age” (cf. Stone 1992, 1994b [1991], 1995c, 1995d). Accordingly, for Stone (1995e: 2–3) the question of prosthetics is about postmodern “experiments with subject positions,” about “floating identities.” It is in this manner that the prosthetic amplification of the body enables an “extension of my will, my own instrumentality” (ibid.: 3); in other words, prosthetics creates a new mode of agency in which the body does not end at the skin. Instead of being constrained by what she terms as “epistemological Calvinism” (Stone 1995e: 9), entailing that “work is the quintessential defining human capacity” (ibid.), Stone enjoys moving freely in a new world of a limitless self based on a “play ethic” in a realm of “technosocial games” (ibid.: 14–15) – answering thus Haraway’s (1991a:

This is the world of sexual prosthetics and prosthetic sex, a world in which the Freudian Organlust has been replaced by prosthetic pleasure, a pleasure engendered not by the flesh but by technology (for a critical reading of Stellar’s techno-body in media art discourse, cf. Bentien 2001). In this world, the desires and pleasures of the organic body have been superseded by the post-human affects of the Harawayan cyborg, a prosthetic body-machine assemblage that does not “end at the skin.” If there is still something that Freud (1991d [1915]) described as Triebe and Triebschicksale, prosthesis is their ultimate destiny in the world of the “cyber,” a world in which bodies have become fluid and fragmentary (cf. Haraway 1991a: 180; Cregan 2006: 141–165; Grosz 1994c; Shildrick 1997; Longhurst 2001; Volkart 2006; with regard to Stelarc, cf. Appleby 2002; in Lacanian terms, cf. Nusselder 2009: 11–14).


While the sexual – understood in terms of procreation – was deemed, in one way or another, to belong to “the natural order” until the twentieth century, although Immanuel Kant, with his fundamental critique of reason (see Kant 1990a [1781/1787], 1990b [1781/1787]), had already questioned die Ordnung der Natur as given, as something an sich, and thus endorsed the idea of the cultural epigenesis, the cultural self-constitution of the human being espoused by the Enlightenment (see, for example, Ricken 2006: 234–271; Müller-Sievers 1997), it was only in the mid-1970 that Michel Foucault, with his epochal study, The History of Sexuality, demonstrated that what is called “sexual” is “nominal”: instead of being thought of “as a kind of natural given which power tries to hold in check, or as an obscure domain which knowledge tries gradually to uncover,” sexuality is “the name that can be given to a historical construct” (Foucault 1990k [1976]: 105). However, what began with the Enlightenment and found its accomplishment in Foucault is not the last word: the very culturality of “sex” and “sexuality” is today increasingly reinterpreted in terms of technology. That is, technoculture is now the cultural matrix of the epigenesis of the “human,” even to the extent that what is sexual is seen to be determined by the imperative of technoscience, the logic of scientific-technological reason constitutive
of a new form of *scientia sexualis*, a contemporary derivation of the “science of
sex” that Foucault heavily criticized in his time (ibid.: 53–73).

In this manner, the postmodern sexual body belongs to a constellation in
which scientific knowledge seamlessly coalesces with the commodification of
the life-world, a process that, according to David Holmes, is based on technolo-
gical simulation, and thus:

postmodern technoscience does not just conform or adapt to given constraints
in the physical and natural world but makes redundant what it is simulating.
In doing so, it constructs more and more abstract worlds based on intellectual
technique: the ability analytically to break down reality into very small units and
put them together again on the basis of a very abstract understanding. This is
true whether speaking of the human genome project, nanotechnology, nuclear
physics or the microchip. Increasingly, the commodities we consume presup-
pose the application of one or more of these technologies based on the simula-
tion of the represented natural world. (Holmes 1997a: 2; cf. Lyotard 1984 [1979];
2000b; Cubitt 2001)

In other words, as Haraway (1991a: 162) says, we are now living in a world that is
“charged with microelectronics and biotechnological politics,” and, therefore,
it is no longer possible to understand life “in terms of essential properties, but
in terms of design, boundary constraints, rates of flows, systems logics, costs of
lowering constraints.” As a result:

Any objects or persons can be reasonably thought of in terms of disassem-
bly and reassembly; no “natural” architectures constrain system design. The
financial districts in all the world’s cities, as well as the export-processing and
free-trade zones, proclaim this elementary fact of “late capitalism.” The entire
universe of objects that can be known scientifically must be formulated as
problems in communications engineering (for the managers) or theories of the
text (for those who would resist). Both are cyborg semiologies. (ibid.: 162–163;
cf. Haraway 1997)

In these terms, “the cyborg” and “the sexual,” in their complex interrelations,
embrace a cultural configuration in which science and technology, as world-
constitutive modes of thought, inform a dominant world-view amalgamating
reason, myth, ideology and neo-religious utopianism into a post-utopian
voluntarism, a post-teleological order of things theorized by post-theory by
means of theory-fictions. In this manner, in postmodern technoculture, not
only gender, but also all that is sexual in its complex relations to corporeality
and embodiment, the bodily parameters of the subject in general, are, as Hardt
and Negri (2000: 215) say, “open to challenge and transformation,” and thus
“[b]odies themselves transform and mutate to create new posthuman bodies.”
This is a cultural formation in which a thoroughly new species, termed by Hardt
and Negri the “new barbarians,” living with the help of “poietic prostheses”
(ibid.: 215–217), feel perfectly at home.

Consequently, the experience of the flesh is in the world of the “new barbar-
ians” entirely different. In fact, *there is no longer flesh at all*, since this once
Where I Was, There the Machine Shall Be

Mundane matter is now transformed, like everything else, into the substance of which the dreams of technoculture are made: the postmodern techno-imaginary in the form of post-literary textuality as the immaterial materiality constitutive of the post-natural nature of cyborgian genesis, the emergence of the posthuman from the discursive matrix of the “post” (in terms of “cyborg writing,” cf. Haraway 1991a: 163, 175–181). In this technocultural configuration, the body in itself appears as a post-utopia engendered by the imperative of scientific-technological omnipotence embodied by the cyborg. What in the postmodern, a cultural order promoting various forms of body modification, has become a cultural obsession, amounts in the world of the “new barbarians” to a situation in which the body is a scientific-technological project, a phantasmatic projection conjured up by the theory-fictions of all that is “cyber” enabled by the “free-floating signifiers” of the “post” (see, for example, Cregan 2006: 152–163; Michael 2006: 41–62; Clough 2007: 2–3; Doyle 1997, 2003; Rail 1998b; Featherstone 2000; Zylinska 2002b; Depew 2004; Giffney & Hird 2008; Gordijn & Chadwick 2008; Clarke et al. 2010; in terms of media art, see Ascott 2006).

All this makes possible an escape from the organic body to prosthetic and virtual corporeality in the world of theory, and enables a construction of a post-theoretical designer body that is definitely more than just “design after modernism”: what these designer bodies signify is “design beyond the object” (see Thackara 1988). As a result, the post-body is a design object for a designer self, an object of the ego-politics of the post-subject; though a subject that at the same time is an object of postmodern biopower consisting of the scientific-technological measures and procedures that regulate the conditions and premises of health, sexuality and labour in the contemporary global world ruled by the political economy of neoliberalism (see, for example, Bowring 2003; Andrée 2007; Bayart 2007 [2004]; Nadesan 2008); a form of power politics the mode of thought of which is epitomized by the epistemological and ontological techno-logic of technoscience based on “the constellation of science, technology and engineering” (Sassower 1997: 3; cf., for example, Hazelrigg 1989; Ihde & Selinger 2003; Michael 2006). In this sense, “the technological” is in itself a matter that in the technocultural enterprise of omnipotence is the deeply problematic reverse side of the “new barbarian” freedom of body modification as the most conspicuous form of voluntarism intrinsic to technoculture.

From this perspective, we are living in a world that is ruled by “means without end” (Davis 2006). In this new world in which scientific-technological rationality has reached the highest level of reason, that is, the realm of the surrational, and is thus ruled by the logic of the surrational, at issue is no longer being a body, but, instead, having a body, that is now the obsession of the post-subject: the body is not only something one is born with, rather, the body is an acquisition of the post-subject. In this context, the body has turned into a site of accumulation of corporeal capital, a form of capital to be earned by hard work, the work on the body performed by the post-subject attempt-
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The problem is that the body, even under the disciplinary power of technoculture, has an obstinate disposition to fall back to the flesh, to that lower matter of meat, despised by all that is “cyber” (see, for example, Dery 1996: 91, 116, 247–253; Wilson 1996: 224; Plant 1998: 33; Botting 1999: 17; Adam 2002: 159–160; Bell et al. 2004: 8–9; Haney 2006: 94). What Deborah Lupton already stated in 1995 has lost nothing of its actuality:

In cyberwriting, the body is often referred to as the “meat,” the dead flesh that surrounds the active mind which constitutes the “authentic” self. [...] The dream of cyberculture is to leave the “meat” behind and to become distilled in a clean, pure, uncontaminated relationship with computer technology. (Lupton 1995: 100)

It is in this manner that the “human as computer’ metaphor is frequently drawn upon” in the “attempt to deny the irrationality of embodiment” (ibid.). This is the dark side of the techno-imaginary constitutive of cyber discourse: no matter how far reason can control the body, it is nevertheless the flesh that always comes back through the unconscious; that is, the return of the flesh is the phantom that haunts all that is “cyber,” a disavowed idea that resurfaces through the logic of the eternal “return of the repressed” (see Freud 1977e [1896]: 387, 389, 1990d [1911]: 310, 1991b [1915]: 257–258, 1972f [1926], 1987e [1920]; Laplanche & Pontalis 1998 [1967]: 631–632) in cyber discourse. In this configuration, the flesh is the Freudian “uncanny,” das Unheimliche (see Freud 1986b [1919]), that is inscribed in all that is corporeal, even in the postmodern; corporeal in the sense of the carnal.

It is precisely for this reason that all that is “cyber” is celebrated as the ultimate deliverance of the subject in the world of the “post”: the “cyber” is a way to transgress and transcend the obstacles of carnality, the curse of the flesh – a matter against which Saint Augustine already revolted and struggled with all his forces, time and time again, as his Confessions eloquently testify (see Saint Augustine 1991 [397–398]; for a historical contextualization, see for example O’Daly 1987: 12–14, 45–55, 116–121; Brown 1988: 33–64, 285–322, 387–426, 1967; Lyman 1989: 55; Elliott 1999: 17–19, 25–29, 35–52; Bonner 2002 [1963]: 375–378, 398–401). In the world of the “post,” the mortification of the flesh entails, however, no longer asceticism, but, on the contrary, excessive hedonism expanded into a politics of pleasure, an endeavour to intensify the experience of the corporeal by technological extensions of the body, be it prosthetic or virtual, or both in various interface configurations.

Adapting itself to the parameters of the “cyber,” the post-subject strives for upgrading its mode of existence and an increase of the efficiency of the body in the hope to facilitate the enjoyment of the pleasures of the corporeal, paradoxically, in the form of disembodiment turned into prosthetics and the virtualization of the flesh. This is the seduction of self-sex as the hard core of cybersex manifested by the techno-imaginary: the sexual subject appears at the interface, the ego-mirror of the cyber-self, as the master of his or her libidinal
universe; a master that has taken the form of the Freudian “prosthetic God.” In this situation, masturbation becomes a constitutive part of the art of being a sexual self, a postmodern monad that lives its nomadic life in the desert of the postmodern condition. Here, masturbation is a form of becoming the self of the post-subject; a way to avoid the destiny to be condemned to an existential void, being in nothingness.
5.4 The Pleasure of Post-Sex: The Repetition of the Code

The implosion of space into time, the transmutation of distance into speed, the instantaneousness of communication, the collapsing of the workspace into the home computer system, will clearly have major effects on the bodies of the city’s inhabitants. The subject’s body will no longer be disjointedly connected to random others and objects through the city’s spatiotemporal layout; it will interface with the computer, forming part of an information machine in which the body’s limbs and organs will become interchangeable parts. Whether this results in the “crossbreeding” of the body and machine – whether the machine will take on the characteristics attributed to the human body (“artificial intelligence,” automatons) – or whether the human body will take on the characteristics of the machine (the cyborg, bionics, computer prosthesis) remains unclear. Yet it is certain that this will fundamentally transform the ways in which we conceive both cities and bodies, and their interrelations. What remains unclear is how.

Elizabeth Grosz (1995c: 110)

The human race, as we know it, is very likely to be in its end game; our period of dominance on Earth is about to be terminated. We can try and reason and bargain with the machines which take over, but why should they listen when they are far more intelligent than we are? All we should expect is that we humans are treated by the machines in the same way that we now treat other animals, as slave workers, energy produces or curiosities in zoos. We must obey their wishes and live only to serve all our lives, what there is of them, under the control of machines.

Kevin Warwick (1998: 302)

What is a machine? In terms of technology, machine is a realization of a function; that is, a materialization of a purpose. In other words, a machine implies practical use, utility and benefit; it is a means to an end. In this sense, the machine is a technological realization of the idea of teleology: a finality defined by a purpose determines the category of the machine. In other words, not just any construction is a machine: the differentia specifica of the machine is a teleological functionality implying an intrinsic determinism; that is, the machine is not an open construction, but a closed system preordained by its purpose. Although the difference between a tool and a machine is a question of definition, there is nevertheless a constitutive difference: a machine is an autonomous apparatus, a self-contained device, the purpose, the very raison d’être, of which is to produce or transmit forces that perform work or transform energy from one form into another; in contrast, a tool is an instrument, a utensil or an appliance, used by the human being as an auxiliary implement, an artificial organ, to enable a specific task (see, for example, Ritter & Gründer 1980: 790–792; Ropohl 1991: 167–183; Fischer 2004: 89–103; cf. Marx 1983 [1867]: 361–362, 391–396, 398). Thus, what is constitutive of the machine is that it is a technological apparatus that works by itself in order to perform a task given to it and by doing so fulfils a purpose inscribed in its construction (see, for example, Urchs 2000: 26–30; Manzei 2003: 92–96).
Of course, there are useless machines, or machines that have no use in practical terms at all, but they are nevertheless meaningful, even as constructions that work as a deconstruction of the very idea of the machinic, as, for example, the “machines” of Marcel Duchamp and Jean Tinguely show (see, for example, Belting 1998: 355–393, 446–448; Henderson 1998; Daniels 2002; in terms of la machine celibataire, see Reck & Szeemann 1999 [1975]). It is in this manner, in fact, that the non-machine or the anti-machine is an illuminative definition of “the machinic” of the machine, its constitutive Wesenscharakter (cf. Heidegger 1989a [1936–1938]: 143–155, 176–187, 265–274). In this sense, it is appropriate to have a look at a machine that problematizes itself as a machine in a specific manner, as Richard Huelsenbeck, a leading Dada artist, explains:

Recently, here in New York, Jean Tinguely, from Basel, appeared on the scene with a machine that he said would destroy itself. Jean had managed to do something that rarely succeeds: after a show in a modern gallery, he talked the director of the museum of Modern Art into letting him perform. Together with a young, highly gifted physicist named Billy Klüver, he had built a machine consisting of eighty big and little wheels, plus tubes, valves, old drums, and a piano, which, when things were going wrong, kept on playing, with a final sobbing, so to speak, as if it were really sorry that it could not destroy itself totally. A few spectators (the performance took place before a select audience) compared the machine to a classic Greek sculpture, cold and beautiful; others called it a put-on, although even the opponents couldn’t deny that, initially at least, the monster had been emitting smoke, music, noise, and (taped) threats. Unfortunately, as indicated, it all ended prematurely, when the minimax apparatus failed to douse the burning and whimpering piano, and the firemen, who had been watching with wooden expressions, joyfully interfered. (Huelsenbeck 1991 [1969/1974]: 130)

Tinguely’s machine, as Huelsenbeck reports, finally reached its goal: it destroyed itself, although, perhaps, not quite in the manner intended by the artist. But what is here the point is that even Tinguely’s artistic anti-machine was a machine, a self-contained system with a purpose; that is, it incorporated an intrinsic teleology: the destruction of itself.

In the same manner as contemporary technoculture based on technoscience (see, for example, Sassower 1995; Aronowitz et al. 1996; Ihde & Selinger 2003; Michael 2006) entails what I call life in the laboratory, the postmodern lifestyle involves unabated experimentation with forms of desires and pleasures, bodies and sexualities: the postmodern body, in its ideal form as a designer body, is in itself a laboratory of body modification, an experimental entity aiming at optimal performance (see, for example, West 2001; Stock 2002; Roco & Bainbridge 2003; Miah 2004; Dinello 2005; Toffoletti 2007; Gordijn & Chadwick 2008; Miah & Rich 2008; from a historical perspective, see, for example, Möhring 2004: 286–296; Cowan & Sicks 2005b). In this respect, the common denominator of various body models in technoculture is the idea of the perfectibility of the human being, an idea that has its origin in the Enlightenment (see, for example, Jackson 2004: 184–186; Lovejoy 2006 [1923]: 36–41; Passmore 1970; from a Darwinian perspective, see Cartwright 2000: 339–339; in terms of postmodern
cyborg perfection, cf. Quinby 1999: 125–146). While in the Age of Reason the perfectibility of the human being was still understood as part of the utopian tradition pertaining to the idea of an ideal state, in the postmodern condition, the utopia implies an ideal body: a perfect body is the utopia of the postmodern.

In this sense, a spectacular body manifesting excessive “bodyism,” is a postmodern phantasm, a hyperized ideal of the body economy of neoliberal capitalism, that is inscribed in the cultural context of post-sex and its techno-euphoric spectralization in the idea of cybersex: the cult of technocultural body modification celebrated in the name of the cyborg (for the idolization of the techno-body in cyberculture in the 1990s as the origin of the cyberization of “the sexual” in post-sexual theory-fictions, see Dery 1996).

5.4.1 Libidinal Intensities of the Ego-Body

What is specific to the contemporary cultural constellation ruled by technoscience is that the experiments in the postmodern body laboratory always result, in one way or another, in the observation that the body is not enough. Yes, as Plant (1998: 34) says referring to Deleuze’s (1988 [1970/1981]: 17–18, 1992a [1968]: 255) Spinozian idea, “[w]e don’t know what a body can do” (cf. Doyle 2003: 167; Pisters 2003: 55–60; Ahmed 2004: 183; Probyn 2004: 217; in the context of new media theory, cf. Birringer 1998; in terms of “philosophy and sex,” cf. Dufourmantelle 2007 [2003]: 77–78); but we certainly know that the human body is not limitless (provided, of course, that we are still living in our bodies, in their very corporeality, their mundane materiality). Accordingly, body panic is not only something that haunts postmodern body theory; panic is an essential part of postmodern body experimentation as a fashionable trend in contemporary culture (cf., for example, Turner 1992b: 12, 47–48; Bauman 1995: 121–122; Plummer 1995: 159–160, 208, 214; Balsamo 1996: 28–32; Kern 2000: 98–100; Longhurst et al. 2008 [1999]: 198–235; Dworkin & Wachs 2009).

The body is not enough – that observation pertains to the sexual body most explicitly in the cultural constellation of the postmodern. Although everything is possible in the imaginary of the sexual, the carnal reality of the body sets its own limits: the body is not enough. In this respect, post-sex is about a cultural panic typical of consumer culture, its celebration of hedonism as a spectacular ego-affirmation in the form of excessive desires and pleasures: a panic body implying panic sex (see Kroker & Kroker 1988b: 15–16; Kroker et al. 1989: 203); or, to conceptualize this excited and anxious fascination with the body in different terms, it is about a cultural “hystory” (see Showalter 1998), a hysteric body discourse that in an affected and artificial manner theatricalizes the sexual body, finally reflected by the Baroque extravaganza of postmodern body theory (see, for example, Becker & Schneider 2000; Gieselbrecht & Hafner 2001; Barkhaus & Fleig 2002). It is in the idea of cybersex that the frenzy about both the possibilities and limitations of the human body comes most
clearly to the fore. Thus, cybersex is a paradigmatic manifestation of postmodern body panic.

It is in this manner that the imaginary body of postmodern culture and the body imaginary of post-theory encounter one another in the anxious visions of the potentialities of new technologies to exceed the limits of the human.

Accordingly, while the body is a theoretical fetish of all that is "post," the post-body is an obsession of all that is "cyber."

This is the context of the posthuman in cyber discourse (see, for example, Terranova 1996b; Halyes 1999; Gray 2001), the idea matrix of cybersex.

**Post-Sex: The Seduction of Abstract Sex**

In the postmodern, the body as a whole has turned into a libidinal object, an object of phantasmatic cathexis (for the idea of Besetzung or cathexis, see, for example, Freud 1972f [1926]: 120, 204–205, 1977d [1939]: 54, 1987d [1900]: 572, 600, 604–612, 622; Breuer & Freud 1977 [1895]: 92, 107; cf. Laplanche & Pontalis 1998 [1967]: 92–96; Thwaites 2007: 18–21), a dream object of an intensified Ich-Erlebnis, the pleasure of the designer body as a projection of self-design, the project of the "perfect" body as part of the ego-politics of the postmodern subject.

While Freud (1981c [1905]: 32, 132–145) saw it necessary to expand the definition of sexuality on the ground that, firstly, the sexual and genital are not the same since there are sexual activities that are not genital, and secondly, sexual pleasure encompasses erogenous zones and practices that have nothing to do with procreation (Freud 1983a [1938/1940]: 74–75, 1986d [1915–1917]: 313–350; cf. Bristow 1997: 62–63), in contemporary culture, the sexual has become a diffuse and ambivalent notion, a category with unclear boundaries. Although genital pleasure and procreation still constitute the solid basis of heterosexual relations and the whole societal order based on them, embracing what Butler (1990: 5, 151) calls the “heterosexual matrix” or “compulsory heterosexuality,” there is much more that constitutes the sexual in contemporary culture.

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75 An explicit emphasis on the idea of an enlarged concept of sexuality appears not yet in the first edition of Freud’s *Drei Abhandlungen zur Sexualtheorie* (1905), but in the preface to the fourth edition of 1920 in which Freud (1981c [1905]: 32), after remarking that Arthur Schopenhauer has shown to what an extent the activities of human beings are determined by sexual impulses, in the ordinary sense of the word, then points out that, *Was aber die “Ausdehnung” des Begriffes der Sexualität betrifft, die durch die Analyse von Kindern und sogenannten Perversen notwendig wird, all who disparage psychoanalysis should remember, wie nahe die erweiterte Sexualität der Psychoanalyse mit dem Eros des göttlichen Plato zusammentrifft.* Whether the postmodern panic around sex and the body has anything to do with Eros and Plato is another matter.

76 Drawing on the ideas of Monique Wittig and Adrienne Rich, Butler (1990: 151) explains that the idea of using the term “heterosexual matrix” is to “characterize a hegemonic discursive/epistemic model of gender intelligibility that assumes that for bodies to cohere and make sense there must be a *stable sex* expressed through a stable gender (masculine expresses male, feminine expresses female) that is oppositionally and hierarchically defined through the *compulsory practice of heterosexuality*” (emphasis mine). Post-sex, paradoxically, means at the same time both consolidating and questioning of this heterosexual order.
Post-sex is about this “more,” it is about the *surplus of the sexual*, about a libidinal intensification of the surface of the body and an excess of meaning ascribed to “the sexual” (whatever it happens to be) in the conduct of life, a mode of life not just encouraged, but expressly demanded by postmodern consumer culture: in addition to continuous compulsion to increase the performance capacity of the working body dictated by the imperative of the increase of productivity in production, the body-subject of the postmodern stands under the pressure of productive consumption simultaneously sustaining and fuelling an all-consuming body obsession, the driving force of conspicuous consumption (see, for example, Bertens 1995: 209–214; Best & Kellner 1997: 46–55, 77–99, 110–120; Featherstone 1991b; Falk 1994; Lury 1996; Lee 2000). It is in this constellation that post-sex has its origin: “sex” as sensations and affections conjured up by phantasmatic projections of a body that is capable of experiencing and expressing corporeal excitation that goes beyond the limits and limitations of the everyday body; thrills that *somehow* have to do with the sexual, or that just manifest the cult of “the sexual” as part of the commodification and mediatization of the body in postmodern consumer culture trying to make everything somehow “sexy” (cf. see, for example, Eagleton 1996: 69–70; Markula 2001 [1995]: 237–245; cf. Grosz & Probyn 1995; Rutherford 2007).

It is in this manner that the *spectacle of sex* has taken the place of sexuality in contemporary culture under the dominance of the postmodern. This situation is aptly described by Steven Connor:

> Perhaps the most extraordinary example of the generalization of postmodernist thinking in the rich cultures of the North is in the area of sexuality. If, as Jameson suggests, the world has been taken over by “culture,” then there is a more recent assimilation of culture in general to the culture of sex. Sex used to be proclaimed to be the secret, forbidden truth of human life. It is now the most manifest, ubiquitous, and compulsory truth. Sex can no longer be stopped or avoided. From being the accessory that assisted the packaging and consumption of a range of commodities, *sex has become the product that other commodities exist to sell*. Sex has come into its own, because sex wants to be more than sex. This is why everything is sex – because sex has become the form and the name of transcendence. Sex has become the only and ultimate quality. Eros has become life. Sex has been subject to economic transaction, to buying and selling as a commodity, for centuries. But what seems to have come about in the last couple of decades is a situation in which *sex becomes the very medium in which other exchanges take place*. You do not pay for sex with money; you pay for everything in the currency of sex. (Connor 2004a: 11; emphasis mine)

What is at issue here is far more than just a commercialization of sexuality, even far more than just a simple banalization of sex; in the cultural constellation of post-sex, “the sexual,” in its multifarious forms, has *penetrated* the whole tissue of the lifestyle of the Western world ruled by the political economy of neoliberalism. But, paradoxically, precisely because, as Connor says, “sex has become so ubiquitous, so polymorphously perverse, so mixed-up and mingled with everything else, it fears – we fear – it may lose its meaning” (ibid.).
In previous eras, sex had struggled against repression, and it was repression that made it a looming, irrepressible “it,” a force gathering itself beneath and behind repression. Now, having either defeated repression, or recruited it to its own cause, sex may face a larger battle, a battle against an enemy that it itself produces: indifference. Repression energizes and recharges sex: indifference depletes it. Sex could never be defeated while there was repression. Now that it has won, it stands to lose everything in the face of disaffection. (ibid.)

Indifference, the very principle of the postmodern, threatens to suffocate the vitality of sexuality, its erotic content, its living force (for the withering away of the libido and the “suffocation of desire” as a result of the overwhelming availability of “sex” in contemporary culture, cf. Žižek 1995a: 122–123). Disaffection in the midst of a culture that is built on the omnipotence of the affective, even as a mode of theory (see, for example, Clough & Halley 2007) – that is simultaneously the cause and the effect of post-sex, “sex” as a simulation of itself, the “seductive” lure of “the sexual,” the “sex appeal” of desires and pleasures that are beyond the banality of postmodern “well-being”: “sex as spectacular desires and pleasures of spectral bodies manifesting the postmodern phantasmagoria of productive consumption.

If, in the postmodern, sex as such has turned into a “free-floating signifier,” the more this applies to post-sex. Post-sex is about citation, circulating and recycling of the phantasmatic and enigmatic, and, as such, mystified and reified, wish-images and visions effected by the signifier “sex,” a postmodern signifier signifying “good life” associated with health, wealth and personal well-being. In this manner, “sex” has become the master code of commodification, the surplus value of all values in the circulation of capital, a bonus of efficient performance at work and during leisure, a premium of the disciplined body, a sign of success, influence and power, a confirmation that I am attractive and desirable, that I exist. In post-sex, desire is an ego-mirror, a mirror that shows me through the eyes of the “Other,” not the real other, but my projection of an ideal-ego that is a reflection of the ideal body-subject constituted by the body cult of the postmodern. In this sense, as an ideologeme of the postmodern (for the origin of the notion, see Bakhtin 1981 [1934–1935]: 333–335; Bakhtin & Medvedev 1991 [1928]: 8, 17–18, 21–25; cf. Jameson 1981: 64, 75–77, 104–107, 135–141), “sex” is about an endless repetition of the code of “the sexual” in the mode of Derridean “iterability” (see Derrida 2000 [1988]; cf. Arditi 2007: 63–68).

What is important here is that “sex” is not dependent on a specific meaning predetermined by a predefined context (for example, genitality, procreation, intimate relationship); instead, in various contexts, differently in each case, what is “sexual” can be recontextualized and given a new signification according to the particular fantasy scripts of the subjects involved (cf. Simon 1996: 40–58; Gunter 2002: 64–74; Gagnon & Simon 2009 [1973]: 6–27, 56–67; Laws & Schwartz 1981 [1977]; Kimmel 2007). The iterability of “the sexual” of the sexual has turned in post-sex into an unending reproduction and proliferation not only of ever-new variations of the idea of “sex” as a suggestive signifier
the “meanings” of which always remain ambiguous, but, more fundamentally, an endless reinstantiation of the very code of “sex,” abstract sex as a signifying formula, has become a flexible and versatile cultural algorithm, that produces what it designates: like a ritual or performative language, “sex” signifies through a self-referential reiteration of the same, though in each particular case differently, in an individual manner: post-sex is sex is sex is sex, ad infinitum (cf. Baudrillard 1990c [1983]: 182–198, 1993b [1976]: 95–98, 101–124, 184–185, 1990f [1979], 1990g [1979]).

Accordingly, “sex” is the sun around which everything circulates in the universe of post-sex, a super-sign that has an inexhaustible power to signify anything without signifying anything specific which could be comprised by an explicit definition: this is the very “post” in post-sex.

In postmodern culture, in terms of the political economy of neoliberalism, sex in the mode of “sex” is a real abstraction of the imaginary constitutive of “the sexual,” a manifestation of capital in the form of desires and pleasures that, at the same time, are both a precondition and a result of the circulation of capital: “sex” as a manifestation of surplus value. That is, the sexual economy of neoliberalism is a derivation of commodification, an expansion of the commodity form to the realm of desires and pleasures: a subjectification of object relations, manifesting the market relations of the all-consuming global economy, that are ruled by the circulation of capital, the logic of profit maximization.

In this manner, as a “realization” of capital in the experiences and expressions of the postmodern body-subject, post-sex embraces ever-new acts of “personal” impersonation of “sex,” a process that is only possible because of the flexibility and versatility of “the sexual” as a code, a meta-signifier, signifying forms of desires and pleasures that, in one way or another, are associated with the ability of the body to feel arousal and satisfaction in certain situations and in the presence of certain objects (whatever they happen to be) that become or have become invested with certain sensations and affections, that is, libidinally cathected by the subject. In other words, similarly to the commodity form, “sex” is a promise of pleasures that produce the desire that, in turn, maintains “sex” as a promise of pleasures, and like the circulation of capital, “sex” reproduces its own circulation. In this manner, “the sexual” of post-sex is about a specific Organlust (Freud 1986d [1915–1917]: 335–336, 1990c [1933]: 104–105, 1991d [1915]: 217–218) that is effected by the phantasms of postmodern culture, evocative images that stage and enact the desirability of “the sexual” (whatever it is) in its own right; in short, “sex” is simultaneously the product, the signifying effect and the code of signification, the meta-sign, of the whole sexual phantasmagoria that is distinctive about the postmodern, the libidinal imaginary constitutive of productive consumption.

If the “post” is both the cultural and the economic “dominant” of the postmodern condition (cf. Jakobson 1987b [1935]: 41; Selden et al. 2005 [1985]: 36–38; Jameson 1984), “sex” as the hard core of post-sex is the sexual dominant of the
desires and pleasures that are the condition of possibility of the productive consumption that is the *sine qua non* of contemporary capitalism, the political economy of neoliberalism as the driving force of globalization.

This is the signification and significance of “sex” as the surplus value of surplus value, an imaginary value with a real economic power, without which the circulation of capital would end in stagnation: *without “sex,” contemporary capitalism would collapse.*

But, the question still remains: why do we call “the sexual” precisely *sexual?* This is the enigma of the sexual the deciphering of which the postmodern has only made ever-more difficult.  

In this sense, although “the sexual” of the “sexual” in sex and sexuality remains in itself an enigma without solution, this notwithstanding, “sex” in post-sex is as self-evident as it is alluring: the seduction of post-sex is the “sexiness” of sex; that is, post-sex, as the Americans say, is “sexy” (cf. Richardson 1971; Armstrong 1996; Gijswijt-Hofstra & Porter 2001; Horowitz 2002; Peiss 2002; Sorisio 2002; Reumann 2005). “Sex” is the name of the game that names what it designates: the “sexyness” of being “sexy” – be it a person, a commodity object, a political issue or a scholarly idea (in terms of “abstract sex” as a post-theoretical figure, cf. Parisi 2004a). If today, in the postmodern, the public sphere, the mediascape and consumer culture are imbued by the imagery of “the sexual,” and thus dominated by panic sex, a century ago it was about sex panic, a cultural commotion and anxiety, that manifested the fear, as a contemporary English observer noticed, that a “wave of sex hysteria and sex discussion seems to have invaded this country,” to the extent that “[o]ur former reticence on matters of sex is giving way to a frankness that would startle even Paris” (McNair 2002: 21).

Presently, though, what is at issue is no longer the sexual liberality of *fin-de-siècle* Paris; in terms of the sexual, we are now rather living under American conditions: “sex” is a commodity form that promotes everything that can be “sexy,” “sex” in itself included.

### The Mannequin as the Model of the Post-Subject

This is the libertinage of postmodern culture: what during the “sexual revolution” in the 1960s was called “permissiveness” and “promiscuity” (see, for exam-
ity” that has turned into obsession: compulsory sexuality as a postmodern discipli-
ary regime of bodies and their desires and pleasures (for a utopian counter-
model of “bodies and pleasures” as a form of resistance against the “austere mon-
archy of sex,” cf. Foucault 1990 [1976]: 157–159, 1996m [1977]; Oksala 2005: 114–134; McWhorter 1999). In other words, all the negative that formerly was 
associated with libertinism – abjection, corruptness, debasement, debauchery, 
decadence, degradation, demoralization, depravity, dissipation, dissoluteness 
and perversion – has turned into the positive of the “sexyness” of “sex” in con-
temporary culture celebrating the unending escalation of desires and plea-
sures in the name of “the sexual.”

In Western culture in general, “sex” as a commodity form is an empty form that 
can be filled by anything that is marketed in the name of “sex” (whatever it is). 
In post-sex, to paraphrase Derrida’s (1997 [1967]: 158) postulation, il n’y a pas de 
hors-texte, there is nothing outside sex – but, in a specific manner typical of the 
postmodern, as Barthes (1983b [1970]: 29) says, referring to American culture: 
“sex is everywhere, except in sexuality.”

What is constitutive of post-sex is that it is reiteration of the same but always 
“differently.” Difference does not, however, mean so much the non-equal or 
non-identical, but, rather, unending dissemination of Derridean difféance (see 
a/the difference of a/the difference that is based on differing and deferring of 
what is assumed – that is, imagined, fantasized – to be “sexual” in “sex.” The 
only problem – if there are any problems in the postmodern at all – is that it is 
increasingly difficult to know what is sex and what is not, especially whether 
the way one is having or making sex is the right one – or sex at all. If, for Freud 
(1986d [1915–1917]: 313–330, 427–446), the libido was able to cathect or invest 
various objects, in post-sex the libido in itself is endlessly variable: post-sex is 
based on what I call the liquid libido.

In these terms, post-sex is about panic sex manifested by a panic body: what 
could my “personal” difference be if everything is different in its very same-
ness? For the postmodern subject, the import of “sex” is not so much in it 
itself, rather, post-sex is an essential part of postmodern identity politics. “The sexual” in post-sex is about spectacular corporeality as a form of sexual narcissism (cf. Freud 1991g [1914]): the ideal of the post-sexual subject is to be 
an inimitable body-ego that, paradoxically, imitates the manifestations of the 
postmodern body-ideal as an ideal body in a unique manner. In this way, in the 
postmodern ego-politics of pleasure, “sex” is an ego-medium: it is at once a 
screen of phantasmatic projections of an ideal body and a vehicle to express 
these projections through and on one’s own body. As Freud (1987a [1923]: 253) 
says: Das Ich ist vorallem ein körperliches, es ist nicht nur ein Oberflächenwesen,
sondern selbst die Projektion einer Oberfläche, “The ego is first and foremost a bodily ego; it is not merely a surface entity, but is itself the projection of a surface” (Freud 1975 [1923]: 26).

If there is something that in contemporary cultural theory is called the “decentred subject,” a subject constructed from shifting, fragmented and multiple identities (see, for example, Smith 1988: 117–120; Barker 2001: 169–170; Schrag 2003 [1986]: 139–161), it is the subject of post-sex, an anxious and fragile self tormented – like in Christian visions of the temptations of the flesh (see, for example, Hawkes 2004: 42–60; Brown 1988; Pagels 1991 [1988]; in Foucauldian terms, cf. Carrette 1999) – by the excessive imagery of “sex” peculiar to prevailing consumer culture, the disciplinary order of productive consumption. Fitness, wellness and sexual pleasure – these are the three great wish-images, Wunschvorstellungen, that inform a grand récit of the postmodern: the great narrative of a designer body, a body that is the “sex” object of post-sex: the object-body of the post-sexual subject that in itself is a sexual object of itself, of its own subjective fantasies that reflect the sexual phantasmagoria of the postmodern as an “objective” reality of the subject.

In this manner, Freud’s (1987a [1923]: 253) “bodily ego” has turned into an ego-body in the postmodern, an Ich-Körper, an individual and personal instrument of desires and pleasures, that functions as a whole-body sexual organ. This, of course, is more an imaginary body than a real body – that stubborn, sluggish and not so spectacular entity of flesh that one has to accept as one’s own body in the mundane circumstances of everyday life. Nevertheless, as Freud (1975 [1923]: 26) says: “the ego is ultimately derived from bodily sensations, chiefly from those springing from the surface of the body” (emphasis mine). This “surface” is the very substance on which the postmodern body cult inscribes its ideals: the body is the design object of the subject, a subject that objectifies itself as an object of desires and pleasures that are objectified in the commodity form by the economy of productive consumption. At the same time, the imperative of efficient performance, the Leistungsprinzip, demands work on one’s own body, a mode of work that is the key to success and happiness (for the idea of the Leistungsprinzip in American capitalism in the 1950s, see Marcuse 1979 [1955], 1987 [1955]; Held 1980: 124–125; Kellner 1984: 163–191; Elliott 2009: 39–46; in contemporary capitalism, see McKenzie 2001; in terms of reason and sexuality, cf. West 2005: 168–169; in the Deleuze-Guattarian context, cf. Holland 1999: 4–6). In Freudian terms, the postmodern ego is thus constituted as a “mental projection of the surface of the body” that at the same time represents the “surfaces of the mental apparatus” (Freud 1975: 26).

Indeed, the post-body as the precondition of post-sex is a Freudian Wunderblock (see Freud 1972g [1927]), a surface of inscription that attempts to internalize the ideal body of the postmodern time and time again. If, in general, with regard to desires and pleasures it is always the body that remembers, in the postmodern the remembering body is a surface-body in a specific manner: the ideal of the
postmodern is a body that is sensuous of its surface as a sensual surface; a surface that is trained to receive ever-new fleeting thrills instead of remembering the life-history of the body itself: the postmodern body does not live in the Lebenswelt of real corporeality, but, instead, in the imaginary world of productive consumption, the world of body simulation. In these terms, the postmodern body is an imaginary body: the body-image of the postmodern subject, incorporated by it time and time again anew in the daily process of becoming itself, is the true self of the postmodern subject as its own particular embodiment of some of the prevailing body-ideals (cf., for example, Firat & Dholakia 2003 [1998]: 63–99; Featherstone 1991a, 1991b, 2000; Falk 1994; Lowe 1995; Morton 1995; du Gay 1996a; Stratton 1996; Lafrance 1998; Van Bauwel 2004; Reichert & Lambiase 2006).

Thus, it is precisely these Freudian “surfaces,” these “objective,” commodified, sensations of corporeality that are inscribed in the body by the libidinal object-subjects of the postmodern (images, commodities and habits, the whole masquerade of consumer culture, and increasingly, dreams engendered by technoculture), that mark the point at which sex turns into “sex.” Post-sex is a commodity form of the sexual; at the same time it promotes the commodification of culture (cf. Hawkès 1996: 105–124; Bhattacharyya 2002: 131–132; McNair 1996). In this manner, the postmodern sexual economy is the hard core of the economy of the postmodern: the libido is the driving force not only of the accumulation of affluence in the Western world, but it is also the basis of the contemporary “society of the spectacle” (Debord 1983 [1967]) in general. As a “free-floating signifier,” like value in the financial markets, “sex” is the contentless, but, as such, highly signifying contents of post-sex, the substance of the sexual imaginary of the postmodern.78

In post-sex, one is not so much in one’s own body, but, rather, displaced and transferred into a body – or, better, a “body” – constructed by the seductive projections of “sex” that are implanted into the “mental apparatus” of the postmodern subject: as the subject of its own body-object, its own object-body, the postmodern self is a subject constantly re-subjectified, called to the position of a post-subject, in the sense of interpellation (Althusser 1971 [1970]: 163–169) by the promises of “sex,” the commodified imaginary of “the sexual.”79 And what are these promises? They are the promises of promises promising ever-new promises of promises.

78 Similarly as speculation in the financial markets, the game with options, relies on fictional values that, in turn, are based on fictional scenarios of the share of profits, “sex” is about imaginary objects that are created by an incessant process of fictionalizing of sex and sexuality through marketing processes, especially through fashion, advertisement and consumer imagery. In the postmodern, as the “imagologists” Mark S. Taylor and Esa Saarinen (1994: “Telerotics,” 11), echoing Lacanian discourse, quite rightly say: “Desire does not desire satisfaction. To the contrary, desire desires desire.”

79 To recall Louis Althusser’s (1971 [1970]: 162–163) definition of ideology in his treatise on “Ideology and Ideological State Apparatuses”: “I shall then suggest that ideology ‘acts’ or ‘functions’ in such a way that it ‘recruits’ subjects among the individuals (it recruits them all), or ‘transforms’ the individuals into subjects (it transforms them all) by that very precise operation which I have called interpellation or hailing, and which can be imagined along the lines of the most commonplace everyday police (or other) hailing: ‘Hey, you there!’”
The endless dissemination of *différance* in post-sex does not, however, mean that “sex” were an arbitrary product of postmodern culture, a result of sexual anarchy; on the contrary, post-sex is the latest form of the long tradition of the disciplinization of the body and the senses, in the end, all sensual culture, under the disciplinary regimes of each epoch, analyzed, from different perspectives, by Weber (1993 [1904–1905]), Elias (1980a [1939], 1980b [1939]), Freud (1972a [1930]) and Foucault (1990k [1976]). If the modern, according to Weber (1968 [1917/1919]: 612), means an *Entzauberung* of the world,80 this process has now, finally, thoroughly permeated the sphere of the sexual: post-sex, precisely in its phantasmatic form, is about plain “sex,” sexual thrills stripped bare of all illusions and delusions, paradoxically, in the name of the imaginary. Thus, post-sex is part and parcel of the rationalization and functionalization of the post-modern body as the embodiment of the performance principle, the embodiment of the economization of all the corporeal (cf. McKenzie 2001). As such, the postmodern sexual body manifests the all-encompassing instrumentalization of human abilities and capabilities by the economic reason of capitalism, the reason of efficiency, productivity and profit.

This is the logic of what I call the *psychophysics of capital* determining the *social kinetics* of the postmodern: in its desires and pleasures, in its corporeal sensations and affections, the postmodern body manifests, that is, experiences and expresses, the imperative of the commodity form, the demand of postmodern *luxuria*, one of the “mortal sins” of Christianity (see, for example, Jordan 1997: 34–40, 63–64, 89–97, 127–129, 143–157; Crawford 2007: 67–71, 84–88), turned now into the secular-religious principle of the excessive hedonism characteristic of postmodern culture, the luxury of productive consumption constitutive of the political economy of neoliberalism.

In other words, if the sexual has been, perhaps, the last remnant of the “other” of reason that here and there, like an archaic force, has resisted the all-penetrating and merciless progression of instrumental reason that has been the driving force of the modern, this very same reason has now finally produced the postmodern body, a body seeking libidinal intensities to feel itself still *alive*, to feel itself as a living body. In contemporary culture, dominated by the commodity form, the body-subject is reduced to an object of a sexual body cult that turns the subject into an agent of its own subjection, the subjugation under the regime of instrumental reason in its postmodern form, in the form of the ego-politics of pleasure that, in the final instance, is an embodiment of the disciplinary regime enabling the efficiency of neo-Fordism.

We are reminded here of the Weberian world: *Es ist das Schicksal unserer Zeit, mit der ihr eigenen Rationalisierung und Intellektualisierung, vor allem: Entzauberung der Welt, daß gerade die letzten und sublimsten Werte zurückgetreten sind aus der Öffentlichkeit, entweder in das hinterweltliche Reich mystischen Lebens oder in die Brüderlichkeit unmittelbarer Beziehungen der Einzelnen zueinander* (Weber 1968 [1917/1919]: 612). In the ego-politics of the postmodern, there is, of course, no longer room for any kind of “brotherhood of unmediated relations,” except in the form of relentless competition; and what pertains to “mystical life,” it is the mysticism of commodity fetishism that as a reflection of the postmodern sublime constitutes the life-world of the subject in contemporary culture.
In these terms, the sexual subject in the postmodern, as Wolfgang Hegener (1992) says, is a “mannequin,” a subject that presents itself in and through the identity forms that are various manifestations of the commodity form, that is, incarnations of capital, incorporations of surplus value. In my reading, this implies that the postmodern subject does not say, _cogito ergo sum_; instead, the post-subject says: _Ich zitiere … Zitatende_, “I quote … the end of quotation.” The problem is only: firstly, what is there between the quotations marks, and secondly, where precisely is the end of the citation? In other words, where is this “I am” in contemporary culture? No doubt, the subject of post-sex is a veritable incarnation of Arthur Rimbaud’s dictum, _Je est un autre_ (Zweite 2000: 28). 81

5.4.2 The Post-Body as a _U_–Topos

In the world of the “post,” the body has become an obsession, an obsession not only of being a body in the mode of having a body, but also in terms of theory: the body as an object of post-theory that presents itself as the ultimate guarantee of the existence of the body in general.

The cultural constellation of the postmodern is dominated by a mode of thought, even an ideology, of what I call bodyism; a (world-)view that interprets individual and social life through a conceptual optics that emphasizes the importance of the body. In this manner, in the course of the last three decades, “the body” has increasingly come to the focus of attention in both everyday life and cultural theory. “The body” has become an indication of the position which individuals and social groups have in society, thus signalling their distinction from others; a distinction, though it is expressed by personal choices, is based on cultural construction (cf. Bourdieu 1984 [1979]). Accordingly, the representation of and through “the body” has turned into a prominent discursive topos in contemporary theory as well as in postmodern identity politics in the name of sex/gender orientations. In the postmodern, according to Brian S. Turner (1997 [1984]: 6), we are living in a “somatic society” in which “our major political and moral problems are expressed through the conduit of the human body.” This is the world of the “consuming body” (Falk 1994), a body that experiences its very existence in the vertigo of desire. This, indeed, is a radical transformation of society.

But what is at issue here is more than just being and having a body: in the postmodern, the body is also an object of the desire for theory, a seductive signifier in the realm of the “post.”

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81 Rimbaud’s dictum originally appeared in 1871 in his letter to his teacher in rhetorics, Georges Izambard, in which Rimbaud, just before the phrase _Je est un autre_, says that it is not correct to say “I think,” rather, one should say, “it thinks me” (Zweite 2000: 28). In short, this is the core idea of the programme of poststructuralism, anticipated by Rimbaud with a century.
The Body as the Flesh of the Machine

After Verdun, Somme and Stalingrad, after the Gulag, Auschwitz, Hiroshima and Vietnam, after Cambodia, Srebrenica, Rwanda and Darfur, and all other massacres and genocides, after millions upon millions of dead bodies, mutilated and exterminated bodies, after systematic annihilation of countless human beings reduced to their bodies, after the inconceivable humiliation of the human, that is, after the supreme achievements of power politics legitimating itself with the ideologized interpretations of Enlightenment reason and scientific-technological rationalism culminating in the technoscientific rationality of military reason (see, for example, Feenberg 2002: 162–190; Wilson 2004: 49–66, 76–84, 263–284; Bousquet 2009; in terms of Cold War rationality, see Erickson et al. 2013; for the reverse side of the Enlightenment, see Horkheimer & Adorno 1994 [1944]), now, in the era of post-reason, postmodern academia celebrates the resurrection of the body in the form of textuality, as text. No longer, as in the Biblical world, is word becoming flesh, instead, writing is incorporating the corporeal in the form of a writerly body (see Haraway 1991a: 175–178; cf. for example, de Certeau 1988 [1984]: 138–150, 155–163, 196–197; Balsamo 1996: 11–12, 17–40; Conley 1997: 106–107, 123–140; Hayles 1999: 113–130; Suleiman 1986a; Conboy et al. 1997; Davies 2000; Flanagan & Booth 2002; Irwin 2010).

After the Christian mortification of the flesh (see Brown 1988), this is the postmodern mode of subduing the carnal body, the conquering the carnal once and for all: “the textual,” in its immaterial materiality, has become the very substance of the corporeal in the world of the “post” (cf. Kirby 1995).

Thus, in the twenty-first century, we are living in a new world: a world based on a new paradigm of the body: a cultural constellation dominated by the postponing of death, the culture of the post-body (cf., for example, Laqueur 1992a [1990]: 12; Bell 2000: 555–559; Stryker 2000: 593–596; Bordo 1995 [1993]; González 2000). Whereas the nineteenth century had to face the Nietzschean truth that “God is dead” (Nietzsche 1968a [1883–1885]: 352–353, 1973a [1882/1887]: 158–159), and the twentieth century saw the “death of Man” inflicted by poststructuralism (see, for example, Foucault 1989 [1966]: 373–387; cf. Canguilhem 2005 [1966]), today all that was once natural has reached its terminal phase. In this post-metaphysical world in which everything is now but an effect of écriture, the “human condition” has definitively lost its meaning and has been replaced by the posthuman condition of the cyborg.

From Antiquity through the Renaissance and the Enlightenment to the modern era, a central figure of thought in the Western humanist tradition was to consider, in words of Protagoras, “Man as the measure of all things” (see, for example, Davies 1997: 123; Sheehan 2002: 6–9). Now, in the post-Kinsey era of sexual omnipotence, “sex” is “the measure of all things,” to apply Jonathan Gathorne-Hardy’s (2004) phrase describing the conviction of Alfred C. Kinsey. At the same time, since the implosion of the sign and the triumph of the signifier, the idea
of “Man,” with all its connotations, has been shown to be not only a narrow-minded anthropocentric delusion, but also a deadly dangerous elevation of the human being to the center of the universe; a hubris resulting merely in a self-serving anthropologism implying the ideology of anthropomorphism and, in the end, amounting to an anthropolatry in the guise of spurious humanism (cf., for example, Daston 1995: 38–39; Steiner 2005). After this “anthropological sleep” (Foucault 1989: 340–343), an awakening of thought with respect to the “human” has been going on, given rise by the theory discourse under the sign of the “post.”

This is a shift of paradigm that has also enabled new ideas of the subject constituted in terms of language, writing and technology. Radical antihumanism, much more radical than the “theoretical antihumanism” of the 1960s elaborated on in French philosophy (see, for example, Davies 1997: 57–71; Williams 1999: 130–133; Gutting 2001: 235–238; Ferry & Renou 1990 [1985]; for the origin of the idea, see Althusser 2005 [1965]: 229–231, 251; in Heideggerian terms, cf. Heidegger 1976a [1946]), is, in the theory-matrix of post-theory, the guiding principle of theory projects in the academic world of the twenty-first century seeking various conceptual departures as a way out from the horrors of humanism. This is the historical origin of posthumanism, the technoscientific paradigm of the posthuman as the post-theoretical theory matrix of the cyborg, the discursive genesis of post-human life forms as technoscientific artefacts (see, for example, Halberstam & Livingston 1995; Hayles 1999; Badminton 2000; Gray 2001; Graham 2002; Cooney 2004; Smith & Morra 2006b; Waters 2006; Clarke 2008; Gordijn & Chadwick 2008).

The Weberian world (see Weber 1968 [1917/1919], 1993 [1904–1905]), based on the principles of reason and rationality, was in its anthropocentrism, if not humanist, then at least a human world. And whereas for Weber, in the first place, there was still the human being, today the only thing that matters is the body: the body as a design object, the body as a post-body artefact celebrated by post-theory (cf. Eagleton 1996: 69–92, 2000: 88–89). This is the idea of the posthuman: no longer is there that poor and obsolete “meat thing” called the human being as a manifestation of nature or physis, or the Nietzschean “physiological” entity to be cultivated only by brute force and pain (see Nietzsche 1968b [1886]: 21–22, 1968c [1887]), but the body is now a contingent and thus mutable construction; “the body” as an effect of discourse and as a product of technology: “the body” as a postmodern body-machine assemblage created and manipulated by means of the scientific-technological rationality constitutive of technoscience and technoculture (see, for example, Kaloski 1999 [1997]: 201–205; Schäfer-Bossert 2003: 71–73; Miah & Rich 2008: 26–36; DeVoss 2000).

If the Foucauldian awakening from the “anthropological sleep” implied that a “change in the fundamental arrangements of knowledge” concerning the human would bring about a new constellation in which “man would be erased, like a face drawn in sand at the edge of the sea” (Foucault 1989 [1966]: 387),
now the moment has come to see that also nature, and accordingly, the natural body are only human delusions. In this new world, after the “death of God” and the “death of Man” (cf., for example, Burke 1992: 22–25, 62–115; Prosser 1995: 61–62; Carrette 2000: 79–84), nature is now dead as well; or, in terms of post-theory, nature has been “denaturalized” (see, for example, Haraway 1991a: 177–178; Munnik 2001 [1997]: 114–116; Weber 2007: 42–45; Baldi 2002; for the polarity between the artificial and the natural, see Bensauda-Vincent 2007), that is, humanized in the mode of posthuman: nature has been re-naturalized as technology (see, for example, Robertson et al. 1996; Braun & Castree 1998; Helmreich 2000 [1998]; Reiss & Straughan 2001 [1996]; Weber 2003; Lustig et al. 2008a, 2008b).

A problem still remains: if the body has been part of nature, and nature is now denaturalized, what, then, is a post-natural body? Is it, in fact, a contradictio in adiecto from the very beginning? That is, from the perspective of the deconstruction of nature, the body is already non-natural. As Derrida says:

There is no natural, originary body: technology has not simply added itself, from the outside or after the fact, as a foreign body. Or at least this foreign or dangerous supplement is “originarily” at work and in place in the supposedly ideal interiority of the “body and soul.” It is indeed at the heart of the heart. (Derrida 1995b [1992/1989]: 244–245; cf. Ansell Pearson 1997: 123–124; Mackenzie 2002: 4–8).

If the “natural body” was a central figure of the “anthropological sleep” pertinent to the centuries long era of humanism, what, then, is this emergent entity that, for example, Anne Balsamo (1996: 125–132) terms the “virtual body,” or that Marie-Luise Angerer (1999a: 53–55, 1999b: 177–179), referring to Haraway’s cyborg theory, calls “cyberbody” (cf. Kennedy 2000a: 473–474; in terms of the “hyperbody,” cf. Flanagan 2002: 427–433)? If there is already the cyborg, what is the specificity of the “cyberbody,” unless it is nothing but a pleonasm, and as such, an empty word? Moreover, if the “virtual body” is different to the “cyberbody” and that, in turn, is distinct from the cyborg, are they all still diverse embodiments of the Derridean “post-natural body”? Finally, does these various “bodies,” in fact, demonstrate once again that in the world of the “post” we are in a virtual reality of language, a linguistic labyrinth ruled by “free-floating signifiers,” a mode of reality in which everything is possible since in the world of the “post” the only thing that is impossible is the possibility of the impossible?

Whereas, according to Balsamo (1996: 125), the “biopolitics of virtual bodies,” based on the idea of a “utopian desire for control over the form of personal embodiment,” represents a “very traditional cultural narrative” about the “possibility of transcendence,” suggesting that the “physical body and its social meanings can be technologically neutralized” (ibid.: 128), in contrast, for Angerer (1999: 54) – quoting an expression from Jill Marsden’s (1996) “cyberfeminist” theory – the “cyberbody” can be conceived of in terms of a new kind of interface, the “interface as becoming-flesh of the machine.”
The Kantian Questions Today

As we can see, the denaturization of the body in terms of the cyborg ultimately always amounts to the idea of the body as a machine. In this manner, the machine, in itself a metaphysical figure in the world of the “cyber,” is mystified and thus mythified as the final liberation of the subject from the constraints of the body, the terror of the flesh; accordingly, as mythopoetic wish-images, the cyborg and the machine are theory-fictions that conjure up a vision of a technoscientific redemption of the human being as the transition to the postnatural world of the posthuman (for “myth as “a type of speech,” cf. Barthes (1979b [1957]: 109; Chow 2006: 50–53; with regard to the mythification of the cyborg, cf. Haraway 1991a: 149–150; in the context of the jargon of the “computer revolution,” cf. Hakken 1999: 18–24; in terms of “mythinformation,” cf. Langdon 1986: 98–117; from the perspective of “cybermapping and the writing of myth,” cf. Jahshan 2007).

What is important in this context is that in the theory-fictions of cyber discourse, where there was once a “natural” body – a human body consisting of the flesh and functioning as a material entity according to its own biological laws – there is now an artificial construction thoroughly dependent on technology. Thus, if our mode of existence in the future – that is, the future of the posthuman being – is to turn into a “ghost in the machine,” is the post-body, instead of being a body empowered by posthuman technologies working on the principle of the prosthetic enhancement and augmentation of the postcorporeal post-subject, rather a posthuman version of what Foucault (1991a [1975]: 135–169) calls a “docile body”?

Whatever the future body will be, according to Allucquère Rosanne Stone, it will be a body the habitat of which is cyberspace; as Stone (1994b [1991]: 109) says, “[t]o enter cyberspace is physically put on cyberspace, and hence, to become cyborg is “to put on the seductive and dangerous cybernetic space like a garment, that is, to put on the female.” Then again, and this pertains not only to Stone, but to “cyberfeminism” in general, if the future post-human body is a female construction, how can it be at the same time a post-gender body as Haraway (1991a: 150–151) claims? This is a question that always remains without answer in the world of “cyberfeminism” – if there is any answer at all to it in the first place.

One thing is certain in any case: ideas like these no longer belong to the realm of the Foucauldian “anthropological sleep.” In the era of the “post” in which Enlightenment reason is only a nightmare of the past, the whole idea of anthropomorphism, of course, is like an endeavour to bring back the Dark Ages. Yet, one can ask whether cyber visions à la Angerer, Stone and Haraway entail, if not necessarily a sleep of reason, nevertheless a techno-euphoric dream: a dream of replacing the “natural body” by a posthuman techno-body (cf., for example, Bell et al. 2004: 8–9; Halberstam & Livingston 1995; Balsamo 1996; Featherstone 2000; Gray 2001; Graham 2002; Zylinska 2002b; Nayar 2004;
Giannachi 2007; Toffoletti 2007; Sullivan & Murray 2009; Sundén 2010; Hollinger 2011)? Does postfeminist techno-radicalism or "cyberfeminism" celebrating a "post-corporeal future" (Moszkowitz 1999: 222–223) represent, in fact, technomorphism, that is, a discourse that subsumes everything under technology; in other words, a mode of thought that sees all being sub specie machinae (see Baruzzi 1973) and, in this very sense, is thoroughly anthropocentric?

If the modern era, the age of scientific-technological rationality based on Enlightenment reason, was an age of utopias in the disguise of scientific thought (see, for example, Goodwin & Taylor 1982; Levitas 1990), in the world of post-reason we are living in the post-utopian times. Utopia is no longer an imagined "non-place," an ideal order somewhere in a distant future. Today the utopia is hic et nunc: the body is a post-utopian utopia, an imaginary u-topos of the post-subject both constituted by and constitutive of the posthuman condition (for the reinvention of the human being in utopian thinking, see Rüsen et al. 2005; for the idea of a "new humankind" in Russian biopolitical utopias at the beginning of the twentieth century, see Groys & Hagemeister 2005; cf. Stites 1991 [1989]; Bowlt & Matich 1996; Vöhringer 2007).

In this new world living under the regime of the technological imperative, the question concerning the conditions of our existence in the sense of the fundamental Kantian questions – Was kann ich wissen? Was soll ich tun? Was darf ich hoffen? (Kant 1990b [1781/1787]: 677) – is to be answered with one word: technology; that is, technology is now the key to the human condition redefined by the posthuman. It is technology that will enable everything: theoretical knowledge and practical skills, life and death, rebirth and transcendence. Technology is thus the ontological and epistemological foundation, the moral order and the future perspective in the posthuman condition ruled by the scientific-technological rationality of the “cyber," the reason of the surrational. If the idea of the Enlightenment, according to the paradigmatic formulation given by Kant (1991a [1784]: 53), was to enable the Ausgang des Menschen aus seiner selbst-verschuldeten Unmündigkeit, “the exit of the human being from his self-caused

82 From Plato’s Politeia (360 BCE) through Thomas More’s Utopia (1516), Francis Bacon’s The New Atlantis (1622) and Tomasso Campanella’s Civitas solis (La città de sole, 1623) to the latter day utopian thinking exemplified by William Morris’s News From Nowhere (1890), Herbert Marcuse’s Eros and Civilization (1955) and Ernst Bloch’s Das Prinzip Hoffnung (1959), the idea of utopia has been an ideal order (an ideal society or an ideal state) in some imagined place and time where the now-prevailing social system plagued by defects and wrongs is replaced by a thoroughly rational and thus perfect organization of life, that is, a place, an order or a state of being ideally organized in terms of laws, customs and living conditions. In this sense, being an ideal form of human community, utopia has always represented, as a reverse of the present, whether a lost golden age or, more often, a projection of a better future. As such, utopia has, at the same time, through a potential alternative, implied a critique of the actual way of life; thus, utopia is always against the status quo, and therefore a hoped-for catalyst of a radical change. According to Barbara Goodwin and Keith Taylor (1982), utopianism has never been pure fantasy; on the contrary, it has always entailed, in one form or another, a political theory trying to transcend the limitations of present circumstances. In a quite similar manner, for Ruth Levitas (1990) utopias designate a repository of desire, a desire implying a political programme for an improvement of the human condition.
immaturity” (cf., for example, cf. Siskin & Warner 2010), in the era of post-reason the supreme ambition of the human being is a self-abolition.

This is no longer the Enlightenment religion of the human, this is a neo-religious vision of the ultimate deliverance of the human being in the form of the posthuman: a technological resurrection of the human being after the Foucauldian “death of Man.”
6 Only the Cyborg Can Save Us Now

Agriculture is now a motorized food industry, in essence the same as the manufacturing of corpses in gas chambers and extermination camps, the same as the blockading and starvation of countries, the same as the manufacture of hydrogen bombs.

Martin Heidegger (1994a [1949]: 27)

From one perspective, a cyborg world is about the final imposition of a grid of control on the planet, about the final abstraction embodied in a Star Wars apocalyptic waged in the name of defence, about the final appropriation of women’s bodies in a masculinist orgy of war. From another perspective, a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints. The political struggle is to see from both perspectives at once because each reveals both dominations and possibilities unimaginable from the other vantage point. Single vision produces worse illusions than double vision or many-headed monsters. Cyborg unities are monstrous and illegitimate; in our present political circumstances, we could hardly hope for more potent myths for resistance and recoupling.

Donna Haraway (1985: 72)

Nur noch ein Gott kann uns retten (Heidegger 2000c [1966/1976]: 671), "Only a God can save us now." That was Heidegger’s conviction in 1966, when he was confronted with the question as to whether the human being as an individual can still have any influence upon the “network of inevitable measures”

83 My translation; in the original the sentence reads: “Ackerbau ist jetzt motorisierte Ernährungsindustrie, im Wesen das Selbe wie die Fabrikation von Leichen in Gaskammern und Vernichtungslagern, das Selbe wie die Blockade und Aushungerung von Ländern, das Selbe wie die Fabrikation von Wasserstoffbomben” (Heidegger 1994a [1949]: 27). This sentence, sounding, no doubt, cynical in its grotesque comparisons, is the only passage in Heidegger’s whole œuvre in which he refers to the crimes committed by the Nazis culminating in the Holocaust. According to Tom Rockmore (1997 [1992]: 202), Heidegger’s Schweigen, “silence,” had its rationale in his philosophy in which “the call of conscience is silence.” In contrast, according to Julian Young (1997: 181–182), the sentence implies Heidegger's critique of modern technology in the historical context of the Cold War and the Russian blockade of West Berlin in which, as Heidegger says, referring to Jünger's idea of the “totally mobilised society,” the “soldier-civilian distinction” was effaced. The sentence is included in the lecture Das Ge-Stell, elaborated on to the essay Die Frage nach der Technik (1953), given by Heidegger in Bremen in 1949, first published in Heidegger's Gesamtausgabe in 1994, but made public a decade earlier in a study on Heidegger by Wolfgang Schirmacher (1983: 25).

84 In spite of its religious ring, Heidegger’s apodictic judgement has nothing to do with the Christian God (as can also be seen in its grammatical form: a God). As we will see later, this sentence has a programmatic meaning, deeply embedded in Heidegger’s conception of the fate of philosophy in a world ruled by scientific-technological rationality. The sentence is included in what is known as “the Spiegel interview,” conducted by Rudolf Augstein and Georg Wolf on 23 September, 1966, but published, in accordance with Heidegger’s precondition, only after his death (26 May, 1976) in the Spiegel issue of 31 May, 1976 (Neske & Kettering 1988: 112–114). Due to its importance for Heidegger’s public reception, the interview was a “product of careful planning, whose text was later worked over before publication” (Rockmore 1997: 204).
Fig. 81. Martin Heidegger, the philosopher of deep thought inspired by the spirit of the Provinz (see Heidegger 2002 [1934]), reminds us that the being of technology is not the same as the being of Being: there is “the ontological difference” that makes the difference between them, the distinction between Being (das Sein) and beings (das Seiende); in other words, the distinction between the ontological and the ontical (see Heidegger 1977d [1927]: 3–20, 2000b [1953]; cf. Trawny 2003: 77–88; Cardorff 1991: 38–41).


(Geflecht von Zwangsläufigkeiten) constituting the contemporary “technological state” (der technische Staat) (ibid.; translations here and in the following mine unless otherwise indicated; cf., for example, Philips 1998: 207–209, 478; Pöggeler 1989a, 1989b; Schmidinger 1997; Weinberg 2004).

This, in fact, was a question concerning the Eigenlogik of technology, its relentless proliferation and expansion all over the world under the imperative of scientific-technological rationality, the reason of the modern (see, for example, Marcuse 1941, 2002 [1964]; Habermas 1967; Boggs 1993; Mitcham 1994; Feenberg 1995; Misa et al. 2004; Dusek 2006); the reason of what has come to be called technoscience along with the rise of the postmodern (see, for example, Sassower 1995; Aronowitz et al. 1996; Ihde & Selinger 2003; Michael 2006). In this sense, as Heidegger (2000c: 669) says: Die Technik in ihrem Wesen ist etwas, was der Mensch von sich aus nicht bewältigt, “in its essence, technology is something that the human being is not able by himself to cope with” (for a historical contextualization with regard to Heidegger als Philosoph des Fordismus, see Heinrichs 1999; cf. Loscerbo 1981; Poster 2002; Krocericz 2006; Radlöff 2007; Kittler 2008).

In other words, under the regime of scientific-technological rationality, reason is in itself no longer able to question itself as reason since it is now subsumed by the self-legitimating reason of science and technology (cf. Lyotard 1984 [1979]; Fell 2002). As such, reason in the mode of scientific-technological rationality is not just a means of the cognizance of the world in the sense of Erkenntnis (conscious knowledge or recognition as well as awareness of the range of what one can know or understand), but, first and foremost, it is now the very means of controlling and manipulating all being, that is, the way of rational-instrumental Bewältigung and Aneignung of the world as a resource – even, as Heidegger (1977d [1927], 1983 [1935]) time and time again emphasizes, when those in responsibility of the advancement and implementation of science and technology have no understanding of the essence of Being, das Sein (cf., for example, Cardorff 1991: 35–50; Han 1999: 11–14; Trawny 2003: 48–118). That is, the power of the scientific-technological progress, constitutive of the affluence prevalent in Western culture, has delegitimated reason as the critical instance of power, and, as a result, reason, in its self-constituting rationality, has become the very legitimation of the
scientific-technological reconstitution of all being in terms of efficiency and productivity dictated by the logic of surplus value, the constitutive rationale of capitalism (cf., for example, Dierckxsens 2000; Berberoglu 2002; Liodakis 2010).

As we can see, the problem of reason is an issue that concerns both its constitution and legitimation, which are intertwined with one another in a complicated manner (for a classical study, see Habermas 1973; for a recontextualization of the issue, see Lyotard 1984 [1979]). It is in this constellation that the problem of what I call post-reason and the surrational arises.

6.1 Cybernetics as a Latter-Day Manifestation of *machina mundi*

The spectacular progress of scientific-technological reason, being expressly the condition of possibility of the postmodern, brings about, to use an Adornian notion, *ein gesellschaftlicher Verblendungszusammenhang* (Horkheimer & Adorno 1994 [1944/1947]: 48; Adorno 1970 [1966]: 142; cf. Honneth & Menke 2006), an intellectual and cultural “dazzlement,” due to the dazzling advances of technoscience (to be observed today most clearly in the fields of the life sciences and the neorosciences) that obliterates the distinction not only between the real and the imaginary (the utopian moment of the postmodern), but also between the real and the virtual (the real as its own simulation constitutive of post-theory as a virtual reality of language) (cf., for example, Pauen 1994: 363–404; Breisach 2003: 181). That is, where dazzlement reigns, there critical thinking is no longer possible, or, rather, it has become superfluous altogether: in the world of the spectacle, there is to be seen nothing but the spectacle in itself, in its spectacular spectacularity (cf. Debord 1983 [1967]), in the Derridean sense, in its very *spectrality* (see Derrida 1994 [1993]). As a result, critical thought gives way to the celebration of science and technology, and scientism begins to dominate the public discourse on science (cf. Sorell 1994 [1991]; Olafson 2001; Stenmark 2001).

In this situation, scientific research finds its legitimation in its results, in the efficiency of scientific projects: the achievements of research are the proof of the efficacy of science, its societal relevance and importance (cf. Sassower 1993: 71–72; Bertens 1995: 123–130; Lyotard 1984 [1979]). This is the *raison d’être* of the imperative of scientific-technological rationality: as both a result of modern science and its *methodical basis* (for a comprehensive history, see, for example, Bernal 1969; Brush 1988; Krige & Pestre 1997; Porter & Ross 2003), technology, now in itself as the very legitimation of the prevailing order, has developed its own systems rationality that is not able to question itself and thus results in the delegitimation of reason as a critical instance of the world in the Kantian sense of the term (see Kant 1990a [1781/1787], 1990b [1781/1787]). Reason is thereby *reduced to sheer rationality*, to the imperative of performance.
efficiency, and, accordingly, what is rational in this context is determined by
the logic of cost-benefit calculation that, in itself, is organized according to the
very principles of scientific-technological rationality, the principles of technos-
science constitutive of contemporary technoculture (see, for example, Robins & Webster 1999).

All this is paradigmatically manifested, in the strict sense of the modern, by the
Manhattan project (1942–1945) that developed and constructed the atomic
bomb; until then the largest scientific-technological enterprise in the world
(see, for example, Hughes 2003; Kelly 2004; Schwab 2004; in terms of “big sci-
ence,” see Galison & Hevly 1992); as President Truman proudly pronounced
after the devastation of Hiroshima by the atomic bomb: “What has been done
is the greatest achievement of organized science in history” (Cantelon et al. 1991
[1984]: 66; emphasis mine). What was thus “organized” was the rationalization
of reason in itself constitutive of modern science, the hard core of postmodern
technoscience (see, for example, Gusterson 1996: 59–67, 105–113; Sassower
view in terms of “the scientific way of warfare,” see Bousquet 2009; from the
perspective of “postmodern war,” cf. Gray 1997; with regard to “cynical reason,”

6.1.1 Towards the Heidegger Connection

In the world of spectacular rationality, a world ruled by the spectacle of reason,
reason in itself disappears: it is displaced by a mode of rationality the legitimia-
tion of which is its own rationality, its spectacular efficiency, its overwhelming
capacity to bring about results in terms of productivity and commodification.
This is the ultimate triumph of what Adorno and Horkheimer call instrumentelle
Vernunft, “instrumental reason” (see Horkheimer 1967; Horkheimer & Adorno
1986; from a Heideggerian perspective, see Marcuse [2002] 1964). In other
words, in the midst of the excess of affluence prevailing in Western culture,
we can now observe a return of what Marcuse (1941: 419), surrounded by the
astounding achievements, the dazzling spectacularity, of the “American dream”
in the 1940s, designated as the “anonymous wisdom” of scientific-technologi-
cal rationality constitutive of the modern, a mode of rationality that appeared
self-evident in its capacity to bring about ever-new products and material well-
being (cf. Gandesha 2004); a mode of “wisdom” that today is the reason of the
surrational, glorified under the sign of the postmodern.

What does this imply? To cut a long story short, we are now living in a world
in which the ideal of science manifests the idea of scientism, a “rational” faith
in science, in its “scientific” omnipotence, as the raison d’être of all being (for
a paradigmatic critique, see Habermas 1968; cf., for example, Robinson 1998:
2001; from a historical perspective, see Noble 1979 [1977], 1997). This is the triumph of postmodern reason after the collapse of the reason enthroned by the Enlightenment. The “post” is the signifier and the signet of this triumph, the triumph of a post-Nietzschean Wille zur Macht, “will to power” (cf. Nietzsche 1968a [1883–1885]: 143–145, 1968b [1886]: 21–22, 31–33, 1968c [1887]: 332, 1973a [1882/1887]: 267–268; cf. Montinari 1991: 97–100), in terms of scientific-technological expropriation and exploitation of all being in the name of the human being, the anthropomorphic God of the universe. In other words, what was once Vernunft for Kant (1990a [1781/1787], 1990b [1781/1787]; cf. Mohr & Willaschek 1998) is now the scientific-technological rationality constitutive of the postmodern the apotheosis of which is the “reason” of the surrational, the reason of the imaginary in its spectral rationality.

In these terms, the postmodern embraces the empire of technocratic thought, the managerial reason of technoscience following the logic of the political economy of neoliberalism.

Das Unheimliche: Everything Functions

From the Heideggerian perspective, the development of rational thought to the omnipotence of reason, finding its culmination in the philosophical programme of the Enlightenment, had already began with Plato’s idealism and only aggravated by Cartesian rationalism, and finally resulted in the scientific-technological rationality as the reason of modern technology; an elevation of reason, in the form of anthropocentric subjectivity, to the sovereign of Being (see Heidegger 1976a [1946], 1976b [1949], 1977a [1938], 1983 [1935], 2000b [1953], 2009 [1935–1958]; cf. Young 2002: 36–62; Volpi 1989; Dreyfus 1993, 2002). In these terms, the problem was, as Heidegger (2000c [1966/1976]: 669) emphasized, das Wesen der Technik, the “essence of technology,” its mode of being, to which we, as humans, had not yet found an appropriate way to “respond” in the sense of entsprechen, that is, to be in accordance with. In other words, technology was not understood correctly insofar as it was seen as a technological problem, instead of considering it as an issue of thinking, as a question concerning the essence of technology in its historicity, in the light of what Heidegger (1989a [1936–1938]: 92–94, 227–228, 431–434) calls the Seinsgeschichte, the “history of Being” (cf. Zimmerman 1990: 54–56; Smith 1996: 231–249; Han 1999: 82–93).

What is constitutive of scientism is a rational faith in the ability of scientific explanation of the world, understood as empirical-experimental positivism based on the idea of causality, of the world as a means of bringing natural forces and resources under human control. From this ensues the ideology of scientific omnipotence, a pragmatic mode of thought, according to which only professional experts, the specialists of the scientific elite, are able to govern the functions of society as a whole. In this sense, H. T. Wilson (2004: 183) sums up the hard core of “the ideology of scientism” by pointing out that its “unstated commitment” is “nothing less than the technocratic concern to convert political issues into administrative problems” that are solved by self-appointed representatives of scientific expertise. Thus, academic specialization, economic efficiency and bureaucratic control as a professional management of the functional rationality of various parts of society constitute the idea of scientism as a political rule of scientific reason.
Therefore, according to Heidegger (2000c: 670), the time of philosophy had now definitely come to its end since it was no longer able to give orientation to humans in a world in which *wir haben nur noch rein technische Verhältnisse*, a world in which the “only thing we still have are technological relations.” In other words, philosophy had no longer anything to say in a world in which technology had the answers to all the questions, a world in which there was no room left for the most important question, the Seinsfrage, the “question of Being” (see Heidegger 1976d [1955]; cf. Safranski 1998 [1994]: 172–192).

*Warum ist überhaupt Seiendes und nicht vielmehr Nichts?* (Heidegger 1983 [1935]: 3–4, 25–26) – “why are there beings at all rather than nothing?”86 This is the “question of Being,” *die erste aller Fragen* (ibid.: 3), “the first of all questions,” that we encounter encountering the being of Being (cf. Iber 1994: 238–239; Sini 1994: 171–172); however, an encountering in our immediate human Dasein, not so much in terms of *das Sein*, Being in itself, but, rather, in terms of *das Seiende*, the world of beings as the realm of our existence, through which we can approach Being in itself, provided, though, that we do not entangle ourselves with the myriad of things that belong to the being of beings as *das Seiende* by which we are surrounded and confronted in our Dasein, “being-thereness,” in our everyday activities and pratices within the everydayness of the world. In this sense, according to Heidegger, the question as to why there is Seiendes rather than Nichts, nevertheless, is the first question since it is *die weiteste*, *die tiefste* and *die ursprünglichste Frage* (Heidegger 1983: 3), “the widest,” “the deepest” and “the most originary,” of all questions.

As we will see (and as we have seen throughout the study at hand thus far), this is not the question posed by science and technology; and, consequently, not a problem of cybernetics. Why? Because it is not possible for scientific-technological rationality to ask this question in the first place since it already knows the answer to the question concerning the manner in which the universe functions, the way in which the world can be approached in terms of science and technology, and, accordingly, to be made available as a resource for economic exploitation, or, as Heidegger (2000b [1953]: 17–23) says, to be used as Bestand, “standing reserve.” It is in this sense that the world of cybernetics is not a world of a primordial being; instead, it is a world of calculability, a world to be made useful and usable by means of calculation in the broad sense of the term; that is, a world that, without any pre-rational essence in terms of ontology, can be

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86 Heidegger’s question, posed for the first time in his *Antrittsrede* in 1929, goes back to Leibniz’s question: “Pourquoi il y a plutôt quelque chose que rien?” (Sini 1994: 171); that is, why is there something rather than nothing? According to Heidegger, with his question Leibniz had still remained in the framework of metaphysics since Leibniz’s objective was to find out the ultimate foundation of all being, that is, in Heidegger’s language, *Seinsgrund* of all that is. In contrast to Leibniz, the aim of Heidegger was to overcome metaphysics altogether, and, accordingly, Heidegger’s question (as he translated Leibniz), *Warum ist überhaupt Seiendes und nicht vielmehr Nichts?*, did not pertain to the being of das Seiende (the being of beings), but, more fundamentally, the being of das Sein, the being of Being (ibid.: 171–172). That is, Heidegger’s objective was not to find out some ultimate Seinsgrund, but, instead, his purpose was to recover the Seinsfrage, the question concerning Being as the first question of philosophy, and, by that, to begin philosophical questioning all over again, from its primordial beginning in Greek thought.

That is, where scientific reason rules the world is where the world in itself disappears: the world as our home dissolves into formulas of scientific management of all being.

Thus, was there still any escape from this deadlock of scientific-technological rationality, or, in fact, according to some kind of post-Leibnizian logic, had our world at last become “the best of all possible worlds” (cf. Hober 2001: 18–26; Kim 2002: 2–20)?

“As the sole possibility, I consider, that through thinking and poetizing [Denken und Dichten] a readiness will be prepared for the appearance of a God, or for the absence of a God in our destruction, in order that we, to say it roughly, will not die a ‘bestial death’ ['verrecken'], but when it comes to our ruin we will be devastated face-to-face with the absent God” (Heidegger 2000c: 671). It is in this manner that Heidegger specified his answer that “only a God can save us now” in the Spiegel interview to the question as to whether there still was any possibility to have influence upon the “network of inevitable measures” resulting from the supremacy of science and technology in present society. For Heidegger, it was precisely the ever-continuing triumph of the scientification of all being – that is, the whole human existence, das Dasein, and, most fundamentally, the very Being, das Sein, as the primordial condition of possibility of all beings, das Seiende – implying the subsumption of all being by science and technology, that the very preconditions of “thinking and poetizing” were about to vanish, and, as a result, scientific-technological rationality was in the process of becoming the general horizon of human understanding, most fundamentally in relation to the being of Being (cf. Thiele 1995: 192–217; Young 1997: 174–183).

That is, where scientific-technological rationality not only mediated and articulated, but from the very beginning constituted, the human relation to the world, there the human existence, das Dasein, was in danger of losing its relation to the very precondition of all being, das Sein, Being.

87 All translations of the Spiegel interview are mine; the passage reads in the original: Die einzige Möglichkeit einer Rettung sehe ich darin, im Denken und im Dichten eine Bereitschaft vorzubereiten für die Erscheinung des Gottes oder für die Abwesenheit des Gottes im Untergang, daß wir nicht, grob gesagt, 'verrecken', sondern wenn wir untergehen, im Angesicht des abwesenden Gottes untergehen (Heidegger 2000c: 671). According to Leslie Paul Thiele (1995: 206), it is a grave mistake to interpret this implying that “Heidegger suggests that we fatalistically abandon reflective thought and action in order to abide in religious faith.” “Awaiting some (anthropomorphic) god is precisely the ‘waiting for’, effectively a willful action, that Heidegger deprecates”; “God is not the (awaited) answer to our problems but simply an element of questioning”; there is “no deus ex machina here, not even one that might save us from the machine” (ibid.).
But, when the *Spiegel* authors in their interview with Heidegger countered his idea by the remark that everything was in oder anyway, *Es funktioniert ja alles*, for “ever-new power plants are constructed,” “production runs efficiently,” “people in the high-technologized part of the world are well-supplied,” and “we are living in affluence” (Heidegger 2000c [1966/1976]: 670) – so what was the problem supposed to be? Precisely that: that everything *functioned*, even in a manner that appeared as self-evident; as Heidegger insisted:


Everything functions. Precisely that is what is *uncanny*, that it functions, and that this functioning drives to an ever-more expanding functioning, and that technology more and more rips and uproots the human being from the earth. I do not know whether you are frightened, but in any case I was frightened when I recently saw the photographs of the earth taken from the moon. We do not need an atom bomb at all, the uprooting of the human being is already taking place. *We have now only purely technological relationships.* It is no longer an earth on which the human being lives today.

*We have now only purely technological relationships* – that is the Heideggerian problem regarding the human condition in the contemporary world. *Es funktioniert ja alles* – yes, exactly, everything functions, often even perfectly, but for precisely this reason, from the Heideggerian perspective, life under the regime of scientific-technological reason is *unheimlich*.88

The End of Philosophy

The problem is that “[t]echnology entices us into a productive process that precludes questioning thought” (Thiele 1995: 194); in other words, the mesmerizing power of science and technology (cf. Jameson 1991: 34–38), appearing as scientific-technological omnipotence in its ever-expanding capacity to solve problems and thus to make human life more “human” – as we believe or make us to believe – by ever-new inventions, all this undermines the faculty of thinking, the ability to ask questions that go beyond technicalities, beyond the technical task orientation dominating not only the realm of technology, but life in general in a culture that is ruled by technoscience; that is, to ask questions

88 It is appropriate to notice that in German the word *unheimlich* does not simply mean, as standard translation has it, “uncanny.” *Unheimlich* is not the opposite of *heimlich*, “secret,” “clandestine,” “furtive,” although, oddly enough, these aspects of meaning are also present in *unheimlich*, but it is the negative of *heimisch*, “indigenous,” “native,” “domestic,” “homely”; that is, *unheimlich* means literally “unhomelike” and, in this sense, “homeless,” and, as such, it refers to uneasy strangeness, anxiety, when one feels not “at home.” Thus, in Heidegger’s vocabulary, *unheimlich* means “uncanny” in the sense of “not-being-at-home,” a mode of being “not-at-home,” a situation in which “everyday familiarity” collapses (Thiele 1995: 177). It is in this sense that, for Heidegger, all-pervading technology turns human existence, *das Dasein*, into *unheimlich.*

This is the world under the regime of science and technology; a world in which expert knowledge based on scientific research has displaced thinking; a world in which scientific-technological rationality has silenced questioning (see Heidegger 2000c [1966/1976], 2009 [1935–1958]; cf. Smith 1996: 236–237; Young 2002: 77–82).

In short, the problem is, as Heidegger (2000d [1952]: 133) says with his pregnant simplicity: *Die Wissenschaft denkt nicht,* “science does not think.”


It does not think since it, due to its mode of proceeding and to its auxiliary means, is never able to think – namely, to think in the mode of thinkers. That science *cannot* think is not a deficit, but an advantage. It is only this advantage that ensures the possibility for it to engage with a particular object domain and to settle in it in the manner of research.

This, according to Heidegger (2000d: 130), is *das Bedenklichste,* “the most questionable,” and as such, the most disturbing and alarming issue in the contemporary world; a situation that should make one concerned, attentive and apprehensive in the relationship to the mode of being ruled by science and technology, to make one to consider the *language* that science and technology speak (cf. Kockelmans 1985: 134–135; Glazebrook 2000: 214–216): a language that is not able to reflect itself as a particular language postulating, nevertheless, its own *universality*, its very own rationality, as the supreme way to encounter the world.

What is problematic here, according to Heidegger, is that science, expressly as *science*, is not the primary way in which we as humans open up to the world in our *Dasein*, in our “being-there-ness,” or, as Julian Young (1997: 56) prefers to render Heidegger’s idea, our “being-in-the world.” In other words, the mode of apprehension and appropriation of the world constitutive of science is not the manner in which the world is *given* us – except in the realm of science, seen through the mind-set of scientific research. In general, science is not interested in the being of *das Sein*, the being of Being; its interest pertains to *scientific truth*, knowledge as scientific facts, as reliable and applicable information, that can be proved by experimental and empirical methods, and then used instrumentally, as a means of controlling and ruling the world (cf. Pattison 2000: 71–74; Lafont 2000 [1994]: 260–263; Trawny 2003: 143–169).
In this sense, science is not able to think in terms of thinking, neither to think thinking in itself, to reflect thinking as thinking, in its own terms; rather, its rationale is to bring about results of research, to deliver solutions to problems (in terms of “Cold War metaphysics,” cf. Dolan 1994: 93–95). In this manner, the world of science is made by science itself: *it is a scientific world in its very scientificality*, a world that exists in the realm of science, but in which we, as far as we are humans, are not living in our mundane worldliness, in our Lebenswelt, “life-world,” (for the idea of Lebenswelt, see Husserl 2008 [1916–1937]; cf. Janssen 1970).

Therefore, we are now living, according to Heidegger, in a world in which it is no longer possible even to think about what thinking in itself is; that is, to approach all being not in the interest of scientific knowledge and management, but, instead, reflecting the being of beings in terms of the very being of Being (Heidegger 1977d [1927], 1983 [1935], 2009 [1935–1958]; cf. Trawny 2003: 48–88; Guignon 1983). In other words, this is a world in which it is no longer possible to think about, as Heidegger (2000b [1953]: 36, 1977: 35) concludes his essay on technology, why and how *das Fragen ist die Frömmigkeit des Denkens*, “questioning is the piety of thought” (cf. Safranski 1998: 440–446) – provided, of course, that, in our scientifically rationalized world, there is still today anything which we can, even remotely, understand by the notion of “piety.” Is it, instead of “the piety of thought,” that what we now encounter, in fact, is the arrogance of science, the self-assurance of scientific-technological rationality, peculiar to contemporary culture in which all questions are scientific-technological problems to be solved by scientific scientific-technological methods, and which is thus ruled by *an excess of reason that is not able to question its own rationality*.

In other words, under the rule of science, scientism has replaced questioning; and hence, we are now living in what Heidegger calls the *Unwelt*, the “unworld” (Smith 1996: 234). This is the triumph of metaphysics in Heideggerian sense; that is, *anthropocentric subjectivity* (see, for example, Heidegger 1998b [1961]: 124–130; cf. Habermas 1998c [1985]: 159–165), ontological and epistemological self-centeredness of the human being, finally amounting to fundamental homelessness that finds its accomplishment in the postmodern:

Late-modern humanity is lost among Beingless beings, hence no genuine dwelling is possible. Instead of being rooted in beings, or open to Being, man seeks “primal truth” and certainty in himself. Man becomes the being which posits itself and all other things. Contemporary humanity plans and calculates everything in conscious production in the hopes of feeling at home amidst beings from which Being has withdrawn. As a result, we experience ever intensified forms of homelessness. As man wanders endlessly among man-made beings – and among natural beings that have their Being only in the way they fit into human projects – his alienation increases. Everywhere there are cries for new “ideas” and “values,” a sign of the “abandonment of Being” and the resultant lack of any historical destiny. We even try to plan and calculate the past; we study History to impose upon it a causal picture (“metanarrative”) so that we might better secure our place among beings of the present. Historicism replaces true historical dwelling. *The world becomes an unworld.* (Smith 1996: 233–234; emphasis mine)
This is what Michel Haar (1993 [1990]: 165), paraphrasing Heidegger, describes as “the increasing indifference and uniformity of the technically organized universe”; in Heidegger’s (2000g [1936–1946]: 93) words: Die Erde erscheint als die Unwelt der Irrnis. Sie ist seynsgeschichtlich der Irrstern; “The world appears as the non-world [Unwelt] of errancy. From the point of view of the History of Being, it is the wandering star” (Haar 1993: 165).


Therefore, Heidegger’s conclusion, referred to above, that nur noch ein Gott kann uns retten, “only a God can save us now,” does not mean a turning away from thinking; on the contrary, this is a new chance for thinking: by asking questions by way of Denken und Dichten, “thinking and poetizing,” we prepare ourselves for an open-minded encounter with Being (see Heidegger 1990 [1944–1945], 1994e [1957]; Cardorff 1991: 148–155; Trawny 2003: 119–142). In Heidegger’s poetic words:

Die Muse singt, indem sie sagt und dem Sänger die Sage zu-sagt. Dergestalt sind dann Gesang und Gedank, die jeweiligen Versammlungen des Singens und Denkens, beide im selben Wesen, im Sagenhaften der Sage zuhaus. […]

Woher ist aber das Wesen der Dichtung zu denken? Aus dem Sagenhaften des Bereichs, der erst das Denken und das Dichten ihrem je eigenen Wesen überreicht. So müßten wir denn auch das Wort Hölderlins, das vielwinkende, "Dichterisch wohnet / Der Mensch auf der Erde" um einen spiegel tiefer denken, um es ganz anzuzeigen. Dichterisch wohnet der Mensch, weil er sagenhaft dem Wesen der Sprache als der Sage zugesagt ist. […]

Grundsätze des Denkens sind Sprünge in das Wesen der Sprache, das wir Sage nennen. Ihr Sagenhaftes ist jenes mannigfaltige Reichen als welches der Bereich in sich selber schwingt. Der Bereich ist die Ortschaft der Identität von Denken und Sein. (Heidegger 1994d [1957]: 171–172; emphasis mine; cf. Heidegger 1985d [1950])

The “identity of thinking and Being” enabled by das Sagenhaftes, “the fabled,” “the fabulous,” of language coming into being in and by the act of poetizing – this is the idea of the poetic apprehension of the world by way of Heideggerian Denken und Dichten. That is, thinking in Heideggerian terms implies that we are speaking not the language of science, the language of answers, but by
questioning the present in its scientific-technological presence we are dwelling upon a language by means of which we can approach the being of Being, without, of course, ever attaining it: *Being is not a scientific question*. It is then that we can understand that *die Sprache spricht* (Heidegger 1985c [1959]: 243, 251, 254, 1985d [1950]: 10–11, 13–14, 17–18), “language speaks,” and we, as humans, are speaking only insofar as we “respond,” *entsprechen*, the language we are speaking: *Das Ent sprechen ist Hören* (Heidegger 1985d: 30), “responding is hearing”; that is, we must hear what we are saying: we must hear language speaking (cf. Kockelmans 1980: 23–25; Scott 1996: 29–31; Lafont 2000: 103–106).

As we will see later on, it is from this perspective that the Heideggerian *Frage nach der Technik* (Heidegger 2000b [1953]), “the question concerning technology,” becomes intelligible. *Technology is in itself a mode of language that prevents us from seeing the “essence” of technology; a language that is a diametrical opposite of the Heideggerian language of “thinking and poetizing” as a language for us in our *Dasein* in order to come to terms with the *Seinsfrage*, the “question of Being.”

**Haraway’s Love to Heidegger’s Language**

Before considering this question, however, it is appropriate to already notice here that, in fact, Heidegger does not think in the ordinary sense of the term, Heidegger *heidegger*; that is, Heidegger questions by way of etymological associations amounting to highly original and personal views of the issues he is considering (for a contextualization in detail, see Ullrich 2003). Heidegger’s idiosyncratic German, *Heidegger-Deutsch*, is a poetic language, a tropic mode of thinking in and through thought-images, literally in terms of *Denken und Dichten*, echoing the idea of *ut pictura poesis* in its own linguistic way (cf. Thiele 1995: 114–131; Young 1997: 120–121; Smith 1996: 321–322; Trawny 2003: 119–136; Philipse 1998).

For this reason, reading post-theory, a form of theory that theorizes “the theoretical” of the theory objects it has theorized into being in the mode of *écriture* based on readerly writing in terms of writerly reading, one can have a *déjà vu*: the word-images peculiar to post-theory bring to mind the thought-images constitutive of Heidegger’s “thinking and poetizing”; or, then again, Heidegger’s poetic philosophizing resembles the mythopoetic theorizing in the name of the “post.” Yet, to avoid misunderstandings, it must be emphasized that while post-theory is a genuinely postmodern theory discourse, Heidegger’s philosophy is an absolutely idiosyncratic mode of *thinking* that has nothing to do with the linguistic play of post-theory.

Then again, as a philosophical neology based on a deep and original understanding of the poetic peculiarities of the German language (often beyond adequate translation), Heideggerian language is one – perhaps the most important – of the inspirations of “French theory,” and, in the last instance, one of the well-springs of postmodern linguistic figuration in the mode of post-theory, a theory style deriving from the post-literary language of poststructuralism (see Culler 1975, 1982; Johnson 1980a, 1980b, 1987; Lentricchia 1980, 1983; Bannet
In its own postmodern manner, the newspeak of the “post” speaks “Heidegger,” or, “heideggers,” of course, not in German, but in American English à la française; paradoxically, also in the idiom of the technological in which technology has taken the place of Heideggerian Being (in terms of “hyper-Heidegger,” cf. Kroker 2004a).

What is important in this context is that as a para-Heideggerian mode of writing, writing in terms of écriture, post-theory presents itself as a fundamental criticism of Western culture, the tradition of the Enlightenment. But against its own claim to be a critical language, the newspeak of the “post” is unable to formulate criticism that would go beyond the linguistic agenda constitutive of its own conception of “the theoretical” (cf., for example, Pefanis 1991: 83–86; Malpas 2003; in terms of “writing as resistance,” cf. Flynn 1996); that is, post-theory remains confined within the “post,” the paradigm of de-differentiation.

In contrast, Heideggerian language, as a highly idiosyncratic mode of writing, resists its cooptation by the jargon of postmodern techno-theory; that is, in its linguistic heterogeneity, Heidegger’s Denken und Dichten withstands its recuperation and appropriation by the “post.” Nevertheless, as strange as it may be, considering Heidegger’s fundamental critique of technology, it is even in terms of technology, that, as Heidegger (2000b [1953]: 7) says: Alle Denkwege führen, mehr oder weniger vernehmbar, auf eine ungewöhnliche Weise durch die Sprache, “[a]ll ways of thinking, more or less perceptibly, lead through language in a manner that is extraordinary” (Heidegger 1977f [1953]: 3; emphasis mine).

In a specific self-referential form, the linguistification of “the theoretical” in post-theory is a postmodern appropriation of the idea of the “linguistic turn,” redefined in terms of the “post.” Thus, the postification of theory is not just a turn to the evocative productivity of language constitutive of all that is “post,” but, more fundamentally, a carte blanche for a self-mirroring linguistic figuration enabling post-theory in the first place. It is in this sense that Heideggerian language is literally a pretext of the “post,” and that not only in terms of epistemology, but as the ontological condition of all being as well (for a historical articulation of “linguistic turns in modern philosophy,” see Losonsky 2006). While, as

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89 It should be emphasized that what I call “Heidegger-Deutsch,” of course, is not an sich, in itself, a newspeak, although in its own way it has contributed to the emergence of post-theory as a specific postmodern theory language. In this sense, newspeak is a mode of language that has lost its critical edge, its faculty to enable writing against language. In Lyotard’s (1997 [1988]; 89) words: “The adversary and accomplice of writing, its Big Brother […] is language: by this I mean not only the mother tongue but the whole inheritance of words, phrases, and works that we call literary culture. One writes against language, but necessarily with it [emphasis mine]. To say what it already knows how to say is not writing. One wants to say what it does not know how to say, but what one imagines it should be able to say. One violates it, one seduces it, one introduces into it an idiom unknown to it. When this desire disappears – this desire for it to be able to say something other than what it already knows how to say – when language is felt to be impenetrable and inert, rendering all writing vain, it is called Newspeak.” In other words, newspeak operates by “dead metaphors” (Ricoeur 1986 [1975]: 99, 284–293; cf. Nietzsche 1973c [1873/1896]: 374–375; for the origin of the idea of newspeak, see Orwell 1989 [1949]; for the Soviet newspeak, cf. Groys 2009 [2006]: xv; for the language of the “Third Reich,” cf. Klemperer 1990 [1957]; for the euphemistic language of American nuclear defence theorists, cf. Cohn 1987).
Heidegger (1976a [1946]: 313) says, [*die Sprache ist das Haus des Seins*, “language is the house of being,” [*in ihrer Behausung wohnt der Mensch* (ibid.), “in its housing the human being dwells” (cf. Thiele 1995: 115)], in the world of the “post,” this “dwelling” takes on a new meaning that, indeed, is “extraordinary” in its own extraordinary manner – if not altogether unheimlich in the Heideggerian sense: language is here not only the “house” of the human being, but being human in itself is just an *epiphenomenon of language*; that is, there is no life outside language in the world of the “post.”

In these terms, the “post,” as the linguistic prosthesis of post-theory, signifies the most radical escape from reason: a vertiginous plunge into the world of the surrational, the world of imaginary reason as the reason of the imaginary (cf. Merquior 1986; Megill 1987; O’Hara 1992).

It thus becomes clear that the Heideggerian mode of language is a key to the world of the cyborg, although, paradoxically, the cyborg is as such, in itself, a direct antithesis of Heidegger’s thinking. As Haraway (2000a: 21) says about her “lineage” of thought, Derrida, deconstruction and “the French poststructuralists” are not part of it, but it is “particularly Heidegger’s *Being and Time,*” and “a lot of connections” coming “through Heidegger” that for their part constitute Haraway’s intellectual background and thus contribute to her conception of the cyborg (ibid.: 20–21) by means of what Haraway (1991a: 175) calls “cyborg writing.” “I particularly love Heidegger’s language” (Haraway 2000a: 21), as Haraway, in a typical American manner, describes her intimate relationship to Heidegger. “But,” this notwithstanding, as Haraway adds, “I must say that I hate his *The Question Concerning Technology*” (ibid.: 22) – a confession that is only logical considering the manner in which the cyborg is a product of the scientific-technological reason that paradigmatically manifests what Heidegger (1977a [1938]) calls *Weltbild*, “world-picture,” as the very apotheosis of Western reason (cf. Caputo 1993: 17; Naugle 2002: 128–146; in Harawayan terms, cf. Bolt 2004: 76–77).

What particularly is so hateful for Haraway in Heidegger’s *question* concerning technology, will become evident later on when considering the mythopoetic method by which Haraway constructs her cyborg world, a world that, in spite of its linguistic affinity with Heideggerian “thinking and poetizing,” in fact, is expressly a postmodern negation of Heidegger’s “Being.”

Haraway’s ambivalence towards Heidegger, of course, is only one aspect of the complicated “Heidegger connection,” as I call it, in terms of the “post.” Heidegger is a particularly enticing and challenging thinker to love to hate in general – not least because of his philosophical-political engagement with National Socialism (see, for example, Wolin 1990: 1–8, 67–130, 2004: 4–21, 91–105, 120–130, 1993, 2001; Farias 1989 [1987]; Thomä 1990; Ott 1992 [1988]; Sluga 1993; Rockmore 1997 [1992]; Faye 2008 [2005]). But it is especially Heidegger’s “question concerning technology” that, in one way or another, haunts the theory scene of post-theory in terms of the “cyber” (see, for example, Poster 2002: 15–26; Crampton 2003: 81–84; Appignanesi 2003: 212–213; Kroker 2004b: 486.
This is what Miguel de Beistegui (2005) calls “the new Heidegger” and Arthur Kroker (2004a) “hyper-Heidegger,” a “Heidegger that has finally found his home in the world of the “cyber” (in terms of the “planetary” mode of the “cyberworld,” cf. Radloff 2007: 55–56). From this point of view, what began once in Meßkirch, in Heidegger’s Heimat, his “homeland,” in his beloved Schwarzwald (see, for example, Geier 2005: 9–18; Safranski 1998: 16–18), can now be experienced in the ultra-modern, techno-euphoric world of cyberspace and cyborgs. That is, the Heideggerian Denken und Dichten turns in the world of the “cyber” into writing and theorizing in terms of the “post.”

It is in this manner that the Heideggerian “house of Being,” as paradoxical as it may sound, has transformed into the universe of the cyborg, an imaginary realm of scientific-technological reason in which prosthesis, in all its linguistic, technological and corporeal dimensions, is the sine qua non of existence. This is the true meaning of Haraway’s “love” to Heidegger: prosthetic love as the most affectionate affect in terms of the posthuman.

But, not only that; there is another aspect to be seen in the “Heidegger connection” of cyber discourse: in the world of the “post,” Heidegger is the domestic God of all cyber-theorists who believe to have really understood what it is to live not only in terms of the posthuman, but, indeed, as a posthuman, as a “body” that no longer is constrained by the limits and limitations of the human (for the post-Foucauldian inauguration of the discourse on the posthuman, see Haraway 1991f, 1997; Hayles 1999; for the appropriation of Heidegger in terms of the “cyber” or the “Heideggerian” “cyber,” see, for example, Halberstam & Livingston 1995; Ansell-Pearson 1997; Rutsky 1999; Graham 2002; Franchi & Güzeldere 2005a; Smith & Morra 2006b; Waters 2006; Toffoletti 2007). In the world of the posthuman, Heidegger has resurrected as a postmodern Vordenker, a post-rational mastermind, mentor and prophet, of the post-poetic dimensions of “the technological,” and, accordingly, Heidegger’s “question concerning technology” has turned into a question concerning the techno-logic of the post-body as the post-existential condition of being distinctive about the post-subject in terms of the cyborg.

This is the deep structure of the “Heidegger connection” in the world of the “post” constituting the linguistic matrix of the “cyber.”

In short, without Heidegger’s poetic language, paradoxically, there would never have been the mythopoetic linguistic figuration constitutive of cyber discourse – the very opposite of the Heideggerian way of thinking as questioning. While Heidegger stands behind the “post,” the “post” in itself is the key to the “cyber,” and thus the very condition of possibility of the cyborg.

As we can see, after the paradigms of the first- and the second-order cybernetics (see, for example, Harries-Jones 1995: 117–120; Geyer & van der Zouwen 2001a: 1–12; von Foerster 1950, 2003a [1979], 2003b [1974], 2003c [1990/1991]), what we have now in the world of the “post” is a third order of cybernetic
thought: cyber discourse, as a genuinely postmodern mode of linguistic figuration, is a post-poetic after-effect of cybernetic reason, the reason of the machine (from various perspectives, see, for example, Weizenbaum 1976; Hayles 1999; Rieger 1999a; Badmington 2000; Cordeschi 2002; Gerovitch 2002; Mirowski 2002; in terms of science fiction, see, for example, Warrick 1977, 1980; Porush 1985; Bukatman 1996 [1993]; in the historical context of “machine-man,” cf., for example, Baruzzi 1968b, 1973; Glaser & Kaempfer 1988; Sutter 1988; Gendolla 1989, 1992; Reck & Szeemann 1999 [1975]; Fleig 2002; for the origin of the idea of l’homme machine, see La Mettrie 1912 [1947/1748]). What was once the circular-causal logic of feedback (the cybernetics of the first order) and the self-reflexivity of the observation of the observer (the cybernetics of the second order) is now the radical self-immanence of language as the condition of possibility of all that is “cyber”: in the world of the “post,” “the linguistic” and “the machinic” have imploded into one another (cf., for example, Beller 1996: 193–208; Patton 2000: 6–11, 69–77, 88–108; Cusset 2008 [2003]: 248–257; McCarron 1995; Braidotti 1997b; Botting 1999; Clough 2000; Simanowski 2011).

It is this implosion that has enabled the transition from the scientific constellation of cybernetics to the post-theoretical configuration of cyber discourse (for the idea of cybernetics in Heidegger, cf., for example, Zimmerman 1990: 199–202; Cristin 1998: 64–65; Davis 2007: 178–179; Pickering 2010: 31–33, 390–399). Thus, in cyber discourse, there is nothing outside the mythopoetic theorhea peculiar to the “cyber” as the most spectacular form of the linguistic delirium pertaining to “the theoretical” of the theoretical constitutive of the “post.” In other words, the world of the “cyber” manifests the technological sublime in its ultimate postmodern form, in the form of the theoretical sublime in terms of the surrational.

6.1.2 The Utilitarianism of homo faber


Cybernetics? At the time, in the mid-1960s, cybernetics, as the latest paradigm of scientific-technological rationality based on mathematical calculation and formal models, and, in this sense, as an innovative and experimental universal science of all being (in the non-Heideggerian sense of the term) (see, for example, Mindell et al. 2003: 67; de Beistegui 2005: 104–105; Ducrocq 1959 [1955]; Ashby 1961 [1956]; Lerner 1975 [1972]; Trapp 1983; Bowker 1993; for an incisive critique, see Jonas 2001 [1966]), had just turned, ironically, into a swan song of its initial enthusiastic visions about a science that could be a general key to all the prob-

Cybernetics: The lingua franca of Scientific–Technological Reason

After its triumphal expansion as a universal science, cybernetics firstly turned into a specific focus in the field of control, communication and information sciences and later, as a conceptual approach or a point of view, it infiltrated the humanities and social sciences; as Hayles sums up the situation in 1999:

At present there are only a handful of cybernetic departments in the United States and Europe (notably at UCLA and the University of Reading). Yet cybernetics did not disappear altogether; rather, it flowed over a broad alluvial plain of intellectual inquiry, at once everywhere and nowhere. In a sense it is more important than ever, although more for the inspiration it provides and the general framework it pioneered than for contributions as a discrete field of inquiry. (ibid.)

In this manner, as a mode of thought, cybernetics became a metaphoric framework which established itself as a theoretical approach or a hypothetical model in disciplines as various as biology and linguistics, physics and sociology, psychology and aesthetics, and neurology and economics (see, for example, Geyer & van der Zouwen 2001b; Mirowski 2002; Pias 2003, 2004).

In fact, rather than being a discipline, cybernetics constituted a new methodology that enabled a critical reevaluation of the scientific premises within the established sciences; Claus Pias’s summary brings the issue into focus:

But, with regard to Heidegger’s idea of cybernetics as “the end of philosophy” what is important is the specific scientification of thinking resulting from the cybernetic mode of thought. Thus, from Wiener’s initial effort, during the Second World War, to develop a new weapons system, a guiding device for air defense guns called the “antiaircraft (AA) predictor,” as Peter Galison (1994: 228–229) summarizes, the “model then expanded to become a new science known after the war as ‘cybernetics,’ a science that would embrace intentionality, learning, and much else within the human mind”; and finally, the “AA predictor, along with its associated engineering notions of feedback systems and black boxes, became, for Wiener, the model for a cybernetic understanding of the universe itself” (emphasis mine; cf. Heims 1980: 63–65; Masani 1990: 184–193; Wiener 1967; Masani & Phillips 1985). Thus, what began as a strictly defined research project soon implied a claim for a universal science; as Andrew Pickering sums up in his “Cyborg History and the WWII Regime”:

Cybernetics, then, took computer-controlled gun control and layered it in an ontologically indiscriminate fashion across the academic disciplinary board – the world, understood cybernetically, was a world of goal-oriented feedback mechanisms with learning. It is interesting that cybernetics even trumped the servomechanisms line of feedback thought by turning itself into a universal metaphysics, a Theory of Everything, as today’s physicists and cosmologists use the term – a cyborg metaphysics, with no respect for traditional human and nonhuman boundaries, as an umbrella for the proliferation of individual cyborg sciences it claimed to embrace. (Pickering 1995: 31; emphasis mine; for a historical contextualization, see Mirowski 2002)

From Heidegger’s standpoint, it was clear that where cybernetics raised the claim to be the way to the scientific explanation of the whole universe, there philosophy had become superfluous. In this situation, cybernetics, in its very scientificality (see Heidegger 2000h [1965]: 623, 2006b [1959–1969]: 24–25, 118–120, 160), had accomplished Seinsvergessenheit, “forgetfulness of Being,” as the final consummation of nihilism (see Heidegger 1999 [1938/1939, 1946/1948]).

In times of Heidegger’s post-war thinking, in the 1950s and the early 1960s, cybernetics still appeared as the paradigm of modern science, the metaphor of a mathematical world-view, the emblem of the very “scientificality” of science, that seemed to open up an access to a world ruled by systems design and modelling, all-embracing scientific planning and administration, a world in which it appeared possible to get things under rational control by means of science (for cybernetics as an essential part of American thought and culture in the 1960s, see, for example, Aronowitz & DiFazio 1994: 37–41, 77–83; Brick 1998: 125–135; Crowther-Heyck 2005: 167, 185–189; Farish 2010: 147–192; Steinbruner

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90 Although cyber discourse celebrates the transformation of the human to the posthuman with linguistic figures that may bring to mind cybernetics, as a postmodern, mythopoetic and techno-euphoric language, it has nothing to do with the scientific stringency of cybernetics. Nevertheless, cyber discourse and cybernetics share the same view of technology as the epistemological and ontological foundation of the world. One can testify this by parallelly reading Wiener’s mathematical elaboration of cybernetic theory and the textual delirium of postmodern cyber theorists (see Wiener 1961, 1968; Bell & Kennedy 2000; Kirkup et al. 2000).
2002 [1974]). Without itself ever claiming to be a utopian project, cybernetics, nevertheless, constructed, by its very terms, by its specific language, a post-Enlightenment utopia of a thoroughly rational world, a vision of universal reason as the true ruler of all being in the tradition of the world-view established by Bacon, Newton and Leibniz; that is, a totalizing view of the endless possibilities of scientific-technological rationality (see Wiener 1967: 9–11; Heims 1980: 25–28; Day 2001: 38–59; Pias 2003, 2004).

As Heidegger (1986 [1970/1966–1967]: 14–16, 24–32), in his seminar in the winter semester 1966–1967, discussing the notion Steuern, “steering,” in Heraclitus, argued that it is this very notion that is constitutive of cybernetics: das Phänomen des Steuerns […] ist gerade heute im Zeitalter der Kybernetik so fundamental geworden, daß es die ganze Naturwissenschaft und das Verhalten des Menschen beansprucht und bestimmt (ibid.: 25), “the phenomenon of steering […] has today, in the age of cybernetics, become so fundamental that it occupies and determines the whole of natural science and the behavior of humans” (Heidegger & Fink 1993 [1970]: 12). But, as Heidegger specified:


In other words, the rise of cybernetics was a result of an epistemological break, the breakthrough of modern science in the seventeenth century (see, for example, Bowler & Morus 2005; Park & Daston 2006). Thus, cybernetics constituted a qualitatively new, but historically determined control paradigm based on both a scientification of technology and a technologization of science (for a historical contextualization, see Beniger 1986; Bennett 1993; Levin 2000; Mindell 2002; Bissell 2009; for technology as the very precondition of contemporary science, see Heidegger 1977f [1953]: 22; Rockmore 1997 [1992]: 225–226; de Beistegui 2003: 86–88; Ihde 2010: 35–39); a paradigm that considered all being as an issue of engineering predicated upon the idea of regulation.

In terms of cybernetics, there was no longer anything that could not be translated into and thus ruled by the concepts of information, communication and control, all of them articulated by and circulating around the idea of feedback, the theoretical innovation proper of cybernetics (see Wiener 1961 [1948]: 95–15, 1968 [1950]: 24–27, 1967: 11–12; cf., for example, Galison 1994: 233–252; Pias 2003: 20–28; Hammond 2003: 63–81). In these terms, what used to be specifically human was now not different from the animal and the machine: whether organic or technological, all entities studied by cybernetics were conceptualized as coded information in various material manifestations. Thus, cybernetics was the greatest equalizer ever seen thus far in scientific conceptions of “the organic” (living beings) and “the mechanic” (machines and technical apparatuses): for cybernetics, everything in the universe functioned in the same way,
through interrelated systems of regulation and self-regulation (cf. Rosenblueth et al. 2004 [1943]). That is, “the cybernetic” was the very principle of the universe, its strictly mathematical mode of being (for the Leibnizian world-view as an inspiration for cybernetics, see Wiener 1961: 12; cf. Masani 1990: 121–123; Marciszewski & Murawski 1995: 19–23; for the science of regulation around 1800 as “the cybernetics of the human being,” see Rieger 1999a; cf. Vogl 2004).91

The importance of feedback as the basic principle of cybernetics, its constitutive raison d'être, informs the view of David Easton, one of the American leading political scientists who adopted the idea of cybernetics in his behavioural conception of politics in the 1960s: “The dominant and most fertile intellectual innovation of our own age has been that of information feedback” (Dolan 1994: 93). In its own way, this view manifests what Fredrick M. Dolan calls “Cold War metaphysics” (ibid.: 60–113) that dominated American political thought during the decades after the Second World War; a scientific world-view that, by way of simulation (or paranoia), reflected the scientification of politics under the power conglomerate of the military-industrial complex (see, for example, Walker et al. 1992; Leslie 1993; Edwards 1996; Bissell 2009; Bousquet 2009; Pavelec 2009; for the ultimate radicalization of this mind-set in Herman Kahn’s hyper-rationalistic conception of thermonuclear war in terms of “thinking about the unthinkable,” see Kahn 1962; Ghamari-Tabrizi 2005).

As a thoroughly rational, generally applicable interdisciplinary field of science and scientific planning enabling experimental research programmes, founded by Wiener in 1948, cybernetics presented itself as a post-metaphysical universal science, based on the idea of non-linear, “circular causal” relations concerning the control and regulation of information and communication in humans, animals and machines (see, for example, Wiener 1961 [1948], 1968 [1950], 1964; cf. Edwards 1996: 187–207; Jackson 2000: 67–81; Johnston 2008: 23–110; Ashby 1960 [1952], 1961 [1956]; Beer 1967 [1959]; Heims 1975, 1980, 1993 [1991]; Trappel 1983; Masani 1990; Caldwell 2003; Gerovitch 2004; Pickering 2010). In these terms, the great promise of cybernetics was to substantially contribute to the automation of industrial and administration processes in order to create a society that would function as a rationally organized techno-organism controlled by automatic systems; that is, a society as a cybernetic machine, a society run by means of cybernation (see, for example, Bell 1991 [1980]: 43–50; Michael 1962, Philipson 1962; Hilton 1966; Rose 1974; Jones 1997; from a utopian per-

91 One of the early influences on cybernetics, as Wiener (1961: 12) says, is the “mathematical logic” elaborated on by Leibniz. “If I were to choose a patron saint for cybernetics out of the history of science, I should have to choose Leibniz. The philosophy of Leibniz centers about two closely related concepts – that of a universal symbolism and that of a calculus of reasoning. From these are descended the mathematical notation and the symbolic logic of the present day. Now, just as the calculus of arithmetic lends itself to a mechanization progressing through the abacus and the desk computing machine to the ultra-rapid computing machines of the present day, so the calculus ratiocinator of Leibniz contains the germs of the machina ratiocinatrix, the reasoning machine.” (ibid.) What is important here is that “the same intellectual impulse which has led to the development of mathematical logic has at the same time led to the ideal or actual mechanization of processes of thought” (ibid.; emphasis mine).
perspective, see Fresco & Meadows 2003: 201–203; for contemporary critical dis-
cussion, see, for example, Winthrop 1968: 58–84; Friedmann 1977 [1955]: 188–
189; Munford 1978: 49–52, 66–69; Stanley 1978: 136–137; cf. Pena 2001: 23–25,
112–118; for “cybernation” as a postmodern plastic word, see, for example, Bar-

In his work *The Human Use of Human Beings* (notice the telling title), Wiener
(1968 [1950]) outlined the idea of cybernetics by giving an illuminative over-
view of its specific problem field:

> Since the end of World War II, I have been working on the many ramifications of
> the theory of messages. Besides the electrical engineering theory of the trans-
> mission of messages, there is a large field which includes not only the study of
> language but the study of messages as a means of controlling machinery and
> society, the development of computing machines and other such automata,
> certain reflections upon psychology and the nervous system, and a tentative
> new theory of scientific method. (ibid.: 17)

As we can see, from the very beginning cybernetics conceptualized not only
living organisms (be it animals or humans) and machines, but also language,
culture and society in terms of the *transmission of messages*, that is, systems
of information, communication and control as constitutive not only of their
mode of operation, but, more fundamentally, their actual mode of existence.
In itself, cybernetics was, in fact, a *new language*, a new scientific-technological
*lingua franca* the vocabulary and linguistic figures of which raised the claim to
be able to give a true explanation of all being, without any delusions of meta-
physics or humanistic illusions (in terms of “the death of the subject” and “the
with regard to Lacan and cybernetics, cf. Fink 1997 [1995]: 4–5, 10–11; Rickels
In a post-Baconian manner, cybernetics proclaimed that not only nature, but,
more fundamentally, all being disclosed itself *in its own language*, the language
of cybernetics, in its mathematical models. That is, from the perspective of
cybernetics, the whole universe manifested itself as a cybernetic system, an
immensely complex but still understandable universal self-regulating machine.

In this sense, what is the being of Being for Heidegger, appeared to Wiener as
a mathematical control of information, the “substance” proper of cybernetics.

**Abandoning the Anthropomorphic: Lacan, Derrida, Lyotard**

In its paradoxical view of *decentralized centrality*, the cybernetic model of the
world, in fact, implied a latter day version of the medieval *machina mundi*, a
“world-machine,” envisioned, according to Anthony Wilden (1980: 224), by
Nicholas of Cusa in his “definition of God’s locus in the cosmos” as the omni-
present non-present regulator of the world (bringing to mind the Hegelian
idea of *Weltgeist*; see Hegel 1986d [1837]: 22, 40, 51, 54, 73):
There will be a *machina mundi* whose center, so to speak, is everywhere and whose circumference is nowhere, for God is its circumference and its center, and He is everywhere and nowhere” (Wilden 1980: 224; cf. Derrida 1978e [1967/1966], 1997 [1967]).

In this manner, as an omnipresent reason of the world immanently working in all the occurrences of the world (cf. Edwards 2000), cybernetics implied a secular vision of providence guiding the fate of all being (for speculations on the relationships between God and cybernetics, see Wiener 1964).

Accordingly, in the 1950s and the 1960s, cybernetics were seen in both the West and the East not only as a new engineering science serving the ends of the construction of technical systems, machines and devices in order to rationalize the functions of planning and production, supply and demand, and government and administration as well as the operations of armed forces, but also – especially in socialist countries (after the initial repression of cybernetics as a “bourgeois ideology” by official party policy, see, for example, Gerovitch 2002a: 131–148, 2002b, 2001; Segal 2004; in terms of Soviet managerial cybernetics, see Beissinger 1988: 165–182) – as an omnipotent universal science enabling the rational planning and regulation of the whole society, from macro-economy to the individual needs, wishes and desires of people: society as an all-inclusive “cybernetic machine,” or, a *machine à gouverner* (Wiener 1968: 155–157; cf., for example, Klaus 1961, 1973 [1964]; Poletajew 1963; Iwachenko 1964; Klaus & Liebscher 1965; von Cube 1971; Gerovitch 2001, 2002a, 2002b; Trogemann et al. 2001; Mirowski 2002; Caldwell 2003; Segal 2004; Pircher 2004; for a criticism of the cybernetic image of the human being and society at the time, see Nicklis 1967).

In fact, the idea of cybernetics, even before the existence of cybernetics as a scientific discipline, is inscribed in the tradition of political thinking as well as in theories concerning the administration of the state and the church; all this implied by the term *kybernètes*. Joseph Vogl’s summary is illuminating:


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92 The latest attempt to create a society-wide “cybernetic machine,” a cybernetically controlled and regulated economic and socio-political system, was the *Cybersyn* project in Chile between 1970 and 1973 in order to stabilize socialism introduced by the Allende government (see Pias 2005b; Medina 2011). According to the designer of this project, the cyberneticist Stafford Beer, all production sites in Chile, networked with one another by telecommunications technology, constituted an economic macro-system operating through real time feedback under the control of the “Opsroom,” the command centre of industry within the Allende administration (see Beer 1967 [1959], 1981 [1972]).
In short, after the horrors of the Second World War, cybernetics appeared as the apotheosis of Enlightenment reason, the triumph of mathematically conceptualized science over philosophical thinking, as the promise of a thorough scientification not only of the human condition, but, beyond that, of all being: a world in which nothing would escape the rationality of scientific-technological control (from a historical perspective, see, for example, de Wit 1994: 63–77; Beniger 1986; Yates 1993; Levin 2000; Mindell 2002; Mindell et al. 2003; in the context of the military, see Edwards 1996; McCann & Pigeau 2000; Bousquet 2009; cf. De Landa 1991).

This was a post-anthropomorphic world (in contrast to Heidegger’s notion of scientific-technological rationality expressly as the highest form of anthropomorphic thought), a world without the idea of the human being, without the illusion of the self-conscious subject: a world functioning in, through and by unending cybernetic processes within the framework of technology and machines. No wonder that while for Lacan (1988b [1978/1954–1955]: 31, 54, 88, 119, 169, 175, 178, 279–317), the unconscious obeyed the principles of cybernetics, Derrida (1997 [1967]: 9) saw in cybernetics a mode of writing that would destroy the metaphysical foundations of human-centered thought once and for all (cf. Fink 1997 [1995]: 10–11; Schmidgen 1997: 35–39; Johnston 2008: 67–106; Nusselder 2009: 66–72, 74–76; Liu 2011: 153–199; for a criticism of this kind of thinking, see Hansen 2000: 78–86, 127, 170–182). What was important for both Lacan and Derrida was that cybernetics operated by a machinic language which, like for Paul de Man, was endowed with the “uncontrollable power of the letter as inscription” (Rajan 2002a: 49); the letter “in the Lacanian sense” as “a socially inscribed mark on the psychic body” (ibid.; emphasis mine). In this sense:

Lacan’s letter is a catachresis that assimilates machine and body by figuring the unconscious in terms of cybernetics: “the primordial and primitive language,” Lacan says, is “the language of the machine.” Derrida develops this notion affirmatively when he hints that cybernetics can lead the machine of language beyond phonetic writing to create new possibilities of “information retrieval.” (ibid.; cf. Derrida 1997: 9–10; Bassett 2007: 66–68; Wolfe 2009: 7–8; for a theory-historical contextualization, see Wegener 2004: 32–37; Lafontaine 2007)

From this perspective, regarding the theoretical reorientation within the human sciences in the aftermath of structuralism, it is no wonder either that the cybernetic mind-set, combined with various linguistic approaches, appeared to Lyotard, still at the time of his highly influential review of the epistemological situation in contemporary culture, The Postmodern Condition: A Report on Knowledge (1984 [1979]), as an adequate paradigm of scientific thinking.

However, what was new in Lyotard’s conception of the import of cybernetics was to see scientific-technological rationality under a linguistic determination deriving from the emerging mode of thought to be known soon as poststructuralism (see, for example, Attridge et al. 1987; Sarup 1993; Peters 2001; Rajan & O’Driscoll 2002; Davis 2004; Harris 2004; Koch 2007). As Lyotard (1984: 3) formulated the idea of the structural homology between language and the principles
of scientific research in the contemporary world ruled by new technologies: “Scientific knowledge is a kind of discourse” (emphasis mine). From this standpoint, for the last forty years the “leading” sciences and technologies have had to do with language: phonology and theories of linguistics, problems of communication and cybernetics, modern theories of algebra and informatics, computers and their languages, problems of translation and the search for areas of compatibility among computer languages, problems of information storage and data banks, telematics and the perfection of intelligent terminals, paradoxology. The facts speak for themselves (and this list is not exhaustive). (Lyotard 1984: 3–4)

Indeed, the facts speak for themselves: from the late-1940s to the early 1970s, the cybernetic approach promoting the cybernetic model of all being, had contributed, for a substantial part, to a technologization of knowledge, and, as a result, to the rationalization of language. Lyotard’s example is illuminative: genetics “owes its theoretical paradigm to cybernetics” (ibid.: 4; cf. Kay 2000: 5–31, 48–126, 194–217, 300–307; in terms of the cyborg, cf. Haraway 1989: 58, 109, 117, 137–141, 146, 156, 353, 355, 1991a, 1997). At the same time, the comprehensive computerization of society, “read in terms of the instantiation of cybernetic systems and the rise of the cybernetic principle,” had produced “a crisis of legitimation in which all forms of knowledge become suspect” (Bassett 2007: 69). In general, as Lyotard prognosticated, “information-processing machines” were about to have “as much of an effect on the circulation of learning as did advancements in human circulation (transportation systems) and later, in the circulation of sounds and visual images (the media)” (Lyotard 1984: 4).

In this emerging new world, a world dominated by information, the generation of knowledge as the condition of possibility of all science required a radical re-evaluation; according to Lyotard:

The nature of knowledge cannot survive unchanged within this context of general transformation. It can fit into the new channels, and become operational, only if learning is translated into quantities of information. We can predict that anything in the constituted body of knowledge that is not translatable in this way will be abandoned and that the direction of new research will be dictated by the possibility of its eventual results being translatable into computer language. The “producers” and users of knowledge must now, and will have to, possess the means of translating into these languages whatever they want to invent or learn. Research on translating machines are already well advanced. Along with the hegemony of computers comes a certain logic, and therefore a certain set of prescriptions determining which statements are accepted as “knowledge” statements. (ibid.; emphasis mine)

What a Leibnizian vision of a perfectly rational world: the whole universe translated into the control language of machinic “thinking,” the language of a latter-day machina ratiocinatrix (see, for example, Wiener 1961 [1948]: 124–125; Masani 1990: 219–222; Cristin 1998: 65; Winston 1998: 148–151), a postmodern universal calculating machine in the spirit of Leibniz. Had Heidegger lived long enough to read this, he would have said that, indeed, only a God can save us now.

What Lyotard is saying here is exactly what Heidegger had been criticizing, in an increasingly sharp tone, since the late the 1940s and early 1950s, since
the times of his “Bremer lectures,” including the widely-discussed Die Frage nach der Technik, if not, in fact, since already the mid-1930s, after his Kehre, the “turn,” the turning away from Dasein to Sein, from the problem of human existence to the Seinsfrage, the question concerning the being of Being (see Heidegger 1976d [1955], 1977d [1927], 1989a [1936–1938]). Through all these years, by thinking the Seinsfrage, Heidegger had evinced that knowledge based on scientific-technological rationality had no idea of Being, the primordial issue of all being: the scientific and technological mode of appropriating the world operated solely in the sphere of the ontic, the conceptual realm of practical and empirical, in contrast to the sphere of the ontological, the primordial realm of Being (see, for example, Heidegger 1977d [1927]: 3–20, 1999 [1938/1939, 1946/1948]: 62–65, 88, 166; cf. Trawny 2003: 77–88; Young 2002: 9–11; in the context of the postmodern, see Kroker 2004b).

Thus, from the Heideggerian perspective, Lyotard’s summary of the generation of knowledge in terms of information, the keyword of cybernetics, is an apotheosis of scientific-technological rationality which means not only the ruin of thinking, but, more fundamentally, the final accomplishment of Seinsvergessenheit, “forgetfulness of Being,” leading, in the end, to Seinsverlassenheit, “withdrawal of Being” (see, for example, Heidegger 1983 [1935]: 53–55, 1999 [1938/1939, 1946/1948]: 148–150; with regard to the idea of the “information society,” cf., for example, Nora & Minc 1980 [1978]; Masuda 1981 [1980]; Hayles 1987; Boyle 1997; May 2002; Webster 2002 [1995]; Webster et al. 2004).93

In these terms, cybernetics, in their radical reductionism of the primordial being of Being to information, is scientific idealism: in the world of cybernetics, the immateriality of information is the very “materiality” of the world. Accordingly, if we replace information by language, we enter the world of the “post,” a world in which the virtual reality of language constitutes the “real” of reality. This is what I call linguistic idealism or linguisticism constitutive of all that is “post,” a view of the world as a materialization of language, the primordial “matter” of all being, a “matter” in its substantial ideality. It is thus not surprising that for Lacan, Derrida, Lyotard and subsequently the whole theoretical movement of poststructural-

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93 To understand the deep meaning that both Seinsvergessenheit and Seinsverlassenheit have in Heidegger’s thinking it is necessary to understand his idea of Sein and what he designates as die ontologische Differenz, the “ontological difference.” According to Heidegger, there is a fundamental difference between das Seiende (or Seiendes), “that-which-is,” all that which exists in the form of beings or entities, in the mode of their “being-of-beingness,” and das Sein, the condition of possibility of all being, as primordial “Being,” the “state-of-being-of-Being,” that in itself is not perceptible but becomes present in the “being-of-beingness.” That is, one can never encounter das Sein “as such” since, paradoxically, “Being” does not exist, in its primordial manner it “is there,” it “is” not “here,” as present; in contrast, as humans, we encounter das Seiende in our Dasein, in our “being-there-ness,” in our human existence that is always already apart from and “is there” only due to the being of das Sein. In other words, while das Seiende as the realm of our Dasein belongs to the sphere of the ontic, the realm of das Sein embraces the sphere of the ontological (see Heidegger 1977d [1927]: 3–20; cf. Trawny 2003: 77–88; Cardorff 1991: 38–41). In these terms, the problem of philosophy is that since Plato it has considered only das Seiende and thus “forgotten” the constitutive precondition of all being, das Sein, “Being” in itself.
ism it was not difficult to adopt the world-view of cybernetics: all of them saw the world in similar terms, as an epiphenomenon of codified information.

It is in this sense, as stated above, that cyber discourse, as a postmodern mode of theory in terms of the “post,” is a post-poetic post-literary language that literalizes the literal in terms of the “cyber,” the terms of post-cybernetic fabulation circulating around the idealized idea of the posthuman.

A Post-Nietzschean “Will to Power”

In the conception of science summarized by Lyotard, considered in terms of Heideggerian thinking, we remain prisoners of the ontic, of das Seiende, enclosed and shut in by “that which is there,” “exists,” as the world around us, as the condition of our Dasein, which is our mode of being in our temporal existence, here and now, in the world (see Heidegger 1976d [1955], 1977d [1927]; cf. Han 1999: 65–80: Thiele 1995: 42–57). This world of beings is the object of science and scientific-technological rationality, an object of knowledge, of cognizance as an activity of the human subject in terms of scientific truth and objectivity in the framework of object-subject relations constitutive of science (see Heidegger 2000e [1953], 2009 [1935–1958]; cf. Taminiaux 1988: 131–145). Thus, whatever the scientific approaches, enumerated by Lyotard above, say, or may say, of the world, they say nothing of das Sein, no word of Being; they always, always already, deal only with das Seiende, with ontic entities, with beings that exist as objects set by scientific means themselves, established by methods and conceptualities of scientific research.

This is the idea of Heidegger’s contention that Wissenschaft denkt nicht, “science does not think”: science simply cannot think since it works on and by ontic statements that, at the same time, paradoxically, refer to both themselves and to the factuality of the world that is conceived of by the very factual statements in themselves. In other words, the ontological realm of Being always – always already – remains closed to science. It is in this sense that we live now in a world that is ruled by the Weltbild, “world-picture,” a world of objects produced by science and technology, a world of ontic factuality.

What is important here is that the entities of the factual world belong, in Heideggerian terms, to the world of scientific objects precisely due to their scientific objectivity, both in themselves, as such, and in their relation to the human being, a being existing in the mode of Dasein. But in its manner of reducing everything to the level of das Dasein, the human existence, and its immediate environment, das Seiende, the “being of beings,” human reason, in its very scientificity, manifests anthropocentric view of the world. For Heidegger, to see everything in terms of the human amounts to metaphysics, a conception of all being that deems everything only as a mirror image of the human being, and thus ultimately results in nihilism (see Heidegger 1999 [1938/1939, 1946–1948]; cf. Habermas 1998c [1985]; for Heidegger’s conception of Nietzsche in terms of Vollendung der Metaphysik, see Heidegger 1998a [1961]: 425–432, 1998b [1961]: 430–431; cf. Thiele 1995: 138–141; Young 2002: 25–37).
Thus, from the Heideggerian point of view, the idea of science referred to by Lyotard exemplifies *calculative reason* (see Heidegger 1989b [1962]: 17; for the idea of *Vorausberechenbarkeit* as the condition of possibility of contemporary science, see Heidegger 1977e [1938]: 123–124, 126–127, 138, 1985c [1959]: 251–252, 1994a [1949]: 43, 2000b [1953]: 22, 2006a [1957]: 155, 2006b [1959–1969]: 23, 175–177; cf., for example, Meyer 1961: 165–166; Wolf 2005: 247–248; Leidlmair 1991; Thiele 1995: 107) as the reason of the modern: from the very beginning, modern science, in its projective, teleological logic, means consequent implementation of instrumental calculation in order to get objects (whatever they may be) under the control of knowledge, and thus turn them, in one way or another, into objects of manipulation, usability and utility; that is, to see the world merely as a resource to be put at the disposal of the human being. Accordingly, as an anthropomorphic enterprise, science is a form of utilitarianism: science is a constitutive activity of *homo faber* (cf. Thiele 1995: 114–115). In these terms, what Lyotard (1984) describes in his “report on knowledge,” expounding upon the “postmodern condition,” in fact, is what Smith (1996: 275) calls “techno-modernity” – that is, the very origin of the postmodern.

In these terms, *science in itself is a form of technology*, a method of revealing and using the innermost properties of all being. For this reason, control is the ethos of science; the perfection of control is the rationale of scientific-technological rationality constitutive of the modern as the *historical precondition* of the postmodern.

**Fig. 82.** ENIAC, Electronic Numerical Integrator And Calculator, the first electronic general-purpose computer, designed and constructed between 1943–1946, in operation until 1955: a paradigmatic example of the calculative reason constitutive of the modern.

ENIAC was initially designed to expedite the work required for the laborious and time-consuming ballistic calculations of artillery, a problem that was only aggravated after the Japanese attack on Pearl Harbor in 1941, when the United States of America became involved in the Second World War. Due to the difficulties in its construction, however, it was not completed until the fall of 1945, and, although it was also used in ballistics, its most important application was finally in another military area, in the calculations of the mathematical model of a hydrogen bomb at the Los Alamos atomic weapons laboratories (see Edwards 1996: 49–52; Winston 1998: 166–188; Swedin & Ferro 2007: 3, 38–41).

What is essential here is that “ENIAC was a military machine” (Edwards 1996: 51) that, after it had successfully proved its usability in the H-bomb design, was adjusted to “the military ends of the rapidly emerging Cold War” (ibid.; in the context of cybernetics, see Kay 2000: 102–106; with regard to the ARPANET, see Abbate 2000; in connection with media history, see Winston 1998: 165–194; for a contextualization in terms of “war in the age of intelligent machines,” see De Landa 1991). It is in this manner that “ENIAC became, like radar and the bomb, an icon of the miracle of government-supported ‘big science’” (Edwards 1996: 51; for an overview, see Galison & Hevly 1992; for “Cold War technologies,” see Goody 2011: 78–108).

In other words, ENIAC was a product and an emblem of the military-industrial complex that defined the parameters of science in America for a long time after the Second World War (see, for example, Kaldor 1984; Walker et al. 1992; Pavelec 2009).
This, in short, is the “history of Seinsfrage” in the Heideggerian sense of history as the “history of ontology” (see Heidegger 1976d [1955]; Young 2002: 45–47), and, accordingly, the history of Seinsvergessenheit resulting, in the end, in Seinsverlassenheit. And this is the history of the world after the Nietzschean “death of God”: we are now living, more than ever, in the era of metaphysics, the age of nihilism (see Heidegger 1999 [1938/1939, 1946/1948]; cf. Thiele 1995: 209–210; Rockmore 1997: 198–208). Under the regime of scientific-technological rationality, the Nietzschean “will to power,” as Heidegger (1998a [1961]: 15–22, 33–51) interprets it, “holds sway in the space left through the withdrawal of Being, now present in the mode of absence” (Rockmore 1997: 95). This is the “deeper meaning” of Heidegger’s “reading of Nietzsche’s proposition that God is dead” (ibid.; cf. Smith 1996: 228–229; in terms of “the will to technology,” see Kroker 2004b).

In this manner, for Heidegger, cybernetics had displaced philosophy, and in so doing made it impossible to understand the world in terms of philosophical thinking; or, in Heidegger’s own terms, from that moment on, philosophy was no longer able to comprehend our Dasein as part, as the human expression or manifestation, of das Sein, since, actually from the times of Plato onwards, philosophy in itself had become an intellectual mode of Seinsvergessenheit, “forgetfulness of being,” in all its sophisticated conceptualities, in its self-reflecting abstractions (see Heidegger 1983 [1935]; cf. Rockmore 1997: 211–218). As a result, stricto sensu, similarly to science, philosophy, in the era of scientific-technological rationality, had not only turned into metaphysics, but, in the final analysis, into the ultimate form of nihilism (see Heidegger 1999 [1938/1939, 1946/1948]; cf. Thiele 1995: 209–210).

This is the origin of the postmodern, and its contemporary derivation, the world of the “post,” seen from the Heideggerian perspective.

We noticed above how horrified Heidegger was when he saw the picture of Earth seen from the Moon: there was no longer sky, only the unending vastness of space, no longer the firmament covering our earthly existence, sheltering our Dasein, but the infinite cosmos intelligible only through astronomic abstractions: our home had suddenly become a tiny point in the immeasurable emptiness – an emptiness that, in its ontic presence as an object of observation, could not only be attained and appropriated by means of science and technology, but, more fundamentally, that precisely as such, as an objectified, human-made and thus subjectified representation, was a realm of scientific-technological world appropriation in itself: a conceptual space without the presence of Sein, the very precondition of our Dasein. In the true sense of the term, science and technology had now reached “planetary” dimensions in the manner Heidegger (2000c [1966/1976]: 667, 676–677; cf. Haar 1993 [1990]: 165–175; de Beistegui 1998: 28–29, 67–80, 123–124; Radloff 2007: 36–61), in his introductory lectures into metaphysics (see Heidegger 1983 [1935]), had already explained in the mid-1930s (cf. Jünger 1980 [1930], 1982 [1982]; Heidegger 2004).
This, for Heidegger, was the point of view, the very perspective, of scientific-technological rationality: by means of science and technology the human being had made Being in its own image. This was the triumph of the Weltbild, the “world-picture” (see Heidegger 1977a [1938]): the world as a scientific representation that, in fact, only represented its own assumed omnipotence, the power of an anthropocentric and anthropomorphic world-view. In spite of, or, rather, because of, this scientific omnipotence magnificently represented by the NASA space picture of Earth, for Heidegger, there was nothing of Being to be seen, absolutely nothing. Being had disappeared in the immense glory of science and technology, the glory of metaphysics and nihilism.
6.2 What Does Heidegger’s “Question Concerning Technology” Question?

Ist die neuzeitliche Naturwissenschaft – wie man meint – die Grundlage der modernen Technologie oder ist sie ihrerseits schon die Grundform des technologischen Denkens, der bestimmende Vorgriff und der ständige Eingriff des technologischen Vorstel lens in die ausführende und einrichtende Machen schaft der modernen Technik?

Martin Heidegger (1976c: 754)

Technology poses profound, even overwhelming, questions, and no one has confronted them more acutely and suggestively than Heidegger.

Mark Poster (2002: 17)

As we saw above, the NASA space picture of Earth signalled to Heidegger that das Sein, “Being,” had disappeared in the immense glory of science and technology; it was a concrete demonstration of the “world-picture,” of the world as a picture produced by scientific-technological means: the world as a pure representation enabling its control and manipulation; thus, the picture did not show die Welt of das Seiende in its presence for our Dasein as a manifestation of the being of das Sein. In other words, the world of science is not our worldly world, the world in which die Welt weltet, “the world worlds” (see, for example, Heidegger 2003a [1935/1936]: 30–34; cf., for example, Dastur 1999: 128–131). This brings us back to the beginning of the present study, to Heidegger’s Die Frage nach der Technik, “The Question Concerning Technology”; a question that, as we remember, Haraway cannot but “hate,” although she “loves” Heidegger’s language – the very same language which enabled Heidegger to posit his “question”; that is, the language in which it is possible to raise the question concerning the being of Being.

It is appropriate to emphasize that Heidegger’s approach is expressly about questioning, that is, a specific way of asking, the way of questioning “after” technology, as Wolf Kittler (2008: 93) retranslates, in fact, corrects, the standard English translation, The Question Concerning Technology (Heidegger 1977f [1953]), of Heidegger’s (2000b [1953]) Die Frage nach der Technik. This after, according to Kittler, takes “three different readings” into account which are essential for the understanding of Heidegger’s essay on technology: “1. that this essay asks the question of technology; 2. that it questions technology; and 3. that it also asks what questioning itself could be after technology” (Kittler 2008: 93). These insightful specifications pertaining to the dimensions of the keyword nach, “after,” in Heidegger’s inquiry into the essence of technology enable the understanding of the idea of Heidegger’s “question concerning technology” as a question after the import of technoscience in the contemporary world in which die Frage nach der Technik has become a question concerning our very existence; that is, a world in which, if we take Hayles’s (1999) argument seriously, the “posthuman” rules what thus far has been called the “human condition”
Taking Kittler’s remarks into account, what is important in the context of my question concerning the language of the “post” as the condition of possibility of the “cyber,” is that Kittler’s reading also helps to draw attention to the essence of Heidegger’s questioning “after” the essence of technology; that is, questioning the “post” of the post-theoretical discourse in terms of the technological “after” the Heideggerian question concerning technology. The questioning of technology as a question “after” technology is especially important today since technology appears so self-evident in contemporary culture that the question concerning technology as questioning seems to make no sense at all. In this sense, the postmodern linguistic figuration around all that is “cyber,” following the logic of the “post,” is the most spectacular way of evading, in fact, forgetting altogether, not only the question of technology as technology, but, first and foremost, questioning in itself, as asking “after.”

Thus, the “cyber” is the paramount sign of affirmative forgetfulness, of the very forgetting of forgetting enabled by the linguistic figuration constitutive of the “post,” the signifier that in itself signifies the impossibility to ask fundamental questions.

6.2.1 Beyond the Instrumental and the Anthropological

To get onto the right way at once at this decisive point, it is appropriate to recall the passage in which Heidegger formulates his question, first in the original and then as the translation.


As we will see, each word counts in this dense passage in which the syntax not only maintains the coherence of thought, but also determines its semantic pregnancy: the mutual interrelations of its linguistic figures that constitute its
mode of signification. That is, the way Heidegger asks the “question concerning technology” is, in my reading, a question concerning language; which, as we have seen, is my approach in the study at hand. That is, by questioning technology Heidegger questions, at the same time, the language in which technology is spoken about as well as technology in itself as a language that forecloses the questioning concerning its essence.

In both respects, cyber discourse is a paradigmatic case; a postmodern technolanguage in which its constitutive moment, the linguistic prosthesis the “cyber,” cannot possibly be questioned at all since it is a non-word in itself, although the more spectacularly it enables an unending discourse proliferation on the basis of its specific iterability: nonsense as the supreme mode of sense. Therefore, to specify, the “cyber” does not lend itself directly to questioning, but only through a detour, by way of language-immanent irony, in the sense of Derridean duplicity, of the linguistic figuration that is the generative matrix of cyber discourse (see, for example, Derrida 1981d [1972/1970]: 192, 1982 [1972]: 86, 2000 [1988]: 12; cf. Ormiston 1988: 42–45; Norris 1987: 99, 114–115; Royle 2003a: 15, 92; Malabou & Derrida 2004: 251–252; Gendron 2008: 21–25).

Thus, what George Pattison (2000: 5) calls Heidegger’s “paramount concern for language” is the key to questioning concerning technology; as the translation renders, in other words, Heidegger’s idea in the passage quoted above:

In what follows we shall be questioning concerning technology. Questioning builds a way. We would be advised, therefore, above all to pay heed to the way, and not fix our attention on isolated sentences and topics. The way is a way of thinking. All ways of thinking, more or less perceptibly, lead through language in a manner that is extraordinary. We shall be questioning concerning technology, and in so doing we should like to prepare a free relationship to it. The relationship will be free if it opens our human existence to the essence of technology. When we can respond to this essence, we shall be able to experience the technological within its own bounds. (Heidegger 1977f: 3–4)

To avoid all misunderstandings before coming to the argument proper, it should be noticed that Heidegger’s Frage nach der Technik, to be precise, is not the same as the “question concerning technology” in the translation.

Firstly, in German, Technik is more inclusive in general than technology in English, and whereas technology, due to its etymology, emphasizes its constitution based on science, Technik implies both technique and technology, while German Technologie corresponds to technology in English.95 Secondly, and what

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is even more important, it is appropriate from the very beginning to keep Heidegger’s remark in mind that technology is “not equivalent to the essence of technology” (1977f: 4; emphasis mine), *[die Technik ist nicht das gleiche wie das Wesen der Technik* (2000b: 7)]; that is, “the essence of technology is by no means anything technological” (1977f: 4), *[das Wesen der Technik ist ganz und gar nichts Technisches* (2000b: 7), just as “the essence of ‘tree’” is “not itself a tree that can be encountered among all the trees” (1977f: 4).

These specifications lead us to the question proper in Heidegger’s “question concerning technology”: the question concerning the “essence” of technology.

**What Does Causality Imply?**

What is misleading, as Heidegger emphasizes, from the point of view of essence, is the ordinary way of defining technology as a “means to an end” or as a “human activity,” both belonging together in the sense that “to posit ends and procure and utilize the means to them is a human activity” (ibid.). According to this common view, the “manufacture and utilization of equipment, tools, and machines, the manufactured and used things themselves, and the needs and ends that they serve, all belong to what technology is” (ibid.). In other words, the “whole complex of these contrivances is technology,” and “[t]echnology itself is a contrivance” (ibid.: 5; emphasis mine); or, “in Latin, an *instrument*” (ibid.). Thus, according to Heidegger, the current conception of technology as a means and a human activity implies an “instrumental and anthropological definition of technology” (ibid.) that posits it in terms of everyday practices. In this sense, we encounter technology as an instrumental appliance appropriate to our purposes (cf., for example, Sutton 2001; Clarke 2005 [2002]; Kleinman 2005). That is, we see technology as a manifestation of human ingenuity, in terms of human self-realization.

Thus, the problem is that if we take technology as a human affair, we do not see the essence of technology.

Nevertheless, in this everyday sense, as Heidegger (1977f: 5) points out, this definition is “correct” (ibid.), in fact, “so uncannily correct that it even holds for modern technology” (ibid.). That is, not only the “older handwork technology,” but also the “power plant with its turbines and generators,” and the “jet aircraft and the high-frequency apparatus” are applications of “a man-made means to an end established by man” (ibid.). Although, in order to exist at all, each of

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As usual, Heidegger constructs his argument by means of language, not only through an etymological remembering and recalling, but, more importantly, showing the (often forgotten) intrinsic aspects of meaning implied by words, and then giving them an idiosyncratic, a specific “Heideggerian” meaning in order to get to the philosophical (understood in terms of thinking) core of the matter at hand. In this sense, the German word *Wesen* is not the same as the English “essence.” As Heidegger’s translator, William Lovitt (Heidegger 1977f), points out in his excellent explanation, as a verb *wesen*, seldom used today, means to “tarry” or “dwell,” and, for Heidegger, it is near to the meaning of *wählen*, to “last” or “endure.” Accordingly, as Heidegger emphasizes, *Wesen* is not just the *quiditas*, the “what” something is, but it refers to “the way in which something pursues its course,” hence “enduring as presence” (ibid. 3), and thus meaning “to come to presence” or “coming to presence” in the sense of “essencing” (ibid. 4), implied by *wesen* as a verb as it is understood in old German.
these contrivances require an “interlocking of various processes of technical-industrial production,” and although a “sawmill in a secluded valley of the Black Forest is a primitive means compared with the hydroelectric plant in the Rhine River” (ibid.), even so, both of them are part of the same constellation: they are instrumental means to human ends.

What is crucial in this definition is that technology is seen in terms of “the technological,” from the standpoint of das Technische. For this reason, in its everyday correctness, the “instrumental conception of technology conditions every attempt to bring man into the right relation to technology” (ibid.; emphasis mine). This, according to Heidegger, is the very problem. Just as technology appears to be self-evident, so it prevents us from seeing its essence. The problem is that what is correct does not necessarily, as Heidegger says, “uncover” a thing “in its essence” (ibid.). “Only at the point where such an uncovering happens does the true come to pass”; and “[o]nly the true brings us into a free relationship with that which concerns us from out its essence” (ibid.: 6). To find out the essence of technology instead of remaining fixed to “the technological,” “we must seek the true by way of correct” (ibid.; emphasis mine), durch das Richtige hindurch das Wahre suchen (2000b: 9); that is, the way to the true leads through the correct – the “correct” in the ordinary understanding.

This is the Heideggerian way of questioning. It seems simple, but, in fact, the opposite is the case: the Heideggerian way of questioning does not call for high theory, on the contrary, it only requires that we take seriously the ordinary understanding of technology by questioning its implications. If, in the Kantian world, thinking always begins with the empirical (Kant 1990a [1781/1787]: 45–46), what we have first in the Heideggerian world is the everydayness as the beginning of questioning (see Heidegger 1977d [1927]; cf. Cardorff 1991: 31–34; Trawny 2003: 52–57). With Heidegger, we are always within the world, in its everyday worldliness, encountering, in one way or other, the fact that die Welt weltet (Heidegger 1994b [1949]: 47–49, 1997 [1955–1956]: 168, 2003a [1935/1936]: 30–31), which, as such, opens the way to questioning (cf. Barbarić 2007: 65, 102).

In this sense, the instrumental definition of technology is “correct,” but it is only the point of departure to the way that eventually brings us to the true that constitutes the essence of technology.

To get on to the right way, we must start with the right question; as Heidegger (1977f: 6) specifies: “We must ask: What is the instrumental itself.” This question is the key to the essence of technology. “Within what” is it that “such things as means and end belong” (ibid.)? What is at issue here is the constellation of consecutive relations that is generally designated as causality which, in turn, determines the “within what” of instrumentation, which, in turn, is the core of the ordinary, everyday understanding of technology in terms of the anthropological, that is, in the sense of the human. But this ordinary understanding of technology is precisely that which obfuscates the understanding of the essence of technology. Thus, to get on, a change of perspective is necessary.
By paying attention to “the instrumental” as a defining attribute of “the technological,” it turns out that the question concerning technology, in fact, is a question concerning the essence of causality; an issue pertaining to things that are in a consecutive relationship to one another so that one thing results or ensues from another, or that the former leads to the latter, or that the latter has given rise to the former (for a detailed discussion, see, for example, Pearl 2000).

It is in this sense that causality is the defining moment of instrumentality. In Heidegger’s words:

> A means is that whereby something is effected and thus attained. Whatever has an effect as its consequence is called a cause. But not only that by means of which something else is effected is a cause. The end in keeping with which the kind of means to be used is determined is also considered a cause. Wherever ends are pursued and means are employed, wherever instrumentality reigns, there reigns causality. (Heidegger 1977f: 6)

As soon as we adopt this view, we are on the right way towards the essence of technology: in a specific manner, to be detailed in the course of Heidegger’s argumentation which I am closely following here, technology is a manifestation of instrumentality that is based on causality. This applies to what Heidegger calls “modern technology,” a form of technology that employs scientific methods, but, as well – notat bene – to “older technology” that relies on handwork, even to what in ancient Greece was referred to as technē (see, for example, Mitcham 1994: 117–134; Rutsky 1999: 4–7). But it is precisely here that the difference lies between technē as handwork on the one hand, and modern technology as a way of implementing scientific knowledge on the other. The difference pertains to the manner in which causality is deployed in various forms of technology; that is, the mode of instrumentality (cf., for example, Kovel 2007: 143–144; Han 2008: 31–33).

But the problem is now that as long as we only consider instrumentality as human activity, as doing embracing various practices and procedures, we are not able to see causality in itself, as an effecting in which effects are based on causes and causes bring about effects (cf., for example, Rockmore 1995b: 135–136; Lelas 2001: 135–137). To entangle this complex of causality, the condition of possibility of instrumentality, and, at the same time, to prepare the way that is to finally lead to the understanding of the specificity that differentiates modern technology from handwork implied by Greek technē, Heidegger takes an example: the smith at work, a hand worker that, indeed, is doing something in order to produce something, but a doer who is not able alone to realize the product upon which he is working. In other words, although the smith, by his own work, produces the objects he is working upon, nevertheless, the skill of the smith, his expertise and proficiency in commanding a specific technē that is needed in order to create an object that belongs to the trade, the craftsmanship, of the smith, to the very art that constitutes him as a smith, all this is not enough to enable the smith to realize the object he is working upon.

To show this, Heidegger turns the attention from the craftsman to the working process and its object in their relationship to the material world that is the con-
dition of possibility of productive work. What is at issue in this respect are the modes of effectuating that are inherent to both the persistence and continuance of the material world understood as nature and the working process utilizing its laws. That is, Heidegger begins his argumentation by recapitulating the inherited philosophical doctrine of causality (a view going back to Aristotelian philosophy; see, for example, Guthrie 1990 [1981]: 223–233; Höffe 2006 [1996]: 116–119).

For centuries philosophy has taught that there are four causes: (1) the *causa materialis*, the material, the matter out of which, for example, a silver chalice is made; (2) the *causa formalis*, the form, the shape into which the material enters; (3) the *causa finalis*, the end, for example, the sacrificical rite in relation to which the chalice required is determined as to its form and matter; (4) the *causa efficiens*, which brings about the effect that is the finished, actual chalice, in this instance, the silversmith. What technology is, when represented as a means, discloses itself when we trace instrumentality back to fourfold causality. (Heidegger 1977f: 6)

So far so good, but now the problem is: “[w]hy are there just four causes” (emphasis mine), and “what does ‘cause’ really mean,” and finally, “[f]rom whence does it come that the causal character of the four causes is so unifiedly determined that they belong together” (ibid.: 6–7)? This is the conceptual complex that, according to Heidegger, embraces causality, instrumentality and technology in their mutual dependence; a problem constellation that also suggests a historical continuum from *technē* to handwork and from there on to modern technology as historically changing relations between the four causes. In other words, *what once began in ancient Greece can be seen today in the figure of the cyborg* – but how did it come like that, this is a complicated problem which I have been approaching throughout the study at hand. That is, why is the world of the cyborg not possible without the four causes constitutive of causality as discussed by Greek philosophers?

The problem is, as Heidegger says, that for a long time “we have been accustomed to represent cause as that which brings something about,” that is, bringing about is understood to mean doing in order “to obtain results, effects” (ibid.: 7; emphasis mine). In other words, the *causa efficiens*, as the only one among the four causes, has been elevated to the exclusively dominant position by seeing it to set “the standard for all causality” (ibid.). “That goes so far that we no longer even count the *causa finalis*, telic finality, as causality” (ibid.). And not only that, according to Heidegger, what was understood as cause in ancient Greek, consisting of the Aristotelian conception of the four causes as a unity, entirely fell into oblivion during the subsequent centuries. As a result, the human being as the very *causa efficiens*, the effecting efficiency in its effective efficacy, was promoted by the human being itself to the position of the single cause of all being; in other words, *causality became anthropomorphized*. (The question as to how various religions have struggled against this anthropocentric idea would in itself be an interesting issue.)

This is the historical hubris that constitutes what I call the *anthropomorphic complex* as the reason of the technomorphism characteristic of the world of
the cyborg; a world in which there is nothing outside technology understood in terms of instrumentality, and, as such, as an entirely human achievement, a product of human ingenuity; that is, technology as the *mode of being* of the human being in the sense of doing without questioning the doing in itself. It is in this manner that the cyborg, in its technoscientific hubris, is an embodiment of *causa efficiens* that is not able to question the implied anthropomorphism of the very same *causa efficiens* that constitutes the technomorphism of the cyborg: the technological body modification of the cyborg as a *self-technology* of the posthuman subject as the ultimate form of the human (see, for example, Haraway 1991a, 1997; Gray et al. 1995b; Wolmark 1999a; Kirkup et al. 2000; Gray 2001; from historical perspective, see Muri 2007).


Towards the Idea of *poiēsis*

What is it actually that has been forgotten after Greek thinking, since the ever-increasing rationalization of philosophy culminating in what Heidegger (1977a [1938]) calls *Weltbild*, “world-picture”; that is, a conception of the world in its entirety “as picture,” as “pure resource” disclosed by science that turns the world into “nothing but our resource-ful picture of it” (Young 2002: 54; cf. Guignon 1983: 171–180; Pattison 2000: 54–58)? In other words, what is it that we cannot remember in a world in which everything appears self-evident in front of our very eyes?

We have forgotten how things actually relate to one another in a relationship that is designated as causality; a relationship that is not so simple at all as it seems to be.

“What we call cause [Ursache] and the Romans call *causa* is called *aition* by the Greeks” (Heidegger 1977f: 7). *Aition* is a “cause” in a specific sense; it is, as Heidegger specifies, *das, was ein anderes verschuldet* (ibid.); and it is in this sense that the four causes constitute a unity: *Die vier Ursachen sind die unter sich zusammengehörigen Weisen des Verschuldens* (2000b: 10); in other words, “the four causes are the ways, all belonging at once to each other, of being respon-
sible for something else” (1977f: 7; emphasis mine). This fourfold as an integral unity, as a multidimensional causality of mutually functioning ways of indebtedness, is something entirely different from the idea of one-dimensional effective efficiency implied by the ordinary conception of causality in which, in one way or another, the human being is always the first mover, the primus motor as the prima causa of causality; a view that only prevents the understanding of the essence of technology in its complexity that exceeds the limits of the human; that is, the understanding of technology as a manifestation of fourfold causality in terms of aition discussed by Greek philosophers.

To explain the idea of aition, Heidegger returns to his example of the chalice and the silversmith. Silver is “that out of which the silver chalice is made”; as this “matter (hyle), it is co-responsible for the chalice”; in other words, the chalice “is indebted,” or it “owes thanks to, the silver for that out of which it consists” (ibid.). At the same time, the chalice as a sacrificial vessel “appears in the aspect of a chalice and not in that of a brooch or a ring,” and, as such, it is indebted to the aspect (eidos) of chaliness. But there is still a third coefficient that is “above all responsible for the sacrificial vessel” (ibid.: 8), as the very materialization of both the hyle and the eidos of the chalice. “It is that which in advance confines the chalice within the realm of consecration and bestowal,” through which the chalice is “circumscribed as sacrificial vessel” (ibid.; emphasis mine). This third constituent of aition is what is called telos in Greek, meaning that which is “responsible for what as matter and for what as aspect are together co-responsible for the sacrificial vessel” (ibid.).

What is crucial here, as Heidegger emphasizes, is that telos is not to be understood, as usually misinterpreted, as “aim” or “purpose” (ibid.). Instead, telos is that which “gives bounds, that which completes,” that which by creating bounds from out of which a thing “begins to be what, after production, it will be” (ibid.). Only after telos and the concomitant hyle and eidos is there “a fourth participant in the responsibility for the finished sacrificial vessel” in its completed form ready for the use it is intended for: the silversmith – “but not at all because he, in working, brings about the finished sacrificial chalice as if it were the effect of a making”; in other words, against the common view of the doer as the cause of what he has effected by his doing we must see that “the silversmith is not a causa efficiens” (ibid.), not an effectuating cause in its inherent teleology, the work as a project with a purpose conceived of by the smith.

Thus, and this is the main point, the silversmith, stricto sensu, is not the origin of the chalice. In this sense, contrary to the conventional conception of causality, the smith – manifesting the idea of homo faber typical of Western culture (see

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97 As Lovitt explains in a footnote: “Das, was ein anderes verschuldet is a quite idiomatic expression that here would mean to many German readers ‘that which is the cause of something else.’ The verb verschulden actually has a wide range of meanings – to be indebted, to owe, to be guilty, to be responsible for or to, to cause. Heidegger intends to awaken all these meanings and to have connotations of mutual interdependence sound throughout this passage.” (Heidegger 1977f: 7)
van der Pot 1985: 288–290, 536–537; Tijmes 1995: 241–245; Pattison 2000: 4; Wolters & Carrier 2005) – according to Heidegger’s re-reading of Greek thinking, is not, as stated above, the primus motor in the sense of the prima causa of a product produced by him: the smith has certainly made the thing he has made, but his responsibility for the existence of the thing which he has made is indebted to the three preceding factors, hyle, eidos and telos, to which the thing owes for its coming into being in the first place. From this standpoint, homo faber is still there, but he is exactly what he is literally: a homo faber, no more no less. In other words, the smith is a part of the world, not vice versa: the material world in its fourfold causality is that what makes the smith and his craftsmanship possible, not the teleology inherent to the intentionality constitutive of the expertise and proficiency of the smith as a craftsman, as a personification of homo faber.

But, in another sense, Heidegger rehabilitates the smith as homo faber. In order for hyle, eidos and telos to find one another in a common cause, the smith is needed as an agent. “The silversmith considers carefully and gathers together” these three “ways of being responsible and indebted” (Heidegger 1977f: 7). To consider carefully, Heidegger reminds us, is in Greek legein giving the sense of logos; in this sense, legein is rooted in apophainesthai, meaning “to bring forward into appearance” (ibid.), zum Vorschein bringen (2000b: 11; for the idea of logos as “the Word of God” in Christian theology, cf. Lawson 1986 [1980]: 48–49). And it is in this sense that the “bringing forth and resting-in-self” (1977f: 8), the von wo her das Vorbringen und das Aufsichberuhen (2000b: 11), “take and retain their first departure” (1977f: 8; emphasis mine). In other words, hyle, eidos and telos as “ways of being responsible owe thanks to the pondering of the silversmith for the ‘that’ and the ‘how’ of their coming into appearance and into play for the production of the sacrificial vessel” (ibid.). In other words, although the smith is not the causa efficiens of his work as a project and process that brings about an object, nevertheless, he is the agent that brings together the components that constitute his work as a productive achievement, a creative act.

What is important here is that these four ways of indebteding, owing and being responsible, hyle, eidos, telos and logos (which turned into the four causes as causa materialis, causa formalis, causa finalis and causa efficiens through the Romans) “differ from one another, yet belong together” (ibid.). But what is it that unites them, what is that in which this unity takes place, in which the “playing in unison of the four ways of being responsible play” (ibid.: 8–9)? The keyword to this question is hypokeisthai, “lying before and lying ready,” that “characterizes the presencing of something that presences” (ibid.: 9), kennzeichnen das Anwesen eines Anwesenden (2000b: 12). That is, as Heidegger explains in a linguistically associative manner (which in its idiosyncrasy almost remains beyond translation) typical of him:

Die vier Weisen des Verschuldens bringen etwas ins Erscheinen. Sie lassen es in das An-wesen vorkommen. Sie lassen es dahin los und lassen es so an, nämlich in seine vollendete Ankunft. Das Verschulden hat den Grundzug dieses An-las-
This is the idea of the “presencing of something that presences”: there is no presencing without that “something” that presences (cf., for example, Zimmerman 1990: 79–89, 108–124, 154–174, 225–235; Rockmore 1997 [1992]: 184, 222; Radloff 2007: 40–61, 149–153, 177–255; in terms of Heidegger’s ontotheology, cf. Thompson 2005: 20, 33–39, 53, 70–71). In other words, whatever the *logos* as such, as the responsibility of the smith, *homo faber*, is, it cannot create anything without that “presencing of something that presences.” In this sense, the four ways of being responsible, of owing and being indebted, together bring something into appearance: they let it “come forth into presencing” (1977f: 9). By that, they set this “something” (whatever it is) free to start on its way into its complete arrival. In this sense, “such a starting something on its way into arrival” (ibid.) is an “occasioning” or an “inducing to go forward” (ibid.) that enables the craftsmanship and work of the smith as a project and process with a purpose, as a creative act, in the first place.

At this point Heidegger takes a decisive step, for which all the detailed etymological explanations so far have been a careful preparation: a radical reinterpretation, in fact, a deconstruction *avant la lettre*, of the notion of causality, constitutive of Western philosophy and science. On the basis of what the Greeks experienced in *aitia*, “in being responsible,” *im Verschulden*, Heidegger gives the word “to occasion,” *ver-an-lassen*, a more inclusive meaning that is now the name for “the essence of causality” in the sense in which the Greeks thought it (1977f: 10, 2000b: 12).

What is important here is that with this single move Heidegger sets the complex consisting of causality, instrumentality and technology in a new context: in the conceptual realm of what the Greeks called *poiēsis*. The radicality of this shift lies in its consequence: not only a sacrificial vessel made by a Greek smith, but also contemporary nuclear power plants, jet aircrafts and the whole new world of computer technology – to say nothing of the cyborg, cyberspace and all that is “cyber” – are now, according to the Heideggerian manner of thinking, all manifestations of *poiēsis*, a mode of *causality* based on “occasioning,” a way of letting “not yet present arrive into presencing,” a “bringing that brings what presences into appearance” (1977f: 10).

To illuminate his idea of "bringing" as *poiēsis*, Heidegger refers to Plato’s *Symposium* in which Plato explains the notion of “occasion,” for Heidegger the key to “occasioning” as a mode of causality.

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By writing *An-wesen*, as Lovitt (Heidegger 1977f: 9) explains, Heidegger emphasizes the composition of the verb *anwesen*, translated as “to presence.” Consisting of *wesen* (“to continue or endure”) and the prefix *an-* (“at, to, toward”), *anwesen* in Heidegger’s sense implies that it is the human being that has to receive presencing, to whom it comes as enduring. *Veranlassen*, emphasized by Heidegger in the form *Ver-an-lassen*, means “to occasion,” “to cause,” “to bring about,” “to call forth.” Similarly, *An-lassen*, coming from *anlassen* (“to let or to leave”), means in Heidegger’s language “to set going,” “to start something on its way.” Here as elsewhere, by these kinds of linguistic means, Heidegger purports to bring the reader to see things in a new way, to break from conventional views based on ordinary language.
Every occasion for whatever passes over and goes forward into presencing from that which is not presencing is poiēsis, is bringing-forth. (ibid.; cf. Plato 2003 [385–380])

Heidegger’s German helps, no doubt, to have a better understanding of the idea implied by Plato’s sentence: Jede Veranlassung für das, was immer aus dem Nicht-Anwesenden über- und vorgeht in das Anwesen, ist poiēsis, ist Her-vor-bringen (2000b: 12), “bringing-forth” as a form of technē in which all the moments of causality play together for a common cause. The radicality proper of Heidegger’s idea is included in the words “every occasion,” jede Veranlassung, meaning that we have to “think bringing-forth,” truly, “in its full scope and at the same time in the sense in which the Greeks thought it” (1977f: 10). This implies that “[n]ot only handcraft manufacture, not only artistic and poetical bringing into appearance and concrete imagery, is a bringing-forth, poiēsis,” but – here is the crux – it is first of all nature in itself, that which the Greeks called physis, that, for Heidegger, is “poiēsis in the highest sense” (ibid.; for a problematization of Heidegger’s position in terms of the difference between Platonic poiēsis and Aristotelian praxis, see Rehmann-Sutter 1996: 201–203).

In other words, it is nature in its primordial mode of being that is the original realm of poiēsis, and whatever human beings, through their own understanding of poiēsis, are ever able to achieve is always already achieved by nature. In this sense, indeed, nature imitates art (of course, in the sense we as humans understand the mode of activity called “art”), but it is its very own, intrinsic mode of “art” which humans, in turn, imitate by imitating poiēsis, the “art” of nature, in their own way; in other words, nature is in itself an incessant creative process, the fundamental natura naturans of all being, and as such, the constitutive model for human enterprises materialized in work and its products. That is, there is no human world without nature, the primordial condition of possibility of human existence; nature as a manifestation of Sein, Being, without which the human being in its specific mode of being-in-the-world, as Dasein, would have perished from its very inception.

What Is Concealed Becomes Unconcealed

As we can see, the very import of Heidegger’s conception concerning causality as “occasioning” that is based on poiēsis, “bringing forth,” is that the conventional difference between nature and technology is abolished (in terms of “remaking reality,” cf. Braun & Castree 1998); both are now realms of “occasioning,” both are scenes of poiēsis. Of course, there is a difference in the mode, but not in the essence.

For what presences by means of physis has the bursting open belonging to bringing-forth, e.g., the bursting of a blossom into bloom, in itself (en heautōi). In contrast, what is brought forth by the artisan or the artist, e.g., the silver chalice, has the bursting open belonging to bringing-forth not in itself, but in another (en allōi), in the craftsman or artist. (Heidegger 1977f: 10–11)
That is, *poiēsis*, in Heidegger’s Greek sense, is an all-inclusive course of events, a universal process that embraces both nature and the human world, *physis* and the productive activities of humans, the “natural” and the “artificial.” Both of these spheres of being are “modes of occasioning,” and, therefore, “the four causes” – *hyle*, *eidos*, *telos* and *logos* – “are at play, then, within bringing-forth” (ibid.: 11). In other words, we take a walk in a forest and immediately we are in the midst of the unending *poiēsis* of nature; or, we work on the reconstruction of the human being to a posthuman being in the form of the cyborg – and immediately we are part of the *poiēsis* peculiar to technology; not as a *homo faber*, but as an agent, in terms of *logos* in combination of *hyle*, *eidos* and *telos*. From the Heideggerian perspective, then, the binary opposition between the “natural” and the “artificial,” the “organic” and the “technological,” is always already – in the radical Derridean sense, *toujours déjà*, “always already” (see, for example, Derrida 1978b [1967/1963]: 4, 12, 1978c [1967/1966]: 211–212, 1997 [1967]: 3–4, 7, 66, 215–216; cf. Behler 1991 [1988]: 6–9, 14, 59, 66) – a misconception of the being of Being from the very beginning, a delusion typical of the narrowness of human thought, that is, the mode of thinking constitutive of anthropomorphism as the basis of technomorphism: the very basis of the cyborg as the apotheosis of the posthuman in its anthropomorphic hubris.

Thus, the key point by now is that in reality *everything that exists* comes into presence through “occasioning,” the process of “bringing-forth.”

Through bringing-forth, the growing things of nature as well whatever is completed through the crafts and the arts come at any given time to their appearance. (Heidegger 1977f: 11)

But one problem still remains. If, according to Heidegger, all that is is always already present, but, at the same time, absent, *not-yet-present*, how, then, does this “present-absent” become “present-present”? In other words, how does “occasioning” *occasion*? How does “bringing-forth” bring forth? In Heidegger’s idiosyncratic formulation: “What is the bringing-forth *in which* the fourfold way of occasioning *plays*” (ibid.; emphasis mine)? What is this *playing* – is it something similar to Lyotard’s “gaming” or Haraway’s “playing”?99 This remains to be

99 Throughout Haraway’s “cyborg manifesto,” “play” and “playing” play an important role: “Irony is about humour and serious play” (Haraway 1991a: 149); “[t]echnological determination is only one ideological space opened up by the reconceptions of machine and organism as coded texts through which we engage in the play of writing and reading the world” (ibid.: 152); “[t]extualization’ of everything in poststructuralist, postmodernist theory has been damned by Marxists and socialist feminists for its utopian disregard for the lived relations of domination that ground the ‘play’ of arbitrary reading” (ibid.); in the world of the cyborg, “[s]ome differences are playful; some are poles of world historical systems of domination” (ibid.: 161); this is a world in which “we are living through a movement from an organic, industrial society to a polymorphous, information system – from all work to all play, a deadly game” (ibid.); a world in which “[f]or liberals and radicals, the search for integrated social systems gives way to a new practice called ‘experimental ethnography’ in which an organic object dissipates in attention to the play of writing” (ibid.: 162); in “the West, with its worship of the monotheistic, phallic, authoritative, and singular work, the unique and perfect name,” “releasing the play of writing is deadly serious” (ibid.: 175); but, nevertheless, our freedom is “written into the play of a text” (ibid.: 176), and hence, “[s]urvival is the stakes in this play of readings” (ibid.: 177). That is, if there is an essence of the cyborg it is a playful playing of language: a play that is playing with and on its own playfulness.
seen. What is important for now is that “occasioning” is not just occasioning – to recall Heidegger’s term: Ver-an-lassen – since occasioning “has to do with the presencing [Anwesen] of that which at any given time comes to appearance in bringing-forth” (ibid.).

However, this only brings us back to the problem just stated: if poiēsis is always already “bringing-forth,” what is – what can be – occasioning as “presencing”? In other words, if something is always already present, what is it that “presencing” makes present? Here Heidegger introduces something essential to the “play” which is taking place “within bringing-forth” that transposes the play to the essence of “occasioning,” and, as we will see, finally opens up the way to the essence of technology.

Bringing-forth brings hither out of concealment forth into unconcealment. Bringing-forth comes to pass only insofar as something concealed comes into unconcealment. This coming rests and moves freely within what we call revealing. (ibid.; emphasis mine)

Since, in my reading, this short passage includes the key to the Heideggerian “question concerning technology” it is appropriate to elucidate Heidegger’s idea in his idiosyncratic German language; again, every word counts here:

\[\text{Das Her-vor-bringen bringt aus der Verborgenheit her in die Unverborgenheit vor. Her-vor-bringen ereignet sich nur, insofern Verborgenes ins Unverborgene kommt. Dieses Kommen beruht und schwingt in dem, was wir das Entbergen nennen.} \]

(2000b: 13; emphasis mine)

Entbergen – that is the keyword in this decisive turn towards the essence of technology. Entbergen, however, is a word that is not used in the everyday German language: entbergen, “to reveal,” in the sense of bringing forth something that does not appear, turn up or emerge by itself, is a Heideggerian word, not as a technical term in its linguistic technicality, but a word that refers to the way in and through which something hidden is made to come forth, to crop up, to arise or uncover, disclose or expose itself (cf. Loscerbo 1981: 23–26, 136–137, 146; Rojcewicz 2006: 48–49, 55, 65, 81).

Now that we have come on the Heideggerian way to the understanding of the essence of technology, Heidegger’s German is no longer a problem since the word entbergen, similarly to Heidegger’s entire vocabulary, exists in the Heideggerian linguistic universe that is an idiosyncratic mode of practicing philosophy in terms of Dichten und Denken; an extraordinary world of thinking in which die Frage nach der Technik – our concern in this context – comes to pass. What is not possible in ordinary German is possible in Heideggerian German (cf. Lilly 1996: vii–xii; Pattison 2000: 47–74; Mayr 2001: 317–322; Kockelmans 1980 [1972]). It is, to use the appropriate German word, a Reich in which one can experience an extraordinary Reichtum, the complexity of language as a mode of deeper understanding in the sense of the etymological and hermeneutical historicity of language. Moreover, there is something specific in the German language; just as the Germans, in their very essence, as Heidegger (1983 [1935]: 38) says, are
The verb *entbergen* (to reveal) and the allied noun *Entbergung* (revealing) are unique to Heidegger. Because of the exigencies of translation, *entbergen* must usually be translated with “revealing,” and the presence of *Entbergung*, which is rather infrequenly used, has therefore regrettably been obscured for want of an appropriate English noun as alternative that would be sufficiently active in meaning. *Entbergen* and *Entbergung* are formed from the verb *bergen* and the verbal prefix *ent-. Bergen* means to rescue, to recover, to secure, to harbor, to conceal. *Ent-* is used in German verbs to connote in one way or another a change from an existing situation. It can mean “forth” or “out” or can connote a change that is the negating of a former condition. *Entbergen* connotes an opening out from protective concealing, a harboring forth. (1977f: 11)

Accordingly, what is at issue in Heidegger’s *Entbergen* and *Entbergung* is the way in which something that is concealed becomes unconcealed, the way in which das *Verborgene* becomes das *Unverborgene*; that is, the manner in which something that is *verbergen* (“concealed”) in its *Verborgenheit* (“concealment”) becomes uncovered, revealed, unveiled or disclosed, brought into *Unverborgenheit* (“unconcealment”). What is specific here is that in German *Verborgenheit* is close to *Geborgenheit*, meaning safety, security, shelter or refuge, a state or a feeling that one can also enjoy when being in *Verborgenheit*.

But, in addition to all these connotations (similarly to connotations in general which are always very important in Heidegger), das *Entbergen* as revealing means something specific in this context. As Heidegger says, the “Greeks have the word *aîtheia* for revealing”; the “Romans translate this with *veritas*” (ibid.: 11–12); and [w]ir sagen “Wahrheit” und verstehen sie gewöhnlich als Richtigkeit des Vorstellens (2000b: 13), “[w]e say ‘truth’ and usually understand it as the correctness of an idea” (1977f: 12).

As we can see, by introducing the idea of *Entbergen*, Heidegger makes another radical turn in the understanding of technology in terms of its essence; a turn that definitely brings us beyond the constraints of anthropomorphism, the world of the cyborg in its technological hubris peculiar to the posthuman as the apotheosis of the human.

**Technology as a Mode of Revealing**

Now we can see the perspective which Heidegger has opened up with his question concerning causality in the form of instrumentality as essential for the
understanding of the essence of technology. The Heideggerian “way of thinking” as a *way of language*, a way leading *through* language, has taken us from the German *Ursache* through the Latinite *causa* (in its four forms of *causa materialis*, *causa formalis*, *causa finalis* and *causa efficiens*) via the Greek *aitsion* finally to the Greek *aitia* as the “fourfold” of *hyle*, *eidos*, *telos* and *logos*, the latter based on the idea of *apophainesthai*, “to bring forward into appearance.” What has become clear thus far is that what Heidegger understands by “causality” and “truth” has nothing to do with conventional philosophical and scientific (or scientistic) meanings of these concepts. *Heidegger goes his own way*, the way of language coming from Greek Antiquity and leading back to ancient Greece, and, *through this retour*, to the present via the peculiarity of German language as a philosophical language *sui generis*.

This is the way of *alētheia*; a way that entirely diverges from the way of truth conventionally understood as a correspondence of an idea with what has been taken to be a fact (cf., for example, Ferber 1995: 74–97; Enders & Szafi 2006); in other words, truth as a *representation* of reality, a view typical of Western thinking. For Heidegger, this is a grave error: a conception of truth that takes human understanding as *the* basis for truth; a conception that goes together with the metaphysics and nihilism constitutive of Western philosophy, thinking and science from Plato through Descartes to the present (see Heidegger 1976b [1949], 1977a [1938], 1983 [1938/1939, 1946/1948]; cf. Habermas 1998c [1985]; Deely 2001; Kroker 2004b) – a mode of thinking that only continues in postmodern techno-theories in the manner, for example, of Haraway’s cyborg mythology, the cyborg as a mythopoetic theory-fiction. It is in this sense that the construction of the theory discourse in the name of “the posthuman” is in itself an apotheosis of humanism that it attempts to disrupt: “the posthuman” is a *human* concept through and through in the Heideggerian sense (see Heidegger 1976a [1946]).

In the light of the discussion above, it is evident that what Heidegger conceives of as *alētheia* is a diametrical opposite of the Western notion of truth.

“But where have we strayed to?” (1977f: 12), Heidegger suddenly asks at this point as if himself astonished of the way leading to *alētheia*. “We are questioning concerning technology, and we have arrived now at *alētheia*, at revealing” (ibid.).

What has the essence of technology to do with revealing? The answer: everything. For every bringing-forth is grounded in revealing. Bringing-forth, indeed, gathers within itself the four modes of occasioning – causality – and rules them throughout. Within its domain belong end and means, belongs instrumentality. Instrumentality is considered to be the fundamental characteristic of technology. If we inquire, step by step, into what technology, represented as means, actually is, then we shall arrive at revealing. *The possibility of all productive manufacturing lies in revealing.* (ibid.; emphasis mine)

This is an essential point of departure in Heidegger’s conception of technology as a specific mode of “occasioning,” which, in turn, is in itself “revealing.” From this standpoint, to understand technology as a mere means to an end simply misses the point; that is, it remains in the instrumental and anthropological
frame of reference, the context of *das Technische*, “the technological,” that does not enable us to understand *das Wesen*, the *essence*, of technology. Thus, what we urgently have to do is to take the right way to the understanding of technology; in Heidegger’s words: *Die Technik ist eine Weise des Entbergens* (2000b: 13), “technology is a way of revealing” (1977f: 12). This, according to Heidegger, is the first step towards an adequate understanding of the essence of technology (let us recall that all steps thus far were preparation for this decisive step we have now taken).

### 6.2.2 Danger and the Saving Power

To make a preliminary summary: the whole chain of argument which has now taken us to the idea of *alētheia* as the key to the essence of technology, began with Heidegger’s categorical statement that “the essence of technology is by no means anything technological” (ibid.: 4). If we remain fixed on “the technological” – manifested by tools, equipment and machines, various devices and apparatuses – we “remain unfree and chained to technology” (ibid.).

This, among other things, is the problem of the Harawayan cyborg, in which anthropomorphism culminates in the form of technomorphism, *and vice versa*.

It is inevitable, therefore, as Heidegger prompts us, to “finally take seriously the simple question of what the name ‘technology’ means” (ibid.). Thus, the way of thinking of technology leads from “the technological” to the meaning of the word *technē*. This word, in fact, has two aspects. Firstly, “*technē* is the name not only for the activities and skills of the craftsman, but also for the arts of the mind and the fine arts” (ibid.: 13). In this context, *technē* “belongs to bringing-forth, to *poiēsis*; it is something poietic” (ibid.). Secondly, even more importantly, from the earliest times until Plato, the “word *technē*” has been “linked with the word *epistēmē*”; both words are “names for *knowing in the widest sense*” (ibid.; emphasis mine). They mean “to be entirely at home in something, to understand and be expert in it” (ibid.). Such knowing provides an “opening up”; that is, it is a “revealing” (ibid.).

**“Agriculture Is Now Mechanized Food Industry”**

Referring to Aristotle, Heidegger explains that although *epistēmē* and *technē* are both modes of knowing they differ from one another by “what and how they reveal” (ibid.; emphasis mine). From this point of view, *technē* leads us back to the issue of causality understood as “occasioning,” “bringing-forth” and “revealing,” and through this to the notion of *alētheia*.

*Technē* is a mode of *alētheuein*. It reveals whatever does not bring itself forth and does not yet lie here before us, whatever can look and turn out now one way and now another. Whoever builds a house or a ship or forges a sacrificial chalice reveals what is to be brought forth, according to the perspectives of the four modes of occasioning. This revealing gathers together in advance the aspect
and the matter of ship or house, with a view to the finished thing envisioned as completed, and from this gathering determines the manner of its construction. Thus what is decisive in technē does not lie at all in making and manipulating nor in the using of means, but rather in the aforementioned revealing. It is as revealing, and not as manufacturing, that technē is a bringing-forth. (ibid.)

As a way of knowing in the sense of seeing in advance, rather than doing in the sense of making, manipulating and manufacturing, technē belongs to the context of instrumentality discussed above in its relationship to causality, both being constitutive of technology. Understood from this perspective, technology, as a manifestation of technē, is a “mode of revealing” (ibid.). Die Technik west in dem Bereich, wo Entbergen und Unverborgenheit, wo alētheia, wo Wahrheit geschieht (2000b: 14–15); technology “comes to presence,” west, “in the realm where revealing and unconcealment take place, where alētheia, truth, happens” (1977f: 13).

But are there, indeed, no differences between ancient Greek thought, the techniques of the medieval handicraftsman, and contemporary technology based on scientific research, for example, everything that is implied by research on neuronal networks by means of computer tomography or quantum physics studied at CERN with the particle accelerator (see, for example, Bowler & Morus 2005; O’Regan 2008)? Is the sacrificial vessel, forged by a Greek silversmith, a manifestation of technē in the same sense as, for example, present biotechnology applying computer-generated information or space flight technology enabling a research mission to Mars (see, for example, Stehr 2004; Thacker 2005; Mindell 2008; Dick & Launius 2009 [2006])? Yes, indeed, they all belong to the same continuum, since as different as these instances of technē in their form are, they have nevertheless, as Heidegger insists, a common ground: they are based on the principle of “revealing,” that is, they are different modes of the same epistemic function: “occasioning” as alētheia.

Therefore, even modern technology, in the sense of scientific-technological research and production, derives from Greek technē, not as industrial manufacturing, but as the principle of “revealing.” And yet there is a radical difference between modern technology and Greek arts and crafts as manifestations of technē. As Heidegger says, the “revealing that holds sway throughout modern technology does not unfold into a bringing-forth in the sense of poiēsis” (1977f: 14). In other words, the mode of Entbergen ruling modern technology is not Her-vor-bringen, “bringing-forth,” in its character; instead, it is Herausfordern, “challenging-forth” (2000b: 15), constitutive of the scientific-technological rationality of the modern.100 In modern technology, the “bringing-forth,” the

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100 As Lovitt explains: “Herausfordern means to challenge, to call forth or summon to action, to demand positively, to provoke. It is composed of the verb fordern (to demand, to summon, to challenge) and the adverbial prefixes her- (hither) and aus- (out). The verb might be rendered very literally as ‘to demand out hither.’ The structural similarity between herausfordern and her-vor-bringen (to bring forth hither) is readily apparent. It serves of itself to point up the relation subsisting between the two modes of revealing of which the verbs speak – modes that, in the very distinctive ways peculiar to them, occasion a coming forth into unconcealment and presencing.” (Heidegger 1977f: 14)

That is, under the regime of modern technology, nature is no longer a natural source of human existence; instead, it is now a resource ruled by scientific-technological methods. To take Heidegger’s (1977f: 14) example: the sails of a wind-mill “are left entirely to the wind’s blowing” and, therefore, it does not “unlock energy from the air currents in order to store it.” A modern power plant, in contrast, by harnessing the forces of nature into an energy reserve turns it into a gigantic industrial enterprise through its own logic based on the idea of maximal efficiency.

In this way, nature is “challenged-forth” by modern technology in the purpose of utility and utilization; in other words, nature is entirely anthropomorphized, and thus, technomorphized: nature has been turned into a technology in its entirety.

Here we have the constitutive idea – the idea of radical difference – of Heidegger’s Herausfordern, “challenging-forth,” as the modern derivation, scientific-technological modification, of the Her-vor-bringen, “bringing-forth,” constitutive of Greek technē. Wherever challenging in the sense of Herausfordern rules, the world is no longer the same: it is now a human world under the power regime of modern technology, a manifestation of scientific reason in the mode of scientific-technological rationality. This is a world in which nature disappears; what is left over is what Heidegger describes in his unique terms Bestand, “standing-reserve,” and Gestell, “enframing” (ibid.: 17–23; cf. Dreyfus 1993: 306–308; Young 2002: 44–58); terms that belong to the critical core of Heidegger’s conception of technology not in terms of “the technological,” das Technische, but as a mode of alētheia, truth as disclosure or unconcealment that disrupts the self-evidence of truth as a correspondence between a proposition and reality constitutive of Western scientific-technological rationality, or, in Heideggerin terms, the epistemic order of the Weltbild (see Heidegger 1977a [1938]).

In other words, from the Heideggerian perspective, what the international group of scientists is doing at CERN – even if they are not aware of it – is “revealing,” alētheia, by means of Herausfordern, “challenging-forth.” Bio-tech scientists are doing exactly the same in their high-tech laboratories all over the world. And what the astronauts in space stations are doing is nothing else but “revealing,” alētheia, by means of Herausfordern, “challenging-forth.”

This is also the final truth of the cyborg, regardless of whether Haraway happens to hate or love Heidegger: the cyborg is a paradigmatic instance of “challenging-forth.”
It is appropriate to recall once again that to get an idea of the radical manner in which Heidegger sets his conception of technology apart from all conventional theories of technology (see, for example, Joerges 1988; Weingart 1989; Rapp 1994; Fohler 2003; Fischer 2004), a manner that, in fact, makes it into a fundamental critique of whole Western scientific-technological rationality, it is necessary to carefully follow his line of argument that is based in his idiosyncratic way of thinking as a way of language. It is also in this context that Heidegger’s controversial “agriculture sentence” – *Ackerbau ist jetzt motorisierte Ernährungsindustrie, im Wesen das Selbe wie die Fabrikation von Leichen in Gaskammern und Vernichtungslagern, das Selbe wie die Blockade und Aushungerung von Ländern, das Selbe wie die Fabrikation von Wasserstoffbomben* (Heidegger 1994a [1949]: 27) – begins to make sense (cf. Young 1997: 171–185; Garbrecht 2002: 229–231; Trawny 2003: 154–156; Morat 2007: 463–469; Faye 2009: 144–146).

Before the industrial revolution, land as soil, the source of agriculture, was seen as part of nature that served humans, provided that they lived in harmony with it. In contrast to that, according to Heidegger, under the power regime of modern technology:

>a tract of land is challenged into the putting out of coal and ore. The earth now reveals itself as a coal mining district, the soil as a mineral deposit. The field that the peasant formerly cultivated and set in order [bestellte] appears differently than it did when to set in order still meant to take care of and to maintain. The work of the peasant does not challenge the soil of the field. In the sowing of the grain it places the seed in the keeping of the forces of growth and watches over its increase. But meanwhile even the cultivation of the field has come under the grip of another kind of setting-in-order, which sets upon [stellt] nature. It sets upon it in the sense of challenging it. *Agriculture is now mechanized food industry*. Air is now set upon to yield nitrogen, the earth to yield ore, ore to yield uranium, for example; uranium is set upon to yield atomic energy, which can be released either for destruction or for peaceful use. (Heidegger 1977f: 14–15; emphasis mine)

*Ackerbau ist jetzt motorisierte Ernährungsindustrie* (Heidegger 2000b: 16; cf. Heidegger 1994a [1949]: 27) – that is, in a nutshell, the radical transformation ensuing from the *Herausfordern* that has come in place of *Her-vor-bringen*; a change, as Heidegger emphasizes in his archaizing language, from the mode of *hegen und pflegen*, “taking care and maintaining,” peculiar to agriculture in its natural state, to agriculture in the industrialized world, ruled by scientific-technological rationality that has now, in the contemporary world living under the regime of technoscience, been adapted to the interests of global financial capital (of which the most powerful global player in postmodern high-tech agro-business, Monsanto, is the supreme example; see, for example, Tokar 2001; Scoones 2006; Andrée 2007; in terms of cyborg politics, see Bowring 2003: 58–103, 257–277).

**Is the Rhine River Still a River?**

This is a world in which nature has become entirely human: nature is no longer natural, it is now artificial. Denaturalization of nature means its humanizing, even when it occurs in the name of the posthuman or in the mode of the cyborg

From the Heideggerian point of view, the keyword in this context is *stellen* and its derivation *bestellen*; two words the meanings of which contribute, in a mutual interrelation and various senses, to the idea that amounts to the specific meaning which Heidegger gives to the German word *Gestell*, “enframing.” While in conventional, “natural,” agriculture *bestellen* means “cultivation,” that is, “setting-in-order” by the preparation of the soil and sowing the seed, maintaining and taking care of its forces of growth, in contrast to that, in technological utilization of the soil it takes on the meaning “to order,” “to command,” “set-in-order,” by means of scientific-technological methods in the sense of enforced cultivation, that is, *Herausfordern*, “challenging-forth.” This is the idea of *stellen* in the “setting-upon” nature: nature is now challenged, a demand is made upon it in order to exact it and thus exploit its ability to yield the most profitable crop. That is, to maximize the productivity of nature by controlling and using it as a *Bestand*, “standing-reserve,” forced into the scientific-technological framework of the *Gestell*, “enframing” (cf. Loscerbo 1981: 145–155, 239–246; Trawny 2003: 149–160; for a contextualization, see Wolf 2005: 219–259).

It is in this manner that *nature in itself has been transformed into a technology*: natural resources are now controlled and proliferated by laboratory processes resulting from the technological re-formation of nature into a commodified techno-nature in which ecology is subsumed under economy; that is, a world in which sustainability is subordinated under the logic of profitability (for a critical overview in terms of “industrialized nature,” see Josephson 2002; for the technoscientific regime leading to the global problem of industrially organized monocultures exemplified by the biopolitics of Monsanto, see, for example, Tokar 2001; Schurman & Kelso 2003; Scoones 2006; Andrée 2007; for the “techno-fix” of contemporary technoculture endangering the environment world-wide, see Huesemann & Huesemann 2011).

As Heidegger says, this kind of *Stellen*, “setting-upon that challenges forth the energies of nature,” amounts to *Fördern*, an “expediting,” in two ways: *Es fördert, in dem es erschließt und herausstellt* (2000b: 16), it “expedites in that it unlocks and exposes” (1977f: 15). At the same time, this expediting itself has become *abgestellt*, “assigned,” to “furthering something else,” the “maximum yield at the minimum expense” (ibid.).

What happens to nature through this kind of enforced *Stellen*, is illustrated by Heidegger in a paradigmatic manner in his famous example of the technological utilization of the Rhine.

The hydroelectric plant is set into [*gestellt*] the current of the Rhine. It sets [*stellt*] the Rhine to supplying its hydraulic pressure, which then sets [*stellt*] the turbines turning. This turning sets those machines in motion whose thrust sets
In order that we could even remotely understand the “monstrousness that reigns here” (a “monstrousness” that, of course, is entirely different from Harawayan linguistic play with feminist “monsters”), Heidegger asks us to ponder for a moment upon the contrast that, on the one hand, speaks out of the idea of the Rhine as violently transformed into a power works by blocking its natural course, as the word verbaut indicates, and, on the other, “The Rhine” as “uttered out of the art work, in Hölderlin’s hymn by that name” (1977f: 16). But what if we would reply that the river is nevertheless still there as a landscape? “Perhaps,” Heidegger anticipates our question, “but how?:” “In no other way than as an object on call for inspection by a tour group ordered there by the vacation industry” (ibid.). That is, yet another level of utilization of nature, now in the second order of economization, as a sightseeing object serving tourism (cf. Jameson 1979: 131).

All this is a consequence of alètheia, “truth,” not in the sense of unconcealment or unhiddenness as “world-disclosure,” a process in which nature shows itself by displaying its there-ness (cf., for example, Lafont 2000 [1994]: 109–178), but in the mode of “revealing,” “bringing-forth” and “occasioning” under the power regime of technology, a result of scientific-technological rationality constitutive of the modern. The “revealing,” das Entbergen, that “rules throughout modern technology has the character of a setting-upon,” Stellen, “in the sense of a challenging-forth,” Herausforderung (1977f: 16, 2000b: 17). But, what, in fact, is this revealing? Welche Art von Unverborgenheit eignet nun dem, was durch das herausfordernde Stellen zustande kommt?, “[w]hat kind of unconcealment is it, then, that is peculiar to that which comes to stand forth through this setting-upon that challenges?” (1977f: 17, 2000b: 17).

At its core, this is Heidegger’s idea of “challenging revealing,” an “unconcealment” as Herausforderung, “challenging-forth”; a mode of alètheia ruled by scientific-technological rationality. That is, everything is now “ordered to stand by,” to be immediately “at hand,” to stand there “just so that it may be on call for a further ordering.” Whatever is “ordered about” in this way has “its own standing”; this is what Heidegger calls Bestand, “standing-reserve” (1977f: 17). Standing-reserve – that is the whole world today, potentially, under the regime of modern technology. Whatever there is can be turned into a “standing-reserve”:
all being can become a resource for utilization: in the world of scientific-technological rationality, *reason has no limits* in a literal sense of the expression: reason is not bound by the materiality of the world, by the constraints of nature; that is, reason is turned from the potentiality of actuality into the actuality of potentiality that is based on the transformation of nature into a scientific-technological object to be manipulated in the laboratory world of technoscience (cf. McKenzie: 2001 156–159; Clark 2002: 10–12, 34–41; Mazis 2008: 75–86).

Reason has no limits – that is the idea of what I call the surrational: the reason of the imaginary constitutive of the imaginary of reason; the reason of the “post” as the *sine qua non* of the “cyber.”

But, *all being* – all being turned into a resource of utilization? The human being included? Of course. The world as a “standing-reserve” does not come into being by itself alone. No, the world as a global “standing-reserve” is not a natural *Ereignis*, an occurrence brought about by nature in itself; rather, our contemporary world under the imperative of scientific-technological reason, the reason of technoscience, is a “standing-reserve” as a result of *radical humanization*, the ultimate *reductio ad hominem*: what was once nature as such, *in itself as nature*, is now a *techno-nature*, a “nature” that is transformed into a “standing-reserve” by means of a comprehensive “enframing.” Therefore, the human being as an agent of this transformation is not just human; what is called “human” today is a new kind of being human that conforms to the scientific-technological rationality bringing about the Bestand. As Heidegger (1977f: 18) reminds us: “Only to the extent that man for his part is already challenged to exploit the energies of nature can this ordering revealing happen.” And not only that. If we, as humans – or, rather, as “humans” – are in this way *herausgefordert*, “challenged-forth,” and *bestellt*, “ordered,” do we, then, belong “even more originally than nature within the standing-reserve” (ibid.)?

The talk about “human resources” seems, according to Heidegger, to give “evidence of this” (ibid.) – but only to a certain extent.

Yet precisely because man is challenged more originally than are the energies of nature, i.e., into the process of ordering, he never is transformed into mere standing-reserve. Since man drives technology forward, he takes part in ordering as a way of revealing. But the unconcealment itself, within which ordering unfolds, is never a human handiwork, any more than is the realm through which man is already passing every time he as a subject relates to an object. (ibid.)

That is, the human being, at the same time, is a subject and an object of the unconcealment that drives forward the process of ordering constitutive of the “standing-reserve.” The ambiguous position of the human being as a subject-object and an object-subject brings about a new situation of being human giving rise to Heidegger’s question as to “[w]here and how does this revealing happen if it is no mere handiwork of man?” (ibid.). For Heidegger, to be human is in itself always already to be “claimed,” ordered by the process of “revealing”:
human beings cannot but find themselves “everywhere already brought into the unconcealed” (ibid.: 19).

The unconcealment of the unconcealed has already come to pass whenever it calls man forth into the modes of revealing allotted to him. When man, in this way, from within unconcealment reveals that which presences, he merely responds to the call of unconcealment even when he contradicts it. Thus when man, investigating, observing, ensnares nature as an area of his own conceiving, he has already been claimed by a way of revealing that challenges him to approach nature as an object of research, until even the object disappears into the objectlessness of standing-reserve. (ibid.; emphasis mine)

As we can see, from the Heideggerian perspective, what we call “human” is always already posthuman since the posthuman is in itself human: as humans we are “claimed” from the very beginning, ordered by the process of “revealing,” an on-going process that from the primordial inception (whenever it was) has been without an end (with regard to the Derridean idea of “originary technicity,” cf. Beardsworth 1998 [1996]: 151–156; Clough 2000: 30, 42, 90–93; Mackenzie 2002: 3–13, 20–24; Hansen 2006: 78–91, 99–100). In this sense, the idea of “becoming” peculiar to the discursive constellation of the “post” (see, Deleuze & Guattari 1998 [1972], 2000 [1980]; cf., for example, Ansell Pearson 1997; Braidotti 2006) is inscribed in Heidegger’s conception of technology both as a process and a product of unending “revealing” of the realm of Being.

Yet, even as a thoroughly human enterprise, modern technology as an “ordering revealing” is not merely human doing. It is the real in itself, as it is brought into the framework of “standing-reserve,” that reveals itself, shows itself, through “ordering revealing,” which, in turn, is the human part of the process of “unconcealment.” It is this “challenging-forth,” Herausfordern, that “gathers,” versammelt, the human being as an object-subject and a subject-object into that “ordering,” das Bestellen (Heidegger 1977f: 19, 2000b: 20). As such an objectified subject, the human being has no choice: Dieses Versammelnde konzentriert den Menschen darauf, das Wirkliche als Bestand zu bestellen, “[t]his gathering concentrates man upon ordering the real as standing-reserve” (ibid.).

This is the coming-into-being of what Heidegger calls Ge-stell, “enframing”: “[w]e now name that challenging claim, jenen herausfordernden Anspruch, “which gathers man thither to order the self-revealing as standing-reserve,” das Sichentbergende als Bestand zu bestellen, “Ge-stell” (ibid.). This “enframing,” a challenging and ordering framework, a scientific-technological mind-set as an objectifying and subjectifying matrix of “unconcealment,” positions both the real and the human being in terms of utilization: where “enframing” rules, nothing remains untouched, left in its own being, but everything becomes an object of control, calculation and manipulation. As such an over-arching and all-consuming assemblage, Gestell is “the name for the essence of modern technology” (ibid. 20).

Now, let us be careful, did Heidegger say that what he calls Gestell is “the name for the essence of modern technology”? That the essence of technology as such
as we have it now, in contrast to technē in ancient Greece, is Gestell meaning “enframing”? Yes, that is exactly what Heidegger said.

This is now, at last, the essence of technology that we have been searching for thus far: Gestell understood as “enframing.”

What Is the Essence of Freedom?

However, as Heidegger emphasizes from the very beginning, it is important to see that, like technology, “enframing” is in itself nichts Technisches (2000b: 21), “nothing technological” (1977f: 20). Ge-stell heißt das Versammelnde jenes Stellens, das den Menschen stellt, d. h. herausfordert, das Wirkliche in der Weise des Bestellens als Bestand zu entbergen (2000b: 21), “Enframing means the gathering together of that setting-upon which sets upon man, i.e., challenges him forth, to reveal the real, in the mode of ordering, as standing-reserve” (1977f: 20).

In other words, as Heidegger points out, Ge-stell belongs – as astonishing as it now may sound – to the order of poiēsis: the term Ge-stell stems from “another Stellen”, namely that of “producing and presenting,” Her- und Darstellen, “which, in the sense of poiēsis, lets what presences come forth into unconcealment,” [läßt das Anwesende in die Unverborgenheit hervorkommen (1977f: 21, 2000b: 21–22). Although this “producing and presenting” is also constitutive of technē, as technics applied in arts and crafts in ancient Greece, in contrast, modern technology, as a scientific-technological mode of production, does not just let nature unconceal its secrets by itself, rather, it coerces all being to express its essence, to report its innermost details: scientific-technological rationality is a compulsory force that does not ask nature, but constrains and compels nature to lay bare itself. This notwithstanding, however, both technē and modern technology have a common grounding in that they are “ways of revealing, of alētheia” (1977f: 21).

But then again, the mode of alētheia in modern technology radically differs from that of technē: scientific methods are now the dominant manner of “revealing”; that is, modern science, as a – even the – result of Enlightenment reason materialized in the Baconian-Cartesian project of scientific rationality, finally leading to the rise of the natural sciences (see, for example, Butterfield 1997 [1957]; Pickstone 2000; Henry 2002 [1997]; Bowler & Morus 2005), is the condition of possibility of technology as the contemporary form of alētheia.

Accordingly, man’s ordering attitude and behavior display themselves first in the rise of modern physics as an exact science. Modern science’s way of representing pursues and entraps nature as a calculable coherence of forces. Modern physics is not experimental physics because it applies apparatus to the questioning of nature. Rather the reverse is true. Because physics, indeed already as pure theory, sets nature up to exhibit itself as a coherence of forces calculable in advance, it therefore orders its experiments precisely for the purpose of asking whether and how nature reports itself when set up in this way. (Heidegger 1977f: 21; emphasis mine)
This is the idea of what Heidegger (1977a [1938]) calls Weltbild, “world-picture”: nature, the whole realm of Being, appears as a “picture,” a scientific representation, an idea conceived of by means of conceptual reasoning, under the regime of scientific-technological reason (cf., for example, Seyhan 1991: 231–233; Chevalley 1992: 350–354; Pape & Burwick 1995); a mode of reason that materializes itself in experimental methods, in scientific experiments that in themselves constitute a technology, or, rather, a cluster of various epistemo-ontological technologies, that, in turn, are the condition of possibility of technology as a means of production distinctive about modern society in its broad historical sense, a society living under the supremacy of the machine (see, for example, Marx 1983 [1867]: 391–530; Gramsci 1971 [1929–1935]: 277–318; Sayer 1991: 59–86; Giedion 1948; Misa et al. 2004).

While, in Heidegger’s time, physics was still the leading science, in fact, the mathematical-theoretical model of scientific research at large, even of the idea of scientificality in itself (as cybernetics soon thereafter), what is the model of scientific innovation in the present is biology; though, not just as biology, but as a technological research and production method, as techno-biology ruling biotechnology, that has already turned into a technology in itself, a technology in the mode of economization of the entire biosphere: what are called the life sciences in the contemporary world constitute the paradigm not only of researching but producing life by scientific-technological means (see, for example, Stocker & Schöpf 1997, 1999; Clarke 1998; Bowring 2003; Keinan et al. 2004; Bauer & Wahlberg 2009; for a historical overview, see Magner 2002). Thus, what Heidegger (1977f: 23) says of “modern physics” as “the herald of Enframing” pertains to techno-biology today:

That nature reports itself in some way or another that is identifiable through calculation and that it remains ordeable as a system of information. This system is determined, then, out of causality that has changed once again. Causality now displays neither the character of the occasioning that brings forth nor the nature of the causa efficiens, let alone that of causa formalis. It seems as though causality is shrinking into a reporting – a reporting challenged forth – of standing-reserves that must be guaranteed either simultaneously or in sequence. (ibid.)

If, as Heidegger emphasizes, “enframing” as the framework of modern technology is in itself “nothing technological, nothing on the order of a machine,” but “the way in which the real reveals itself as standing-reserve” (ibid.), we come back to the question concerning the mode of being of the human being as a being that, similarly to other beings (whatever they are), is “challenged forth” by “enframing,” the contemporary condition of possibility of unconcealment,” of “revealing.”

Again we ask: Does this revealing happen somewhere beyond all human doing? No. But neither does it happen exclusively in man, or decisively through man. (ibid.: 24)

To avoid all misunderstandings concerning our “standing” in terms of Bestand, “standing-reserve,” Heidegger again reminds us that “[e]nframing is the gathering together that belongs to that setting-upon which sets upon man and puts
him in position to reveal the real, in the mode of ordering, as standing-reserve” (ibid.; emphasis mine). Therefore, there is no escape from “enframing”: we are always already “framed up” in our being framed by the framework of “enframing.” In Heidegger’s words: “As the one who is challenged forth in this way, man stands within the essential realm of Enframing” (ibid.; emphasis mine), [alls der so Herausgeforderte steht der Mensch im Wesensbereich des Ge-stells (Heidegger 2000b: 25; cf. Wolf 2005: 240–251).

This is what I mean by saying that the human being is now a subject-object, and, at the same time, an object-subject, whose very subjectivity in the contemporary world is increasingly determined not in terms of the subject, but by being an agent in the order of scientific-technological rationality; a mode of rationality that drives itself forward by itself. Agency, not subjectivity, is the position of the subject in the world ruled by “enframing,” the world under the regime of scientific-technological rationality. For this reason, as Heidegger says, the decisive question is “whether and how we actually admit ourselves into that wherein Enframing itself comes to presence” (1977f: 24), ob und wie wir uns eigens auf das einlassen, worin das Ge-stell selber west (2000ba: 25).

This “admitting,” this einlassen, is the question of questions concerning technology as the condition of possibility of, if not in itself, the mode of being of Being, Sein, the human being, Dasein, included, in the scientific-technological framework of “enframing.”

“Whether and how we actually admit ourselves into that wherein Enframing itself comes to presence” – that is the question concerning the cyborg, a hybrid form of being, the condition of possibility of which, in Heideggerian terms, is an advanced mode of “enframing” resulting from “challenging-forth” in the context of technoscience, the scientific-technological reason ruling the contemporary world.

This question concerns our destiny in terms of what Heidegger calls das Geschick, “destining” (1977f: 24). It is this “destining” that determines the position of the human being within the realm of “enframing” that, in turn, determines the essence of modern technology (to recall, in contrast to technē in ancient Greece). In Heidegger’s words, the “essence of modern technology starts man upon the way of that revealing through which the real everywhere, more or less distinctly, becomes standing-reserve” (ibid.; emphasis mine). It is in this manner that “destining” as “sending-that-gathers,” versammelnde Schicken, brings the human being upon the way of “revealing.” In Heidegger’s exact and pregnant words:


Enframing, as a challenging-forth into ordering, sends into a way of revealing. Enframing is an ordaining of destining, as is every way of revealing. Bringing-forth, poiēsis, is also a destining in this sense. (1977f: 24–25)
What is important here – from the long historical perspective – is that “bringing-
forth,” poiēsis, the mode of “revealing” at the times of ancient technē, is also a
“destining” in this sense. That is, as far away as modern technology, a manifesta-
tion of scientific-technological rationality constitutive of the modern, is, as such,
from the world of Greek Antiquity, nevertheless, it is close to technē, or is even a
derivation of it. From this perspective, which, in fact, is the very perspective of
the modern in its historical sense, we are confronted with a question that has
momentous consequences to the idea of the human in a world in which techn-
oscience determines the condition of possibility not just of all being, but of the
being of Being. If technē in terms of poiēsis implies not only the freedom of nature
to be nature, but a freedom of creation for the human being, a freedom to create
in the conditions of nature, is there still any form of freedom possible within the
realm of “enframing” in which all that is exists only as “standing-reserve”?

At first, Heidegger’s answer abandons all delusions: “The essence of freedom is
originally not connected with the will or even with the causality of human will-
ing” (ibid.: 25); that is, our freedom is not guaranteed by the freedom of the will
since freedom does not result from human willing, how much ever we want to
be free. Heidegger again defines the terms of freedom in his idiosyncratic Ger-
man wording: Die Freiheit verwaltet das Freie im Sinne des Gelichteten, d. h., des
Entborgenen (2000b: 26), “[F]reedom governs the open [das Freie] in the sense of
the cleared and lighted up, i.e., of the revealed” (1977f: 25). The keyword here is
“the open” which is chosen by the translator to render the sense of Heidegger’s
das Freie meaning “open air” or “open space.” In these terms, freedom stands,
according to Heidegger, “in the closest and most intimate kinship” to the “hap-
pening of revealing,” that is, “truth” (ibid.). In this sense, freedom is not human
freedom, it is the freedom of truth “happening” in the process of “revealing,” in
a process in which something to which we, as humans, have come to a relation-
ship, reveals itself.

All revealing comes out of the open, goes into the open, and brings into the
open. The freedom of the open consists neither in unfettered arbitrariness nor
in the constraints of mere laws. Freedom is that which conceals in a way that
opens to light, in whose clearing there shimmers that veil that covers what
comes to presence of all truth and lets the veil appear as what veils. Freedom
is the realm of the destining that at any given time starts a revealing upon its
way. (ibid.)

As we can see, in Heideggerian terms, freedom is not necessarily a human con-
dition. If there is freedom at all, it is possible only where an “unconcealment”
comes to pass, where truth takes place, in its own way.

The Self-Encounter of the “Lord of the Earth”

From the perspective outlined above, the question concerning freedom in the
realm of “enframing” is an absurd question from the very beginning: there can
be no room for freedom where the coercive power of Herausforderung, “bring-
ing-forth” by “challenging-forth,” reigns. But, paradoxically, because “enfram-
ing” as such “belongs within the destining of revealing,” we are in this way “already sojourning within the open space of destining, a destining that in no way confines us to a stultified compulsion to push on blindly with technology or, what comes to the same thing, to rebel helplessly against it and curse it as the work of the devil” (ibid.: 25–26). Quite to the contrary, “when we once open ourselves expressly to the essence of technology, we find ourselves unexpectedly taken into a freeing claim” (ibid.: 26).

But here again we encounter a dilemma. If, as Heidegger repeats, the “essence of technology lies in Enframing,” and its “holding sway belongs within destining” (ibid.), how can we avoid our becoming entrapped to its logic of coercive “unconcealment,” the logic of Herausforderung? This, indeed, is very difficult, as Heidegger himself points out:

Since destining at any given time starts man on a way of revealing, man, thus under way, is continually approaching the brink of the possibility of pursuing and pushing forward nothing but what is revealed in ordering, and of deriving all his standards on this basis. Through this the other possibility is blocked, that man might be admitted more and sooner and ever more primally to the essence of that which is unconcealed and to its unconcealment, in order that he might experience as his essence his needed belonging to revealing. (ibid.; emphasis mine)

Placed between these possibilities, “man is endangered” by nothing else than from out of very destining itself; and moreover, the “destining of revealing is as such, in every one of its modes, and therefore necessarily, danger” (ibid.). “In whatever way the destining of revealing may hold sway, the unconcealment in which everything that is shows itself at any given time harbors the danger that man may quail at the unconcealed and may misinterpret it” (ibid.). The danger here is that when “everything that presences,” alles Anwesende, exhibits itself “in the light of a cause-effect coherence,” the context of scientific-technological rationality, then, “even God can, for representational thinking,” “lose all that is exalted and holy, the mysteriousness of his distance” (ibid., 2000b: 27). “In the light of causality, God can sink to the level of a cause, of causa efficiens” (ibid.). Similarly, although nature presenting itself, through “unconcealment,” as a “calculable complex of the effects of forces,” can permit “correct determinations,” precisely due to this very correctness, “the true will withdraw” (1977f: 26).

This is precisely what I mean by the notion of the God principle, the driving force of scientific-technological rationality constitutive of the cyborg: the posthuman is the ultimate mode of being human, the human being in its anthropocentric hubris; a human-centered mode of thought that has turned into technomorphism in technoculture, which, in turn, has now elevated the human being to the natura naturans of all being bringing about all that embraces the natura naturata in terms of the posthuman (for the origin of the idea of creative and created nature, see Spinoza 1996 [1677]: 20–21; cf. Böhme & Böhme 1985 [1983]: 139–146, 2004 [1996]: 13, 34–50; Kashap 1987: 25–29; Lermond 1988: 6–8; Rothenberg 1993: 59–65; Bronner 1999: 267–268).
But where does what Heidegger deems as a "danger" come from? Nowhere outside, since *das Geschick der Entbergung ist in sich nicht irgendeine, sondern die Gefahr* (2000b: 27), "the destining of revealing is in itself not just any danger," but it is the "danger as such": "when destining reigns in the mode of Enframing, it is the supreme danger" (1977f: 26).

This, finally, is the destiny of the human being: to become in itself an inseparable part of this "destining of revealing" that happens in the mode of "enframing" and, as a result, turns all that is human into a "standing-reserve."

As soon as what is unconcealed no longer concerns man even as object, but does so, rather, exclusively as standing-reserve, and man in the midst of objectlessness is nothing but the orderer of the standing reserve, then he comes to the very brink of a precipitous fall; that is, he comes to the point where he himself will have to be taken as standing-reserve. Meanwhile man, precisely as the one so threatened, *exalts himself to the posture of lord of the earth.* In this way the impression comes to prevail that everything man encounters exists only insofar as it is his construct. This illusion gives rise in turn to one final delusion: *It seems as though man everywhere and always encounters only himself.* (ibid.: 26–27; emphasis mine)

Exalting itself to the “posture of lord of the earth” (cf. Zimmerman 1990: 28–31) – that is, at the same time, both the ultimate result and the guarantee of the anthropocentrism that manifests the metaphysics and nihilism inscribed in the Western conception of reason, the rationalism based on Platonism and Cartesianism that Nietzsche attempted to overcome (see Heidegger 1977a [1938], 1999 [1938/1939, 1946/1948]; cf. de Beistegui 1998: 76–79; Rockmore 1997 [1992]: 163–219; Philipse 1998: 273–290; in terms of “the will to technology,” cf. Kroker 2004b). This is the “Man” of which both Foucault (1989 [1966]) and Haraway (1991a, 1992a) are speaking in their particular terms, in their criticism of “Western” reason, the rule of *logos*; the former in the sense of power, the latter as the terror exercised by the “male” as the essence of “Man” (in terms of “the ends of man,” cf. Derrida 1984f [1972/1968]; from the perspective of “theoretical antihumanism,” cf. Althusser 2005 [1965]: 219–248; in the context of Lévi-Straussian anthropology, cf. Lévi-Strauss 1966 [1962]: 247). For both Foucault and Haraway, what is at issue here is the insidious manner in which reason excludes the “Other,” everything that does not conform to the conceptual register of reason. But, in Heideggerian terms, what makes Foucault’s and Haraway’s position problematic is that, while, for Heidegger, the key question concerns the being of Being, in contrast to that, Foucault and Haraway, differences notwithstanding, posit the human being as the centre of all being, of course, in negative terms, but, nevertheless, as an issue on which all other things depend.

In this sense, “Man” is the origin of all evil in the world, the very origin of all the miseries and calamities under which we are suffering. Therefore, the only conclusion is: “Man” has to be terminated.

Heidegger, however, sees the danger inflicted by the human being as the “lord of the earth” not in terms of the “Other,” but in terms of human beings in themselves embodying the idea of *der Mensch.* For what is it, in fact, that the human
being encounters encountering only itself? The very real of reality that is now nothing but a human construction: nothing but a second order “reality” that has come into being as a result of scientific-technological rationality manifested by what Heidegger calls “modern technology” in contrast to the technē in ancient Greece. But, as an ultimate cunning of reason, as Heidegger says:

In truth, however, precisely nowhere does man today any longer encounter himself, i.e., his essence. Man stands so decisively in attendance on the challenging-forth of Enframing that he does not apprehend Enframing as a claim, that he fails to see himself as the one spoken to, and hence also fails in every way to hear in what respect he ek-sists, from out of his essence, in the realm of an exhortation or address, and thus can never encounter only himself. (Heidegger 1977f: 27)

Instead, what the human being now encounters are beings that have come into being as a result of humanized nature, technology as a “second nature,” the paramount achievement of scientific-technological rationality as the apotheosis of human reason – human reason turned in itself into a gigantic Bestand, “standing-reserve,” within the framework of Gestell, “enframing.”

But as Heidegger reminds us, what is dangerous is not technology, and, as a corollary, the human being is not the central problem in the manner it is in Foucault and Haraway. “There is no demonry of technology, but rather there is the mystery of its essence”; and precisely this essence of technology, “as a destining of revealing, is the danger” (ibid.: 28). Therefore, the “threat to man does not come in the first instance from the potentially lethal machines and apparatuses of technology,” but, rather, the “actual threat has already affected man in his essence”: the “call of a more primal truth,” the possibility of a “more original revealing” (ibid.; emphasis mine), that of poiēsis, is no longer possible in the human world. “Thus, where Enframing reigns, there is danger in the highest sense” (ibid.; cf. Wolf 2005: 240–251; van Reijen 2008: 95–106; with regard to Jünger, cf. Morat 2007: 463–522).

Yet, this is not the final end, the end of everything, since, as Heidegger says in Hölderlin’s words:

Wo aber Gefahr ist, wächst  
Das Rettende auch.  
(Heidegger 2000b: 29, 35)

But where danger is, grows  
The saving power also.  
(Heidegger 1977f: 28, 34)

With these words, Heidegger intends to open up a perspective from which it becomes possible to see “enframing” not only as threat but as salvation: “precisely the essence of technology must harbor in itself the growth of the saving power” (ibid.: 28).

From the Heideggerian perspective, therefore, this is the destiny of the human being: only the cyborg can save us now.
6.3 “Modern Machinery Is an Irreverent Upstart God”


Friedrich Nietzsche (1967 [1880]: 271)

Life in this society being, at best, an utter bore and no aspect of society being at all relevant to women, there remains to civic-minded, responsible, thrill-seeking females only to overthrow the government, eliminate the money system, institute complete automation, and destroy the male sex.

Valerie Solanas (2006 [1967]: 1)

The more science develops, the more life becomes a matter of science (in both senses of the expression), and the more the difference between life and death becomes obscured. Life is no longer what it used to be. Life has now taken on a new meaning. Or rather, in the “postmodern condition” (Lyotard 1984 [1979]) understood in terms of the Weberian Entzauberung der Welt (Weber 1968 [1917/1919]: 612), a “disenchantment of the world,” effected by scientific-technological reason, there are only incommensurable “meanings” of life because in the contemporary plurality of lifestyles based on the economy of rationalized desires – that is, the logic of economism as the logic of productive consumption constitutive of the postmodern – life in itself has now only incommensurable meanings: “meanings” that, instead of meaning something specific, signify an unending heteroglossia of “free-floating signifiers” the sense of which is always – always already – ambiguous in a radical manner, the “radical,” of course, understood in terms of the “post” (see, for example, O’Hara 1992; Prosser 1995; Kay 1997; Terry & Calvert 1997; Stocker & Schöpf 1999; Waldby 2002; Kember 2003; Bajorek 2009).

As a consequence of the postmodern, which in itself is a consequence of the enormous affluence in the Western world, an ahistorical presentism as a “post-historical” celebration of the present, including the “present” future, dominates the theory scene of the “post” by means of what I call the politics of forgetting. That is, in terms of post-theory, the past has disappeared in the distant past of the past, a time that is beyond the “post,” as a result of which the difference between “then” and “now” has become unintelligible. In other words, the historicality of the present in its very historicity has evaporated in the theoreticality of the “post,” in its post-theoretical presentism: a “present” that is present in its absence, in the present futurity of the “post” – as we have seen, the futurity of endism constitutive of all that is “post.”

In this situation, the idea of difference disappears: difference implodes into an unending proliferation of differences, each of them different in themselves in the
mode of différance (see Derrida 1982 [1972]: 24–33, 39–47, 1984a [1972/1968]; cf. Stratton 1990: 16–20; Jay 1991: 99–102; Berger 1999: 110–120; Harvey 1986; Wood & Bernasconi 1988). Thus, never before has there been so much difference, implying so many differences, than in the contemporary world, the world of the “post”; that is, the postness of the “post” in its very postality has entirely redefined the idea of difference as a result of which not only is my difference “different” in “comparison” to your “difference” (which, of course, is no longer possible as comparison), but, more fundamentally, my différance is definitely incommensurable with your différance. As Mark C. Taylor (2007) says, we are now living in a world “after God” in which différance has taken the place of difference (ibid.: 305–312); that is, a world after the Nietzschean “death of God” (cf. Nietzsche 1968a [1883–1885]: 352–353, 1973a [1882/1887]: 158–159; Heidegger 1977b [1943]), a world living in a standing state of post mortem, an all-consuming “after,” a permanent “afterlife” that is here and now, in its very différance. In this world, aporia is our daily bread, which, of course, is intelligible in itself only in terms of différance.

It is this “afterlife” that is the very substance of the “post,” the “post” of both the postmodern and the posthuman. The “afterlife” in the sense of the “post,” however, is not an issue of temporality; rather, it is a matter of signification in which “meaning” (provided that there is still anything left over of it in the world of the “post”) is based on an unending différance, in its endless “difference” of the same intrinsic to the “post,” the “post” as the very signifier of radical sameness.

6.3.1 The Politics of Life in Terms of Death

It is in this manner that the clear distinction, still prevalent in the reactionary atheoreticality of everyday thought (which is but naive self-deception in the midst of an overwhelming excess of “posts”), between the living and the dead, has become an issue of liberating relativism in post-theory (in terms of ambiguities concerning “life and death in high technology medicine,” see Robinson 1994; for mortality and immortality in contemporary culture, see Bauman 1992; for “technological death,” see Williams & Bendelow 1998: 88–93; for “technologies of death and dying,” see Brown & Webster 2004: 134–160; for “postmodern dying,” see Morris 1998: 237–241). That is, death, like life, is a “free-floating signifier” in the world of the “post”: similarly to everything else, its “meaning” is an effect of discourse depending on the vocabulary that happens to be in use in this or that context. In other words, “meaning” has become entirely contextual in the unending plurality of “meanings” enabled by the all-consuming relativity of the “post.”

Yet, one question still remains: how do we know when this fundamental change of epistemology, the transition to the paradigm of the “post,” pertains to the meaning of life and when to life itself? Or, is precisely this difference just a delusion, a Harawayan “optical illusion” (Haraway 1991a: 149), a stubborn remnant of the past? Three examples may illuminate the problem (provided, of course, that it is today a problem at all):
Agriculture is now a motorised food-industry – in essence the same as the manufacturing of corpses in gas chambers and extermination camps, the same as the blockading and starving of nations, the same as the manufacture of hydrogen bombs. (Heidegger 1994a [1949]: 27; translation and emphasis mine)

Now that certain analogies of behavior are being observed between the machine and the living organism, the problem as to whether the machine is alive or not is, for our purposes, semantic and we are at liberty to answer it one way or the other as best suits our convenience. (Wiener 1968 [1950]: 31; emphasis mine)

Late twentieth-century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines. Our machines are disturbingly lively, and we ourselves frighteningly inert. (Haraway 1991a: 152; emphasis mine)

As we can see, from the Second World War to the height of the Cold War in the 1980s as an era dominated by the disappearing of the difference between military and scientific interests, the difference between the living and the dead increasingly became indeterminate and ambiguous, even undefinable. This was the era of what Philip Mirowski (2002: 9–10, 29) calls “the rise of cyborg sciences” as “the sciences of life in the service of death” (ibid.: 54–55, 157–158; cf. Dillon & Reid 2009; in terms of “the rational world of defence intellectuals,” cf. Cohn 1987).

The Cyborg as the Technoscientific Epitome of Radical In-Difference

This confusion concerning clearly definable differences notwithstanding, it is appropriate to ask what precisely is it that Heidegger, Wiener and Haraway are speaking about? Are they speaking about the same matter? Or, by speaking about the disappearance of the difference between living beings and machines, are they speaking about different issues, and, if, where are the differences between their statements, all of them pertaining to the world ruled by the machine?

Whatever the similarities or differences between these three statements otherwise are, there is, to begin with, a significant difference in terms of the approach taken by, on the one hand, Heidegger, and on the other, Wiener and Haraway: Heidegger speaks behind a mask, he has “adopted” the discursive role, the position, of the discourse which he criticizes, namely, the techno-optimist discourse peculiar to the scientific-technological rationality constitutive of the modern that obliterates the differences between different matters, most clearly represented by the language of cybernetics (see Heidegger 1986 [1970/1966–1967]: 25–33, 2000h [1965]: 622–623, 626, 2006b [1959–1969]: 24–25, 118–120, 160; Wolf 2005: 243–247; for a contextualization, see Young 1997: 171–213). In contrast, both Wiener and Haraway speak in their own voices, but they share the same discourse, precisely the technomorphist language of cybernetics criticized by Heidegger. Yet, there is also a difference between Wiener and Haraway: while cybernetics is

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101 As we remember, in the original the sentence reads: “Ackerbau ist jetzt motorisierte Ernährungsindustrie, im Wesen das Selbe wie die Fabrikation von Leichen in Gaskammern und Vernichtungslagern, das Selbe wie die Blockade und Aushungerung von Ländern, das Selbe wie die Fabrikation von Wasserstoffbomben” (Heidegger 1994a [1949]: 27).
for Wiener – the founder of the whole discipline – a serious matter, for Haraway it is a postmodern linguistic game which she plays with a certain irony, an irony that is as ambiguous as the mythopoetic figure of the cyborg created by her (see Wiener 1961 [1948]; Haraway 1991a: 149–155, 1997: 148–157, 2000a: 171–172).

In short, while Heidegger (2000c [1966/1976]: 674, 2000h [1965]: 622–623, 626, 1999 [1938/1939, 1946/1948]) is deeply concerned about what he calls the “metaphysics” and “nihilism” implied by cybernetics, and while Wiener (1968 [1950]) attempts to humanize cybernetics in opposition to the politics of the military-industrial complex (for Wiener’s humanism, see, for example, Day 2001: 40, 50–52; Ramage & Shipp 2009: 23), Haraway’s cyborg politics reflects a “certain emotional distance,” an “ironic or ‘cool’ relation to contemporary culture” peculiar to “postmodern theory” (Fortier 2003 [1997]: 178; in terms of “a rhetoric of laughter,” cf. Davis 2000; in contrast, for the specific humanness of the cyborg as the “laughing Third” manifesting the “ex-centric position” constitutive of being human, cf. Spreen 2000, 2010).

In each of these cases, however, the common denominator is the problem of difference in the sense of distinction. In other words, what is at issue here is the question concerning the liminal: in order to make distinctions, and thus to enable conceptual differences, it is necessary to be able to discern one thing from another; that is, to draw a line between the same and not the same. But how do we tell the difference, particularly in a world in which difference is dissolved in unending proliferation of différance? This is the problem of the liminal pertaining to the in-between space of liminality, the boundary zone between the same and not the same; that is, the ambiguity and indeterminacy that is characteristic of the non-identical as the basis of difference (in terms of Adornian negative Dialektik, see Adorno 1970 [1966]; for the idea of the liminal in the postmodern, see D’haen & Bertens 1994).

In the world on the “post,” the cyborg is the paradigmatic boundary figure, the very paragon of the non-identical in the sense of the liminal not only between, but also within the differences of differences. As productive as the figure of the cyborg is in post-theory in terms of subversive thinking, even in the manner of thinking the unthinkable, the politics of theory in the name of the “post” simultaneously implies a radical in-difference that it is not able to question itself (cf. Baillie & Casey 2005). The problem is that the playful relativism typical of the “post” – the cyborg is “this” and the cyborg is “that” and there are no differences between them – has obliterated the possibility of thematizing the figure of the cyborg, as Dierk Spreen (2006: 603) says, as a reflexiver Begriff, “reflexive notion,” enabling the consideration of the intrinsic hybridity of the human being as a “natural-technological” being by its primordial constitution (for a historical contextualization in terms of the “reflexive modern,” see Spreen 2004); that is, the human being as a mode of being that is from the very beginning, always already, in its anthropological specificity, a product of its relations to technology as its “second nature”; in other words, a result of Derridean “orig-

Rather than being an analytical notion, the cyborg is a post-political theory-fiction typical of post-theory in order to subvert differences in the name of “bina-
rities,” the *radix omnium malorum*, the root of all evil, in postmodern academia. But subversion is not necessarily reflection; this is precisely the problem of the “post,” the problem of *de-differentiation* constitutive of the logic of the “post.”

In its claim of deconstructing the idea of “binary oppositions” (see Haraway 1991a [1985]: 163, 1991c [1987]: 130; cf., for example, Doane 1989: 209–210; Cher-
rida 1981c [1972/1968]: 95–117, 121–122; Hobson 1998: 63–77, 84–85, 99–109), the figure of the cyborg has effaced the very idea of difference and thus the notion of distinction as the premise of difference, and, as a consequence, it has constructed a new universalism: the universalism of scientific-technological reason that is the condition of possibility of the cyborg in the first place; the mode of reason that is the hard core of the postmodern.

In the postmodern world, we live in the conditions of “unending war” (Duffield 2007) that is the precondition of globalization: the expansion of the political economy of neoliberalism based on the imperative of scientific-technological reason, the universal reason of capitalism. It is in this world that the *limes*, the border line constructed against the “barbarians,” constitutive of the power politics of the Roman Empire (see Ellis 2011: 245–247), has turned into an omni-
present divide *within* every area of the globe: the power of capital does not rec-
ognize any border lines, any limits and limitations. That is, the barrier between “us” and “them” is now everywhere. For this reason, the question concern-
ing the liminal, in all its senses and dimensions, is a vital political issue in the contemporary world. And precisely for this reason, the notion of distinction is indispensable in order to understand, to apprehend and comprehend, the lim-
inal that constitutes the *limes*.

Nowhere is the question of the liminal as decisive as at the ultimate *limes*, the limit between life and death, that is, the terminal point in its literal sense, the point of no return. What in everyday life is an unambiguous issue of either-
or has become an ambiguous matter of both-and in the realm of technosci-
ence (for the beginning of this development as a result of the Second World War and its acceleration during the Cold War, see, for example, Sclove 1995: 232–238: Best & Kellner 2001: 100–104; from the perspective of the economics of science, see Mirowski & Sent 2002; Mirowski 2011). The differences between animate and inanimate, organic and inorganic, even between living and dead, have become extremely complicated to the extent that not only indeterminacy is intrinsic to the objects of technoscience, but, more fundamentally, the Der-
ridgean undecidable is the decisive difference of entities in which the difference

This is the world of the cyborg. To recall, the cyborg, according to Haraway (1991d: 1), is a subversive figure intended to question and contest Western “master narratives” that are “deeply indebted to racism and colonialism”; in this sense, the cyborg is “an illegitimate and frightening sign” in the service of a “cyborg’ feminism” (ibid.; in the context of Haraway’s rereading of the history of primatology, cf. Haraway 1989: 58, 109, 117, 137–141, 146, 156, 353, 355). But then the question arises: what makes the cyborg specific as a feminist figure if its condition of possibility is the very same technoscience it attempts to deconstruct in the first place? That is, where precisely is the feminist standpoint in Haraway’s definition of the cyborg, the standpoint that would make the difference necessary to make a difference? In other words, what is it that Haraway is saying when she defines the cyborg, for example, as follows:

A cyborg is a hybrid creature, composed of organism and machine. But, cyborgs are compounded of special kinds of machines and special kinds of organisms appropriate to the late twentieth century. Cyborgs are post-Second World War hybrid entities made of, first, ourselves and other organic creatures in our unchosen “high-technological” guise as information systems, texts, and ergonomically controlled labouring, desiring, and reproducing systems. The second essential ingredient in cyborgs is machines in their guise, also, as communications systems, texts, and self-acting, ergonomically designed apparatuses. (Haraway 1991d: 1; for a genealogy of the cyborg in terms of the “experimentalization of life,” cf. Ruf 2001; for an “anthropology of the cyborg” as a non-posthuman being, cf. Spreen 2010: 171–175)

While the machine is both a sine qua non and a differentia specifica in all Harawayan cyborg definitions and its derivatives in post-theory (see Haraway 1989: 136–141, 146, 156, 355, 1991a: 149–153, 1991d: 1, 1991h [1989]: 212–213, 1997: 12–14, 51–52, 172, 2000a: 128–129, 2004; cf. Schneider 2005), in other respects cyborgs can be anything, provided that they are hybrid constructions in which parts are heterogeneous and contingent so that they do not make up a coherent whole (see, for example, Gray et al. 1995b; Kirkup et al. 2000; Gray 2001; Zylinska 2002b). But what is decisive here is that in Harawayan cyborg narratives, “woman,” like “machine,” has always a privileged position because it belongs to “odd boundary creatures,” a postmodern non-category consisting of “simians, cyborgs, and women,” all of which “have had a destabilizing place in the great Western evolutionary, technological, and biological narratives” (Haraway 1991d: 2). These “boundary creatures are, literally, monsters,” creatures that are able to “demonstrate,” and it is in this manner that “[m]onsters signify” (ibid.; cf. Lykke & Braidotti 1996b: 246–249; Bryld & Lykke 2000; Zylinska 2001; Flanagan & Booth 2002). This is the difference of the difference constitutive of the cyborg as a feminist figure: it is a “boundary creature” the specificity of which is its undecidable liminality, its unending indeterminacy.
In Derridean terms, this difference is a moment of *différance*, a mode of difference in which all differences are *always already* disrupted as soon as they appear; an instance of self-differentiating difference enabled by unending *différer*, meaning both to defer (to delay, to postpone, to put off in time) and to differ (to deviate, to be dissimilar, to move on in space), simultaneously referring to deferment and differentiation, a process bringing about both differing and deferring, difference and deferral (see Derrida 1984a [1972/1968]).

In this sense, the cyborg is a postmodern figure the specific difference of which is that, in the final analysis, it always, *always already*, escapes definition: it is the paragon of the undefinable. But if this is the *differentia specifica* of Haraway’s feminist cyborg, it is a figure that in itself deconstructs its specificity: in the world of the cyborg, everything is liminal; as Haraway (1991a: 150) says, since “the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism” (emphasis mine). Whatever or whoever this “we” refers to, in the Harawayan cyborg world the “we” is all-inclusive: nothing and nobody is left outside the process of cyborgization – or else the term loses its ability to make a difference precisely in its Harawayan sense.

In this manner, as a postmodern *universal* category, the Harawayan cyborg is a scientific-technological embodiment of *un-differentiating difference*, a technoscientific creature that is never what it is: the cyborg is an aporia in itself, it disrupts not only all the categories of being, but, more fundamentally, it decomposes, disintegrates and dissolves the very idea of Being in the Heideggerian sense. If the cyborg is a thesis it is an antithesis of definition: it is beyond the very definable, it exists in the realm of a post-Derridean undecidable, in the spheres of the “high” effected by post-theory, that is, beyond philosophical reflection. Disruption, displacement and destabilization constitute the pleasure of the cyborg, the *jouissance* of transgression that is its driving force. In this sense, the cyborg celebrates the affective multiplicity of the “post” (see Clough & Halley 2007; in contrast, for the *persistence* of differences in the sense of their continuous shifting and deferral in cyborg constructions, see Spreen 2006, 2010).

But then again, in these terms, what is actually cyborg feminism if not a postmodern legitimation narrative of itself, and, as such, a legitimation narrative of the appropriation of female bodies by the scientific-technological complex constitutive of what are called the *life sciences* (see, for example, Doyle 1997: 21–23; Clarke 1998; Jasanoff 2005; Cooper 2008; Bauer & Wahlberg 2009; from a theory-historical perspective, see Canguilhem 1988 [1977], 1989 [1943/1966], 1992 [1952]; Foucault 1989 [1966], 1994b [1963]; Rheinberger et al. 1997; Rheinberger 2009). “Monsters signify,” indeed, this can be seen in Haraway’s theory world. The problem, however, is that in terms of the “post” they can signify anything, and, accordingly, if they signify anything they signify nothing in the last instance: nothing that could make what Gregory Bateson (2000 [1972]: 315, 381, 459–465), in his definition of information, designated as “a difference which makes a difference”; in other words, the linguistic figures constitutive of Harawayan "mon-
sters” signify, due to their postmodern excess, in a manner that does not allow for any conceptual distinctions that are necessary for a notion to be valid as a means of analysis, as a reflexive notion, that brings about relevant knowledge; that is, knowledge that is more than just plain linguistic figuration, knowledge that is substantial for the understanding of the world as it is – “as it is” in its real historicity (which, of course, simply does not exist in terms of the “post”).

This is the aporia of the Harawayan cyborg: in its universalism, the universalism of in-difference, the cyborg does not make a difference; what it makes are effects of differences in their unending dissemination of undifferentiating differences in the manner of post-theory. In other words, the Harawayan cyborg is an embodiment of the logic of the “post,” the logic of radical in-difference specific to the postmodern, and, consequently, due to its conceptual universality (“we are all chimeras,” as Haraway postulates above), the cyborg is a non-feminist category, a non-differentiating notion that defies distinctions that are able to make a difference.

A Short History of the Postmodern

Dissemination and proliferation of de-differentiating in-difference resulting in the disappearance of distinctions – that is the issue I am pursuing here: in the Lyotardian “postmodern condition” (if it is more than just another Lyotardian “linguistic game”), it is no longer possible to say what one means and to mean what one says: “meaning” has now its own logic, the logic of the “post,” the logic of signification that functions in terms of the linguistic of language, not in terms of the speaking subject: an utterance is no longer the utterance of the subject (for example, Haraway in “her” cyborg writing), but, on the contrary, the subject is now an utterance of language (see, for example, Merquior 1986: 139–142; Culler 1988: 121–127; Harland 1991: 63–66).

In this situation, the whole notion of difference turns into another linguistic game, a non-differentiating game of various perspectives, definitions and conceptualities which are not necessarily compatible with one another (in terms of Nietzschean “perspectivism,” cf. Nietzsche 1968c [1887]; Nehamas 1985: 1–8, 20–21, 45–50, 64–73; Haber 1994: 4, 17, 32, 48, 51, 74, 119–130; Cook 1999: 78–91; Solomon 2003: 35–48, 60–63; Lyotard 1984 [1979]; for the influence of Nietzschean perspectivism upon Haraway’s cyborg theory, see Conway 1997: 128–132). As a consequence, both life and death now appear in themselves as heterogeneous and contingent instances of an undecidable post-Derridean undecidable (in contrast, cf., for example, Derrida 1981c [1972/1968]: 138, 1981d [1972/1970]: 213, 219–220, 261, 1982 [1972]: 46, 2000 [1988]: 103, 116; Norris 1987: 35, 42, 56, 88; Howells 1993: 141–144; Nealon 1993: 16–18, 36–39). In the end, life and death are transformed into theoretical abstractions that no longer have anything to do with living beings that we can encounter in our life-world, in our concrete everyday life – concrete in the sense of life as a lived experience, the life of humans, animals and plants, organic life as the mode of being of our living environment and ourselves (provided, of course, that there is still something that can be
called “concrete life” after the disappearance of “real life” as a consequence of the all-consuming logic of the “post,” the logic of radical in-difference).

In contrast to the world based on organic life, the world ruled by the scientific-technological rationality constitutive of the cyborg is a world in which, as Haraway (1991a: 152) says, “[o]ur machines are disturbingly lively, and we ourselves frighteningly inert.” As we can see, here the experience of a living subject, a unique self in its particular life-world, the whole idea of being alive, has imploded in abstract terms of scientific-technological rationality (in terms of abstraction and the inversion of subject-object relations in postmodern capitalism, see Best & Kellner 1997: 51–57), the same rationality that is constitutive of the military industrial complex and the subsequent paradigm of technoscientific warfare (see Bousquet 2009; for the scientific-technological rationality of the American nuclear war scenarios, see Kahn 1960, 1962, 1984; cf. Ghamari-Tabrizi 2005; for the rational language of American “defense intellectuals,” see Cohn 1987; in terms of “Cold War rationality,” see Erickson et al. 2013). This is a world in which machines not only are about to adopt the power to define life (the “meaning” of life), but they are also turning in themselves into “living beings” in some new sense, a “sense” intelligible only in terms of the “post” (see, for example, Terry & Calvert 1996; Haraway 1997; Sofoulis 1998, 1999 [1992], 2002; Wolmark 1999a; Kirkup et al. 2000; Flanagan & Booth 2002), and, as a consequence, this “we” that used to be “ourselves” no longer has anything to do with the “we” which we are as ourselves: we ourselves have disappeared since the “we” no longer makes any difference.


If life is no longer definable as a distinct notion (as hypothetical as it ever might be), in terms and categories that are able to make differences by distinguishing things, entities and modes of being from one another, what, then, about death, death in its very terminal sense? That is, if life in general and human life in particular no longer means anything specific, anything that could make sense as life, what can the meaning of death be under these circumstances? At least it is obvious that the more science develops, the easier it is to produce death and administer life (cf. Foucault 1990k [1976]: 139–144) – even without knowing what life in itself is. In this situation, science becomes a politics of life and death, or a politics of death in terms of life (cf. Dillon & Reid 2009). This is not science fiction (provided, of course, that in the world ruled by the “post,” it is still possible to make a difference between “science” and “fiction” in the first place).
Certainly, from time immemorial life has been a matter of the politics of death: even what we call “natural death” is more often than not related, in one way or another, to the conditions of life under which death takes place. And the twentieth century, what was that if not a long triumphal procession in the name of the politics of death, exercised by the means of scientific-technological ingenuity defining the parameters of life, a politics of life determining the extermination of “unworthy” life, life “unworthy” of living, life deemed to be “useless” or “inimical” to the living according the prevailing standards (see, for example, Bauman 2002: 87–117, 1991 [1989]; Lemke 1997, 2007; Agamben 1998 [1995]; Bröckling et al. 2000; van den Daele 2005): the politics of death constituted the politics of life in the twentieth century (cf. Friedlander 1995; Valentino 2005; Moses 2008), a “culture” in which it was “normal” that death was “exalted in the service of the state” (Latouche 1993 [1991]: 213). In this sense, death was the great master in the “Age of Extremes,” the “short twentieth century” (Hobsbawm 1994). The Gulag, Auschwitz, Hiroshima and Vietnam – each in their specific manner are monuments of the reason constitutive of the modern, laboratory experiments implemented according to the guiding principle of the politics of death: in order that these here can live, those there have to die.

Under these conditions, what is called “the standard of living” is one of the most cynical terms in the vocabulary of “Western civilization,” a “civilization” that invented the extermination of “worthless” and “useless” people by means of eugenics, euthanasia and genocide (cf., for example, Burleigh 1997; Totten et al. 2004). That is, discrimination and exclusion are the keywords of the twentieth century, the era of scientific-technological reason.

This is the history of the postmodern, and this history is not over; the new era of posthistoire, the timeless time “after history” (see Niethammer 1989), has not began (whether it ever will, is another matter). For this reason (“reason” here in its double sense), we are still living in the twentieth century, in a world in which nightmare is everyday reality and in which all kind of futurological scenarios and post-utopian utopias are but ever-new instantiations of the same, the politics of in-difference.

It is in this context that what Haraway (1991a: 149) calls “blasphemy” constitutive of the cyborg takes on a new meaning: the cyborg, the prosthetic God of the postmodern as an apotheosis of self-deification of the human being, enjoys the jouissance of auto-affective blasphemy in the sense of the self-abolition of the human being (in terms of emotion after the “death of the subject,” cf. Terada 2001: 24–31), a cyborgian self-negation of the human in the name of the posthuman in its unbounded faith in the limitless omnipotence of technoscience.

However, in view of the colossal inhumanity of the contemporary global order, do we really have reason to believe that the world has become a better place to live after the coming-to-the-world of the cyborg?
The Political Economy of Death, or, the Smiling Face of the Cyborg

While throughout the whole twentieth century the mass production of death by means of ever-new achievements of science and technology was the reverse side of growing welfare, in the contemporary global post-Cold-War era peace implies a continuation of war by other means: war is built-in in the order of global capitalism, the order of economism based on scientific-technological rationality enabling the economization of life in terms of death (for the Iraq War as a paradigmatic example, see Schwartz 2008). Life defined in terms of death is the hard core of the political economy of neoliberalism, the political regime of globalization under which the production of death is the very condition of possibility of life: life as a privilege of those who are able to afford it (in terms of “hypercapitalism,” cf. Graham 2006). This is the real background of the postmodern behind the theory-fictions pertaining to the new order of life in the mode the cyborg and the posthuman. Our luxury is based on a global machinery of death; our security is bought by the blood of others. In other words, the political economy of death as the biopolitical regime of what Haraway (1997: 57–58, 100, 114, 212) calls the “New World Order, Inc.” is the very precondition of the politics of life in our security zone on this side of the limes: in the enclave of prosperity of the Western world.

These are the real conditions of what Lyotard (1984 [1979]) calls the “postmodern condition.” In this context, it is self-evident that “modern machinery is an irreverent upstart god” (Haraway 1991a: 153).

Because the reality of war as the real extermination of real human beings has no meaning in post-theory, there is no death in terms of the “post”: the difference between life and death has disappeared. Instead, post-theory is a world of spectacular theory-fictions in which difference is a matter of options in terms of what Haraway (1991a: 152) calls “the play of writing and reading the world,” and, therefore, “[c]ontests for the meanings of writing are a major form of contemporary political struggle” (ibid.: 174). “Meanings of writing” as the “major form” of politics – that is now the only criterion for deciding between the living and the dead. This is the idea constitutive of the politics of life in terms of death, the politics of the “post” as a post-political politics playing with the “meanings” of “the political.” Consequently, from the Harawayan standpoint, writing is the only thing that counts: writing is the essence of life. Thus, writing here, death there, it does not make any difference: in the world of undifferentiating difference, death does not make sense. If, in general, the finality of death does not comply with the algorithms of human reason (cf. Heidegger 1977d [1927]: 335–354), it is entirely impossible to be understood by means of post-theory: death is beyond the “post.”

This, of course, is not an issue of what is called a “vacuum of values” in everyday language; this is simply a question concerning the most rational way of implementing the logic of reason, a logic that recognizes only the rational in itself. If values have value in general, reason does not speak the language of values; reason speaks the language of interests. This is the language of the cyborg, the language of the posthuman: the language of de-differentiation, the language...
of in-difference (cf. Lash 1990b: 11–15, 173–174, 1999: 11–15, 44–45, 57–58, 127–128, 134, 268; Nash 2001: 2, 25–26, 95–96, 116–118, 166–176, 252). That is, the logic of the “post” recognizes only one value, the value of money, as the hard core of the post-ethical ethos of economism, the basic value of financial capital, the value that is constitutive of the political economy of neoliberalism as the driving force of globalization (see, for example, Martin 2002, 2007; Harvey 2007 [2005]). In other words, we are now living in a world ruled by what David Harvey (2005 [2003]) calls “the new imperialism.”

In this situation, death is a political question without any answers, and, consequently, dying goes on and on in accordance with the paradigm of postmodern politics according to which killing is a scientific-technological procedure and survival the privilege of those who can afford it.

This is business as usual in the world of the “post” enabled by the political economy of neoliberalism, the economic order of globalization: nobody knows the meaning of meaning any longer since difference no longer makes any difference. What there is are only what in American military jargon are called “standard operating procedures” (see, for example, Caldwell & Mestrovic 2010: 90–92; in terms of “cybernetic warfare,” see Bousquet 2009: 121–162; for strategic thinking based on cybernetics, feedback and adaptation to environment, see Oisinga 2007: 72–103). This is a world in which “war as business” (Krishnan 2008) has effaced the differences between war, business and politics (for “the re-enchantment of war in the twenty-first century,” see Coker 2004); a world in which the highest form of reason is the rationality of computer algorithms, the very reason of postmodern rationality: the reason of commodification, market forces and productive consumption; in other words, the reason of global war as a form of peace peculiar to the world of the postmodern.

What has happened in this world is that, as a consequence of the scientific-technological management of life in the power constellation of globalization, a radical anonymization of death has become the invisible reverse side of the spectacular politics of life as the technoscientific politics of the cyborg.

Yet, death as death is still there in real life, persistently, regardless of whether or not it has any meaning as death; and the more well-being proliferates, the more untimely death is a hard fact of life for the unprivileged: in order that these here can live, those there have to die.

From the Korean War to the Cuban Crisis, and everything that followed from the Vietnam War until to Ruanda and Chechnya, Srebrenica and Darfur, Afghanistan and Iraq, the whole military-political complex ruled by the economic interests of global capitalism (the USA in the Near East, China in Africa, Russia in the Caucasus and the Black Sea region, and so on, and so forth), the military-political order of global power politics based on a redefinition of life in terms of death; the death zone embracing the Middle East, from the lethal conflict between Israel and the Palestinians to the daily death in Afghanistan, Iraq and Syria— it is always the
same: *war is peace, peace is war*. Globalization implies a state of “permanent war” (see, for example, Burke 2007: 212–236; Denzin & Lincoln 2003; Amin 2004; Dal Lago & Palidda 2010; in terms of the militarization of American science, see Leslie 1993), an everyday war in which those there have to die, in order that these here can live. That is, life in the contemporary world means spectacular affluence, provided that one happens to live in the right place, in those areas of our “Blue Planet” in which the cyborg shows its smiling face (high-tech medicine, food industry implementing scientific-technological methods, procreation as a laboratory science; see, for example, Lamberton 2002; Baer et al. 2003; Harvey 2005 [2003]; Albritton et al. 2010). The reason of the modern, ruling the Western world, has lost nothing of its efficiency and productivity, and nothing of its ability to make clear-cut distinctions even by obscuring differences.

In these terms, linguistic games in the manner of post-Derrirean *différance* is something one can afford in a world in which difference has no meaning. In other words, the “post” is the name of the game that enables to interpret the facts of life out of existence by theorizing them as effects of undifferentiating *différance*.

But unlike the idea of difference, the idea of interest has not lost its meaning. Interests are not “free-floating signifiers”; interests are hard facts, as hard as death. Spectacular possibilities here, the equality of nothingness there. The value of life has more value than ever here, but life is as cheap as death there. This is the sound of the “post,” the sound of post-reason celebrated by post-theorists in the ecstasy of “free-floating signifiers” enabling the *jouissance* of theory-euphoria enjoyed by postmodern academia in the virtual reality of language.

*Where differences are deconstructed, there differences disappear* – that is the logic of the “post,” the logic of in-difference. Wherever you turn your head the conclusion is always the same in the world of the “post”: ours is a world in which, as the theorists of the “post” time and again assure us, it is no longer possible to make clear distinctions because there are only indifferent differences as unending instantiations of *différance*, “differences” all of which are incommensurable with one another (for a critique of postmodernism and the postmodernization of Derrida, see Norris 1990, 1992, 1993, 1997): your difference is not necessarily my difference, but it does not matter, because in any case *my* difference is different in terms of *différance*. Accordingly, the very idea of difference evaporates in different differences which are in-different in their mutual difference in terms of *différance*. This is the post-logical logic of post-theory, a splendid logic in its spectacular in-difference.

In other words, as soon as the cyborg appears differences disappear: differences dissolve in in-difference. As Haraway proclaims:

> Late twentieth-century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines. (Haraway 1991a: 152)
Transposed to the linguistic register of the “post” in the mode of post-theory, this is the language of cybernetics, the machine language having its origin in the American war enterprise during the Second World War, the language of the military-industrial complex after the war, the language of information, communication and control theories amounting to cybernetics as the paradigmatic science during the constitutive years of the Cold War, and the language of engineering sciences dominating both American technology and biology through the late twentieth century until today (see, for example, Levidow & Robins 1989a; Edwards 1996; Hughes & Hughes 2000; Kay 2000; Gerovitch 2002; Mindell 2002; Mirowski 2002; Hammond 2003; Light 2005 [2003]; Bousquet 2009; Dillon & Reid 2009; in terms of “social engineering,” see, for example, Podgórecki et al. 1996; Thompson & Findlay 1999; Etzemüller 2009; Jordan 2010). This is the language of the cyborg. It is in this language that difference does no longer make any difference.

From the Cynical Reason to the Reason of the Surrational

If one cannot make a difference between a machine and a human being, what does it mean? Does it mean anything? Does it make any difference if what you have in your head is a brain or a computer, or if your hand is an organic part of your body or a prosthesis? Should one take these questions seriously or rather, just in the Harawayan manner, as another linguistic game in the name of in-difference? For example: “Communications sciences and biology are constructions of natural-technical objects of knowledge in which the difference between machine and organism is thoroughly blurred; mind, body, and tool are on very intimate terms” (Haraway 1991a: 165; cf. Paulson 2001: 94–97; Hassan 2004: 95–99). If this is to be taken seriously, we are living in a world in which being human no longer makes sense and, consequently, life and death have lost their meaning since we are machines which either function properly or have become defunct and are thus discarded as useless.

Hence, it is not surprising that in Haraway’s cyborg world, even the development of nuclear weapons is just a matter of playing with language in a manner that in its techno-euphoric enthusiasm amounts to a postmodern version of Cold War rhetorics (cf., for example, Edwards 1996: 2–3; Åsberg 2009: 29; Farish 2010: 148–153; Medhurst et al. 1997; Medhurst & Brands 2000; Robin 2001; for the Cold War and American science, see Leslie 1993; Soleyvey & Cravens 2012):

Cyborg unities are monstrous and illegitimate; in our present political circumstances, we could hardly hope for more potent myths for resistance and recoupling. I like to imagine LAG, the Livermore Action Group, as a kind of cyborg society, dedicated to realistically converting the laboratories that most fiercely embody and spew out the tools of technological apocalypse, and committed to building a political form that actually manages to hold together witches, engineers, elders, perverts, Christians, mothers, and Leninists long enough to disarm the state. Fission Impossible is the name of the affinity group in my town. (Affinity: related not by blood but by choice, the appeal of one chemical nuclear group for another, avidity.) (Haraway 1991a: 154–155)
Of course, Haraway is not a Cold War theorist (cf., for example, Appy 2000; Mirowski 2002; Amadae 2003; in terms of the postmodern, cf. Cordle 2000; from the perspective of American everyday culture in the era of the Cold War, cf. Colomina et al. 2004), but her ironic and parodic cyborg language continues, in a playful form, by means of the “post,” Cold War rhetorics epitomized by Herman Kahn’s visionary writing in which relentless scientific-technological enthusiasm, cynical calculation and science fiction amalgamate in an ultrarational apotheosis of the thinkability of “the unthinkable” as the title Thinking about the Unthinkable (Kahn 1962) of his doomsday epos of the possibility of surviving a thermonuclear war indicates (see also Kahn 1960, 1984; cf. Ghamari-Tabrizi 2005; for a paradigmatic literary manifestation of the Cold War mode of thought as a meta-level of the Second World War, see Pynchon 1973; cf. Weisenburger 2006 [1988]). In this sense, Kahn’s mode of writing theory in terms of the techno-imaginary anticipated, in its own way, postmodern theory discourse around the figure of the cyborg.

The Lawrence Livermore National Laboratory, one of the most important research and production sites in the scientific-technological constellation of the American military-industrial complex (see, for example, York 1989 [1976]: 11, 78, 87, 121–125, 131–135; Bookless 1995; Gusterson 1996; for a contextualization in terms of science, money and politics, see Greenberg 2001; for the eminent position of the Rand Corporation think thank in Cold War America, see Edwards 1996: 86–103, 113–132; Mirowski 2002: 309–369; for a comprehensive overview, see Abella 2008; from the perspective of the systems approach, see Hughes & Hughes 2000), is a postmodern playground for a hilarious politics of words for Haraway – in the hope that this kind of linguistic game can advance resistance against nuclear weapons even after the Cold War, in a situation in which nuclear weapons are more dangerous than ever because of their having escaped from the constraints of international control. In this respect, one cannot but ask: is the linguistic play constitutive of post-theory just naivete or an example of what Peter Sloterdijk (1983a, 1983b) calls “cynical reason”? In a genuinely postmodern manner, it is both, since in the world of the “post” it is no longer possible to make a difference between cynicism and naivete.

In-difference is now the very condition of possibility of “difference” in terms of post-Derridean différance, the spirit of the game in post-theory. This is the logic of the “post” as the “theoretical” context of the in-difference of difference. What does this mean? Or, does it mean anything?

At least, it is apparent (if one follows the news of world occurrences) that difference in terms of in-difference is the logic of technology, and, consequently,

102 In his commemoration, July 8, 1983, on the death of Herman Kahn (July 7, 1983), President Ronald Reagan praised Kahn’s remarkable achievements for America by saying: “[Herman Kahn was] a futurist who welcomed the future. He brought the lessons of science, history, and humanity to the study of the future and remained confident of mankind’s potential for good. All who value independent thinking will mourn the loss of a man whose intellect and enthusiasm embraced so much.” (Aligica & Weinstein 2009: 270)
in-difference in terms of difference is the logic of war. That is, distinctions take place in the real world, while postmodern academia plays with différence. This is the difference between the real and the imaginary in the non-Lacanian sense of the terms (in Lacanian terms, cf., for example, Žižek 1997b).

What I call techno-logic is the combination of these two forms of the interplay between difference and in-difference, a new mode of scientific-technological rationality having its origin in the epochal research and development enterprise known as the Manhattan Project resulting in the atomic bomb and the subsequent era of the Cold War, an era in which life was living in the “balance of terror” based on the nuclear deterrence, or, more precisely, the threat of the “mutual assured destruction,” the supreme reason of MAD, the origin of Cold War big science (see, for example, Athanasiou 1989: 117–119; Hayes 1989: 77–79; Hobsbawm 1994: 228; Feenberg 1995: 41–72; Edwards 1996: 52–60, 86–111, 288–301; Rothbins & Webster 1999: 152, 162–165; Freedman 2003 [1981]: 150, 234–236, 244–249, 317–342, 386–397; Galison & Hevly 1992; Kelly 2007). Under the rule of this reason, death became an object of calculation, an issue of incomprehensible quantities, a political abstraction, a theoretical issue, to be considered in terms of pragmatic rationality based in the American national interests as the leading superpower (in terms of rational choice liberalism, see Amadae 2003: 27–82). Life, in turn, increasingly appeared as a multiple-option choice, a matter of options the differences between which were as different as they were in-different: every choice was the choice of the same, only differently (for the spectacular examples of this kind of rationalization of reason, see Kahn 1960, 1962, 1984; von Neumann 1958, 1966).

This is the historical era during which, step by step, difference insidiously turned into in-difference: difference was no longer, as for Bateson (2000 [1972]: 315, 381, 459–465), “a difference which makes a difference.”

This is the very beginning of the postmodern, the cultural constellation under the sign of the “post,” celebrating the post-Enlightenment emancipation from the constraints of reason: the end of distinctions as the end of differences constitutive of the paradigm of in-difference, the paradigm of the “post.”

As an archetypal instantiation of mathematical modeling in the sense of what Heidegger (1989b [1962]: 137, 2006a [1957]: 155, 2006b [1959–1969]: 23, 175–177) designates as Vorausberechenbarkeit, “calculability in advance,” Hiroshima manifests the calculative reason constitutive of the scientific-technological rationality of the modern; that is, the instrumental rationality that is the historical origin of contemporary technoscience (cf. Ziarek 2001: 101–107; Babich 2012). In other words, the atomic bomb is the most spectacular accomplishment of “cynical reason” (see Sloterdijk 1983a, 1983b) that, in the form of ever-expanding technoscientific calculation (in terms of “calculating the human,” cf. Doria 2013), ruled the twentieth century, the “age of extremes” (see Hobsbawm 1994), resulting in the supremacy of post-reason as the imaginary reason of the postmodern, the reason of the surrational inherent to the world of the “post.”
In these terms, since the First World War, the first *industrially managed war enterprise* (see, for example, Deist 1991: 153, 219, 356; Hagemann 2002: 19–20; Wehler 2003: 103; Geyer 1986; Spilker & Ulrich 1998), it is military technology that constitutes the paragon of scientific-technological rationality as the built-in framework of the postmodern, as the condition of possibility of *technoscience* which, in turn, comprises the visionary world of post-reason, the world of the surrational, the world of the cyborg in terms of the postmodern. If, from the Manhattan Project to the Strategic Defence Initiative (the “Star Wars” scenario) as the epitome of Cold War paranoia (see, for example, Edwards 1996: 288–299; Lakoff & York 1989; Reiss 1992), the idea of solving political problems by means of technology was the mind-set of American millennialism in terms of global politics, it is now the dream of technoscientific omnipotence constitutive of cyborg fantasies that is the hard core of cyber discourse (see, for example, Robins 1996: 91–95; Cavallaro 2000: 44–52; Michael 2000: 29–32; Graham 2002: 228–231; Mortensen 2003: 108–115; Dinello 2005: 117–124; Downes 2005: 64–69; Dyens 2001; Giresunlu 2009).

This is the idea of *sovereignty* inscribed in the system-immanent telos of the technoscientific rationality of postmodern technoculture; as Chris Jenks, elaborating on the notion of transgression constitutive of the postmodern, says:

> One element of this thought espouses the limitless potential of the self, but another, forward looking element massages the intense relation between man and machine. Simply put, if we harness technology then sovereignty becomes supreme. Here we have a post-Enlightenment vision of the infinite pliability of human potential. With the advance of technological research we see mastery through Foucault’s “techniques of the body” and postmodern master beings in the form of cyborgs. (Jenks 2003: 11; in terms of the “perfectibility of man” constitutive of the Enlightenment idea of scientific-technological progress, see, for example, Passmore 1970; Vila 1998, Jackson 2004)

What is this kind of sovereignty if not the triumph of post-reason, the triumph of techno-logic that paradigmatically exemplifies the essence of technology in terms of Heideggerian “enframing,” *Gestell* (Heidegger 1994a [1949]). In other words, Heidegger’s way of *questioning* opens up a perspective from which cyber discourse appears as the apotheosis of what Heidegger (1999 [1938/1939, 1946/1948]) calls “metaphysics” and “nihilism,” that is, the highest form of reason in the era of scientific-technological rationality (cf. Corona & Irrgang 1999: 54–61; Figal 1999 [1992]: 71–77; Kroker 2004b). What does this mean (provided, of course, that it is still meaningful at all, in one way or other, to pose a question concerning meaning as *meaning*)?

> Modern machinery is an irreverent upstart god, mocking the Father’s ubiquity and spirituality. (Haraway 1991a: 153)

This is the mode of “meaning” in cyber discourse; a discourse the condition of possibility of which is the disappearance of difference in the cultural configuration of meaningless meanings, the linguistic matrix of the “post”: the theory matrix of *excessive signification* based on the logic of “free-floating signifiers.” It
is in this sense, as Haraway says above, that “monsters signify”; this is the mode of signification constitutive of the cyborg.

In short, this is the meaning of meaning after the disappearance of meaning in the world in which in-difference is the highest form rationality: the rationality of post-reason in which signification in terms of the “post” has taken the place of meaning.

In other words, under the regime of the political economy of neoliberalism, we are living in a world in which cynical reason, constitutive of the First World War, has not disappeared, but instead, turned into the reason of the surrational, the reason of the techno-imaginary ruling the Realpolitik of the postmodern. In this constellation, the *hubris of the cyborg* manifests the signifying heteroglossia of the postmodern in terms of technoscience (for a paradigmatic example, see Haraway 1997; for the cyborg as an exemplary textual figure implying “a powerful infidel heteroglossia,” see Haraway 1991a: 181; cf. Caddick 1995: 156–157; Munnik 2001 [1999]: 100, 106, 111; Malpas 2005: 177–179; with regard to “the future of differences,” cf. Hekman 1999: 48–51).

**Life Is a Technical Matter in Its Instrumentality**


All this is inscribed in the techno-logic peculiar to Western scientific-technological rationality: a mode of rationality that emerged in the course of events that had its origin in the *Materialschlachten, “battles of materials” or “battles of attrition,”* of the First World War (see, for example, Chickering 1998: 70–71; Vahabi 2004: 213–214; Koch 2006: 217–221, 244–256; with regard to Jünger and Heidegger, see Morat 2007: 64, 91, 148, 246), unfolded through the industry of death in the Second World War, and found its ultimate consumption in the Manhattan Project (see, for example, Hughes 2003; Kelly 2004; Schwab 2004; in terms of “big science,” see Galison & Hevly 1992); a gigantic military-technological enterprise that was, as President Truman proudly proclaimed after the devastation of Hiroshima by the atomic bomb, the “greatest

The same mindset, based on the idea of science organized according to the principles of industrial enterprise, the idea of big science, is the historical framework of cybernetics: an attempt to manage war by means of scientific-technological rationality, the reason of the machine (for Wiener’s AA Predictor as the key experiment in the genesis of cybernetics, see Galison 1994; cf. Dillon & Reid 2009: 63–69; Pickering 2009: 118–119; Selinger 2009: 154; Johnston 2008; for the economic paradigm of cybernetics, see Beer 1967 [1959], 1981 [1972]; cf. Mirowski 2002; for a revaluation and historical contextualization of cybernetics, see Pias 2003, 2004). As a result, the more killing escalates, the more one attempts to contain it by ever-more efficient high-tech weapons systems (see Gray 1997, 2005; Boggs 2003; Bousquet 2009). In this manner, war as what Eva Horn (1998: 63) calls a “realm of anthropological knowledge” took on its definitive form during the twentieth century. Following the American model of civilizing the methods of warfare, the military rationality and the militarization not only of science, but society and culture in general began to dominate politics all over the world. Thus, during the Cold War, the Clausewitzian idea of war as a “continuation of politics by other means” (see Clausewitz 1980 [1832–1834]) turned the other way round: under the conditions of global capitalism, politics is a continuation of war by other means, the means of military presence, the means of scientific-technological rationality.

This is the politics of reason that rules the world as the reason of the Cold War now adapted to the contemporary political order of global capitalism: the reason of the modern constitutive of the postmodern as the superstructure of the political economy of neoliberalism.

What is important in this connection is that the rationalization of war by means of scientific-technological reason is not only the epistemo-ontological context of cybernetics in the form of Wiener’s cybernetic theory (see Heims 1980: 131–140, 1993 [1991]: 174–180; Masani 1990: 111–119; Farish 2010: 143–192; Galison 1994; Edwards 1996), but it is also the historical point of departure of the intrinsic raison d’être of the technoscientific rationality that emerged from the Manhattan Project as the paradigmatic implementation of what has become known as Big Science (see Sassower 1997: 2–4, 26, 53–64, 70–73, 81–82; Galison & Hevly 1992, Hughes 2003). In this sense, as Haraway (1991a: 150) says, “modern war is a cyborg orgy,” a mode of war based on the scientific-technological principles of cybernetics, epitomized by the terms “information,” “communication” and “control” constituting the mechanism of circular causality in the form of “feedback” as the leading principle of cybernetics: feedback as the most radical manner of guaranteeing the efficiency of control.

Long before the 1960s, it had become clear to Heidegger what the direction was to which the increasingly powerful alliance of science and technology was leading the world (see, for example, Heidegger 1983 [1935], 1994a [1949],...
The Heideggerian condition of being in the world, *Dasein*, as the mode of being human – in its most elevated form as *Denken und Dichten* – was about to be postponed only further and further to the distant horizon, and ever-more central had become the position of modern technology as both the product and the driving force of science, the mode of human activity that, originating from the seventeenth century scientific revolution based on the philosophical principles of Plato’s idea doctrine and Descartes’s rationalism (see Kockelmanns 1985), was now about to subordinate the whole world to the imperative of scientific-technological calculation and regulation; that is, as Heidegger (1989a [1936–1938]: 138–167, 1999 [1938/1939, 1946/1948]: 145–152, 1989b [1962]) saw it, metaphysics in its most elaborate form: *nihilism as the very reason of the modern world* (cf. Thiele 1995: 193–194, 209–210; Smith 1996: 227–235; Rockmore 1997: 164–168).

This was the essence of the new world era which Heidegger (1977a [1938]) called *das Zeitalter des Weltbides*, the “age of the world-picture.” Its ultimate manifestation was the science of sciences vigorously promoted in the 1950s and the 1960s in both the West and the East, the science of cybernetics (see, for example, Trogemann et al. 2001; Gerovitch 2002; Caldwell 2003; Mindell et al. 2003; Pias 2003, 2004; in the historical context of information science, computer science, artificial intelligence and systems theory, see Machlup & Mansfield 1983). What was that, from the Heideggerian standpoint?

It was because of this all-combining power, all-linking and all-connecting ability, of cybernetics that, according to Heidegger, all the fields of scientific knowledge were now challenged by the principles of control and regulation, by the paradigm of cybernetic scientification of all being.

This new import of science, *the political* in the form of science, had far-reaching consequences. As a general science in its radical generality and universality, cybernetics, according to Heidegger, implied that philosophy had reached its final end, and along with it, thinking *in terms of thinking* had attained its terminal point. But, as Heidegger emphasized, this did not mean at all that philosophy was finished, or had ceased to exist; rather, *das Ende*, “the end,” of philosophy signified to Heidegger *ein Ort*, “a place,” in which everything that was
still there “gathers together,” versammelt sich, a site at which things had the last opportunity to assemble once again; in Heidegger’s words:

Unter Ende verstehen wir […] den Ort, dahin sich etwas in seiner letzten Möglichkeit versammelt, worin es voll endet. (ibid.: 621)

By end we understand […] the place into which something, in its last possibility, gathers together, in which it con-summates. (translation mine)

This is the true “end” of philosophy: es bleibt möglich, daß sich im Ende der Philosophie ein anderer Anfang des Denkens verbirgt (ibid.), “it remains possible that at the end of philosophy another beginning of thinking harbours.” But, in this new assembly of philosophy – philosophy fragmented in itself, and the fragments of philosophy dispersed in sciences – we are encountered by a challenge which is of an entirely different order:


As much is already clear today: through the guiding concepts of cybernetics – information, steering, feedback – the main notions of science, such as reason and consequence, cause and effect, having had a magisterial position in scientific thought up to now, will be altered in a manner which, one is almost tempted to say, is uncanny. Therefore, cybernetics is no longer to be designated as a science belonging to the humanities. The unity of the thematic fields of knowledge is no longer the unity of the essential ground. It is a unity of the technological in a rigorous sense. Cybernetics remains adjusted to a position in which it is to provide and establish the prospect of procedures and operations that are able to be thoroughly regulated. The unlimited power that arrogates such a producibility determines the peculiarity of modern technology, eludes, however, all the attempts to envisage itself as something technological. The more and more unequivocally dominating character of sciences is readily to be recognized in the manner in which they conceive of the categories which circumscribe and articulate the appropriate thematic field in each case, namely, instrumental. The categories are now valid as operational model conceptions. Their truth is measured by the effect which is effectuated by their deployment within the progress of research. (translation mine)

The “technological” and the “instrumental” – these are now the keywords defining the parameters of this new mode of science, a conception of science in terms of technologically defined instrumentality. That is, according to Hei-
degener, technological and instrumental management in an entirely new con-
text, the context of the “guiding concepts of cybernetics,” Information, Steuer-
ung and Rückmeldung, “information,” “steering” and “feedback,” had radically
changed the essence of knowledge and with it the premises of science and
technology (cf. Lyotard 1984 [1979]; Kearney 1991). We remember that already
in 1953 – actually already in 1935 in his seminar later published as Einführung in
die Metaphysik and in 1949 in his lecture “Die Kehre” (see Heidegger 1983 [1935],
1994c [1949]) – Heidegger, by posing the “question concerning technology,”
had thoroughly rethought the relations between causality and instrumental-
ity as the condition of possibility of technology, be it in the form of technē in
ancient Greece or manifested by modern technology today.

Where Herausfordern, “challenging-forth,” reigns, there Hervorbringen, "bring-
ing-forth,” withers away or remains in the niches of traditional handwork (see
Heidegger 2000b [1953]: 17–23). This was Heidegger’s conclusion of the scien-
tification of the world, a world living in terms of the “world-picture” (see Hei-
degger 1977e [1938]).

This, according to Heidegger (2000h [1965]), means that the more science is
dominated by the principles of technology and, in turn, the more technology
dominate the ways in which science works, the less the idea of questioning
means (cf. Wolf 2005: 11–23, 139–189, 219–250). In a world ruled by the reason
of the modern, based on Plato’s doctrine of ideas and Cartesian rationalism,
calculation, the imperative of Berechenbarkeit, replaces thinking (see Heidegger
world in which questions are displaced by answers – answers given by science.

Technoscience: The Pathos of the Postmodern

This is the meaning of Heidegger’s (2000d [1952]: 133) pregnant statement: Die
Wissenschaft denkt nicht, "science does not think." The task of science is not to
think at all; its intrinsic teleology, its very raison d’être, is to bring about pragmatic
knowledge for the management and administration of life; that is, science is concerned with das Seiende, the ontic, not with das Sein, the ontologi-
cal, which is the realm of thinking in the Heideggerian sense (cf., for example;
Babich 2012).

As a result, the more science and technology disclose or “reveal” and “uncon-
ceal” the realm of Being by means of Herausfordern, “challenging-forth,” the
more Being loses its meaning and withdraws into oblivion. It is here that Hei-
degger (2000e [1953]: 52–54) sees the “danger” of scientific-technological ratio-
nality: technological science that is a new technology in itself is, by its very
character, Forschung, “research,” not thinking: it explores, investigates and
enquires, produces ideas, innovations and things that have practical value (see
Heidegger 1994a [1949], 2000b [1953]) and that, as such, finally assure and con-
firm the imperative of scientific-technological rationality in itself. Most importantly, contemporary science does not question, it answers, it gives answers to problems that emerge from its own practices, problems that are, in fact, consequences of the increasing scientific-technological management of all areas of life: in the manner of *circulus vitiosus*, the problems effected by technology are to be solved by means of technology in itself (see, for example, Feenberg 2005; Huesemann & Huesemann 2011).

In this situation, *technology in itself is now the very reason of science*: in the light of scientific-technological rationality, all questions appear as technical problems, problems that can be solved by way of scientific-technological rationality (cf. Marcuse 1941, 2002 [1964]). In other words, there is no outside of technology in contemporary society ruled by technoscience.

Following the principles of this rationality, technology operates as an endeavour that is thoroughly permeated by science; a scientific effort that as a result of the mutually intertwining processes of the *technologization of science* and *scientification of technology* has become a scientific-technological enterprise of technoscientific production that is the self-legitimating telos of the power of reason ruling the contemporary world according to the interests of neoliberalism (see Heidegger 2000b [1953]: 15, 22–24, 2000e [1953], 2000h [1965]; cf. Cooper 2008). The highest form of this reason is military rationality that, as the scientific-technological bulwark of the economic order of global capitalism, the regime of neo-Fordism, holds contemporary world politics in its grip and thus defines the conditions of *Lebenswelt*, the conditions of our daily life-world, the conditions of *all living beings in their own life*.

This is the reason of the cyborg: we are now living in the most rational of all worlds (cf. Leibniz 1985 [1710]): there is *nothing*, not a single problem, to which science and technology would not be able to find a solution; of course, a presumed or alleged solution that, rather than considering the rationale and the sense of the whole matter in the first place, focuses right away on the technical feasibility and economic advantage of the proposed solution defined in terms of the rationality of technoscience (see, for example, Sassower 1995; Aronowitz et al. 1996; Michael 2006; Asdal et al. 2007). In other words, if life has any meaning at all in the contemporary world, the meaning of life is intelligible only as a scientific-technological issue. In this world, *life is a technological enterprise ruled by technoscience*.

Scientism, scientific reason as its own legitimation, is the ideology of the scientific-technological rationality constitutive of technoscience as the scientific paradigm of the cyborg (cf. Walker 2003). Scientific reason is not interested in the being of Being; scientific research is interested in knowing and doing, not in Heideggerian *Denken und Dichten*, “thinking and poetizing.” In this sense, reason is power that is not aware of itself as power; reason is power under which, in the spell of which, the world is now living in the condition of forgetting the being of Being, in the situation of *Seinsvergessenheit* und *Seinsverlassenheit* (see

In these terms, the reason of the postmodern is a form of power that Heidegger encountered in the 1930s; the power in the light of which Heidegger, in fact, is a thinker of the postmodern avant la lettre, of course, not as a postmodern thinker, but as a thinker who thinks about the logic of becoming as a result of which we are now living in a postmodern world, whether or not it is actually designated by this or some other term, and whether we want it or not (see, for example, Feenberg 1995: 22–25; Radloff 2007: 384–385; Thiele 1995; Smith 1996). Reason as a scientific-technological project of rationalization of all being – that is the “grand narrative” after the implosion of all “grand narratives” (Lyotard 1984 [1979]), the meta-narrative of the postmodern world, the doctrine of happiness of contemporary culture living in the presence of the future. That is, the glorification reason is the legitimation discourse of the present way of life reigned by the Heideggerian “world-picture,” a mode of thinking in the name of science and technology.

Therefore, what I call the pathos of the postmodern, in fact, already began in the 1930s, seen from the Heideggerian perspective. What was it that Heidegger saw when he considered the world situation in the mid-1930s?


This Europe, in its hopeless blindness, always about to stab itself to death, lies today in the great pincers between Russia on the one side and America on the other. Seen metaphysically, Russia and America are both the same; the same dreary frenzy of unleashed technology and of the unlimited organization of the average human being. Once the furthermore corner of the globe has been technologically conquered and made economically exploitable, when any incident whatever in every possible place at every possible time has become as accessible as quickly as possible, when one can simultaneously “experience” an attempted assassination on a king in France and a symphony concert in Tokyo, when time is still nothing but velocity, instantaneousness and simultaneity, and time as history has disappeared from the existence of all peoples, when a boxer is regarded as the great man of a nation, when mass gatherings attended by millions are deemed a triumph – then, yes, then, through this ghastly turmoil, a question still haunts us like a spectre: what for? – where to? – and what then? (translation mine)
Trostlose Raserei der entfesselten Technik, the “dreary frenzy of unleashed technology” – that is the Heideggerian Spuk, “ghastly turmoil,” that haunts the discourse of the cyborg. In this sense, the logos and nomos, the supreme principles of the discourse of the cyborg, now manifest the imperative of reason constitutive of the postmodern: the reason of the modern as scientific-technological rationality (cf. Habermas 1967, 1994 [1981]; Ashley 1990; Appignanesi 2003; Gandesha 2004), redefined in terms of the imaginary, as the reason of the surrational.

In this respect, the cyborg is a postmodern incarnation of the Heideggerian Weltbild, “world-picture” (Heidegger 1977a [1938]), embodying the power of the Gestell, “enframing” (Heidegger 1994a [1949], 2000b [1953]); an incarnation of scientific-technological rationality at the level of human corporeality: the cyborg as the very embodiment of the thoroughly rationalized body, the body as a totally monitored and controlled production machine in the global machinery of productive consumption under the disciplinary power of neo-Fordism, the power of the body-machine complex of the postmodern. This is the logic of the cyborg: the human being as an extension of technology in the technoscientific framework of calculation, efficiency and productivity constitutive of the rationality of neoliberal capitalism.

This logic, due to its intrinsic principle, the imperative of technological reason, is techno-logic, the driving force of cybernetic rationalism that has its origin in the American scientific-military effort in the Second World War; though, of course, no longer in the sense of Wiener’s technological humanism (see, for example, Heims 1980: 301–329; Masani 1990: 292–294, 318–334), but as a mode of rational control intruding the most minute elements of life and all living, thus constituting the epistemic and practical foundations of the political economy of the body in the postmodern (cf. Foucault 1991a [1975]: 135–169; Williams & Bendelow 1998: 44–48, 73–79; Falk 1994; Yanarella & Reid 1996; Hancock & Tyler 2001). According to this logic, the increasingly efficient production of life requires the rationalization of death. While, for Wiener (1961 [1948]: 125–126), life as such was defined in terms of death, that is, life constantly threatened by entropy, the arch-enemy of cybernetics, in the postmodern world, death in itself is increasingly a scientific occurrence managed by the politics of life.

No longer, as for Heidegger (1977d [1927]: 335–354), is there Sein zum Tode, “being towards death” (cf. Trawny 2003: 48–68; Han 1999: 28–38), but, instead, the rationalization of death by means of science and technology is the very sense of all living: the management of life implies the management of death, and vice versa.

In this constellation, the global politics of death is a politics of life: those who can afford it can stay alive and live; the “right” of those who are living in indigence is to die.

In the contemporary world, there is no life outside life management, the precondition of all living (see, for example, Hassard et al. 2000; Hancock & Tyler 2001; Parker 2002; Brown 2003; Eghigian et al. 2007). This is the logic of the
cyborg in the context of the techno-logic of the postmodern: the survival of the subject is conditioned by the scientific-technological administration of the body, a body for which there is a subject insofar as it recognizes its status as an object. That is, in the postmodern, one is not recognized as a subject if one refuses or fails to be an object, the object of one’s own subjectivity under the control mechanisms of the “society of control” (Deleuze (1992b [1990])). This is the reason of the machine, the reason of the cyborg.

Be happy, be an object, and you will become a subject for which life in its entirety turns into an object of your own life management. Be an object, and you are a post-subject, a subject without the constraints of subjectivity.

In this sense, the cyborg is a product of instrumental reason, a product of life production, life understood as life in the laboratory: the cyborg is an embodiment of control. In socio-economic and political terms, the cyborg implies a scientific-technological regime of life, not as a negation of death, but as a means of enhancement of life – in the sense of Nietzschean “will to power” as a Steigerung, an “up-grading,” of the intensity of the forces of life (see Nietzsche 1968a [1883–1885]: 143–145, 1968b [1886]: 21–22, 31–33, 1968c [1887]: 332, 1973a [1882/1887]: 267–268; cf. Montinari 1991: 97–100; Heidegger 1998a [1961]: 15–22, 33–51, 1998b [1961]: 210–215) – in order to increase its usability, its productivity and efficiency in the political-economic and scientific-technological power system of neo-Fordism, the economic order of productive consumption.

In capitalism, nothing is as valuable as life, but, of course, life in terms of capital, life in terms of economic usability and utility.

This is the politics of life as the politics of death: the real logic of capital has subsumed life as a scientific-technological abstraction.

This Is My Body, This Is My Life

As a new super-technology, the life sciences constitute a scientific-industrial conglomeration embracing biosciences, physics and chemistry, information and computer sciences, technology and engineering, medicine and pharmaceutical industry, and their applications in agriculture and food industry, as well as appropriate financial systems (see, for example, Mirowski 2001, 2002, 2010; Mirowski & Sent 2002; Wei 2002; Keinan et al. 2004; Rose 2007; Bauer & Wahlberg 2009); a technoscientific and economic power constellation that, of course, is always already in the supreme position because of its final control over life and death – not in theory but in real life; a form of control that comprises the entire sphere of bios, taking place where post-theory has no access to: in the reality of living beings (see, for example, Jaroszyński 2007; for discursive figures constitutive of the life sciences from a historical perspective, see Barlow 1992; in ethical terms, see Comstock 2010; for the conflation of bios and zoe in contemporary culture, see Agamben 1998 [1995]).
In contemporary technoculture, ruled by technoscience and global capitalism, the human body, its health and diseases, its conditions of staying alive, is an increasingly valuable object of venture capital: the postmodern body with its innumerable needs and desires is an extremely lucrative investment object, as important as natural resources, if not even more important today (see, for example, Reiss & Straughan 2001 [1996]; Tokar 2001; Evans 2002; Stock 2002; Bainbridge & Roco 2006; Sandel 2007; in terms of “bio-power” and “bio-politics,” cf. Foucault 1990k [1976]: 136–145; Lemke 1997, 2007). What Catherine Gallagher (2006) calls “the body economic” in the Victorian context has returned with a vengeance in the world of technoscience: postmodern body technologies, body industries and body markets constitute an essential part of the political economy of neoliberalism (see, for example, Brown & Webster 2004; Petersen 2007; in terms of “genetic governance,” see Bunton & Petersen 2005). In contrast, the body of cultural theory is not a financial issue, it is an object of symbolic capital, a theoretical phantasm the ever-new interpretations of which drive postmodern theory forward, a theory in itself subsumed by the logic of market economy. As a theoretical figure, “the body” of contemporary cultural theory is about language, a matter of linguistic figuration in terms of the “post” (for a paradigmatic example, see Kirby 1995).

Thus, “the body” of post-theory is not a profitable object of scientific research furnished with the aura of science, neither does it enable scientifically significant inventions and innovations; instead, the post-body effected by the “post” is a postmodern theory-fiction that as such produces ever-new “challenges” to the interpretation industry of post-theory.

This is the origin of the theory-hysteria in terms of the figures the “technobody” and the “cyborg” peculiar to contemporary theory, especially the theory-hysteria in the name of “the body” constitutive of feminist theory discourse in the linguistic configuration of the “cyber” (see, for example, Hartmann 2004: 37–57; Stone 1992, 1994b [1991], 1995e; Hall 1996; Lykke & Braidotti 1996a; Plant 1996b, 1997a, 1997b; Wolmark 1999a; Kirkup et al. 2000; Flanagan & Booth 2002; Reiche & Sick 2002; Reiche & Kuni 2004). In this situation, all that was once called “humanism” has been displaced by the post-theoretical linguistic play around the figure “the posthuman,” a phantasmatic theory formation playing with the “end of the human being” (see, for example, Halberstam & Livingston 1995; Terranova 1996b; Hayles 1999; Graham 2002; Cooney 2004; Waters 2006; Clarke 2008; Gordijn & Chadwick 2008; Wolfe 103

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103 As stated above, while “behind” the symptoms of hysteria there is nothing organic (although these symptoms are manifested as pathological states of the organic body), and while these kinds of symptoms are based on imaginary experiences produced by the unconscious (see, Freud 1962b [1895], 1987d [1900], 1991a [1915]; cf., for example, Micale 1995; Lamott 2001; in terms of the postmodern, see Porter 1993a), in theory-hysteria the “symptoms” are “free-floating signifiers” peculiar to the postmodern; signifiers that do not refer to any signifieds, but always to other signifiers. In this sense, various spectacular “postures,” similar to hysteria, are typical of theory-hysteria constitutive of post-theory; “postures” that, at the same time, both seduce theorists to ever-new interpretations and, in themselves, escape any meaning since the only “contents” they have are private fantasies of the theorist as in the case of real hysterics; that is, in theory-hysteria, theory “happens” in a “theatre of the unconscious” (cf. Borch-Jacobsen 1999 [1990]).
2009; from a historical perspective, cf. Orland 2005b; for a critical discussion of the posthuman as a post-human being, see Spren 2010; from the position of a “negative anthropology,” see Spren 2000). But, in fact, is “the posthuman” rather about the end of thinking, about the termination of the faculty of critical analysis altogether? The more theory is elaborated, the more words are needed and the less meaning they have. The subject of theory producing theory can no longer say what it means, neither mean what it says: according to postmodern theory, the subject is “dead.” As a result, contemporary theory does not say anything about the world (the world we are living in, in the reality of our life-world); instead, it is “pure theory” (cf., for example, Culler 1997: 1–2). Thus, theory turns to itself; it becomes, however, not a theory on theory (in the sense of meta-theory), but theory that produces theory in terms of the “post,” the terms of self-mirroring theorization: theory as a performative “mantra,” as a latter-day “glass bead game” played by post-theorists in the ecstasy of theory on the theory-scene of the “post” (cf. Zima 1997: 333–335; in terms of “academic avantgardism,” cf. Huysssen 1986: 210).

In this sense, postmodern academia is dominated by a theory euphoria, a theoretical “high,” constitutive of post-theory, a mode of theory based on writing in terms of écriture, a playful theory discourse that speaks about itself by itself: a paradigm of theory that is able to assert anything in the name of theory: the beings and entities of post-theory exist only in theory, in the virtual reality of language paradigmatic of all that is “post.” That is, the postness of the “post” in its very postality is the magic fountain of post-theory.

In the world of post-theory, there is no other truth than the truth of writing: the truth of writing is in writing itself. In this theory formation, the aesthetic replaces the epistemological, and the place of knowledge has been taken by ever-new “readings” (as a paradigmatic example, see Haraway 1997). In the end, the theory euphoria brought about by the ecstasy of writing theory in the mode of écriture turns into a delirium of theory (see, for example, Genosko 1998: 58–63; Angermüller 2004; Lafontaine 2007): a mode of non-representational, self-referential theory writing in which signifiers, in their radical heterogeneity, signify beyond meaning, in the realm of signification as post-literary writerly writing (cf., for example, Denzin 1991: 37–39; Jameson 1991: 25–26; Wollen 1992: 210–211; Best & Kellner 1991: 166, 186–197, 222, 1997: 14–17, 135, 256; Pefanis 1991; Siebers 1994a). This is the constitutive idea of post-theory: as noted above, the “post” manifests radical chic as a matter of style.

This, of course, is the absolute opposite of reason in the sense of the Heideggerian Weltbild, the “world-picture,” but, in fact, in its own way post-theory, being precisely a diametrical counter-position of Platonic-Cartesian reason, the reason of the contemporary scientific-technological world order, is nothing but a continuation of modern metaphysics and nihilism by other means, the means of what I call postmodern pataphysics; that is, a hyperbolic, excessive and bombastic form of theory writing that celebrates its own linguistic ecstasy in the mode
of écriture. In its non-representational and self-referential manner, post-theory is a form of theory that theorizes theory objects produced by itself in the virtual reality of language. In these terms, in the linguistic figuration resulting from the industrious production of theory typical of contemporary academia, originating from the poststructuralist theory style that emphasizes language, writing and discourses, what is at issue is increasingly ludic theory proliferated by unending theory games in terms of the “post” (cf. Boggs 2000: 208–222; Scatamburo-D’Annibale & Langman 2002: 256–258; Zavarzadeh & Morton 1991; Zavarzadeh et al. 1995; Ebert 1996), a post-theoretical form of paralliterature that has already become canonized and institutionalized as a new “grand narrative,” a master story coming after the modern, now working as the legitimation discourse for the theory-scene in the name of the “post” (see, for example, Bennett 1990; Sim 1992; Docherty 1993b; Lucy 1997; McQuillan et al. 1999; Scott 2000; Belsey 2002; Turnbull 2003–2004; Callus & Herbrechter 2004b, Davis 2004).


This is the moment of culmination, the moment of truth, as inevitable as the emergence of the “post” in the first place.

Die Kehre der Gefahr ereignet sich jäh. In der Kehre lichtet sich jäh die Lichtung des Wesens des Seyns. Das jähe Sichlichten ist das Blitzen. Es bringt sich selbst in die mit- und eingebrachte eigene Helle. Wenn in der Kehre der Gefahr die Wahrheit des Seyns blitzt, lichtet sich das Wesen des Seyns; kehrt die Wahrheit des Wesens des Seyns ein. (Heidegger 1994c [1949]: 73–74)

The turning of the danger comes to pass suddenly. In this turning, the clearing belonging to the essence of being suddenly clears itself and lights up. This sudden self-lighting is the lightning-flash. It brings itself into its own brightness, which it itself both brings along and brings in. When, in the turning of danger, the truth of being flashes, the essence of being clears and lights itself up. Then the truth of the essence, the coming to presence, of being turns and enters in. (Heidegger 1977g [1949]: 44)

I’m lying on the street in a pool of blood. How long, I don’t know. Time has ceased. I feel nothing. My body has disappeared, nothing moves, my body has numbed, stiffened in its place. I am a body. From the corner of the eye, I only see that I’m lying in the middle of the street, someone can run me over, passes through my mind. How did I get into this? When I departed it was an early spring morning, wasn’t it? Now I see again the blue sky glowing brightly. My eyes are seeing. My body has disappeared. Nothing happens. Then, suddenly, there is movement around me, a man in a white coat asks me, do I h-e-a-r him s-p-e-a-k-i-n-g. A blanket is put on me. I hear them negotiating whether they can lift me on the stretcher. The white-coated man bends down to examine my eyes with a little lamp. I hear everything. And then I’m lying in the ambulance,
I see how they give me two injections, my whole body shakes with cold, my hands tremble limp. I am a body. I only wonder where they put my bicycle, I was riding a bicycle, wasn’t I? It was morning then. In the hospital, they undress me. And then time disappears again.

When waking up a physician is standing by my bed. He tells me that though I may thank my luck for being alive, the elbow joint in my right arm is broken so badly that we now have two possibilities, either there is a danger that the arm remains stiff or we put a piece of plastic there and hope that it will be alright again. What can I do: there is no choice. I need my arm. When thinking upon it later I come to realize how an essential dimension the arm is in my relationship to the world. Hands and arms enable human life. With my own hands I have made myself, and will do every day again and again. There is no head without hands.

Short thereafter they are preparing me for the operation. This is not virtual reality, although the whole paraphernalia around me brings Ars Electronica to my mind, the day I for the first time experienced a VR trip (although it was not such an LSD experience as cyber-theorists, inspired by Timothy Leary and Howard Rheingold, celebrated it). Then I feel myself falling into a void.

After a timeless time I wake up. Close to my bed stands a nurse, and as I try to turn I notice that I cannot do that because I’m in some strange straps, and as I turn my head I see that I’m on an intravenous drip, and that from my elbow, put in plaster, a plastic tube is protruding through which a red liquid mixed with yellow is slowly flowing somewhere. “This is my body, this is my software,” I remember Orlan, the most extravagant body artist, saying. No, this is my body, this is my life. I feel that naked life, biological life, has conquered: I’m living. And if I am to die tomorrow, I have lived this moment, this body, this life. This is the life of the body. I am a body.

Die Kehre der Gefahr ereignet sich jäh. This was my Kehre, my turning away from the world of empty words. In der Kehre lichtet sich jäh die Lichtung des Wesens des Seyns. Encountering this Lichtung the spell of the “post” evaporated once and for all. In the midst of the clearing I saw die Wahrheit des Wesens des Seyns.

My Body Is Not Writing

Naked life, biological life, is where survival, the final truth of life, is at issue (cf. Agamben 1998 [1995]). The last limit of life is biological life. In the hospital, life is reduced to life maintenance, to keeping the organism running. As the Enlightenment physician, Marie-François-Xavier Bichat, the founder of medicine based on natural science, said: “Life is the collection of functions that resist death” (Thacker 2005: 70; Lindberg 2006: 121; cf. Foucault 1992a [1969]: 33–34, 1994b [1963]: 124–148; Ortega 1998: 146–147). In the hospital, the human being is a living body in the sense of a biological organism that resists death with the help of hospital machinery, an assembly of scientific-technological apparatuses enabled by technoscience. In the hospital, the sovereignty of the human being disappears: the human being is an object of medical treatment, a medical body (cf., for example, Turner 1997 [1984]: 197–214; Williams & Bendelow 1998: 155–170; Leder 1992; Lupton 2003 [1994]), a body in the sense of Körper. In this context, the right to life precedes all other rights, but this right only pertains to the life of the organism, not the life of the body as the body: the body which I am.
This is the fundamental difference between the object-body (Körper) and the subject-body (Leib) (for the difference between Körper and Leib, see, for example, Hauser-Schäublin et al. 2001: 97–99, 107–109, 133–137; Caysa 2003: 36–78; Thomas 1996; Schmidt 2009); from a historical perspective, see zur Lippe 1988). As Heidegger (2003b [1938–1939]: 266) points out with his question: Was ist der Leib? Ein beseelter Körper; “What is the ‘subject-body’? A body with a soul.” It is in this sense that jeder Leib ist ein Körper, aber nicht jeder Körper ein Leib (ibid.), “each ‘subject-body’ is an ‘object-body,’ but not each ‘object-body’ a ‘subject-body’” (cf. Heidegger 2006b [1959–1969]: 111–120), and, therefore: Der Leib des Menschen ist etwas wesentlich anderes als ein tierischer Organismus (Heidegger 1976a [1946]: 324), “The human body is something essentially other than an animal organism” (cf. Caputo 1993: 124–126; Schalow 2006: 101–102). Or, in an even more radical sense, as Nietzsche (1968a [1883–1885]: 35) says: Leib bin ich ganz und gar, und nichts außerdem; und Seele ist nur ein Wort für ein Etwas am Leibe, “body am I entirely, and nothing besides; and soul is only a word for something at the body” (in terms of Nietzschean Rausch, see Nietzsche 1969c [1889]: 110–112, 1972a [1872]: 22–26; cf. Heidegger 1998a [1961]: 91–106, 114–124; Caysa 2000).

Thus, whatever we think about the human body in terms of denaturalization understood as culturalization, or, conversely, culturalization understood as denaturalization, we cannot just ignore the difference between Leib-Sein and Körper-Haben, between being a subject-body and having an object-body, the difference that is constitutive of the distinction between the body as an existential-phenomenological experience and the body as an epistemological object (in terms of the cyborg defined by “biofacticity,” cf. Spreen 2006; for the origin of the term, see Karafyllis 2003); a difference that has disappeared in the world of the “post” in which everything exists only in terms of language; a world in which the body is nothing but a discursive construction, a theoretical abstraction, a category the substance of which is theory itself.

In the hospital, the life of the subject-body, the-body-which-I-am, has been left outside the hospital. Therefore, the body wants to leave the hospital. The body wants to return to life: the life which is the life of my body which I am (cf. Braungart 1995).

Just as René Descartes, Baruch de Spinoza, Julien Offray de La Mettrie and Friedrich Nietzsche, each in their own way philosophers of the body who have yet to say in our times, experienced something in their life in which, in Heideggerian terms, die Lichtung des Wesens des Seyns (Heidegger 1994c [1949]: 73–74), “the clearing belonging to the essence of being,” appears as an experience of the body, I was given – certainly, similarly to millions others before me – a decisive experience of Lichtung, an opportunity to live through a fundamental experience of living, of living life, in my body. I had the sensation of being a body, the existential experience of being my body in my body. I felt the irrevocable organic constitution of the body, the unalienable bodyness of my embodiment, the present actuality of my living body, the unconditional corporeality of my bodily being.
This was my Kehre, the point of no return: in and through this turning, I saw the Heideggerian Lichtung opened up by a fleeting moment of death experience, the “clearing belonging to the essence of being”: not only do I have a body (Körper), but I am the body which I am in my body (Leib).

This difference is essential. The language in which the body is spoken about is not the language of the body: the living body is more than language, it is beyond language, although it becomes intelligible in and through the linguistic of language. The discourses under the linguistic regime of the “post” concerning the body do not speak the language of the body, they do not speak of the body at all. The experience of the body is not a figure of language; it is an experience of the body. The body is not writing. But precisely this difference, the difference between the object-body (Körper) and the subject-body (Leib), has disappeared in the world of post-theory. Obsessive deconstruction of binaries, linguistic games playing with boundary transgressions, the celebration of the subversive theory-body, the fashionable glorification of anti-reason in the name of “the body” – all that has led to the decline of an elementary ability of thinking, the capability of distinctions. Postmodern academia is a discourse machine that produces theory in terms of in-difference towards differences as a repetitive, self-iterating and reified mantra of “differences,” as a fashionable parlour game, a linguistic play with post-Derridean différance as a form of academic ego-politics. In this manner, the body disappears in language.

I am living another time, outside the time prevailing; I am living untimely. I am living the life of the body: I am living in my body. This is not a discursive body: this is my body, the body which I am.

The body as Leib has its own time; it lives beyond measurable time, beyond the world produced by the control policy of calculability, beyond the techno-logic based on the compulsory temporality constitutive of the coercive frame-work of technology that Heidegger calls “enframing,” Gestell. The Leib-body has a memory; it is therefore always living in a different time, different times, asynchronously. The experiences of the body leave their traces in that something which I experience as my “self,” as a “me”; as Freud (1987a [1923]: 253) says, Das Ich ist vor allem ein körperliches, es ist nicht nur ein Oberflächenwesen, sondern selbst die Projektion einer Oberfläche. In this sense, as a self-sustaining being, the body is a Freudian Wunderblock (see Freud 1972g [1927]; cf. Laplanche 1998 [1967]: 138–140), a living, sensitive, sensuous and sentient being in which, miraculously, impressions of life turn into living imprints constituting the self of the subject; impressions that are not to be reduced to language, to linguistic figures which have their own “life” in language.

The body lives in its own a-temporal time. The body does not want life to go by. The body wants to live, to live its own life that is my life, my life in my body. As I was lying in the pool of blood, I experienced something that called me away from the world of lifelessness, the world of “pure” theory, the world of postmodern nihilism; I experienced something that invited me to the life of my
own body, to live the life of my body – that was the decisive moment that called me back to life which was threatening to wither away through dead speech, the lifeless chimera of postmodern theory and textuality, the fashionable, self-important world of the “post.”

The visit to the borderline of death is the ultimate borderline experience: it is the experience of life. On this borderline, the body, my subject-body, understands the meaning of the liminal without words.

The bicycle accident in which I was near by to lose my life (I had a narrow escape from a broken neck, as I was told by the physicians when leaving the hospital) was a borderline experience for me. It was a death experience that opened my eyes to see my life in a new light, in the light of life. Standing in front of death, face to face, one knows what life is. One sees life. When you know that in the next moment you are going to die, you know how blessed the experience is when opening your eyes you see: I am living! By encountering death that does not take you with it, you encounter grace. Life is a gift of grace. It is more probable that I do not exist at all. If I want to exit, it is my choice. But if I want to live, it is more, much much more, than my decision to live, more than my will to live. It is something through which the wisdom of the body understands the meaning of grace.

The possibility of life as a possibility to live is something through which reason halts to listen to, listen to life. Reason halts to listen to the body.

6.3.2 Optimizing the Performance of the Body

Everyone who has been reduced to the level of the bio-body even for a while, that is, taken from the life-world of the body to the world of the organism as the world of organs, cannot be without feeling appreciation for all that is called technoscience (see, for example, Haraway 1997: 49–57, 62, 114–118; cf. Trallori 1996; Weber 2003; Weber & Bath 2003); a certain feeling of respect and awe for the ability of technology to emulate nature, and increasingly even to exceed its limits.

Yet, what actually is the logic of technoscience? Technoscience means scientification of life by means of science and technology. For all its benefits, technosci-

104 As Haraway (1997: 279–280) remarks, the notion of technoscience was originally introduced by Bruno Latour in science studies. According to Latour, as stated above, technoscience refers to a process in which scientific research takes on meaning as a laboratory science and becomes increasingly intertwined with the allocation of resources in contemporary society, at the same as the inherited border lines between science and society disappear (see Latour 1987). Similarly to Latour, Haraway deems that what is at issue in technoscience are various human/non-human hybrids; more than Latour, however, Haraway is interested in “for whom and how these hybrids work” (Haraway 1997: 280). At the same time, interestingly, Haraway refers to Heidegger’s idea of how “technicity” (in Heidegger: das Technische) implies a “transformation of the whole world to a resource,” a process through which technoscience “empties out” or “resources” all being (ibid.). Although the way I am using the notion of technoscience is based on Haraway, I do not share her hilariously ambiguous language game which only obfuscates differences in a fatal manner. For me, technoscience simply means the scientification of life by means of technology.
ence nevertheless obeys the intrinsic logic of technology, the logic of Machbarkeitswahn, “feasibility delusion,” built-in in the techno-logic that rules technoscience more than science and technology as such (see Hempel 2003; cf. Erlach 2000: 10–11, 32–36, 52–53, 69–70); to apply Günther Anders’s (1988a [1956], 1988b [1980]) idea: was machbar ist, wird auch gemacht. As a corollary, what is done shows what is feasible, and what is feasible will be done again: it is a spiral of feasibility, a self-feeding process of potentialities to be actualized, a teleology following only its own Eigenlogik, without the disturbing question: why? This is the chance, increasingly in the process of expanding today, of the body to live beyond its given constraints, the limits of organic life. In this manner, technoscience, at the same time, is both the salvation and the threat, the Gefahr, “danger,” in the Heideggerian sense (see Heidegger 2000b [1953]: 27–30, 35, 1994b [1949]), of the body as Leib.

That is, in the contemporary world ruled by the reason of technoscience, the object-body, Körper, is more and more becoming the body which I must become in order to live my life in my subject-body, in my very Leib that is the body which I am. This is the problem of the posthuman body: it is a body that is a Fremdkörper, an “alien body,” as the very condition of possibility of my being a Leib, a “subject-body,” that is the body-which-I-am. The posthuman body is a product of technoscience, a body that has come into being by and through what Heidegger (1977f [1953]: 16, 2000b: 17) calls the “challenging-forth,” Herausforderung, as the contemporary modification of the Her-vor-bringen, “bring-ing-forth,” constitutive of Greek technē, the paradigm of arts and crafts before the paradigm of scientific-technological appropriation and utilization of natural ressources, the human body included.

Neoliberal Body Management as the Ego-Politics of the Subject

In Heideggerian terms, technoscience is today the prevailing form of the Gestell, “enframing,” a result of scientific-technological rationality, which turns everything into Bestand, “standing-reserve.” This is the fate of the postmodern body: it is a post-body as an incorporation and embodiment of the posthuman; as such, it is the highest form, the very consummation, of the Fremdkörper as the body-which-I-am in contemporary technoculture. In other words, in order to be a body which is my body I have to become a body which is the “other” of myself, an alien body that is the innermost condition of my existence, the most intimate companion of my whole life. It is in this manner, as Haraway (1991a: 178) says, that “[f]or us, in imagination and in other practice, machines can be prosthetic devices, intimate components, friendly selves”; and it is in this constellation that “[p]rosthesis becomes a fundamental category for understanding our most intimate selves” (Haraway 1991f: 249).

In terms of living beings, what is essential is that technoscience has objectified the organism ever-more pervasively in order to control it better. But in so doing, at the same time, technoscience has shifted the borderline between life
and death in favor of life: under the regime of technoscience, the expectations of longer and better life have enormously increased. Diseases and illnesses that used to be mortal can be cured today. In the world administered by technoscience, life means not only an organic force of life: technology is more and more the very condition of possibility of life in general. Accordingly, death is more than ever an issue of science: life today means averting death by increasingly sophisticated means of science and technology (see, for example, Williams & Bendelow 1998: 88–93; Morris 1998: 237–241; Bauman 1992; Robinson 1994; Sharp 2009). The scientification of life implies a scientification of death, and it is therefore that death in itself is now more abstract than ever.

In this manner, the life sciences, in fact, are sciences to resist the power of death understood as the functions of the organism. For this reason, in the contemporary world, to survive is not so much a question of fate as a matter of science and technology.

Once one is hospitalized one can experience all this in and on one’s own body. The hospital, with its techno-scientific apparatuses, is a laboratory of life.

Technoscience is not only about the scientification of technology, but also about the technologization of science, aiming at the control and administration of life. Technoscience, intrinsically integrated to industry and entrepreneurship, is an interdisciplinary scientific-technological research and development complex consisting of large-scale engineering and management activities that, at the same time, comprises of new kinds of financial interests pertaining to experimental life, life in its entirety turned into a laboratory product, as an investment object of venture capital. As such a multifarious form of knowledge production, the rationale of technoscience is to technologize and turn into a commodity form all that is living and organic, that is, to objectify biological life into an industrial process. In this manner, technoscience combines various branches of science and technology, from the study of the theoretical foundations of sciences (aptly called Grundlagenforschung in German) to the applied research and design, in order to enable new products and services intended to increase the utilization of life – and, of course, to maximize profit, to invest in the future, the future of capital, the common denominator of all forms of life in the contemporary world.

In this sense, investment in life is literally a financial investment today: to increase the productivity of life forms is to increase the productivity of capital. Accordingly, life is simultaneously a manifestation and a resource of capital, its “natural” source of accumulation. In this manner, while capital has become a “natural force” in the constellation of technoscience, natural resources has turned into capital; that is, in the contemporary world, nature and capital are predicated upon one another under the imperative of continuous economic growth as the absolute precondition of contemporary capitalism.
Seen from the perspective of its *modus operandi*, technoscience is a biotechnological project in a broad sense of the term: *engineering of life* by scientific-technological means is the constitutive principle of technoscience; that is, *life as a gigantic laboratory experiment within the globalized business of the life sciences*: life as an industrial product, as an object of financial speculation in the global capital markets (see, for example, Haug 2003; Cooper 2008). In a word, life becomes “enterprised-up” (Strathern 1992: 38–40; Haraway 1997: 102, 168) in the world of technoscience (cf. Lawler 2000: 72–75; Woliver 2002: 155–156, 164–168). In this constellation, a new body economy emerges, a *technoscientific body economy* in terms of technological redesigning of the body: an economization of the body as a high-performance body-machine (see, for example, Roco & Bainbridge 2003; from a historical perspective, cf., for example, Möhring 2004: 286–296; Cowan & Sicks 2005a).

Although cybernetics, as a project of a universal science, have already become history (see, for example, Ducrocq 1959 [1955]; Masani 1990; Heims 1980, 1993 [1991]; van de Vijver 1992a; Gerovitch 2002; Mindell 2002; Pias 2003, 2004), nevertheless, its constitutive ideas pertaining to information, communication and control in the human being, the animal and the machine, as the general principles of all organic functions, still continue to have influence in various fields of technoscience. In this sense, the cybernetic model of reasoning, the cybernetic mode of rationalization of all being in the form of theoretical abstractions, as the very paragon of scientificality (of course, with its scientistic undercurrents), constitutes the logic of life and the living (whether organic or inorganic) built-in in technoscience. As such, technoscience also has meta-scientific dimensions: it is a science about sciences that are foundational to diverse technologies, as well as to their technical applications or techniques, methods and means of production (see, for example, Maier & Zoglauer 1994; Peters & Weingarten 2000; Banse & Kiepas 2002).

Thus, technoscience is a cross-roads and a meta-level of the medical and bio-sciences as well as scientific engineering and the social sciences oriented according to the economization and administration of life: the politics of feasibility, the politics of potentializing potentialities in order to actualize the potencies of the body. In this manner, the human being – now, of course, in the sense of the posthuman – is a technoscientific product in itself in the matrix of scientific-technological redesign of life and nature. In other words, the cyborg is the very emblem of technoscience, the most significant condensation of the body politic of the postmodern: the body politic is today an issue of the politics of the body as a postmodern Taylorization of the performance capacities of the body (see, for example, Tabak 1996: 90–103; Merkle 1980; Waring 1991; McKenzie 2001). Therefore, not only in terms of natural processes, but also in terms of being human, as Haraway (1997: 50–51) says, technoscience “designates a condensation in space and time, a speeding up and concentration of effects in the webs of knowledge and power.”
In what gets politely called modernity and its afterlife (or half-life), accelerated production of natural knowledge pervasively structures commerce, industry, healing, community, war, sex, literacy, entertainment, and worship. The world-building alliances of humans and nonhumans in technoscience shape subjects and objects, subjectivity and objectivity, action and passion, inside and outside in ways that enfeeble other modes of speaking about science and technology. In short, technoscience is about worldly, materialized, signifying and significant power. That power is more, less, and other than reduction, commodification, resourcing, determinism, or any of the other scolding words that much critical theory would force on the practitioners of science studies, including cyborg anthropologists. (ibid.: 51)

It is, indeed, the very idea of the anthropological that is now in a process of radical transformation. In the world of technoscience, technomorphism is the new form of anthropomorphism: we are living in a world after the human being, in the world of the posthuman. From the Heideggerian perperspective, as such a scientific approach obeying the principle of scientific control, technoscience now constitutes the framework of the Weltbild, the “world-picture,” in the contemporary world (see Heidegger 1977a [1938]): technoscience is the dominant way of understanding the world in scientific terms. As such, technoscience is the scientific superstructure of the biopolitical management of life in terms of the increase of productivity: technoscience is the legitimation of economic growth, the economization of all being in the sense of Heideggerian Bestand, “standing-reserve.”

This is the scientific-technological and economic-political basis of neo-Fordism, the order of postmodern capitalism functioning by means of productive consumption and intensification of work, both necessitating one another. In this context, the maximal utilization of the body is the first priority. In these terms, instead of the industrial body constitutive of the modern (from the Gramscian perspective, see Gramsci 1971 [1934]: 279–318; cf. Turner 1997 [1984]: 114–116; Deuchars 2004: 109–110; Yanarella & Reid 1996), what we have now is a postmodern body industry: the postmodern subject is an entrepreneur of his or her own life as a performative body, a neoliberal body managed by means of the ego-politics of the subject, a new form of “the political” peculiar to the postmodern. That is, the ideal of the political economy of neoliberalism is a possessive body defined by possessive individualism that is possessed by body management, a mode of self-control that is able to incorporate the constantly increasing demands of the performance principle of neo-Fordism, at the cost of the self finally becoming dispossessed of itself as the subject of its own life.

The Cyborg as a Promise of Salvation

To understand the whole complexity of the postmodern body industry it is appropriate to put the issue into a historical perspective, to consider it from the perspective of what Nietzsche (1973a [1882/1887]: 317), in his great book of convalescence entitled Die Fröhliche Wissenschaft, calls die grosse Gesundheit, “the great health”:
Die grosse Gesundheit. – Wir Neuen, Namenlosen, Schlechtverständlichen, wir Frühegeburt...
body and the species body are monitored and regulated by government policies; that is, a new form of the political in which “methods of power and knowledge” have assumed “responsibility for the life processes” and undertaken to “control and modify them” (ibid.: 142). Thus, during the Enlightenment, “Western man was gradually learning what it meant to be a living species in a living world, to have a body, conditions of existence, probabilities of life, an individual and collective welfare, forces that could be modified, and a space in which they could be distributed in an optimal manner” (ibid.). What was new was that “[f]or the first time in history, no doubt, biological existence was reflected in political existence” (ibid.; emphasis mine; cf. Foucault 2003b [1979]; Lemke 2007; Muhle 2008; Nadesan 2008).

Instead of death, the perpetual companion of human life thus far, it was now life itself that defined what it was to be human.

However, what was at issue in bio-power was expressly a new mode of politics, a “political power” that “had assigned itself the task of administering life” (Foucault 1990k: 139; emphasis mine). Since the seventeenth century, this “power over life” evolved in two basic forms, “two poles of development linked together by a whole intermediary cluster of relations” (ibid.).

One of these poles – the first to be formed, it seems – centered on the body as a machine; its disciplining, the optimization of its capabilities, the extortion of its forces, the parallel increase of its usefulness and its docility, its integration into systems of efficient and economic controls, all this was ensured by the procedures of power that characterized the disciplines: an anatomo-politics of the human body. The second, formed somewhat later, focused on the species body, the body imbued with the mechanics of life and serving as the basis of the biological processes: propagation, births and mortality, the level of health, life expectancy and longevity, with all the conditions that can cause these to vary. Their supervision was effected through an entire series of interventions and regulatory control: a biopolitics of the population. (ibid.)

These two forms of the administration of life in the sense of the biological, “[t]he disciplines of the body and the regulations of the population” (ibid.), constituted the new body politic, the political constellation of “bio-power” (in terms of technocracy, cf. Burris 1993: 44–48; for the interconnections between the “biological,” “technological” and “political” in contemporary technoculture, see, for example, Geyer 2001; Esposito 2008 [2004]; Reeve 2008; Cohen 2009; Chandler 2010). This “organization of power over life” comprised a “bipolar technology”: “anatomic and biological, individualizing and specifying, directed toward the performances of the body, with attention to the processes of life” (Foucault 1990k: 139; cf. Brieler 1998: 100–119, 412–418; Lemke 1997, 2007; Bröckling et al. 2000; for the idea of “new humanity” as a biopolitical utopia in Russia at the beginning of the twentieth century, see Groys & Hagemeister 2005).

From the Foucauldian point of view, the medicalization of human life, ensuing from technoscience, implies, without doubt, the penetration of bio-power ever further and deeper into the organism (from a historical perspective, see Fou-
But then again, why deny the positive impact of medical technologies – why should medical and bio-sciences only mean an increasingly insidious appropriation of the human body by bio-power? When a patient, only living as a hospitalized body, bound to complicated apparatuses maintaining and regulating the organic functions of the body, is one day returned, by means contemporary medical technology, from the level of sheer bio-body, a plain organism, to the condition of a healthy person being able to enjoy the pleasures of life again, one can hardly help being grateful for science and technology that have enabled all the means by which it is possible today to bring one from the depths of misery, even the dale of death, back to the land of the living. Why should this be only an evil stratagem of power?

I am living: medical technology has saved me. I can easily use my hand again (although during the first year after the operation and physiotherapy the arm was still quite weak and not fully able to do rotating movements). There is a piece of plastic in my elbow but it does not disturb me in any way (although I still feel now and then that I have something “foreign” in my elbow). Without the scientific-technological innovations of surgery in the last century, already turned into routine operations for decades, my hand would not be the hand with which I am writing this text. My “case,” of course, is nothing but just a tiny everyday example of medical normality today. But the accident and its consequences gave me an opportunity, from the perspective of medical reality, to think over the celebration of body modification, prosthetics and the post-human, typical of cyber discourse turning everything into writing in terms of post-theory (see, for example, Featherstone & Burroughs 1995b; Gray et al. 1995b; Wolmark 1999a; Kirkup et al. 2000; Foster 2005).

If the hospital experience was an instructive occasion for me to observe contemporary medical reality in my own body, before it, however, the accident itself as a sudden, unexpected encounter with the possibility of death, was far more important: in a very concrete manner, it showed me the fragility of human existence. It is from this perspective that the cyborg appears to me precisely as what it actually is: the cyborg is a technoscientific manifestation of secular-religious Heilsversprechen, a “promise of salvation” (cf. Bolz & van Reijen 1998); that is, a utopian figure that not only carries a message of redemption, a prophesy of deliverance, but, more importantly, articulates in a mythopoetic language the discrepancy between the actual limitations of the body and the potential overcoming of them by means of new technology, by way of cyborgian body politics.
In this sense, the cyborg is both a critique of the present in terms of the future and a promise of the future in terms of the present: as this kind of double bind between the future and the present, the cyborg is a figure that lives in the future that is present in the imaginary, the imaginary of technoscience as a utopian projection of its scientific-technological rationality.

Thus, the cyborg is a paradigmatic embodiment of the surrational, the imaginary reason of the postmodern.

From this perspective, the cyborg manifests the great expectations that new technologies, especially in astronautics, medicine, biology, robotics and artificial intelligence, and not the least, the military, have created since the 1960s, and, at a more theoretical level, cybernetics, informatics and computer science have given rise after the Second World War. As a futuristic wish-image of all this, the cyborg points out that the human body today is “not enough,” as cyber-theorists often proclaim (see, for example, Featherstone & Burrows 1995b; Gray et al. 1995b; Dixon & Cassidy 1998; Bell & Kennedy 2000; Kern 2000; Kirkup et al. 2000; Gray 2001; Zylinska 2002b; Miah & Rich 2008).

Only the cyborg can save us now. This is the ethos of the scientific-technological rationality under the imperative of the “post.”

There Is No Life Without Cybernetic Self-Regulation

“The cyborg is a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction” (Haraway 1985: 66). In “our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs” (ibid.).

As we recall, this is the way in which Haraway, like a founder of a postmodern secular-religious techno-cult, announced in 1985 that a new era had just begun (cf. Sofoulis 2003); the era of a radical transformation not only of the human being but of all being in general.

The cyborg is our ontology; it gives us our politics. The cyborg is a condensed image of both imagination and material reality, the two joined centers structuring any possibility of historical transformation. (ibid.; emphasis mine)

But who are these “we”? What is a machine? And what is an organism – if not in itself a machine (cf., for example, Bahr 1983; Bammé et al. 1983; Mayr 1986; Canguilhem 1992 [1952]; Des Chene 2001)? From this point of view, Haraway’s claim that the “cyborg is our ontology” becomes quite problematic. The problem is that Haraway’s conception of both the machine and the organism as well as their mutual relationships remains unclear; that is, both are just mythopoetic figures, not analytical concepts. In other words, in Haraway’s cyborg world, “machine” and “organism” are theory-fictions that reflect themselves and one another in the manner of self-reflecting mirror images. On the one hand, Haraway’s definition of the cyborg implies that there is a difference between the machine and the organism, insofar as the whole idea of
the cyborg would be impossible without this constitutive *distinction*; but, on
the other hand, there is no difference between the machine and the organism
since they are interchangeable signifiers without *any differentia specifica* that
would enable the conceptual combination, the *hybridization*, of both; that is, a
construction of a hybrid assemblage without which there would be no cyborg
at all in the first place.

In a similar manner, both the “body” and the “machine” remain empty terms in
Haraway’s “Cyborg Manifesto,” signifiers without signifieds – except, of course,
signifieds in themselves as ever-new signifiers. Precisely for this reason, they
can be filled at will with whatever “meaning” one wishes according to the logic
of post-theory: as *linguistic re-entry vehicles* they are just “free-floating signifi-
ers” signifying the reified signifiers that are recycled in the name of the “cyber”
in cyber discourse (for paradigmatic examples, see Gray et al. 1995b; Bell & Ken-
nedy 2000).

If, in the history of machine thought, or, in the theoretical constellation of
“mechanism” in contrast to “vitalism” (see, for example, Fuchs 2001: 197–217;
Heideggerian terms, cf. de Beistegui 2003: 109–112), the “relationship between
machine and organism,” as Georges Canguilhem (1992 [1952]: 45) sums up,
“has generally been studied in only one way,” implying that “the organism
has been explained on the basis of a preconceived idea of the structure and
functioning of the machine,” and, reversely, “only rarely have the structure and
function of the organism been used to make the construction of the machine
itself more understandable” (cf. Borck et al. 2005), then, in the world of the Har-
awayan cyborg, this theoretical “one-way-street” has now been replaced by
a two-directional circularity typical of the “post”: the machine is the explana-
tory model of the organism, and, in turn, the organism is used as a model to
explain the machine. Precisely this circularity, reified to a pseudo-explanatory
machine-organinism/body-machine model, is constitutive of the idea of the
cyborg. That is, the one explains the other, and vice versa, without any explana-
tory difference, a *differentia specifica*, that would make the difference of the dif-
ference, on the one hand, between the machine and the organism, and, on the
other, between the body and the machine.

In this manner, *circulus vitiosus* is the “explanatory” logic of the Harawayn
cyborg; a mode of postmodern logic according to which the *quadrature of the circle* is no longer a problem, on the contrary, it is the solution of all problems in
the world of the “post.”

For this reason, the cyborg is a post-Derridean manifestation of *différance* in
which the recycling of *différance* is a *causa sui*. In other words, the cyborg, in
the manner of Gertrude Stein’s poem “Sacred Emily” (1913), is a postmodern
derivation of her sentence “Rose is a rose is a rose is a rose”: what was once an
avantgardist poetic image is now a post-theoretical linguistic figure, a mytho-
poetic metaphor that metaphorizes itself by way of a self-mirroring circularity:
The cybernetic organism is a cyborg, a "free-floating signifier" reiterating itself in the mode of a post-Derridean iteration of the iterative (cf. Derrida 2000 [1988]), rewriting the written ad absurdum. This is the seduction of the cyborg: it is a theoretical machine désirante, "desiring machine," (cf. Deleuze & Guattari 1998 [1972]) that desires itself in the manner of post-theory; that is, the dynamics of desire is built-in in the figure of the cyborg.


In this sense, my body is an organic “machine” in itself that functions according to its own biological principles; principles that are intrinsic to the human organism.

Without the regenerative system of the body, consisting of the internal regulation of its organic processes, life would not be possible: in terms of cybernetics, life is always already a cybernetic process, that is, a self-regulating mode of being constitutive of all living beings as organisms. But, conceived of cybernetically, precisely as such an organized organism, a functional system, my body is a “machine”: an assemblage of parts that rely on one another in their functions, a system that functions due to its intrinsic functionality with one single purpose: to enable the survival of the organism, to maintain the life of the organism by regulating its vital processes (see, for example, Van de Vijver 1992b: 108–113; Cordeschi 2004: 187–189; Johnston 2008: 26–47; Oparin 2010: 77–84).

In these terms, my body, similarly to the bodies of all living beings from one-cell organisms to the whole spectrum of species, is in itself, always already, a
cybernetic organism; that is, a functional wholeness that is able to maintain its own organic functions automatically and autonomously, to sustain and regenerate its functional homeostasis, and as such to adapt to the variations of the environment; an organism that regulates itself by the feedback that consists of the circulation of internal and external information, and is thus capable of adjusting to the co-operation with other cybernetic systems, be they organic or inorganic, connected, in one way or another, to it (see, for example, Ellen 1982: 236–251; Sayre 1996: 294–309; Johnston 2008: 7–18, 41–43, 200–206, 221–246, 261–262; in terms of teleology, see Cordeschi 2002: 116–152; from the perspective of evolution, see Csányi 1989; in the context of “postmodern ecology,” cf. White 1998). If my body were not a cybernetic organism, I would not be living at all: the cybernetic, not only as a founding idea and a defining term of a specific science organized around this notion, but as the very principle of the organic, is the sine qua non of all life.105

In this sense, I am, as an embodiment of biological cybernetics, without any doubt, a “cyborg,” literally a cybernetic organism, that in its organic functions is similar to the machine; in contrast, the machine, if organized according to the principle of feedback, is a cybernetic system of a second order, the order of technology in the matrix of technoscience.

Why, then, does Haraway speak of machines as the essential precondition of the cyborg, when all living and organic beings are always already – that is, in themselves, as such, from the very beginning, since birth – cybernetic organisms or “biological machines”? Actually, what are Haraway’s “machines”? Why, in general, do cyber-theorists celebrate machines, although not a single cyborg would be possible without the intrinsic ability of the biological organism of the human body to adapt time and time again to new circumstances; an adaptability which a machine has never had without the originary creativity of the human being as the primus motor of the machine world. That is, without the construction and programming of machines by the human being, without the human being as the very originator of the idea of the machinic, there would never have been contemporary machine systems; thus, also the learning of “learning machines” is always programmed by human beings (see, Wiener 1961 [1948]: 169–180; Pask 1961; Beer 1967; cf., for example, Haykin 2009; in the context of Fluxus art, cf. Schmidt-Burkhardt 2007).

105 Such a simple occurrence (although, in fact, it is far from being simple) as the correction of balance in a split second carried through by the proprioceptive “mechanism” of the organism consisting of the muscle-sense of the body and nerves, in case one has stumbled on a stairway or on an icy street, shows that the human body is a cybernetic organism; that is, an organism that regulates itself by means of feedback information constantly circulating between various body parts and organs. Both Descartes (1985a [1647], 1985d [1664]) and La Mettrie (1912 [1747/1748]) considered these kinds of elementary body functions as demonstration for the fact that the human being is a “machine” that functions automatically and autonomously. In contrast, the machine-like “walk” of a robot constructed according to the model of the human being shows how complicated a procedure the walking of the human being is, to say nothing of the other body functions; and how far removed the machine is from the human being, although the machine is able to significantly exceed human capabilities in precision, endurance and tasks demanding physical power; in this respect, the machine, indeed, is superior to the human being.
Contrary to postmodern theory, it is the human being who stands in the centre of the machine world, and, consequently, machines are an epiphenomenon of the human.

It is human beings who conceive of and construct machines, but there has never been a single machine that would have been able to design and assemble human beings from machinic parts or in a manner whatever, and I assume, there never will be. In this radical sense, machines are always already human without the human ability to exceed their intrinsic limits. For the same reason, the posthuman is always, always already, human; that is, there is no posthuman without the human being.

The human being can live without being a cyborg (except, of course, the cyborg understood as a cybernetic organism that it is in itself as a living body); in contrast, the cyborg cannot live without the organic functions of the human body, without the human organism as a “natural” cybernetic system, as a “biological machine,” the life of which is fundamentally dependent on feedback, the basic principle of the cybernetic: the constitutive principle of life in itself.

A cyborg construction (whatever it happens to be) coupled with a human being (for whatever reasons) is not capable of “living” without the living human body, without the natural cybernetic organism that is the very condition of possibility of human biology as an organic system (cf. Wiener 1961 [1948]; Clynes & Kline 1995 [1960]; in terms of the genealogy of the cyborg, cf. Ruf 2001). The cyborg is always, always already, the “other” of the biological body, a body-machine assemblage dependent on its organic functions in a symbiosis with the organic body; a being, the beingness and foundation of existence of which can be understood in the light of Hegel’s logic of Herr and Knecht, although in contrast to Hegel, in the cyborg relationship, it is the body (Herr) that always overcomes the Knecht (the cyborg), not the other way around as in the Hegelian conception of Anerkennen, the recognition of the “other” (see Hegel 1986c [1807]: 150–155).

Although my Körper-body is a cybernetic organism, my Leib-body is something entirely different. I am my body, and it is this body that is constituted and will always be re-constituted each day by my own body experiences that make up me as me, myself as my self: I am a body that is my body – my body is what I am. These experiences are not biological experiences (one cannot “experience” biology); the experiences of the body are not equal to the functions of the organism, to say nothing of the machine. Everything that one ever experiences as a human being is nothing but human experiences; that is, the physiological reactions of the senses are not the sense experience itself. I am always, always already, more than my organic body, the organism, which is the necessary, but by no means the sufficient, condition of possibility of my being myself, a unique body-subject which I am as a human being in my body which I am.
As organic life, human life is more than organic: human life is cultural, entirely constituted by culture. In other words, what is “natural” in the human being is always already cultural: *culture is the “nature” of the human being, the only “nature.”*

This is my body, this is my life. There is no life outside the body. The body is my life, my life embraces the life of my body that is the body which I am.

I am happy about being able to enjoy my body, grateful that I am living in my body not only plain bio-life, the life of an organism, but life around me that is *my life*. I am happy about not being reduced to a cyborg in my life, happy that I am a human being living in my own body independently of technologically constructed auxiliary systems, and able to move around the world without being connected to machines. And if, for one reason or another, I would need prosthetic restitution of my bodily abilities, I am sure that, although I would greet my prosthetic survival with gratitude, I would never, never ever, be able to “fall in love” with my prosthesis in the manner in which Alucquère Rosanne Stone (1995d, 1995e) celebrates the idea of the prostheticization of the human body in her extravagant cyber stories. I am happy that the biological organism of my body functions just as it should: unnoticeably, autonomously and automatically – that is, *cybernetically*. I am happy that in case I become ill, the cybernetic organism of my body does everything needed for my getting well again. I am happy about the sensations of my body, its living force, its *self-regenerating vitality*, its ability to feel the incomprehensible beauty of life. *I am happy about my body which I am.*

Early in the morning, I open the window, after the night my body is numb and stiff, I am feeling heavy, I am not yet me but someone “Other” who has just come out from the other world of sleep and dream, but as soon as I feel the fresh air on my skin streaming from the window I feel alive: I am extremely happy. I am living. Although the artificial “senses,” the *sensors* of machines, can considerably exceed the sensitivity and the range of the human sense organs today, they are not able to *feel* anything. Although the artificial organs working as prostheses that replace or supplement the functions of the human body are able to perform activities the organism as such is never able, they are not *alive*. My body is alive. I am living.
6.4 Up Against Phallogocentrism!

From the feminist perspective, phallogocentrism can be read as the production of intelligible experience through exclusive categories which privilege the sitting of a masculinized perspective. Phallogocentrism makes clear the contrast between the idea of a full, present, apparent phallus and that of the castrated woman, who lacks a phallus, has nothing to be seen, and who therefore represents absence needing to be recuperated.

Ellen K. Feder and Emily Zakin (1997: 47)

Traditionally, self-reflexive control over life is reserved for humans, whereas the mere unfolding of biological sequences is for nonhumans. Given that the concept of “the human” was colonized by phallogocentrism, it has come to be identified with male, white, heterosexual, Christian, property-owning, standard-language-speaking citizens.

Rosi Braidotti (2008: 178)

According to N. Katherine Hayles (1990: 274–277), the cyborg is no longer only a science fiction fantasy since today the very distinction between reality and fiction is about to collapse. In the contemporary world, according to Hayles, we are living in a situation in which we are already now, as Gibson and Baudrillard have shown, confronted with the “prospect that human beings can become simulacra,” a vision suggesting that a “new social context is emerging which will change not only what it means to be in the world but what it means to be human” (ibid.: 276). Referring to Gibson’s Neuromancer which is “full of characters who have implanted into their bodies various kind of cybernetic devices,” Hayles states that “[s]uch fusions of human organism and cybernetic mechanism may seem farfetched” (ibid.). But cyborgs, in fact, as Hayles emphasizes, “already exist and are not particularly uncommon”: “[a]bout 10 percent of the U.S. population are cyborgs, including people who have electronic pacemakers, artificial joints, prosthetic limbs and, artificial skin” (ibid.: 276–277; cf., for example, Jervis 1999: 207–208; Campbell 2000: 263–267; Gray 2001: 52–54; Genz & Brabon 2009: 149–153).

In this sense, indeed, Kapp’s (1877) idea of Organprojektion, Freud’s (1972a [1930]: 450–451) metaphor of Prothesengott and Gehlen’s (1997 [1940]) notion of Mängelwesen have found their embodiment in the cyborg. And, from the American perspective, “cyborg fiction” has turned into “medical reality” (Klugman 2001). In other words, as Haraway (1991a: 149) says in her “Cyborg Manifesto,” in the contemporary world in which “the boundary between science fiction and social reality is an optical illusion” we have to face the fact that “[t]he cyborg is our ontology; it gives us our politics” (ibid.: 150).
6.4.1 “Cyborg Writing Is About the Power to Survive”

Then again, as Craig M. Klugman points out, technological extensions of the human body and the supplementation of its deficiencies by various devices have already a longer history.

Over centuries, human beings have constructed tools to replace or augment natural physiologic functions: ear horns aided the hard of hearing, eyeglasses enhanced failing eyesight, and dentures enabled a person to eat solid foods. These external devices restored abilities lost to injury or disease. In the past few decades, technological developments have transformed such simple external tools into complex machines that are smaller, more efficient, and implantable. These devices become part of the body, extending aptitudes without encumbering the person with extraneous parts: Cochlear implants permit a limited form of hearing, artificial lenses and implanted telescopes restore sight, and dental implants permanently replace lost teeth. Technology has now gone beyond the dreams of earlier ages: there are cardiac pacemakers, implantable defibrillators and insulin pumps, as well as artificial hearts, bones, blood vessels, and skin. (Klugman 2001: 39–40; cf. Freud 1972a [1930]: 450–451; McLuhan 1964)

This is the very idea of what Freud (1972a [1930]: 451), before the postmodern conflation of fact and fiction, designated as Prothesengott, “prosthetic God”; that is, the idea of the hybridization of the human being with various Hilfsorgane, “auxiliary organs” (ibid.), which enable to extend and enhance the functions of the body.

And, as Freud pointed out, the human being was entitled to expect that the development of technology would in “future ages” bring “new and probably unimaginably great advances” only increasing the Gottähnlichkeit, the “similarity to God,” of the human being (ibid.: 57–58). Thus, self-improvement is the constitutive principle of the perfectibility of the human being most clearly pronounced by the Enlightenment (see, for example, Jackson 2004: 184–186; Lovejoy 2006 [1923]: 36–41; Passmore 1970; from a Darwinian perspective, see Cartwright 2000: 339–339; in terms of postmodern cyborg perfection, cf. Quinby 1999: 125–146). In this sense, the idea of the prostheticization of the body, understood in terms of auxiliary organs, is inscribed in the scientific-technological inventions and innovations constitutive of the modern, paradigmatically described by Freud.
The Body as a Living Resource

Whether or not one calls the technological reconstitution of the human being “prosthetic God” or “cyborg,” it is clear that the hybridization of the body with technology to restore or expand its functions and thus to replace its deficiencies is going to continue even in an accelerated pace.

No doubt, there have been cyborgs in this sense for decades not only in America, but all over the world. Yet, it is appropriate to notice that, firstly, in our contemporary world, there are considerable differences in terms of the availability of medical technology enabling the restoration of the functions of the body by artificial means; and, secondly, the encounter between the machine and the human being is not understood as the birth of the cyborg in all cultures. Although the technologization of human biology is proceeding with great leaps all over the world (of which the high-tech development centres in Asia are a telling example; see, for example, Ong & Chen 2010), the cyborg is a particularly American figure of thought, an incarnation of American scientific-technological rationality emerging from the man-machine connections in military technology (see Levidow & Robinson 1989a; Edwards 1996; Gray 1997), and, as such, a technomorphist idea (cf. Maier & Zoglauer 1994), based on, as Heidegger (1977a [1938]) says, Platonic-Cartesian Weltbild (cf. Guignon 1983: 191–193; Zimmerman 1990: 87, 183; Spanos 1993: 28–33; Glazebrook 2000: 68–73, 92–95, 107–117; Young 2002: 54–55; Bolt 2004: 11–51; Kiesi 1992); that is, the idea of a radical objectification of the human being as the subject of its own constitution, as an object-subject in its epistemological and ontological subjectivity culminating in the figure of the cyborg.

What is essential here is that the cyborg is an American invention through and through, both in terms of technology and the conceptuality defining it: cybernetics, as an ultra-rational science and a world-view based on it, and as a futuristic mindset in science fiction and popular culture, is the idea matrix of the postmodern visions and theory-fictions of the cyborg. But, to be emphasized, cybernetics not in the sense of Wienerian cybernetics (see Wiener 1961 [1948], 1968 [1950]; Heims 1980, 1993 [1991]; Masani 1990; Pias 2003, 2004), but as a postmodern retro-appropriation of the fantasies typical of the popularization of cybernetics from the 1960s to the 1980s, recycled since the 1990s through the technomorphist rhetorics of post-theory. This is the technophilic linguistic configuration from which the cyborg emerges (for paradigmatic examples, see Featherstone & Burrows 1995b; Gray et al. 1995b; Haney 2006). This fact has its reasons and consequences in the past and the present: in terms of genealogy, the cyborg is a confluence of various discursive-technological developments from the Enlightenment to the postmodern in which the factual and the fictional intertwine in the form of scientific concepts and theoretical metaphors (see, for example, Spreen 1997, 1998a, 1998b, 2004; Söring & Sort 1997; Flessner 2000a, 2000b; Bormann 2001; Ruf 2001; Barkhaus & Fleig 2002; Kegler & Kerner 2002; Mraček 2004; Riskin 2005, 2007; Muri 2007; Biro 2009).
But what is important in this context is that it was first and foremost the technological propensity, the techno-fundamental mode of thought, distinctive about American culture that enabled the emergence of the cyborg as both an idea and a practicable technoscientific construction. As such an accomplishment of discursive-technological hybridization, the cyborg is a specifically American figure, the popularity of which, both in academia and popular culture, embodies the Americanization of the world paradigmatically exemplifying the neo-religious, millennial technophilia typical of American culture (see, for example, Ullman 1997; Tomas 2000 [1989]; Friedman 2005; Pärna 2009; in terms of American body culture, see, for example, Rail 1998b; Weber 1999; Johnston 2001b; Pronger 2002; Tschachler et al. 2003; Brandt 2007).

If, as Hayles says above, some ten percent of Americans were cyborgs at the beginning of 1990s, according to this mode of counting the number of cyborgs should have been increased considerably, since during the last two decades the technologization of the human being, from implants to artificial insemination, from prostheses to the pharmacological regulation of physiological functions, the entire human life cycle from birth to death, has developed in a manner unprecedented all over the world (see, for example, Graham 2002: 1–8; Bender & Druckrey 1994; Robertson et al. 1996; Clarke 1998; Davis-Floyd & Dumit 1998; Gray 2001; Edwards et al. 2010; for a paradigmatic example of Harawayan cyborg rhetorics, cf. Strathern 2004 [1991]: 36–41, 105–120; cf. Lay et al. 2000). The possibilities opened up by micro-biology and genetic engineering to modify human genome and the ensuing opportunity to abolish diseases have fostered the idea – still, of course, more a futurological scenario than scientific reality – of creating the human being entirely artificially, as a techno-biological laboratory product, starting from the level of the primordial cell structure (see, for example, Yount 2008 [2000]; Hodge 2009a, 2009b; Peacock 2010; in terms of “biofacticity,” cf. Karafyllis 2003; Spreen 2006).

In this sense, the human being has already been a scientific object for decades, an experimental entity, the construction plan of which has been now mapped out up to the level of the DNA (see, for example, Olby 1994 [1974]). After the accomplishment of the Human Genome Project in the summer 2000 (see Everson 2007: 109–154), the human being, as a species and an individual, has literally turned into a resource in technoscientific visions, an object of optimization (cf. Fukuyama 2002; in terms of transhumanist futurism, cf. Alexander 2003). Heidegger already saw this development in the 1960s as he emphasized in various connections the technologization of all the biological as a new phase in the scientific appropriation of living beings enabling systematic manipulation and regulation of life (see Heidegger 1989b [1962], 2000h [1965], 2006b [1959–1969]). Compared to that, nuclear weapons did not entail, according to Heidegger, a shift of paradigm, but only a continuation of the prevailing control of all being by new scientific-technological means. The real shift of paradigm, for Heidegger, was the cybernetic control of life (see Heidegger 2000h: 622–623;
From this perspective, the cloning of the human being is only a question of time – if the decisions are made solely according to the technological imperative, obeying the principles of techno-logic, the logic of the Heideggerian *Gestell*, “enframing” (see Heidegger 1994a [1949]; cf. Habermas 2001; Gehring 2006).

In general, science is interested in results, in usable and profitable discoveries and inventions, not necessarily in the consequences of the scientific appropriation of all being. In this sense, *life in postmodern technoculture has become life in the laboratory: nothing is certain and permanent any longer, everything can be approached from an experimental standpoint. This is the approach built-in in technoscience: everything can be turned into an object of experimentation and design, and thus into a potential product in terms of feasibility, the human being included (see, for example, Lash 2002: 13–25, 190–202; Cregan 2006: 141–165; Orr 2006: 165–209; Orr 2010: 358–377; Haraway 1997; Ihde & Selinger 2003; in terms of “postvital living,” see Doyle 2003; with regard to the experimental epistemology in the context of cybernetics, see Pias 2008: 80; Andrew 2009: 1–16; Van de Vijver 1992b; from the perspective of the history of science, see Shapin & Schaffer 1985; Rheinberger 2009). Science in itself knows no limits; all constraints are cultural, questions of value, issues of politics, and, in the final instance, financial questions.

From the perspective of technoscience, there is no life outside technology: the Heideggerian being of Being takes place today within a scientific-technological “enframing,” *Gestell*, in an artificial reality of scientific research that has now attained truly planetary dimensions (cf. Heidegger 1983 [1935]: 208; cf. Morat 2007: 180–183; Radloff 2007: 36–61; Jünger 1980 [1930], 1982 [1932]). It is therefore not philosophical thought, but science in the form of scientific-technological appropriation of the living, that is in the position to decide what life is and what it is not. That is, life in technoculture is no longer a philosophical question, but a scientific problem to be solved by science itself, by its own means: by means of research results, by ever-increasing control of life (see, for example, Creager et al. 2001; Weber 2003). According to Heidegger, modern science has created a new relationship not only to human life, but to all living in general: what was once nature is now an enormous “standing-reserve,” *Bestand*, the increasing utilization of which is strived at by the power complex of science, technology, industry and financial capital constituting the biopolitical conglomeration of the life sciences (cf. Heidegger 1994a [1949]) – a power conglomeration that is now even comparable to the military-industrial complex constitutive of American supremacy after the Second World War.

This is the meaning of the Heideggerian *Zeit des Weltbildes*, “the age of the world-picture,” in its contemporary global form: the world-relation of the human being today is given in and by technology ruled by scientific reason (see Heidegger 1977a [1938], 2000b [1953]).
In other words, the politics of the body defined by the Realpolitik of technoscience is the context of the real cyborg; that is, if the cyborg is understood as a substitution of the deficiencies of the human body by means of technology, in the manner Hayles (1993a, 1996a, 1997, 1999, 2004a, 2004b) considers it in her writings on postmodern technoculture and the posthuman. From this perspective, the cyborg is not so much an entirely new life form that promises a better future already today, but first and foremost a scientific-technical model of optimizing the performance of the human body (see, for example, West 2001; Stock 2002; Miah 2004; Dinello 2005; Toffoletti 2007; Gordijn & Chadwick 2008; Miah & Rich 2008); an optimization that complies with the imperative of the economization of all performance capacities of the human being as a resource for increasing productivity, achieved through an intensification of the work performance of labour force under the regime of capital, always demanding more output for less input. Thus, body optimization is not only a private dream, a personal utopia of a postmodern designer body, but, more fundamentally, under the power of global capitalism, in the economic order of neo-Fordism, body optimization is increasingly an economic necessity to compensate the limited time resource in production (the eight-hour work day) by an intensification of work process (see, for example, Kuehls 1996: 106–114; Legge 2003: 84–99; from a historical perspective, cf. Zuboff 1988).

More than ever, it is the lifestyle of productive consumption, the economic paradigm of contemporary global capitalism, that relentlessly demands a continuous modernization of both production processes and work performance (see, for example, Aronowitz 1994; Aronowitz & DiFazio 1994; Aronowitz & Cutler 1998; Sennett 1998; Thompson & Findlay 1999; McKenzie 2001; Prechel 2002), having its paradigmatic model in high-tech sport as a postmodern cyborg science (see, for example, Graham 2002: 208; Giulianotti 2005: 114–115; Gebauer 1997; Rail 1998b; Pronger 2002; Miah 2004; Volkwein-Caplan 2004; Magdalinski 2008).

In this sense, in technoculture, the body is subsumed by capital: the body is a living resource to be utilized similarly to other resources. In other words, being human in contemporary capitalism is to exist as an embodiment of “human capital” (for an overview, see, for example, Gomez Dierks 2001: 228–240; Hartog & van den Brink 2007; Held & McGrew 2007).

This is the reality in a world in which bodies and machines have become increasingly interchangeable; a world in which bodies are needed only insofar as they are not yet replaceable by machines. This is a world in which the machine-body is the ideal body, the ideal of the instrumentalization of the human being by capital, the only omnipotent power in the contemporary world. This is the reality of the body in techno-capitalism ruled by the scientific-technical rationality of technoscience, the rationality of the Heideggerian “enframing” that turns everything into a “standing-reserve,” as discussed above.
The Catholic Origin of the Cyborg

In contrast to the Realpolitik of technoscoience, the Harawayan cyborg, the cyborg as a subversive figure, the cyborg as a postmodern myth, manifests the postmodern politics of the imaginary. The context of this cyborg is post-theory; a mode of theory that itself, by means of theory, produces the theory objects it is theorizing; that is, theory-fictions it theorizes by means of linguistic figuration in the sense of écriture. Thus, the Harawayan cyborg is a paradigmatic example of theory production in terms of the “post,” a product of theory that, in its specific manner, exemplifies the manner of theorizing that speaks about itself by itself (see, for example, McQuillan et al. 1999; Butler et al. 2000; Callus & Herbrechter 2004b).

What we encounter in Haraway’s cyborg world is a politics of playful linguistic figuration, hilarious words and astonishing associations effected by “free-floating signifiers” typical of the “post,” instead of the Realpolitik of global capitalism, the world of the real cyborg, the world of technoscientific practices (see, for example, Bowring 2003; Michael 2006; Lenk 2007; Asdal et al. 2007).

Haraway’s cyborg is an issue of a postmodern theory radicalism in the mode of post-theory: Haraway’s world is a world of theory-fictions in which “the political” of politics is equal to “the theoretical” of theory; theory understood in this context, as Haraway (1991a: 162) says, as a “play of writing” (cf. Kirkup et al. 2000; Flanagan & Booth 2002). In Haraway’s cyborg world as a postmodern theory world, this kind of linguistic play has a deep religious dimension that, in its own peculiar way, reflects “the theological symbolic of Western technoscience” (Graham 2002: 219). This is what Haraway (2000a: 24) calls her “Catholic sacramentalism”: “I have always read biology in a double way – as about the way the world works biologically, but also about the way the world works metaphorically” (ibid.). What is important here, as Haraway says, is “the join between the figurative and the factual that I love” (ibid.; cf. Bell 2007: 118–121). In this manner, language, for Haraway, is an “intensely physical process”: “I experience myself inside these constantly swerving, intensely physical processes of semiosis” (Haraway 2000a: 86).

There’s also a Catholic dimension to all of this. My deep formation in Catholic symbolism and sacramentalism – doctrines of incarnation and transubstantiation – were all intensely physical. The relentless symbolization of Catholic life is not just attached to the physical world, it is the physical world. (ibid.)

The background of this is that Haraway, as she tells about her upbringing, “grew up very much inside an elaborate symbolic figural narrative world where notions of sign and flesh were profoundly tied together” (ibid.; in the context of “the politics of the flesh” peculiar to Catholicism, see McAleer 2005: 3, 94–95, 103–113, 185; in terms of “God between their lips,” see Stockton 1994; cf. Ronan 2009: 20–26, 79–99). “I was a very committed Catholic,” Haraway (2000a: 9) describes her childhood and youth. “It was a terribly important part of my intellectual and emotional life” (ibid).
Catholicism is also the background of Haraway's obsession with phallogocentrism, her love to hate “the traditions of ‘Western’ science and politics,” the traditions of “Man” (Haraway 1991a: 150, 155), “the phallogocentrism of the West, with its worship of the monotheistic, phallic, authoritative, and singular work, the unique and perfect name” (ibid.: 175), “the phallogocentric Family of Man” (ibid.: 176), all that constituting the context of her commitment to “cyborg politics,” “the struggle for language and the struggle against perfect communication, against the one code that translates all meaning perfectly, the central dogma of phallogocentrism” (ibid.; cf., for example, Black 2002: 123–125; Selden et al. 2005 [1985]: 211–212; Bassett 2007: 70–71; with regard to the dildo, cf. Brooks 2006: 162–163; in terms of “the Freudian robot,” cf. Liu 2011: 10–11).

“My life was shaped by very powerful, independent, unmarried women but within an ideology of Catholic patriarchy” (Haraway 2000a: 10). Through these religious experiences Haraway came to politics: “I was reading St. Thomas Aquinas, just entering into high school, surrounded by Catholic patriarchy, the Cold War, and the results of McCarthyism” (ibid.: 11), all of which amounted to the “Catholic Left” (ibid.: 13); and, as a result, “any political work at the time meant for me a religiously motivated Catholic activism” (ibid.; cf. Penley & Ross 1992a: 6; Yanarella & Reid 1996: 209–210; Conley 2001: 659–661; Åsberg 2009: 33–35; Graham 2001, 2002, 2006).

But this is not only her experience in her early years; this is still Haraway’s experience as a postmodern theorist, and, consequently, her “method” in “cyborg writing” (see Haraway 1991a: 175–181; cf., for example, Graham 2002: 200–220; Yaszek 2002: 14–15; Schneider 2005: 61–62, 73–75), the politics of words in terms of theory:

The cyborg and the transgenic being are examples of how I work by a kind of literalization – or better, how I work between this anxious relationship between figuration and literalization. And I swear to God I inherited this from sacramentalism. My inability to separate the figural and the literal comes straight out of a Catholic relationship to the Eucharist. (Haraway 2000a: 141; emphasis mine)

The experience of the Eucharist – that is the religious moment, the sacred source, from which the Harawayan cyborg emerges (for a historical contextualization in terms of going “beyond the Enlightenment,” see Salerno 2004; with regard to Rousseau’s religious counter-Enlightenment, cf. Melzer 1996). This is what Haraway (2000a: 141) calls her “Catholic sensibility” in which the “literal nature of metaphor and the physical quality of symbolization – all this comes from Catholicism” (ibid.); that is, “the literal and the figurative, the factual and the narrative, the scientific and the religious and the literary, are always imploded” (ibid.) in Haraway’s cyborg world. This is Haraway’s “Catholic sacramentalism” from which her techno-biological visions, her “large narratives” or “cosmological histories” (ibid.: 24) originate. No wonder, then, as Haraway says, that “science fiction is political theory for me” (ibid.: 120; emphasis mine), and “what I am good at is the words” (ibid.). This is what Haraway calls her “cyborg surrealism” (ibid.; cf. Kellner 1995: 231–232); in this sense, Haraway’s “Catholic
sacramentalism” is in many ways comparable to McLuhan’s Catholicism (see McLuhan 1954, 1964; for discussion on the influence of the Catholic mode of thought on McLuhan, see, for example, Kroker 1987b [1984]: 61–70; Marchand 1989: 2, 45–56; Theal 2001: 22, 58–59, 74–75, 90–91, 118–124; Gordon 1997).

In this respect, Haraway’s cyborg world is a postmodern manifestation of what Heidegger (1998b [1961]: 415, 470, 2006a [1957]), in his criticism of modern science as a form of metaphysics, designates as Ontotheologie, a metaphysical conception of all being in terms of a higher order, a transcendent reason, that keeps the world in order (cf. Peacocke 1998; in terms of “the ‘crossed-out God’” of technoscience, cf. Graham 2002: 217–220). In this sense, the essence of being in Haraway’s world is ontotechnology as a postmodern mode of ontotheology, technology seen as a transcendent world explanation that, at the same time, constitutes its immanent basis.

Thus, Haraway’s cyborg lives in a world in which technology is the condition of possibility of all being; in other words, the cyborg is a techno-theological manifestation of ontotechnology, a phantasmatic projection of the metamorphosis of the human being, a technological wish-image as a neo-religious phantasm suggesting the salvation of the human being: in the shape of the cyborg the human being encounters itself as an “image of God” in terms of Heideggerian Weltbild, “world-picture” (with regard to “God the Engineer,” cf. Muri 2007: 58; Pattison 2005), as an image in which the subject as a body and the body as a subject have transformed into a “standing-reserve,” Bestand, of themselves, to be utilized by the subject, by way of transformative body modification, as a personal resource according to the post-political principles of the performative subjectivity of the postmodern multiple self (for the transition “from discipline to performance” in contemporary culture, cf. McKenzie 2001).

What is specific to Haraway’s mythopoetic figuration concerning the cyborg as a figure of technoscientific redemption is that, through her performative writing as a techno-theoretical linguistic performance, Catholicism turns into millennial mysticism, a post-utopian revelational mantra in the service of subversive politics: the ego-politics of the post-subject dreaming about ever-new body options produced by the scientific-technological innovations of body modification as a trans-identitarian self-technology (cf., for example, Angerer 1999a; Featherstone 2000; Mercury & Haworth 2000; Siebers 2000; Bryant & Turnpenny 2003; Chapman & Frankel 2003; Drees 2009).

In the postmodern, the corporeal is the living “material” of individual body design, and thus, a modified body is a vehicle of the pursuit of happiness in one’s own terms, the terms of the ego-politics of the post-subject, the politics of body optimization in the mode of body customizing following the logic of neoliberalism in the form of market individualism, especially celebrated by feminist techno/cyborg theory as the liberation of the female body from the terror regime of “phallogocentrism” (Haraway 1991a: 175–176), as Julia Kristeva says, from “the whole mono-logic, monotheistic culture” based on the “phallic
Whatever we think about phallogocentrism, it is clear that the Harawayan cyborg as a body-machine assemblage is the dream-body of post-theory under the sign of the “cyber.” In the world of the cyborg, while the body as an onto-technological artefact is the vehicle of survival of the post-transcendental subject, the subject itself is the autopoietic agent of the techno-body embodying the omnipresent master-plan of the cyborg, the supreme Being as the onto-technological life principle of all beings, the techno-religious principle of onto-theology (see Haraway 1991a: 178–181; Gray et al. 1995b; in terms of the secular-religious visions of *der Neue Mensch*, “the New Human Being,” cf. Hüppauf 1993; Küenzlen 1997 [1994]; Lepp et al. 1999; D’Idler 2007; in the context of the Nietzschean *Übermensch*, cf. Gebauer 2001b; in relation to the idea of “the perfectioning of the human being,” cf. Gesang 2007). As such a subject-object, as an embodiment of the subjective objectification and objective subjectification of the supreme cyborg, each cyborg-subject incorporates – *this is my body, this is my blood* – the idea of the onto-technological *Ur*-cyborg, the Harawayan onto-theological figure of salvation, the cyborg as the final redemption of the human in the habitus of the posthuman (for the technological reconstruction of the human being in the *Gestalt* of the *Arbeiter*, cf. Jünger 1982 [1932]; for the “new humanity” in the context of the biopolitical utopianism in Russia in the early twentieth century, cf. Groys & Hagemeister 2005; in terms of Pavlovian “conditioning,” cf. Rüting 2002).

This is the Harawayan moment of the Eucharist as the birth of the cyborg, the moment of techno-religious transubstantiation: the moment of ultimate transgression.

In this sense, in the Harawayan neo-religious cyborg mythology, the cyborg is a subversive *anti-body*, a post-theoretical negation, of the inherited body, the body of the Enlightenment and the modern constructed according to what Haraway (1991a: 150) calls the “traditions of ‘Western’ science and politics,” “the tradition of racist, male-dominant capitalism; the tradition of progress; the tradition of the appropriation of nature as resource for the productions of culture; the tradition

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106 The term “phallogocentrism,” already a mythical idea in discourses around the “post,” was originally introduced by Ernest Jones (1969 1927/1928) in the form of “phallocentrism” to criticize Freud’s conception of female sexuality, according to which the origin of the “sexual” and thus the sexual difference is reduced to having/not-having the penis which, in turn, is based on the primordial idea that there is only the male form of the “libido” (see, for example, Roudinesco & Plon 2004 [1997]: 784–785; Quindeau 2008: 99–118; Jones 2000 [1993]). Lacan (1977g [1966/1958]), then, elaborated this monistic – one is attempted to say, *monothestic* – idea to signify a “privileged signifier” that articulates, in the context of the “castration complex,” female desire as a relation between the mother and the child, *both* in their own ways attempting to identify with the phallus as an “imaginary object” signifying the “name of the Father” as the access to the symbolic, language and culture (see, for example, Gallop 1985: 128–160; Homer 2005: 51–65). In his critique of Lacan’s theory, Derrida (2003 [1975]: 112–113, 129–130) used the term “phallogocentrism” to refer to the “metaphysics of logocentrism” present in Lacan’s idea of the phallus as the “privileged signifier” that implied a transcendental point of origin as the basis of sexual difference. Through Iri-garay’s (1985a [1974]) critique of Freud and the whole male tradition of psychoanalysis, American feminists made the phallus and phallogocentrism into a weapon in their struggle against “Man” the “Male” (see, for example, Whitford 1991: 96, 124–143; Weir 1996: 90–111).
of reproduction of the self from the reflections of the other.” But, paradoxically, precisely as such a subversive figure against the Enlightenment and the modern, the cyborg is the final accomplishment of technological omnipotence based on the very same logic of the scientific-technological rationality it attempts to subvert: the cyborg is the paragon of postmodern ego-politics, a body that desires only itself, a body that is the embodiment of its own desire for an enhancement and amplification of itself (see, for example, Stock 2002; Hughes 2004; Harris 2007; Gordijn & Chadwick 2008; Savulescu & Bostrom 2010; in terms of “liberal eugenics,” see Agar 2004). That is, the cyborg is the very embodiment of the reason of the Enlightenment and the modern, the rational principle of modernization brought to its logical conclusion at the level of individual life politics.

In this manner, the cyborg is a postmodern embodiment of the idea of the perfectibility of the human being constitutive of the Enlightenment – the leading idea of the Age of Reason which Haraway is at pains to subvert by her playful politics of words.


To ward off the conventional misunderstanding concerning the “will to power,” it should be emphasized, however, that by this notion Nietzsche does not mean the power to subjugate and rule others, but the will to be oneself by becoming oneself through a continuous process of self-empowerment, of increase of one’s own life forces; the will of submitting oneself to the principle of life itself by cultivating and enjoying the power of der unerschöpfe zeugende Lebens-Wille (Nietzsche 1968a [1883–1885]: 143), “the unexhausted procreating life-will”; that is, Nietzsche is a poet of vitalism. In this sense, Nietzsche’s Wille zur Macht, the “will to power,” is the supreme principle of all living, the principle of self-enfolding, self-strengthening, self-invigorating, of self-overcoming as the overcoming of one’s own weaknesses, as Selbst-Ueberwindung (ibid.: 142–145). As Nietzsche says:

Das ist euer ganzer Wille, ihr Weisesten, als ein Wille zur Macht; […] der Wille zur Macht, – der unerschöpfte zeugende Lebens-Wille. […] Wo ich Lebendiges fand, da fand ich Willen zur Macht; und noch im Willen des Dienenden fand ich den Willen, Herr zu sein. […] Und diess Geheimniss redete das Leben selber zu mir. “Siehe, sprach es, ich bin das, was sich immer selber überwinden muss” […]; und wahrlich, wo es Untergang giebt und Blätterfallen, siehe, da opfert sich Leben – um Macht! (ibid.: 143–144; emphasis mine)

In this sense, the “will to power” is a “physiological drive” for Nietzsche, a drive of self-preservation, constitutive of all living beings, of all organisms:
In terms of post-theory, the will to power constitutive of the cyborg is a desire for theory transformed to a desire for the machine. This desire for the machine is the ultimate metamorphosis of desire: *the triumph of the will as the birth of the cyborg*, the origin of the post-Nietzschean *Übermensch* in the form of the post-human as the post-Freudian *Prothesengott*.

The Pleasure of Theoretical Castration

In the world of the postmodern, the world of technoscience and global capitalism, science is a mode of technology functioning in the manner of futurology, based on the projective temporality of present future, emerging through a process that Heidegger (1994a [1949]: 42–43, 2000b [1953]: 18–22) describes as *vorstellen-herstellen*, production by means of imagined projection, producing by imagining. For this reason, the imaginary has taken a prominent position in the postmodern: the order of the postmodern is predicated upon the imaginary of the technological, the politics of the techno-imaginary. It is in this sense that post-theory, in its own way, exemplifies the Heideggerian idea that “science does not think” (see Heidegger 2000d [1952]: 133; Glazebrook 2000: 209–221): technoscience, in terms of the “post,” is not thinking, it is *imagining*, not in terms of fantasy, but in terms of the surrational, the terms of the impossibility of the impossible that constitutes the possibility of the possible in the world of the “post”: the actuality of the potential as a technoscientific projection.

This is the productive function of the imaginary constitutive of the “post”: the scientific-technological rationality of the postmodern implies *vorstellen* as the principal mode of *herstellen* (cf. Anders 1988a [1956], 1988b [1980]). In a post-Heideggerian manner, the “post” manifests “presencing” by means of “futuring” (cf. Heidegger 1977f [1953]: 9–10, 2000b [1953]: 12–13), bringing about, bringing forth, bringing present, resignified as “becoming” (cf. Deleuze & Guattari 1998 [1972], 2000 [1980]): coming about, coming forth, as the becoming of becoming. But what is important here is that this becoming is not just becoming: the becoming in terms of technomorphism inscribed in the idea of the cyborg is becoming in the sense of Heideggerian *herausfordern*, “challenging-forth” (see Heidegger 1977: 15–17, 2000b: 17–20), that is, calling forth, summoning to action, demanding out hither. It is in this sense that there is no past in the “post”; the “post” is always – *always already* – ahead of time, in the future that is present in the manner of Heideggerian *vorstellen-herstellen*.

This is the Harawayan politics of the cyborg: the politics of the technological will, *the will to power by means of the techno-imaginary*. 
Thus, to come to terms with the cyborg, one must acknowledge the position of post-reason; there is no other way. If I, the writing subject – or, to be precise, the writerly “subject” – of this text that exists only on the condition of this writing, want to approach the intrinsic truth of the cyborg, I have to leave behind the idea of truth as an objective representation of reality, as a truthful correspondence between a statement and a factual state of matters (cf. Zima 1994: 21–34). And, more fundamentally, in Heideggerian terms, I have to abandon the “metaphysics” constitutive of science since the days of Plato once and for all. I have to indulge in the pleasure of writing (in terms of “the pleasure of the text,” cf. Barthes 1975 [1973]), to experience the jouissance of the libidinal language of the “post,” its orgastic ability to subvert the reason of the modern in the name of the surrational, the hard core of the reason of the postmodern.

In these terms, the birth of the cyborg is a moment of coming-into-being of what John Mowitt (1992) calls an “antidisciplinary object,” a writerly object that resists the discipline of all disciplines, an anti-object that subverts the limits and limitations of academic disciplines; that is, a liminal object in its post-liminality enabled by the libidinal language of the “post.”

This, of course, is the fulfilment of the most cherished dream of post-theorists: one no longer needs to think, from now on is allowed to relish the pleasure of imagination; there is no longer the imperative of Kantian reason, the politics of Vernunft (see Kant 1974b [1788], 1990a [1781/1787], 1990b [1781/1787]); instead, one can now indulge in the world of the imaginary and enjoy the seductions of the surrational without any hesitations whatsoever: the power of reason in terms of post-reason. One is no longer obliged to question as in the Heideggerian world (wir fragen nach…) since there are so many things one can say in the world of the “post”: there are so many words just waiting for new combinations, astounding and enticing figurations. In terms of the “post,” we are living in an absolutely free world: nobody, no power, can constrain the freedom of words (in terms of parole in libertà in the politics of Futurism, cf. Perloff 1986: 58–63, 95–99, 171–187; Orban 1997: 25–35; Poggi 2009: 62–63).

In terms of the “post,” to be is to write; that is, to be engaged in the work of writing, textual production, reproduction of discourse. In the world of the “post,” writing is no longer a para-reality of some external world; it is now a reality sui generis: writing is the reality of writing: there is no other reality. But this is only one half of the matter. The other one is that it is not the writer who is writing the text; on the contrary, it is the writing that is writing the writer. The “post” implies a textual writing machine that writes, in machinic language, the machines which we are as the machinic object-subjects of the writing machine of the “post,” a machine that writes us into being in terms of writerly writing, writing machines in and by ourselves (in Kittlerian terms, cf. Johnston 1997: 22–24; Gitelman 1999: 3–5; Tabbi 2002: 7–17; Kittler 1986, 1987 [1985]).

As Haraway (1991a: 162) says, the “play of writing” is the way out of the oppressive regime of the Western tradition, a tradition under the terror regime of the
phallus. But, “[r]eleasing the play of writing is deadly serious”; thus, what is at issue is the “access to the power to signify,” and “that power must be neither phallic nor innocent” (ibid.: 175). Writing, in this sense, as stated above, is a feminist strategy to write oneself free from the constraints of “the phallogocentrism of the West,” from its “worship of the monotheistic, phallic, authoritative, and singular work, the unique and perfect name” (ibid.). “Contests for the meanings of writing” are therefore a “major form of contemporary political struggle” (ibid.). “Cyborg authors,” as Haraway calls these champions of feminist freedom, write in order to “subvert the central myths of origin of Western culture” (ibid.).

Struggling against this tradition, cyborg writers are, however, not bound to its topics, the topics constituted by the terror regime of Enlightenment reason:

Cyborg writing must not be about the Fall, the imagination of a once-upon-a-time wholeness before language, before writing, before Man. **Cyborg writing is about the power to survive**, not on the basis of original innocence, but on the basis of seizing the tools to mark the world that marked them as other. (ibid.; emphasis mine)

These “tools,” “tools” to be seized by means of writing, according to Haraway, are “often stories, retold stories, versions that reverse and displace the hierarchical dualisms of naturalized identities” (ibid.; emphasis mine). But what is important here is that whatever these “stories” are, they are always – always already – in their origin “phallogocentric origin stories” that are “built into the literal technologies,” “technologies that write the world,” namely, “biotechnology and microelectronics,” that have recently “textualized” female bodies “as code problems on the grid of C3I” (ibid.); that is, the system of command-control-communication-intelligence of the US military (see, for example, Leidhold & Robins 1989c: 164–165; Mosco 1989: 91–92; Edwards 1996: 20–21, 65–66, 131–133, 271–273; Mirowski 2002: 17–18, 54–55, 158–159). In other words, there is no cyborg without the reason of the American military-industrial complex, the power regime of the scientific-technological rationality that emerged from the American war effort in the Second World War, epitomized by the Manhattan Project (see, for example, Hughes 2003; Kelly 2007; for a historical contextualization, see Schwab 2004; cf. Feenberg 1995: 41–72; for Haraway’s political background in this context, see Moore 2008). It is in this constellation that Haraway’s politics of words becomes understandable: “Feminist cyborg stories” have been and will always be challenged by the “task of recoding communication and intelligence to subvert command and control” (Haraway 1991a: 175; emphasis mine; for a historical contextualization of Haraway’s position in terms of technoscience, see Cregan 2006: 141–165).

Time and again, the feminist “cyborg author” encounters a Sisyphus’s work as a work on herself: military reason in terms of C3I never rests: phallogocentrism is a Hydra with innumerable heads always regenerating themselves, and, consequently, if phallogocentrism is subverted here, it triumphantly returns there. In this manner, cyborg feminism is forced to constantly reproduce itself by reiterating the logic of C3I: the enemy is within the discourse of liberation: the enemy
is within the very writing that is the only means of liberation in terms of writing (for a historical contextualization of Haraway’s writing style in terms of literary responses to the cultural situation of the Cold War, cf. Cornis-Pope 2001: 81–100).

That is, what you write in terms of cyborg feminism is what you get in terms of your enemy. Therefore, the Leninist question What is to be done? (see Lenin 1973 [1902]; for a historical contextualization, see Lih 2006) has an enormous gravity in the world of the cyborg (cf. Van Loon 2002: 67–68). And even more gravity has the solution to the problem: the imperative of subversion. In other words, turning the tables in terms of the “post” is the only way to liberation under the sign of the cyborg.

In this sense, cyborg feminism is a manifestation of the Harawayan “play of writing,” an endless re-writing of the same, rewriting the rewritten (in the manner of postmodern gender theory), rewriting the mythopoetic linguistic figuration originating from the Harawayan cyborg, the origin of all cyborg narratives (see, for example, Braidotti 1994a: 206–212; Moore 1995: 121–122; Adam 1998: 143–151; Halberstam 1998a [1991]: 473–482; Hartmann 2004: 50–53; Bell 2007: 98–110; Sandoval 1995; Lykke & Braidotti 1996a; Wolmark 1999a; Bryld & Lykke 2000; Kirkup et al. 2000; Flanagan & Austin 2002; Sundén 2002a, 2010; Toffoletti 2007; Smelik & Lykke 2008): while post-theory is in itself a reified discourse, the Harawayan cyborg is an apoteosis of post-theoretical reification: the cyborg is a post-theoretical theory-fiction that is constituted by the reiteration of reiteration of reified language through the rewriting of the rewritten. In the world of post-theory, there is nothing that is rewritten as often as the Harawayan cyborg, to the extent that today the cyborg is in itself a paradigmatic example of the repetitive mode typical of post-theory: the cyborg is a very embodiment of linguistic repetition, a mythopoetic figure that “lives” in the imaginary paraspace effected by the repetitive language of the “post” (in terms of the cyberfeminist celebration of Lara Croft as the saviour of the world suffering under the terror regime of phallogocentrism, see, for example, Deuber-Mankowsky 2001; Schleiner 2004).

But, precisely in this manner a miracle happens time and again in the postmodern utopia of the cyborg: “cyborg authors” are able over and over again to confirm themselves in the faith that by Harawayan cyborg writing they are able to cross the magic circle of C³I, the lethal circle of “command-control-communication-intelligence” constitutive of the American way of war as a “cyborg orgy” (Haraway 1991a: 150; cf., for example, Harkavy 1989: 149–158, 174–176, 200–216; Cubitt 2001: 128–130; Murphie & Potts 2003: 172–179; Coakley 1991), the code of codes in terms of American military rationality, the rationality of the cyborg war; that is, “war in the age of intelligent machines” (De Landa 1991). In this sense, writing in the name of the cyborg is an imaginary solace, a mode of postmodern “language politics” that “figuratively and literally” pervades the “struggles of women of colour” (Haraway 1991a: 175), for Haraway the literary avantgarde of “cyborg authors,” and thus the ideal mode of being in terms of transgression (in passing, it is strange, but just as telling, that there is no discussion on Haraway’s
idealization, mystification and fetishization of “women of colour”; for a problematization of Haraway's essentializing conception of identity, see Moya 2002).

What is at issue in this politics of words is a mode of writing that, as Haraway assures us, is not based on an “original language,” that has to tell no “original story,” that has never resided in the “harmony of legitimate heterosexuality in the garden of culture” (ibid.); in short, a mode of writing that is not dependent on an identity of any kind – except the post-identitarian identity of the cyborg, an identity that is enabled by a specific mode of writing (cf. Bhabha 1994 [1984]; in terms of “terminal identity,” cf. Bukatman 1996 [1993]).

6.4.2 There Is No Cyborg Without the Phallus

As a very negation of identity in terms of the politics of theory, a “cyborg writer,” according to Haraway (1991a: 175), is a “chimeric monster” (ibid.) beyond all identities, beyond the oppressive tradition of phallogocentrism (cf. Shildrick 2002: 122–128; for the “postgender-cyborg” as a manifestation of a “queer” subject position, cf. Volkart 2006: 64–69). And, in these terms:

Writing is pre-eminently the technology of cyborgs, etched surfaces of the late twentieth century. Cyborg politics is the struggle for language and the struggle against perfect communication, against the one code that translates all meaning perfectly, the central dogma of phallogocentrism. That is why cyborg politics insist on noise and advocate pollution, rejoicing in the illegitimate fusions of animal and machine. These are the couplings which make Man and Woman so problematic, subverting the structure of desire, the force imagined to generate language and gender, and so subverting the structure and modes of reproduction of “Western” identity, of nature and culture, of mirror and eye, slave and master, body and mind. “We” did not originally choose to be cyborgs, but choice grounds a liberal politics and epistemology that imagines the reproduction of individuals before the wider replications of “texts.” (Haraway 1991a: 176; emphasis mine)

The life of the Harawayn cyborg, like the life of the professional revolutionary, is a life-long, persistent commitment to a revolutionary mission: the subversion of “Western” identity by “replications of ‘texts’” that “insist on noise and advocate pollution.” “Cyborg writing” is the weapon that destroys the enemy: the lethal power of “phallogocentrism.” That is, to be a “chimeric monster” is to live a life not only of a professional revolutionary, but a life of a champion. As Haraway (1991a: 149) says, this is “a struggle of life and death,” this is a struggle for “survival” (ibid.: 150, 153, 157, 163). “Cyborg writing is about the power to survive” (ibid.: 175; in terms of écriture feminine, cf. Cixous 1976 [1975]; Moi 1985: 89–172; Felski 1989: 19–21, 33–54; Osinski 1998: 151–167; Blyth & Sellers 2004: 18–34; Grosz 1989; Segarra 2010; in the Derridean context, cf. Irwin 2010).

But, what if you do not happen to be a “chimeric monster” or otherwise a feminist “cyborg author,” or, as Haraway specifies, a “polychromatic girl” meaning that “the cyborg is a bad girl” (Penley & Ross 1992a: 20; cf. Case 1996: 99; Sofoulis 2003: 97–100; Foster 2005: 61–62; in terms of “cyber-postfeminism,” see Genz & Brabon
do you, then, have any chances of becoming a cyborg, that is, to survive, to stay alive, in our world in which the phallus is the supreme instance of mortal danger?

“The Matrix Is Not the Opposite of the Phallus”

There is no answer to this question in Haraway’s cyborg writing. But it does not make any difference because as soon as you believe in the cyborg you are a cyborg, and thus redeemed. To tell a believer that God does not exist does not make sense; it is not intelligible in terms of faith. In contrast, it is faith that opens the way to redemption, and there are many ways available. As Haraway (1991a: 149) says, “[c]ontemporary science fiction is full of cyborgs – creatures simultaneously animal and machine, who populate worlds ambiguously natural and crafted.” And not only that: “[m]odern medicine is also full of cyborgs, of couplings between organism and machine, each conceived as coded devices, in an intimacy and with a power that was not generated in the history of sexuality” (ibid.: 150; emphasis mine). And if these are not your choices, no problem, because “modern production” as well as “modern war” are nothing but worlds of the cyborg – although not such pleasant alternatives: the former, a “dream that makes the nightmare of Taylorism seem idyllic,” the latter, as we saw above, a lethal “cyborg orgy, coded by C3I, command-control-communication-intelligence” (ibid.).

From Haraway’s feminist point of view, based on postmodernism, this is neither a problem, because, as she says: “I am making an argument for the cyborg as a fiction mapping our social and bodily reality and as an imaginative resource suggesting some very fruitful couplings” (ibid.; emphasis mine). In comparison to that, as Haraway says, “Michael [sic] Foucault’s biopolitics is a flaccid premonition of cyborg politics” (ibid.); thus, you must carefully choose your companions in order to avoid going astray.

But, this danger, in fact, is just hypothetical, since, from the post-Biblical perspective of the cyborg, in the end, all are invited and all are elected: all are called to arms, each and every one is summoned to participate in an epochal war:

By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs. The cyborg is our ontology; it gives us our politics. The cyborg is a condensed image of both imagination and material reality, the two joined centres structuring any possibility of historical transformation. In the traditions of “Western” science and politics – the tradition of racist, male-dominant capitalism; the tradition of progress; the tradition of the appropriation of nature as resource for the productions of culture; the tradition of reproduction of the self from the reflections of the other – the relation between organism and machine has been a border war. The stakes in the border war have been the territories of production, reproduction, and imagination. (ibid.; emphasis mine)

In these terms, the politics of the cyborg implies an “argument for pleasure in the confusion of boundaries and for responsibility in their construction” (ibid.). At the same time:

Yet, although Haraway proclaims that we are all cyborgs, what ultimately remains of the epochal upheaval initiated by Haraway with her “Cyborg Manifesto” is that the Harawayan “we” is a feminist “we.” That is, some are more cyborgian in their post-identitarian identity, and, thus, some are more equal in their cyborgian equality.

For all its revolutionary pathos, Haraway’s cyborg politics is unable to subvert the privileged position of woman, the identity of “woman” as the constitutive standpoint of cyborg politics. In other words, Harawayan “cyborg writing” is not able to deconstruct “woman,” the “female,” inscribed in the very core of Haraway’s cyborg politics, and, as a consequence, it is neither able to deconstruct “man,” the “male,” implied by her identification of “the tradition of racist, male-dominant capitalism” as the source of all wrongs in the contemporary world. Accordingly, what Haraway (1991a: 175) calls “Man” is the problem of the cyborg, a problem that is intrinsic to Haraway’s “woman.” In this manner, the Harawayan cyborg is constructed precisely upon the binary opposition it intends to subvert: the binary opposition between the female and the male, between “man” and “woman.” This is because the very opposition to be subverted maintains in itself the condition of possibility of its subversion; and, as a consequence, as soon as what is to be subverted is subverted there is nothing to subvert any more. From a wider perspective, the politics of subversion as the hard core of feminist politics of theory in the name of the “post” would immediately collapse without all the binary oppositions – and there are plenty of them – the subversion of which constitutes its theory-political precondition.

That is, in order to exist, the cyborg, as a subversive figure, not only presupposes but even necessitates an enemy: the Reason of Man as the reason of “phallogocentrism.”
What we see here, once again, is the *circulus vitiosus* constitutive of the “post,” the anti-linear circularity that maintains the mode of writing in post-theory; that is, what you write is what you get, and, as result: what you get is what you write.

For this reason, following Haraway’s initiative, feminist cyborg politics is a form of postmodern writing that constantly *itself produces* the opposites it loves to subvert. And it is for this reason that the binary opposition between the female and the male, and, according to the same logic, that between the heterosexual and the non-heterosexual (whatever it is) – with innumerable other binaries – turns into the binary opposition, first, between the “good” and the “evil,” and then, between the “good” and the “bad” – like a postmodern version of Nietzsche’s *Genealogie der Moral* (see Nietzsche 1968c [1887]: 271–303).

In Haraway’s world, the “male,” the “Man,” is the arch-“evil,” the supreme “evil.” Why? This is because “Man” the “male” in itself, according to this very theory, is the sign of the border, the emblem of an aggressive and belligerent defence of borderlines, the embodiment of a limited scope of thought effected by thinking in terms of border politics; in short, the terrible, oppressive and militaristic mindset of “phallogocentrism” (Haraway 1991a: 175), the authoritative and exclusive world-view constitutive of the “phallogocentric Family of Man” (ibid: 176; cf. Bassett 2007: 70–78; for Haraway’s cyborg metaphor as an implementation of “irigarayan models of disruption,” cf. Gillis 2007: 322–333; in Derridean terms, cf. Cranney-Francis 1995: 98; in the context of “the politics of enchantment,” cf. Black 2002: 125).

In short, in Haraway’s feminist cyborg world, the female is the diametrical opposite of the male, and vice versa: without this constitutive opposition, this very binary opposition, there would be no Harawayan cyborg; in other words, without the binary opposition between “the female” and “the male” – combined with all the related binaries, and, again, there is plenty of them – Haraway’s cyborg would implode in its own impossibility (cf. Doane 1990; Fernández 2010 [2001]; Malik 2010 [2001]). That is, Haraway is not able to see things in terms of the difference that makes a difference: the difference of *différance* (see Derrida 1984a [1972/1968]). Why? This is because, as Haraway (2000a: 21) says about her “lineage” of thought, Derrida, deconstruction and “the French poststructuralists” are not part of it; instead, behind the cyborg, there are “a lot of connections” coming “through Heidegger” (ibid.) – Heidegger here, of course, re-read in terms of the “post.”

Instead of Derridean deconstruction in terms of *différance*, Haraway’s cyborg is based on appropriation, an idea widely recycled on the postmodern theory scene of the 1980s, amongst others, in radical feminist theory (see, for example, Best & Kellner 1997: 136–137, 180–190; Welchman 2001: 1–4, 10, 17–18, 26–57; Foster 1989b [1983]; Roberts 1990; Jones 2003; for a contextualization from the perspective of “art after modernism,” see Wallis 1999 [1984]; in terms of “pun deconstruction,” cf. Jagodziński 1997). In this sense, Haraway’s (2000a: 21) confession that “I particularly love Heidegger’s language” implies a postmodern re-
figuration of Heidegger’s ontology of Being to the onto-theology of the cyborg as an attempt to subvert “phallogocentrism” – “phallogocentrism,” in fact, as a *theory-fetish of post-theory*.

In these terms, *it is the phallus that stands at the origin of the cyborg*. In other words, in the Harawayan world of the cyborg, the phallus is *a word to stand on*: the cyborg is erected on the phallic signifier of the phallus; a signifier that stands for phallic power, and, as such, enables the discourse around the phallus as an eccentric centre of the discursive order of the cyborg; that is, the phallus is the *sine qua non* of the Harawayan cyborg world, the centre around which everything revolves (see, for example, Apter & Pietz 1991: 5–6; Delany 1996: 104–105; Ettinger 1996: 125–127; Roof 1996: 69–90; Livingston 1997: 98–99; Hayles 1999: 164–165; Davis 2001 [1998]: 279–283; Ihde 2002: 241–243; cf. Grosz & Probyn 1995; Campbell 2000; for the importance of the phallus is terms of the lesbian, feminist and queer, see, for example, Lamos 1995; Chanter 1997; Weed & Schor 1997; Campbell 2000; Brooks 2006).

It is in this sense that the phallus is the Big One of the Harawayan cyborg world, a world in which little “zeros and ones” (see Plant 1997b) circulate, like post-Leibnizian monads in their nomadic orbits, around the phallic centre, the cyborg as the *origo mundi* of its own solar system, the universe of the posthuman.

But, nevertheless, due to its postmodern dialectics, the cyborg cannot exist without its constitutive “Other”; as Bracha Lichtenberg Ettinger (1996: 125) suggests in her extraordinary dense resignification of the “phallic” that, in fact, amounts to a re-erection of the phallus in terms of post-theoretical linguistic figuration:

> The Matrix is not the opposite of the Phallus; it is rather a supplementary perspective. It grants a different meaning. It draws a different field of desire. The intrauterine feminine prenatal encounter represents, and can serve as a model for, the *matrixial stratum of subjectivization* in which *partial subjects* composed of co-emerging I’s and non-I’s simultaneously inhabit the shared borderspace, discerning one another, yet in mutual ignorance, and sharing their impure hybrid object a. (ibid.; cf. Leibniz 1998 [1714]: 11–25, 45–55; Freud 1981c [1905]: 92–94; Evans 1996: 47–49; Pollock 1999: 212–213; Lacan 1977g [1966/1958]; Plant 1996b; Massumi 2002)

This, of course, is not the final truth of the extreme complex constellation of the phallus/cyborg connection, the copula between the “machinic” and the “phallic”; in its exactness, however, this is an unsurpassable resignification of the very *liminality* of the phallus, its uneraseable double bind between *jouissance* and sublime horror, in its irreversible reversibility. For this reason, the phallus is a Derridean *pharmakon* (see Derrida 1981 [1972]: 98–107) not only in the world of cyborg, but, beyond that, in the world of the “post” that is the theoretical matrix of the cyborg, its condition of possibility in terms of appropriation and subversion, the very terms of post-theory.

In the final instance, as we can see, there is no “post” without the phallus as there is no phallus without the “post.” This is the logic of post-theory, the cir-
cular logic of postality in its radical postness, the postness of postality as the postality of postness, constituting the driving force of its enormous productivity, the most subversive mode of textual productivity based on the self-referential circularity as the foundational principle of all that is “post.”

The Phallus Never Sleeps

For Haraway, “arguing with the phallus” (Campbell 2000) in her idiosyncratic manner constitutive of “cyborg writing,” the phallus is the paramount sign of terror and destruction, the most horrible signifier which is the most desired and celebrated object in feminist cyborg theory, a sublime theory-fetish in terms of the “post” (with regard to “the mechanics of fluids,” cf. Irigaray 1985b [1977]: 106–118; Hayles 1992: 232–234). Consequently, the phallus divides the world into two parts: the world of phallogocentrism and the world of those who fight against it by means of the most destructive weapons in the world of the “post”: the “free-floating signifiers” constitutive of post-theory. Then again, this is the aporia built-in in Harawayan cyborg politics: contrary to its pronounced intentions, it is thinking in binary oppositions from the beginning to the end (for a paradigmatic example, see the schema of contrastive mappings in Haraway 1991a: 161–162). In Haraway’s binary schema, there is the world of the “we,” the feminist world within which life implies continuous transgression of binaries, and there is the world of the “Other,” the male world, the world of the enemy, the world of “Man,” the world of the Phallus. Thus, indeed, as Haraway says, “[w]ho cyborgs will be is a radical question; the answers are a matter of survival” (ibid.: 153).

Who shall perish, who shall survive – that is the cardinal question of the politics of the cyborg, a mode of politics in which binary oppositions are not only insurmountable, but the very raison d’être of “the political” of politics, its constitutive rationale.

And here we witness again the problem concerning the politics of life in terms of death: in order that these here can live, those there have to die. Tertium non datur in the world of the cyborg, a world ruled by the logic of the technological rationalism of calculative reason, a world constructed on the foundation of the insurmountable binarism of political correctness, the binarism of unresolvable opposites, in terms of theory, the Absolute of all that is “post.”

Accordingly, life cannot go on unless the world of “Man” is abolished. Insofar as there are no means of subverting the order of “Man,” there is only one option for the survival of the female: the phallus is not only to be toppled down, but, more fundamentally, with a radical act of what I call theoretical castration the phallus is to be terminated once and for all (in terms of the “sexual politics” of the man-hating feminism in the 1970s; cf., for example, Firestone 1970; Millett 1970; Morgan 1970; Koedt et al. 1973; Echols 1989; Segal 1994; Crow 2000). And it is precisely here that Haraway (1991a: 150) believes that she has found the way out from the cul de sac of binary oppositions: the “cyborg is a creature in a

That is, “cyborg ‘sex’” is a mode of sex/gender that is – in the imaginary of the cyborg – beyond the phallogocentric world of “Man” the “Male,” a world ruled by the Phallus. What does this mean? An entirely new mode of “sex” exceeding all the limits of heteronormativity emerges as a result of the encounter between “sex” and “the cyborg”; as Haraway says:

Good sex with a machine; even better lesbian sex; nerve-racking, cross-generational, same-sex love; the merging of ova and error-prone genetic surgery; the rejection of heterosexual marriage; and above all, testing what counts as Real and Unreal: all of these are acts to think with in Russ’s [one of Haraway’s canonical female science fiction writers in the sense of “cyborg authors”] unsettling writing technology. In the chronotope of Man the Modern, however, maybe even more than for Man the Hunter, all of these are unnatural acts in another sense. Modern Fictional Man revels in such transgressions; modest witness that he is, this Man – textually, of course – gets off on them. The FemaleMan® does something else with The Female Man’s provocative unnatural acts. S/he tinkers with the story technology so that the implosion of nature and convention might issue in a diffracted sort of family romance, one that includes a technobastard called OncoMouse™. (Haraway 1997: 78)

Here we are in the spectacular free-space of the Harawayan “post-gender world” in which “sex” can imply anything, and in which gender returns in the form of innumerable non-genders. This is a happy world in which each and everyone is a singular, unique embodiment of a subversive non-gender, a negation of gender in one’s own subversive body as an incorporation of all-excluding deviation: a body that in its absolute difference celebrates the non-identitarian “normality” of the all-inclusive “anormal” (cf., for example, Warner 1993; Medhurst & Munt 1997; Hirshman & Larson 1998; Ferdinand et al. 1998; Jackson 1999; Bell & Binnie 2000; Plummer 2003, 2004a, 2004b, 2005; Roseneil 2003). These genderless genders are in binary opposition to the horrible world constituted by the oppressive monotony of the heterosexual, ruled by the terror regime of phallogocentrism, the reign of the Phallus, the Big Bad of all feminisms, the Arch-Enemy on the omnipresence of which the entire feminist world is constructed.

That is, there is no feminism without the Phallus, the phantasmatic hate-love object of feminist theory, the object to-love-to-hate that brings about the supreme jouissance of feminism: the ecstatic bliss of constantly exceeding the limits of the liminal by way of transgressive subversion as subversive transgression.

This is the raison d’être of the Harawayan cyborg, its legitimation as the constitutive figure of the anti-phallogocentric theory discourse of the cyborg that is
based on an unending subversion of binary oppositions. But, strangely enough, as if wavering in her faith in the liberatory power of the cyborg in terms of sex/gender, in the subversive power of the radically heterogeneous multitude of non-genders, Haraway resorts to an anticipating apology. “Lest the reader decide Russ's and my feminist meditations on unnatural acts are the preserve of white, anglo-saxon, U.S. women with origin stories that begin somewhere around 1968” (ibid: 285; emphasis mine), Haraway asks the reader to consider a “typological, essentializing, edifying list of recent, arguably feminist SF written by North Americans” (ibid.). What follows, then, is the Hall of Fame of post-gender “cyborg authors” and their works after the Ur-cyborg of Haraway’s “Cyborg Manifesto” of 1985:


Literally, as we can see, if there is such a thing as a “post-gender world” it is to be found in science fiction, and, in these terms, in the theory-fiction world of Haraway’s cyborg.107

Yet, what always remains is that in Haraway’s cyborg world, the phallus is the mark of gender, the signifier of sex/gender difference (why not the vagina?), the phallos as the supreme hate-love object of feminist theory that, in Haraway’s world, is erected by feminist cyborg politics which, in turn, constitute itself expressly as the binary opposite of the phallos: the female as a non-gender. According to this logic, no-phallus equals no-gender, and, as a corollary, no-

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107 In science fiction, of course, everything is possible; this is the very idea and even the legitimation of science fiction as a literary genre: to imagine alternative worlds that can, among other things, function as thought experiments in order to draw attention to the problems of the real world (see, for example, Warrick 1977, 1980; Dunn & Erlich 1982; Slusser & Rabkin 1987; Barr 1993; Broderick 1995; Roberts 2000; Kitchin & Kneale 2002; Larbalestier 2002); this, however, is an entirely different issue when compared to the theory-fictions which I am considering here. The problem of the Harawayan cyborg discourse, in short, is that the distinction between science fiction and theory is programmatically effaced in it. This problem becomes immediately clear if we compare Haraway’s postmodern theory to Reagan’s political initiative known as “Star Wars” mixing science fiction with the hard-core politics of the Cold War (see, for example, Lakoff & York 1989).
gender equals no-oppression – but only in terms of the phallus as the unconditional precondition, as the “privileged signifier,” the fundamental *sine qua non*, of the originary, constitutive binary opposition, the primordial binarity of the cyborg (cf. Lacan 1977g [1966/1958]: 287; Gallop 1985: 129–156; Sheets-Johnstone 1994: 217, 235–240, 300–317; Salih 2002: 82–90; in terms of the Derridean “transcendental signifier,” cf. Derrida 1982 [1972]: 19–20, 29, 86): the binary opposition between “the male” (the phallus as the principle of Death) and “the female” (the no-phallus as the principle of Survival, Life beyond binary oppositions). In other words, as the paragon of subversion, the cyborg is the ultimate annihilation of Man, that is, the birth of post-gender Woman, the embodiment of “the female” liberated from the terror regime of phallogocentrism.

This Harawayan binary logic is the liberatory logic, the magic formula, of feminist cyborg politics, its suggestive mantra against phallogocentrism, its seductive object in terms of “the theoretical”: a hate-love object that brings about the supreme form of pleasure in the feminist world: the *jouissance* of theory in terms of the “post.”

This, in the final instance, is the most radical form of subversion in the politics of the cyborg: it is an academic ideology as a mode of post-political trans-politics in the name of transgression that purports to open up an access to a world beyond the signs of the sexual, beyond the terrible totemism of the phallus, the emblem of standing threat.

It is for this reason that there is no Harawayan cyborg without the Phallus; in other words, *the Phallus is the absolute precondition of the Harawayan cyborg*.

In these terms, phallogocentrism is the very condition of possibility not only of cyborg feminism but of radical feminism in general. In short, *no Phallus: no feminism; and thus, feminism is a phallogocentric discourse from the very beginning, a discourse that stands and falls with the Phallus*.

Nowhere is there to be found as much interest in the phallus as in feminism – except, of course, in Lacanian theory (see Lacan 1977g [1966/1958]; Bowie 1991: 123–149; Borch-Jacobsen 1999 [1990]: 229–237). While, in Lacanian discourse, the phallus, as the supreme signifier of the “post,” is the omnipotent, God-like *primus motor* of the subject, in contrast, in feminism, the phallus is not only the origin of discourse, but the theoretical totem pole around which feminism dances: the feminist phallus is an empowering cult object emanating the power of the enemy. Thus, the phallus is the dominant object of desire in feminism, its most loved hate object, an overwhelmingly productive object – like the sun in its unending generosity – that generates the desire for theory in feminism over and over again. Therefore, *phallogocentrism, as a feminist “grand narrative,” is the most efficient theory generator in the theory world of the postmodern*.

In this sense, cyborg feminism is a thoroughly sexualized discourse, in negative terms: it attempts to construct a new world through the deconstruction of the object that is its very precondition. And precisely in this sense, cyborg feminism
is a phallogocentric discourse *par excellence*. Accordingly, cyborg feminism is a Freudian “negative” of pornography (a paradigmatic theory object of feminism in the 1970s obsessed by spectre of the penis), though, a reverse in terms of the “positive” (cf. Freud 1981c [1905]: 65, 132, 140);¹⁰⁸ that is, the “positive” is the cyborg in itself as the feminist Saviour, the secular religious Liberator of the female non-gender from the terror regime of the Phallus.

As such an emancipatory project, the politics of the cyborg *phantasizes* about – that is, conjures up in the mode of theory-fiction – the final termination of the phallus and, by doing so, believes in bringing the ultimate end to the continuous “border war” intrinsic to and resulting from the “traditions of ‘Western’ science and politics” (Haraway 1991a: 150) through the demolition of the very idea of the border: the cyborg is about a constant breaching and broaching of borders, an unending transgression of all that can be transgressed, a politics of subversion defined as *the politics of life in the name of the “death of Man.”* That is, the feminist politics of the cyborg constitutes a persistent border war, an incessant militant activity of policing borderlines wherever they may appear. Therefore, what is the most productive driving force of feminist theory is constant vigilance, an enduring state of emergency: *the Phallus never sleeps.*

The Politics of Survival in the Name of the “Monster”

No wonder that theory-hysteria is the most sublime affective state in feminist theory in terms of phallogocentrism, a politics of hate-love in the name of theory.

In this sense, as a postmodern variation of Trotzkyan “permanent revolution,” the politics of the cyborg implies a politics of overcoming differences in the mode of radical in-difference, a trans-politics of *de-differentiation*: the cyborg implies not only the abolition of (1) the “boundary between human and animal” and (2) “between animal-human (organism) and machine,” but also (3) “the boundary between physical and non-physical” (Haraway 1991a: 151–153). This trans-political, onto-technological triangle, opening up in all directions of its constituents – the human being, the animal and the machine – is the precondition for the situation in which the cyborg is a transgressive being from the very beginning – according to Harawayan cyborg theory. It is in this sense that *[o]ur machines are disturbingly lively, and we ourselves frighteningly inert*” (ibid.: 152; emphasis mine).

Yet, after all is said and done, a question always remains: who are these “we”? And why, in the first place, have “we” fallen in the state of *inertia*? There are no

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¹⁰⁸ In his *Drei Abhandlungen zur Sexualtheorie* (1905), Freud came to the conclusion that *die Neurose ist sozusagen das Negativ der Perversion* (Freud 1981c [1905]: 65, 132, 140), the “neurosis is, so to speak, the negative of perversion”; that is, in infancy, the sexuality of the human being is a “polymorphous perverse” disposition (ibid.: 91, 136, 1986d [1915–1917]: 213), and only later, through the “organization” of “partial drives” to a sexual desire, the “erogenous zones” of the body constitute adult sexuality (ibid.: 47–70); however, if these drives and later sexual desire itself do not find an outlet they can, according to Freud, turn into a neurosis or a perversion, which are the two sides of the same thing, and, in this sense, perversion implies neurosis as its “negative.”
answers to these questions in the world of the cyborg since in order to exist
the cyborg necessitates an axiomatic logic that is constitutive of its existence:
the deconstruction of the human being in terms of technoscience. In these
terms, the “we” of cyborg politics is an empty word, a signifier without a signi-
fied. That is, the Harawayn “we” is a “free-floating signifier” floating free in the
realm of the “post.”

As an abstract signifier, a theory-political figure liberated from all identity-
markers, the cyborg is about the politics of the posthuman aiming at the ulti-
mate abolition of the constitutive figure of Western culture: the human being,
the specificity of the human, the humanness and humanity of being human (in
terms of the techno-political figure of the Arbeiter as the Gestalt overcoming
the limits of the human, cf. Jünger 1982 [1932]).

In this sense, the cyborg is a technoscientific, post-theoretical embodiment of
“French theory,” a theory-fiction in terms of the “cyber.” What began as a “the-
in the early 1960s, turned into posthumanism in the course of the following
decades; not as a coherent school of thought or an articulated doctrine, but,
rather, in the form of provocative interventions applied by various postmod-
ern theorists for various purposes as an ego-politics of theory in the name of
the “post,” in order to drive forward the radicalization of theory, the supreme
pleasure of the “post.” Thus, “the posthuman” became a theoretical, or better,
a linguistic, figure which enabled an assumed fundamental subversion of the
notion of “the human being” as it was conceptualized by the Renaissance, the
Enlightenment and nineteenth century scientific rationalism (see, for example,
Davies 1997; Riskin 2002; Parkinson 2003 [1993]; Porter 2003; Park & Daston
2006; for a radical critique in terms of the “dialectic of Enlightenment,” see
Horkheimer 1967 [1947]; Horkheimer & Adorno 1994 [1944]).

From the perspective of the critique of humanism, be it theoretical antihu-
manism à la Althusser or posthumanism deriving from poststructuralism, the
human appears, at best, as a naiveté, and, at worst, as a sinister delusion epito-
believe the ultimate goal of the human sciences to be not to constitute, but to
dissolve man”; that is, humanism as an ideology under the protection of which
it has been possible not only to pursue egoistic power politics, but also to anni-
hilate millions upon millions of humans in the name of “the human,” as the
orgies of immense violence and brutality from the Crusades through the Thirty
Years War to the Gulag and the Holocaust until the massacres in Cambodia and
Ruanda and the entire history of genocides show (in terms of “radical evil,” cf.
Bernstein 2002).

From this perspective, it is absolutely clear that the human being is the most
inhuman being under the sun, the very paragon of practical antihumanism. In
a crushing manner, the history of humanity demonstrates that the most inhu-
man deeds are always done in the name of “the human”: “the human being” is
in itself not only the supreme enemy of the human, but, more fundamentally, the most dangerous animal in the whole universe.

Therefore, the restoration of the human in terms of humanism after the Second World War was a utopian, and, ultimately, an entirely implausible project. Jean-Paul Sartre's attempt to save humanism in the form of existentialism (see Sartre 2007 [1946]), and later even as an essential dimension of Marxism (see Sartre 1976 [1960]), only resulted in an increasingly hollow effort to legitimate an idea that had turned into a deceptive ideology. Sartre's enterprise, in fact, stood from the very beginning on a groundless ground, since Heidegger (1976a [1946]) had already in 1946 shown in his “Brief über den Humanismus” that humanism was just a part of Western metaphysics and as such a manifestation of the Seinsvergessenheit, “forgetting of Being,” constitutive of traditional philosophy (see, for example, Müller-Lauter 2000: 51–52, 115–116, 186–188; de Beistegui 2005: 116–117; Wolf 2005: 11–12). And, last but not least, the idea of the human lost its credibility entirely when Derrida (1984f [1972/1968]), in his “The Ends of Man,” referring to Heidegger, deconstructed the self-contradictions of humanism (cf., for example, Rapaport 1991: 97–103, 111–115, 2003: 116–118; Spanos 1993: 109–110, 282–284; Peters 2001: 60–61; Ferry & Renaut 1990 [1985]: xxiii–xxix; Soper 1986; Halliwell & Mousley 2003).

While all this, not directly, but through the mediation of the “post,” is the general background of the Harawayan cyborg mythology in terms of the posthuman built-in in cyber discourse, it was finally Foucault’s (1989 [1966]) proclamation of the “death of Man” that essentially contributed to the constitution of posthumanism as a philosophical position and a theoretical programme. This is the “Man” that, as a feminist phantasm, haunts Haraway's cyborg pathos: the “Man” terminated by Foucault. As Foucault says, “man is an invention of recent date” (ibid.: 387), and as soon as a “change in the fundamental arrangements of knowledge” has taken place, “one can certainly wager that man would be erased, like a face drawn in sand at the edge of the sea” (ibid.). These epochal closing words in Foucault’s The Order of Things, pertaining to the “ending” of the human being, reverberate in Haraway’s conception of technoscience as the new paradigm of knowledge enabling the emergence of the cyborg, the feminist Saviour of the world.

As Haraway (1991a: 160) in her “Cyborg Manifesto” says in her pregnant words: “[i]n the ‘Western’ sense, the end of man is at stake.”

Perhaps, ironically, we can learn from our fusions with animals and machines how not to be Man, the embodiment of Western logos. From the point of view of pleasure in these potent and taboo fusions, made inevitable by the social relations of science and technology, there might indeed be a feminist science. (ibid.: 173; emphasis mine; cf. Haraway 1992a; for the idea of logos as “the Word of God” in Christian theology, cf. Lawson 1986 [1980]: 48–49)

“Feminist science”? If we put aside the fundamental question as to how science can be feminist in order to be science at all, there is still a quite practical question: does “feminist science” spell the end of science after the “death of
Man,” or is it the beginning of a new science after the end of science in the name of “Man”?

In terms of the Harawayan cyborg, “feminist science” is the most advanced form of science, the paramount mode of scientific-technological rationality, that is not only able to definitively terminate “Man,” but, first and foremost, to eradicate the idea of the human from the world once and for all. This is the final accomplishment of the “change in the fundamental arrangements of knowledge” prophesied by Foucault. But, paradoxically, “feminist science” is in itself an “embodiment of Western logos”: the idea of science in terms of feminism would never have been possible without the scientific revolution enabled by such men as da Vinci, Copernicus, Kepler, Bruno, Galileo, Descartes and Newton, as well as Voltaire, Rousseau, D’Alembert, Diderot and Kant, and the whole Enlightenment project carried through by male thinkers, scientists and scholars, and finally the scientific rationalism of the nineteenth century exemplified most prominently by Darwin, and after him by such luminaries of science as Helmholtz, Virchow, Planck and Einstein (see, for example, Butterfield 1997 [1957]; Pickstone 2000; Henry 2002 [1997]; Bowler & Morus 2005). From the Harawayan perspective, however, these men are nothing else but advocates of “the traditions of ‘Western’ science and politics – the tradition of racist, male-dominant capitalism; the tradition of progress; the tradition of the appropriation of nature as resource for the productions of culture; the tradition of reproduction of the self from the reflections of the other” (Haraway 1991a: 150; cf. Irigaray 1985a [1974]).

Haraway’s feminist standpoint notwithstanding, science is a superb achievement of “Man.” “Feminist science” may be possible, but from the very beginning, in its origin, it is inscribed by the logos of “Man,” the latest manifestation of which is precisely the cyborg in itself – a result of technoscientific reason originating – mediated by science fiction and popular culture – from cybernetics and the scientific-technological constellation of the military-industrial complex. Thus, the cyborg is a feminist phantasm based on the appropriation and rereading of American Cold War science, elevated to the position of the salvation figure in terms of “feminist science” (see, for example, Keller 1982; Tuana 1989; Harding 1991; Keller & Longino 1996; Lykke & Braidotti 1996a; Schiebinger 2001). This is the final irony of the cyborg: whatever the cyborg will yet effect it is always – always already – a product of the “Western logos,” the very reason of science and technology that has enabled not only the emergence of the cyborg as the apotheosis of scientific-technological rationality, but also the very existence of Haraway herself as the “phallic mother” (Haraway 1991a: 151) of cyborg discourse.

In these terms, rather than being a “Female Man” (ibid: 178), the cyborg, in fact, is a Male Woman. That is, the cyborg is the ultimate rebirth of Man as the phallic Woman of postmodern technoscience.

There is no cyborg without “the grid of C3I” (ibid.: 175), the command-control-communication-intelligence framework constituting the scientific-technologi-
cal infrastructure of the American military power. As the matrix of the cyborg, “the grid of C3I” in itself is not a recent invention, but the contemporary terminal point (and as such probably a temporary one) of a long history, of the historical lineage that proceeds from the militarization of science in the First World War to the Manhattan Project and the military-industrial complex manifesting the industrialization of warfare in the Second World War to the nuclear arms race, space flights and missile programmes during the Cold War. As Haraway says, the cyborg is “the illegitimate offspring of militarism and patriarchal capitalism, not to mention state socialism” (ibid.: 151).

Yes, the cyborg is a scientific-technological monument of “Man,” and, in this sense, paradoxically, the phallic totem of “feminist science” à la Haraway.

No matter that there are figures like “Sister Outsider” whose existence, as Haraway says, “hints at the possibility of world survival not because of her innocence, but because of her ability to live on the boundaries, to write without the founding myth of original wholeness, with its inescapable apocalypse of final return to a deathly oneness that Man has imagined to be the innocent and all-powerful Mother, freed at the End from another spiral of appropriation by her son” (ibid.: 176). The cyborg may live “on the boundaries”; yet, not only are the boundaries there, but, more fundamentally, they are erected by the politics of theory in the name of the cyborg itself, and, following the Harawayan logic, they are the very boundaries that are constituted and reconstituted time and again by the scientific-technological reason of the cyborg. The cyborg sets its own limits, draws its own borderlines, by the very acts of transgression: where there is a borderline there is a transgression, where there is a transgression there is a borderline: borderline and transgression not only imply, but, more fundamentally, they mutually constitute one another.

According to its own intrinsic logic, the cyborg, by definition, is a borderline being, a being embodying the idea of boundary. Thus, boundary is the essence of the cyborg.

But the boundary in itself does not imply subversion, the abolishing, of the binary opposition; on the contrary, it is the very confirmation of binary logic: a dividing line does not bring divided parts together, it separates them.

No matter that there are always boundary transgressions, since there are no transgressions without boundaries. Whatever we do, there is always an “Other” that is the Other of ourselves, our own creation; and, at the same time, there is the “Other” of the “Other” that is us seen by the “Other” in its own “otherness.” Accordingly, how should the figure of the monster help us, if the monster is in itself an embodiment of both transgression and borderline, an exceeding of the limit expressing the very limit in itself. As Haraways says:

> Monsters have always defined the limits of community in Western imaginations. The Centaurs and Amazons of ancient Greece established the limits of the centred polls of the Greek male human by their disruption of marriage and bound-
ary pollutions of the warrior with animality and woman. Unseparated twins and
hermaphrodites were the confused human material in early modern France
who grounded discourse on the natural and supernatural, medical and legal,
portents and diseases – all crucial to establishing modern identity. The evolu-
tionary and behavioural sciences of monkeys and apes have marked the multi-
ple boundaries of late twentieth-century industrial identities. Cyborg monsters
in feminist science fiction define quite different political possibilities and limits
from those proposed by the mundane fiction of Man and Woman. (ibid.: 180;
emphasis mine)

These are interesting stories. But they are just Harawayan stories, and, as such,
part not only of Western mythology, but also of science and science fiction as
typical expressions of Western reason and fantasy, both predicated upon West-
ern scientific-technological rationality. As such, these stories in no way alter the
fact that the “cyborg monsters” are and remain a result of the reason that they
– in Harawayan terms – attempt to subvert. In appropriation, what is appropri-
ated is always an appropriation of an appropriated.

We can always play the discursive game of cyborg discourse and be sure that
we will always win. Why? Because it is our privilege: we are living in the Western
world in which not only scientific-technological rationality in itself has made
life comfortable and prosperous, but, moreover, in which the surplus of West-
ern reason, intellectual gaming, guarantees the mental well-being of intellectu-
als and academics. In our enlightened and civilized Western world, theorists,
like Haraway, can indulge themselves in intellectual pleasures; there is no Pol
Pot here looming on the horizon who could disturb our freedom of thought,
our intellectual liberty in a world in which thinking is “just gaming” (see Lyotard
& Thébault 1999 [1979]). This is the world of the cyborg: a world of unlimited
possibilities, a world of limitless pleasures in terms of theory. Never has there
been so much pleasure as now in the world of the “post,” the world of post-
theory. Whatever intellectual currents there have been since the beginning of
the last century – for example, positivism, Marxism-Leninism, critical empiri-
cism, Dadaism, Surrealism, existentialism, structuralism, among others – never
has there been such an extraordinary pleasure as the pleasure effected by the
“post”: the pleasure of “the theoretical” of theory, the pleasure of the cyborg.

Exceeding the limits – that is the intellectual pleasure of affluent Western soci-
eties in terms of post-theory. Exceeding the limits – that is the pleasure of the
cyborg, the pleasure of linguistic figuration by means of “free-floating signifiers.”

How to Get Rid of Sex?

The “death of Man” – that is the programme of posthumanism pronounced in a
concise form; a theory-political programme that in terms of theory, pertaining
to the existence of the human, is, at best, a radicalized derivation of Althusserian
“theoretical antihumanism” (see Althusser 2005 [1965]: 229–231, 241; cf. Ben-
ton 1984: 122–126; Smith 1984: 192–201; Kaplan & Sprinker 1993), and, at worst,
transhumanism as a latter-day variation of the New Age idea of self-design (see,
for example, Regis 1991: 98–110; Dewdney 1998; Heelas 1999; Davis 2004; Heil et al. 2007; in terms of “cyborgothic,” see Yi 2010). Everywhere where the “post” rules thinking, a struggle to terminate the human being is taking place.

The termination of the human being, however, is not easy since the human being has a body. So, in the final analysis, the question always remains: what should be done with and to the body?

It is for this reason that the scene of the last combat over the future of the human being is the human body, a biological organism which, according to Harawayan cyborg politics, is to be redesigned and resignified by hybridizing it with the animal or the machine, or both. The termination of the human being, of course, is not difficult in theory since the human being has no origin: what is human is nothing natural, it is cultural, a matter of definition: constitutive of the human being is what Helmuth Plessner (1975 [1928]) calls an “ex-centric position” (in the context of the cyborg, see Sreen 2004, 2006, 2010). But the human being as a specific kind of organism is an entirely different matter (in both senses of the term): the human being has a certain organic form which cannot be changed arbitrarily. If, as a result of evolution, I happen to have one head and two hands instead of two heads and one hand, which are distinctively human in terms of form and function, to say nothing of my brain which is significantly different from the animal brain, this is not a cultural construction, but a simple fact of my organic constitution: in whatever manner I am described in whatever discursive terms, nevertheless, as a species being and even more so as an individual, I am always, by all criteria, always already, absolutely different from any other living being.

This difference is in no way diminished by the fact that human genome is only a couple of percent different from, for example, the genome of the fly.

How much ever I would like to become a cat, or, as Haraway (1991a: 181) would like to, a “salamander,” I remain, alas, a human. Even my wish, my passionate desire, to experience a metamorphosis into a cat, always remains a fantasy – a fantasy, however, to which only I, as a human, am able. But, there is no single animal in the whole world that could ever desire to turn into a human, not even imagine it (although humans can imagine such animals). The borderline is there, and remains, whatever we attempt to do to abolish it: transgression is always – always already – transgression, not an abolition of the border. And even provided that I could somehow transform myself into an animal, the animal would never be able to turn itself into a human. This is the absolute difference between the human and the animal. And if this is the situation between the human and the animal, it is all the more so between the human and the machine: there has never been a machine that would have desired to become a human, and never will be.

This is the difference between, on the one hand, science as a non-mythological mode of reason (although often mythologized), and, on the other, science fiction and mythology, the Harawayan mode of post-reason as a mythopoetic mode of writing in terms of the “post,” the mode of writing typical of “cyborg authors.”
What is constitutive of the human being? The human being is not a natural entity; all that is human is cultural: in contrast to animals that are born and remain animals, *as a human, one is not born, but, rather, becomes human*. This means that the human being is an open form in contrast – in binary opposition – to other beings, while, at the same time, any attempt to transform the organic form of the human organism entails nothing but the termination of the human being as a specific organism with its specific potentialities to *become human* (cf. Plessner 1975 [1928]; Gehlen 1997 [1940]; Bühler 2004; Gugutzer 2004; Jäger 2004; Schroer 2005).

In the final analysis, what constitutes the human being as a cultural being is the ability to laugh (see Spreen 2000). For this simple reason, I do not wish to become a machine or an animal.

Yes, we remember Stelarc (1991: 591) saying that it is “time to question whether a bipedal, breathing body with binocular vision and a 1,400-cc brain is an adequate biological form” because it “cannot cope with the quantity, complexity and quality of information it has accumulated,” and, furthermore, it is “intimidated by the precision, speed and power of technology.” Yes, we remember that the fundamental problem of the human being is that the body has no capability for “modular design” (ibid.). For this reason, as Stelarc says, “the body is obsolete” (ibid.). So, what should we do? As we remember, for Stelarc, this is no question at all since, according to his posthuman cyborg anthropology, it is no longer a “matter of perpetuating the human species by REPRODUCTION, but by enhancing the individual by REDESIGNING,” and, therefore, what is significant is “no longer male-female intercourse but human-machine interface” (ibid.).

Similarly, for Haraway (1991a: 181), the organic constitution of the human being is an unbearable constraint to be overcome by becoming a cyborg. According to Haraway, we are living in a world in which “[r]ace, gender, and capital require a cyborg theory of wholes and parts,” but there is “no drive in cyborgs to produce total theory” – although *cyborg theory is a total theory in itself*; instead, as Haraway claims, there is “an intimate experience of boundaries, their construction and deconstruction” (ibid.). And most of all, there is “a myth system waiting to become a political language to ground one way of looking at science and technology and challenging the information of domination – in order to act potently” (ibid.; emphasis mine).

*To act potently* – what would that mean? Haraway concludes her “Cyborg Manifesto” with one “last image” showing our future which is the opposite of the life based on an organic form since “organisms and organismic, holistic politics depend on metaphors of rebirth and invariably call on the resources of reproductive sex.”

*Reproductive sex* – that is finally the core of the problem, the very problem of being human: humans, similarly to innumerable other living beings, reproduce themselves sexually – a horror vision for Haraway. Reproductive sex is the fun-
damental constraint that we cannot be free from biology since it is our biological constitution and, consequently, we cannot choose our mode of existence: no matter that for decades there have been technologically assisted forms of procreation (artificial insemination and in vitro fertilization with their variations and additional procedures), the ultimate border is always sexual reproduction based on sexual difference – with all the fatal consequences in terms of feminism. Therefore, for Haraway, there is no other issue more urgent than the necessity of abolishing sex, of liberating oneself from the prison of all that is sexual (cf. Foucault 1978c [1977], 1978d, 1990d [1977], 1990k [1976], 1996k [1982/1984], 1996m [1977]).

But the problem still remains: how do we get rid of reproductive sex, our procreation by means of sexuality (for various aspects of the technologization of sexual reproduction, see, for example, Corea 1985; Adams 1994; Farquhar 1996; Lublin 1998; Edwards et al. 1999 [1993]; Baker 2000a [1999], 2000b [1996]; Wilmut et al. 2001; Ferrell 2006; for a historical overview in the context of the American life sciences, see Clarke 1998; for “babies in bottles,” see Squier 1994; for “cyborg babies,” see Davis-Floyd & Dumit 1998; for “the cyborg mother,” see Smith-Windsor 2008; for the artificial womb and ectogenesis, see Coleman 2004; Gelfand & Shook 2006; in terms of “queering reproduction,” see Mamo 2007)? From the Harawayan mythopoetic standpoint, this is not a problem at all since the unfortunate situation of sexual dimorphism with all its calamitous consequences can now, at last, be overcome by the politics of the cyborg, a mode of politics having the potentiality of turning the human being into a potent being. So, this is the “last image” of Haraway’s “Cyborg Manifesto”:

I would suggest that cyborgs have more to do with regeneration and are suspicious of the reproductive matrix and of most birthing. For salamanders, regeneration after injury, such as the loss of a limb, involves regrowth of structure and restoration of function with the constant possibility of twinning or other odd topographical productions at the site of former injury. The regrown limb can be monstrous, duplicated, potent. We have all been injured, profoundly. We require regeneration, not rebirth, and the possibilities for our reconstitution include the utopian dream of the hope for a monstrous world without gender. (Haraway 1991a: 181)

By way of becoming salamanders we liberate ourselves from sex and enter a “monstrous” world without gender – a paradise on earth in which animals, machines and posthumans live in the graceful harmony of the cyborg (in terms of the hippie dream of the “machines of loving grace,” cf. Brautigan 1989 [1967]: 126).

Let us ask again: is this nonsense? Or science fiction? Or theoretical kitsch? Or just children’s talk?

None of these. The Harawayan cyborg is a theory-fiction, a mythopoetic figure in the mode of post-theory. That is why the cyborg is such a potent being: there are no limits to the omnipotence of fantasy, there are no limits to the imaginary potential of language implying that fictions are able to actualize as fictions.
6.5 One Is Not Born, But, Rather, Becomes a Cyborg

The new man must appear to those who have not contemplated him before as a strange, monstrous and inhuman creature, but he is only the logical outcome of the type of humanity that exists at present. [...] Although it is possible that man has far to go before his inherent physiological and psychological make-up becomes the limiting factor to his development, this must happen sooner or later, and it is then that the mechanized man will begin to show a definite advantage. Normal man is an evolutionary dead end; mechanical man, apparently a break in organic evolution, is actually more in the true tradition of a further evolution. [...] Men will not be content to manufacture life: they will want to improve on it. For one material out of which nature has been forced to make life, man will have a thousand; living and organized material will be as much at the call of the mechanized or compound man as metals are to-day, and gradually this living material will come to substitute more and more for such inferior functions of the brain as memory, reflex actions, etc., in the compound man himself; for bodies at this time would be left far behind.

J. D. Bernal (1970 [1929]: 42–45)

If the cyborg is our political ontology, as Haraway recommends, then we had better adjust our internal and external watches to the multiple time zones we inhabit. For instance, cloning as a non-linear form of reproduction is a new technique, practised on a regular basis since the mid-1990s, whereas sexual intercourse is an established practice, which has been around for 500 million years, but we are not to let this small time factor interfere with our desire to experiment. It is only a matter of time.

Rosi Braidotti (2006: 100)

Taking into account all that has been said thus far in the course of the study at hand, we are now well prepared and thereby able at last to “understand” – that is, to see from the right perspective – the liberating potential of the cyborg; in other words, to see the true “meaning” of Stelarc’s (1991: 591) great wisdom, his incisive insight, that in our technoscientific era, ruled by “prosthetics, robotics and remote existence,” it is now the “postevolutionary strategies” that make our survival feasible; strategies which can have only one point of departure: “THE BODY IS OBSOLETE” (ibid.). Herefrom, as we may recall, the way opens to the posthuman condition of the cyborg, exactly described by Stelarc:

It is time to question whether a bipedal, breathing body with binocular vision and a 1,400-cc brain is an adequate biological form. It cannot cope with the quantity, complexity and quality of information it has accumulated; it is intimidated by the precision, speed and power of technology, and it is biologically ill-equipped to cope with its new extraterrestrial environment. The body is neither a very efficient nor a very durable structure. It malfunctions often and fatigues quickly; its performance is determined by its age. It is susceptible to disease and is doomed to a certain and early death. Its survival parameters are very slim – it can survive only weeks without food, days without water and minutes without oxygen. The body’s LACK OF MODULAR DESIGN and its overreactive immunological system make it difficult to replace malfunctioning organs. It might be the height of technological folly to consider the body obsolete in form and function, yet it might be the highest of human realizations. For it is only when the
body becomes aware of its present predicament that it can map its postevolutionary strategies. It is no longer a matter of perpetuating the human species by REPRODUCTION, but by enhancing the individual by REDESIGNING. What is significant is no longer male-female intercourse but human-machine interface. THE BODY IS OBSOLETE. We are at the end of philosophy and human physiology. Human thought recedes into the human past. (Stelarc 1991: 591)

Our human existence, as Heidegger (1977d [1927]: 334–335) reminds us, is Sein zum Tode, “being towards death,” living in order to die. But in a world ruled by technoscience, the posthuman world of the cyborg, there is no “being towards death”; what there is is being towards prosthetic being, being towards a technoscientific mode of living as an ongoing process of prostheticization, the process of becoming-cyborg. As Haraway (1985: 66) says, the “cyborg is our ontology” and in “the era of techno-biopolitics” we live in an entirely new condition of corporeality in which “prosthesis becomes a fundamental category for understanding our most intimate selves” (Haraway 1991f: 249).

In this new world, life is not a matter of nature, a given; it is an issue of scientific-technological production, enhancement and augmentation, a post-body mode of being, as Braidotti (2002) says, in the form of a continuous “becoming” by way of “metamorphoses,” an unending process of “transpositions” (Braidotti 2006), facilitated by ever-adjustable prosthetic appurtenances, techno-life in the manner of the cyborg, that is, life as a design product (see, for example, Warwick & Cavallaro 1998: 95–96, 118–125; Black 2002: 121–144; Calefato 2004: 34–38, 61–62, 131–132; Pronger 2004: 169; Dinello 2005: 115–146; Magdalinski 2008: 109–127; Marsh 2000; Quinn 2002; Stock 2002; Katz 2003; Chorost 2005; Sielke & Schäfer-Wünsche 2007; Fortunati et al. 2008 [2003]). This is the reason why Stelarc (1991: 591) – in a post-Heideggerian manner (cf. Kroker 2004a) – has seen that we are now “at the end of philosophy,” in a situation in which, as Heidegger (2000c [1966/1976]: 673) says, [die Rolle der Philosophie haben heute die Wissenschaften übernommen], “sciences have today taken the role of philosophy” (in terms of cybernetics, see Heidegger 2000h [1965]: 622–623). But not only that: what is the most fundamental change in this new constellation, in the very sense of the “post,” is that we are now “at the end” of “human physiology” (Stelarc 1991: 591). It is in this terminal situation that “[h]uman thought recedes into the human past” (ibid.).

What remains, as stated above, is signification, unending chains of signifiers in contingent combinations with one another; that is, in the technoscientific constellation described by Stelarc in his post-futuristic techno-speak, things are not only evoked by, but they exist as spectral appearances effected by prosthetic language as the condition of possibility of prosthetic being, the posthuman mode of being of the cyborg. Thus, as we can see, “the prosthetic” as the constitutive signifier of our new life, is the linguistic determinant of all occurrences pertinent to the redesign of the body, the self-optimization of ourselves in the mode of a technoscientific body-subject, in the sense of the Heideggerian Er-eignis (see, for example, Heidegger 1989a [1936–1938]; cf. von Herrmann
6.5.1 Will the Real Cyborg Please Stand Up

This is the intrinsic logic of the cyborg: life is no longer an organic process, a certain continuum of occurrences in an organism constrained by their own biological preconditions, but an open space of possibilities, a non-predetermined field of scientific-technological experimentation, a continuous process of technoscientific re-engineering: life as unending potentiality in terms of posthuman potentialization, a post-Nietzschean becoming as an overcoming of oneself, a self-overcoming by becoming an embodiment of the Übermensch, a “supra-human being,” that is able to affirm its existence by and through a radical self-negation (cf. Nietzsche 1968a [1883–1885]: 8–10; Conway 1997: 113–116; Kroker 2004b: 76–116; in Heideggerian terms, cf. Ackermann 1993: 132–135). These possibilities, however, cannot be appropriated without an appropriate language: the language of the technological as a postmodern modification of the language of cybernetics. In this manner, technology is in itself a language in contemporary culture; a language that speaks the unspeakable by pronouncing the impossible as the very condition of possibility of the possible.

109 As Parvis Emad and Thomas Kalary (2006: xxii) explain in their “Translator’s Foreword” to Heidegger’s Mindfulness (Besinnung), the term Ereignis, “the most crucial being-historical word,” and thus a “guiding word” in Heidegger, is “as untranslatable as the Greek λόγος or the Chinese Tao,” and can therefore be properly understood only through the prefix “er-” which is the constitutive syllable in the word Ereignis in terms of its philosophical signification. In English, the key to the idea of Er-eignis is the prefix “en-” which implies “enabling something” in the sense of “brining it into a certain condition” or “carrying thoroughly through”; in this sense, the English “en-” is a prefix that “unifies into one the threefold meaning of the German “er-”: “achieving, enhancing and carrying forth.” In this manner, the prefix “Er-” in Er-eignis has an “active character” which “highlights the dynamism and the movent that are inherent in the verb ‘eignen’ in ‘eignis.’” Accordingly, Heidegger’s Ereignis, through its enabling “Er-,” is not just an “occurrence”; rather, the idea is what Emad and Kalary express with their Heideggerian neologism “enowning” (that is, en-owning): an event in which something is “appropriated” (ibid.), “en-owned,” through an active “en-owning.”
In technoculture, effected by technoscience, there is nothing outside technology, or, more precisely, in a post-Derridean manner, there is no outside-technology (cf. Derrida 1997 [1967]: 245): technology is the very inside of all being. Everything that is is brought about by the implementation of scientific-technological rationality. In the world ruled by the imperative of the technological, the organic body dies in order to live as a techno-body (see, for example, Sobchack 1995: 206; Balsamo 1996: 5–6, 71–79, 123–132; Luke 2003b: 89–90, 99–105; Melzer 2006: 177–218; Giannachi 2007: 60–83; Kimbrell 1994; Kroker & Weinstein 1994; Kroker & Kroker 1996a; Weiss 1999; Featherstone 2000; Zylinska 2002b; Detsi-Diamanti et al. 2009; from a historical perspective, see de la Peña 2005). In other words, under the regime of the techno-imperative, liberation from the subject implies the liberation from the organic body: in the place of the Leib-body comes the Körper-body, an object of scientific-technological design, a body that is entirely re-engineered, an objective and objectified body (for the difference between Körper and Leib, see, for example, Hauser-Schäublin et al. 2001: 97–99, 107–109, 133–137; Caysa 2003: 36–57; Thomas 1996; Schmidt 2009; in the context of the cyborg, see Spreen 2004: 319–320, 330, 335–337, 339–346, 2006: 603, 2010: 168–171).

That is, the technoscientifically modified body is a post-body, the precondition of which is that it abandons its inborn corporeality, Leiblichkeit: the atavistic state of seductive sensations and affections, desires and pleasures, peculiar to the flesh, the source of human “irrationality” as the very source of the human in the human being – all this will be replaced by the posthuman rationality of technoscience enabling the post-existential existence of objectified post-bodies.


As an embodiment of technoscientific rationality, the cyborg is a dream of reason in the sense of the Enlightenment: an abolition of the irrationality stemming from the carnal constitution of the human being.

The Ape: The “Perfect Model of the Human Being”

As Deborah Lupton (1994b: 562) says, the “ideal cyborg body enjoys erotic pleasure, but is clean, seamless, impermeable, invulnerable and, above all, hygiene” (emphasis mine). As long as the human body cannot reach this ideal, it is obsolete from the standpoint of the cyborg. And, as we know from our own experiences – insofar as we are still human – the human being, in its very human humanness, in its mundane humanity, is never able to reach this ideal: what
is human is essentially imperfect. That is, the human being is always – already, by definition – below the machinic perfection, below the perfectibility of the cyborg: whereas the cyborg is programmed to perfection, the human body, intrinsically, has no other programme than a slow but certain decay (in terms of the Enlightenment idea of la perfectibilité de l'homme, “human perfectibility,” cf., for example, Passmore 1970; Vila 1998, Jackson 2004; in Hegelian terms, cf. Hegel 1986b [1821]: 504, 1986d [1837]: 74–75; from the Darwinian perspective, cf. Cartwright 2000: 338–339). If we happen to be fond of the lusts of the flesh, it is, of course, sad to renounce our Leib-body, but, in terms of cyborgian body politics, we have no other choice but to accept the fundamental truth of the imperfection of our carnal corporeality if we want to survive (see Haraway 1991a: 150, 153, 157, 163).

The imperfection of our carnal corporeality as the fundamental truth of being human – that is the idea of Stelarc’s apodictic statement that “the body is obsolete”: the posthuman being does not need a body since it lives as a prosthetic assemblage, as a machinic post-body construction, a “body” that is always under control; that is, a rationally constructed control-body is the body of the posthuman.

In other words, in the world of the “post,” I am a no-body in my “body” that is the “body” which I am in my unending becoming a post-body, becoming an embodiment of reason. This is the ultimate end of identity inscribed in the general programme of the “post”: where there is no body, there are no memories of me, my memories of myself; this is final state of the “decentred subject” in the world of the posthuman in which subjectivity is replaced by radical objectivity, the objectivity of technoscience.

As Max Horkheimer and Theodor W. Adorno (1994 [1944]: 248) saw it long time ago, in the midst of the apocalypse of the Second World War: Der Körper ist nicht wieder zurückzuverwandeln in den Leib, “the body is no longer possible to be reconverted to the embodiment of one’s own being.” Whatever we do, the body remains die Leiche, auch wenn er noch so sehr ertüchtigt wird (ibid.), what is left over from the body is only a “corpse, as trained and toughened-up as it ever may become.”

It is precisely the impossibility of reconverting, of “resetting,” the Körper-body to the Leib-body which is what the resurrection of the body really implies in the world ruled by the imperative of technoscience; that is, the resurrection of the body as the cyborg, as a post-body-machine assemblage that is able not only to exceed the parameters of the human, but also to transgress its own constitutive conditions, its own limits as a self-generative being, over and over again. Not being but becoming is the imperative of the “post,” its technoscientific ethos (see, for example, Gray et al. 1995b; Hayles 1999; Wolmark 1999a; Bell & Kennedy 2000; Kirkup et al. 2000; Gray 2001; Graham 2002; Zylinska 2002b; Braidotti 2002, 2006; Flanagan & Booth 2002; cf., for example, Taylor et al. 1997; Lay et al. 2000; Nye 2006; in terms of “the good life,” cf. Higgs et al. 2000).
From this perspective, it is at last possible to “understand” the very idea of the posthuman, most explicitly formulated by the Krokers:

The twentieth century might have begun with Nietzsche’s prophecy of the death of God, and the triumph of the will to power, but it surely ends with the death of the human species as we have known it, and the disappearance of the will to power into its opposite – the will to virtuality. The will to virtuality? Not Oswald Spengler’s decline of western civilization, but the recline of the West into the society of virtual incorporations: interfacing, rendering, mapping, queuing, and modelling as the predatory life signs of an emergent life-form: digital reality. Data Bodies: half-code/half-flesh. Pure interface culture. (Kroker & Kroker 1996b: 51)

Here we have left the human body entirely behind us and entered the new world of the cyborg, a world in which technology no longer implies the “extensions of man,” “electronic outerings of the central nervous system” (ibid.: 52), as theorized by McLuhan in the 1960s, but exactly the opposite:

Not technology as an electronic extension of the human sensorium, but the human species as a hot-wired extension of digital reality. No longer the will to technology, but the vanishing of technology into the will to virtuality. Hacking human flesh by way of artificial intelligence, virtual reality processors, and the violent force-field of the electronic media is the sure and certain way by which virtuality actually eats the human body, becoming digi-skin: silicon flesh, 7-second brains, recombinant eyes, and android ears at the end of the century. (ibid.: 51–52; emphasis mine)

“The end of the century,” that was the late 1990s, the time when the “cyber” had just reached its zenith, and the “anthropological exodus,” proclaimed by Michael Hardt and Antonio Negri (2000: 321–334), had just begun; a new epoch in which “production produces new forms of life and incites new desires creating new beings – new assemblages of desire in new machines” (Passavant 2004b: 9; cf. Jay 2003: 175–176; Dean 2004: 279–280). The reinvention of “the New” as the postmodern apotheosis of the modern at the end of the twentieth century in contrast to the “old New” of the modern before the rise of the postmodern (see, for example, Hughes 1991), that is the epochal Ereignis, the very “turn” of being, in a post-Heideggerian sense of the term (see Heidegger 1989a [1936–1938]; cf. von Herrmann 1997; Barbarić 2007). This End is the Beginning of the posthuman. In the light of this post-anthropological turn as the turn to the posthuman, we can finally truly “understand” what it means for the human being to be replaced by the posthuman being, by the Übermenschen of the New Age under the sign of the “cyber” (cf. Hanegraaff 1996: 349; Ziguras 1997, 2004), a “supra-human” in the world of technoscience, the world of the Harawayan cyborg, of Stelarc’s techno-body, and of the Krokers’ data bodies (cf. Terranova 1996a, 1996b; Hayles 1999; in terms of “cyberbodies,” cf., for example, Angerer 1999a: 26–55, 1999b; Featherstone & Burrows 1995b).

Übermenschen? What is it? Ich lehre euch den Übermenschen (Nietzsche 1968a [1883–1885]: 8), “I teach you the overman”: Der Mensch ist etwas, das überwunden werden soll (ibid.), “Human being is something that must be overcome”
As Nietzsche, the great vitalist as philosopher, shows, the becoming of the cyborg has to have its origin in the human being itself; it is the last duty of the human being, a duty towards itself as a being that is to be “overcome” in its own name: the “human” of the posthuman. The liberating question is: Was ist der Affe für den Menschen? (Nietzsche 1968a: 8), “What is the ape to a human?” The answer is the origin of wisdom: Ein Gelächter oder eine schmerzliche Scham (ibid.), “A laughingstock or a painful embarrassment.” Then, from this the insight follows: Und ebendas soll der Mensch für den Übermenschen sein: ein Gelächter oder eine schmerzliche Scham (ibid.), “And that is precisely what the human shall be to the overman: a laughingstock or a painful embarrassment.”

But even this is not enough: the human being has to see its own worldliness, its earthly origin, its mundane mode of being, its material evolution, its servile, reptile-like groveller-ness. Ihr habt den Weg vom Wurme zum Menschen gemacht, und vieles ist in euch noch Wurm (ibid.), “You have made your way from worm to human, and much in you is still worm.

This is the ultimate truth pertaining to the human being which one should not forget by becoming cyborg: Einst wart ihr Affen, und auch jetzt noch ist der Mensch mehr Affe, als irgend ein Affe (ibid.), “Once you were apes, and even now a human is still more ape than any ape.”

This Nietzschean vision of the Übermensch as the final abandonment of the animal on the way from the human to the posthuman finds its parallel in the biological view of the human being as a modifiable entity, developed by the American psychobiologist and pioneering primatologist Robert M. Yerkes, in his “psychobiological studies of anthropoid apes” in the 1940s (Haraway 1991b [1978]: 13), according to which, as Haraway says, “apes were perfect models of human beings” (ibid.; emphasis mine).

It has always been a feature for the use of the chimpanzee as an experimental animal to shape it intelligently to specification instead of trying to preserve its natural characteristics. We have believed it important to convert the animal into as nearly ideal a subject for biological research as is practicable. And with this intent has been associated the hope that eventual success might serve as an effective demonstration of the possibility of re-creating man himself in the image of a generally acceptable ideal. (Yerkes 1943, quoted in Haraway 1991b: 13; emphasis mine)

110 In contrast to older Nietzsche translations, the translator of the new edition of Nietzsche’s Thus Spoke Zarathustra, Adrian Del Caro, has rendered Nietzsche’s Übermensch as “overman” and Mensch as “human being” instead of “man.” According to Del Caro (2006: 5): “Just as Mensch means human, human being, Übermensch means superhuman, which I render throughout as overman, though I use human being, mankind, people, and humanity to avoid the gendered and outmoded use of ‘man.’ Two things are achieved by using this combination. First, using ‘human being’ and other species-indicating expressions makes it clear that Nietzsche is concerned ecumenically with humans as a species, not merely with males. Secondly, expanding beyond the use of ‘man’ puts humans in an ecological context; for Zarathustra to claim that ‘the overman shall be the meaning of the earth’ is to argue for a new relationship between humans and nature, between humans and the earth. Overman is preferred to superhuman for two basic reasons; first, it preserves the word play Nietzsche intends with his constant references to going under and going over, and secondly, the comic book associations called to mind by ‘superman’ and super-heroes generally tend to reflect negatively, and frivolously, on the term superhuman.”
An “experimental animal” – that is now the fate of the human being on the way to the posthuman embodied by the cyborg. That is, from now on the laboratory is not outside us, rather, it is inside us, within our very being in the mode of becoming a technoscientific hybrid of human, animal and machine; a post-modern, post-biological, and, thus, posthuman entity: an artefactual “living being” manifesting techno-life (cf., for example, McCarron 1995; Steiner 2005; Palmeri 2006; Mazis 2008; in terms of feminism, cf. Bryld & Lykke 2000; from the perspective of cybernetics, cf. Wiener 1961 [1948]; with regard to “the animal that therefore I am,” cf. Derrida 2002c; in the Heideggerian context, cf. Schalow 2006). In other words, in the present future of the “post,” we are living laboratory life in our “bodies” that are constantly mutable design objects, personally customized products of posthuman biotechnology.

As Haraway remarks, Yerkes’s idea to use apes as “perfect models of human beings” was to “promote scientific management of every phase of society” (ibid.); in this sense, Yerkes “advocated eugenics, the selective breeding of humans to improve the race” (Dewsbury 1996: 93; cf. Hergenhahn 2009: 323; for a historical contextualization of Yerkes’s primatological research at his “monkey farm,” see, Dewsbury 2006; cf. for example, Boakes 1984: 148–175, 196–203; Reed 1987: 91–95; King & Yarbrough 1995: 3–9; for the centrality of eugenics in American biology and psychology in the first part of the twentieth century, see, for example, Ordover 2003; Stern 2005). Thus, Yerkes “designed primates as scientific objects in relation to his ideal of human progress through human engineering” (Haraway 1991b: 13; emphasis mine; cf. Wolkowitz 2006: 54–69; Lenihan 1975; Seltzer 1992a, 1992b; Yanarella & Reid 1996; for scientific visions of human “bio-engineering” in the 1920s, see Haldane 1924; Bernal 1970 [1929]; for Haldane’s “technological futurism,” see Dronamraju 1995).

Thus, long is the way of the human being from the worm to the cyborg, the Übermensch in terms of the “cyber.” Long is the way and precisely therefore there is not a moment to lose. Let us begin now! What are we waiting for? The Übermensch will not come by itself. Our posthuman future is a result of continuous “becoming,” a constant reinstantiation of the post-Nietzschean “will to power” by means of technoscientific “becoming” (cf. Braidotti 2002, 2006). One is not born, but, rather, becomes a cyborg. What is needed for this “becoming” is a deliberate act of will: I want, by my own decision, to become a cyborg: it is my steady conviction that only as a cyborg I can realize my true self. This is the ethos of the posthuman, the highest form of voluntarism in the age of techno-science: the hard core of decisionism under the sign of the “cyber” (cf. Jünger 1980 [1930], 1982 [1932]; in terms of Schmittian Dezisionismus, see Schmitt 1979a [1932]; cf. Göbel et al. 1995; Mehring 2003).

In other words, the cyborg is an epitome of postmodern vitalism, the very paragon of posthuman body engineering as technoscientific vitalism driven forward by post-utopian futurism (in terms of “the vital machine” as a machine-organism hybrid, cf. Channell 1991; for history of the vitalism-mechanism con-
From a Rat You Originate, a Rat Shall You Become

One is not born, but, rather, becomes a cyborg. What does this mean in terms of the human, the terms that Nietzsche (1968a: 10–11) designates as a “bridge”: Was gross ist am Menschen, das ist, dass er eine Brücke und kein Zweck ist: was geliebt werden kann am Menschen, das ist, dass er ein Übergang und ein Untergang ist, “What is great about human beings is that they are a bridge and not a purpose: what is lovable about human beings is that they are a crossing over and a going under” (cf. Owen 1995: 73–74; Magnus 2000: 311–312; cf. Schönherr-Mann 2008: 80–82)? Thus, the very idea of the human being is to be a transition that implies a decline of being human altogether: by transgressing its own limits the human being will disappear (in terms of the Überwindung der Anthropozentrizität, cf. Joisten 1994: 40–41, 76–78, 91–97). That is, the posthuman is inscribed in the human from the very beginning: exceeding the limits has always – always already – been the intrinsic telos of being human. If the Nietzschean “worm” is at the one end of the bridge, the cyborg is waiting at the other: the cyborg is the final accomplishment, the very embodiment of the Freudian “prosthetic God” that the human being in itself is, has always already been, and will always be.

In these terms, transition, in the sense of the Nietzschean “bridge,” is the keyword in the genealogy of the cyborg: an Untergang turning into an Übergang is the way to the posthuman, the way of attaining its non-identitarian identity as a technoscientific hybrid.

But what is problematic here, as emphasized above, is that overcoming its own being is the very origin of the human being; for this reason, the human being has always, from the very beginning, been always already a posthuman being. In other words, if there is any essence in and of “the human being,” it is being posthuman as the condition of possibility of being “human.” What is the cyborg in this respect, if not the final overcoming and accomplishment of the human being that, as such, is its primordial origin: to be human is not to be: to be human is to become.

That is, the human, in itself, implies its own overcoming, the potential of its own transgression, its own transformation. For this reason, being posthuman is constitutive of the human being: being human is not natural, and, consequently, humans, as the only species, are able not only to reflect upon their own mode of being, but also have fundamental influence on it: human beings have the ability to create themselves by recreating themselves by their own means over and over again (cf. Rose 2007: 80). In Nietzsche’s (1968b [1886]: 79) words, the human being is das noch nicht festgestellte Tier, a “not yet fixed animal,” not a stable entity given by nature (cf. Joisten 1994: 209; Gasser 1997: 628; Gehlen 1997 [1940]: 3–17; Irrgang 2005: 47–75; Gebauer 2006: 160), but, on the contrary, the human being is always – always already – becoming human in its being-human: troversy, see, for example, Fuchs 2001: 197–217; Reill 2003: 34–35, 42–43; Roe 2003: 397–407; Shanker 1996).
the human being has no specific biological niche: the human being is born, lives and
dies in culture as a thoroughly cultural being (cf. Plessner 1975 [1928]; Gehlen 1997
[1940]). Nevertheless, Nietzsche’s “worm” and “ape” are mirrors that reflect the
projective project of becoming human, and, accordingly, the animal, in its ani-
mality, is the other side of becoming-human of which the machine is the other side:
the machine, in its original meaning as μηχανή (mēkhanē), “machine,” a
means or a “trick” to outwit and circumvent nature by its own means (see, for
example, Bahr 1983: 206–207; Ingold 1993: 434–436), is the “tool,” “device,” “con-
trivance,” the agent and instrument, by which the human being, by negating its
animality, becomes itself, a being that is thus posthuman in its very origin.

More than ever it is artificial evolution, a technoscientifically modified post-
evolutionary process, that drives human evolution forward; a process that is
based on the scientific-technological re-engineering of “the human.” What was
once the programme of eugenics is now the politics of technoscience, the pro-
gramme of “techno-eugenics” as the political programme of becoming post-
human (see, for example, Darnovsky 2001: 136–147; D’Souza 2002: 208–228;
Petersen & Bunton 2002: 35–66; Bryant & Turpenny 2003 19–21; for a contextu-
alization in terms of genetics and bioengineering, see Baillie & Casey 2005). In
other words, the posthuman as an actual potentiality, the present future, of “the
human” is the most advanced creation of techno-biology, the most excellent
achievement of “redesigning life” (see Tokar 2001) in the world of the cyborg
in which to be is to become, that is, in which ever-new transitions, transforma-
tions and transgressions define the parameters of posthuman existence (in

In these terms, the genealogy of the cyborg as an emergence, as a post-Nietzs-
chean Herkunft (see Nietzsche 1968c [1887]), is not to be understood as a pro-
duction according to a pre-given idea, but as a coming-into-being in a process
of bringing about by means of technology, or, rather, “challenging-forth,” seen

Becoming posthuman in terms of the cyborg is a becoming that originates
from two non-original origins: for one thing, there is the Harawayan cyborg as
a post-theoretical theory-fiction, as a discursive construction manifesting the
idea of the posthuman; and for the other, “behind” this postmodern figure,
there is the primordial cyborg, the “original” idea of the cyborg manifesting the
reliance on scientific-technological omnipotence constitutive of the modern.
While the origin of the Harawayan cyborg is a techno-imaginary interpretation
of the Eucharist in terms of what Haraway calls (2000a: 24) her “Catholic sac-
ramentalism,” the real cyborg originates from a medical device known as the
implantable osmotic pump (see, for example, Baker 2000: 100; Bartholomäus
2002: 258; Mazis 2002: 147; Saguaro 2006: 209–210; Bell 2007: 100; Muri 2007:
41–42; Clark 2009: 172; Goody 2011: 139; Reeve 2012: 92). Thus, on the one
hand, the cyborg is a postmodern figure in which science fiction has turned
into a technoscientific theory-fiction, a linguistic game, peculiar to contemporary
theory under the sign of the “post”; and, on the other, the cyborg is a laboratory model exemplifying the mind-set of American military-technological politics adapted to the new political constellation after the Second World War, the conglomeration of the military-industrial complex in the era of the Cold War (see, for example, Levidow & Robins 1989a; Leslie 1993; Edwards 1996; Gray 1997; Graham & Luke 2003).

In other words, while the Harawayan cyborg consists of suggestive words, mesmerizing linguistic figures, conjuring up the idea of the posthuman being in the manner constitutive of post-theory, in contrast to that, the laboratory cyborg exists in the form of scientific protocols and reports documenting experiments carried out in order to create a technologically modified human being: the astronaut as the constitutive model of being human in a world in which the machine first and foremost implied liberation, a technological emancipation in the tradition of the Enlightenment based on the idea of the perfectibility of the human being (see, for example, Sassower 1997: 10–13; Carter 2004 [1999]: 47–50; Rothschild 2005: 14–26).

Thus, there is an imaginary cyborg and a real cyborg which, under the sign of “the posthuman,” have now turned into a post-theoretical unity, a new beginning of humanity imagined in and by cyber discourse.

From this perspective, the “originary origin” of the genealogy of the cyborg is not a human being, but a specific animal, a laboratory rat; as such, a semi-artificial animal that is an important precondition of the bio-sciences in the mode of laboratory science. As a post-theoretical theory-fiction, the cyborg is an Übermensch produced by technology, but its post-Nietzschean Herkunft goes back to the test animal. In other words, the cyborg is a created creation, a natura naturata, in terms of scientific-technological rationality, a product produced by a natura naturans, the creative nature of the human being, but, more fundamentally, its birth is not of divine origin: the coming-to-the-world of the cyborg takes place in the laboratory (cf. Haraway 2000a: 136–138; 1997: 101–112; cf. Gray 1989, 2001, 2002; Gray & Mentor 1995a; Gray et al. 1995a); laboratory not only as a production site of life, but, more fundamentally, as an emblem of the politics of life in the constellation of technoscience and financial capital ruled by the political economy of neoliberalism, the very condition of possibility of laboratory life in the postmodern (see, for example, Bowring 2003; Schurman & Kelso 2003; Rose 2007; Cooper 2008; Mansfield 2008).

Where life turns into a product, there death is inscribed in its production process: in the contemporary global world as a global laboratory of capital, living beings live only if they are exempted from the death spiral dominating the areas of the globe that have been turned into resources of capital. It is in this sense that the commodity form is the very form of the cyborg.

Yet, the ur-cyborg has a seemingly “innocent” origin as a test animal, an experimental organism in the laboratory constellation of the American space pro-
gramme at the beginning of the 1960s (see, for example, Baker 2000: 100–101; Mazis 2002: 147–150; Coker 2004: 95–97; in theological terms, cf. Munnik 2009: 113–118). In this sense, all cyborgs are descendents of a white laboratory rat that was the first being to cross the borderline between the organism and the machine in its own body in experimental conditions, controlled by scientific-technological reason. Therefore, the primogenitor of the cyborg is not the Freudian “phallic mother” (Haraway 1991a: 151; cf. Freud 1972h [1931]: 531, 1976f [1908]: 178–180, 1986a [1919]: 110, 1990c [1933]: 137, 139; Lacan 1977g [1966/1958]: 282; Berkel 2008: 33–34, 48), but a laboratory rat whose technologically modified organism, a “technoscientific body” (Haraway 2000a: 136), became the model for the cybernetic organism in the process of the-coming-to-the-world of the cyborg as a new mode of the human organism envisaged to overcome the constraints of being human. Thus, as an artificial organism, this laboratory rat is the primordial being, the techno-organic prototype, of Western technoscience in terms of hybridity (see Haraway 1997: 51–52, 281; for a contextualization with regard to “blurring boundaries” between humans, animals and machines see Mazis 2008).

The point is that, although the cyborg comes into the world through the rat, its scientific-technological telos is to demonstrate that human life is not limited to the body we are born with – to “demonstrate” in the Harawayan sense of the “monster” (Haraway 1989: 378, 1991a: 154, 174–176, 179–181, 1992c: 333, 1997: 38, 51, 79–80, 214–217). In this sense, according to Haraway (1991a: 149–150), the cyborg exceeds the limits of the human being by being a hybrid that consists of the human, the animal and the machine (in terms of the OncoMouseTM, “the first patented animal in the world,” see Haraway 1997: 79–85).

Here we have, in its most concise form, the genesis of the cyborg; a post-biological genesis that is not about Heideggerian Being, but a continuous becoming constitutive of the world ruled by technoscience (see, for example, Sassower 1995, 2004; Aronowitz et al. 1996; Ihde & Selinger 2003; Weber 2003; Michael 2006; Asdal 2007; Lenk 2007; Clarke et al 2010). In other words, a technologically enhanced laboratory rat implies the teleology of the posthuman, a technologically extended and augmented mode of being “human” that comes after the Nietzschean Überwindung, “overcoming,” of the human (see Nietzsche 1968a [1883–1885]: 8, 142–145; cf. Schönhearr-Mann 2008: 76–81; in terms of die Überwindung der Anthropozentrizität, see Joisten 1994).

From the Nietzschean perspective, the question concerning the becoming-cyborg is a Zarathustran question in its last instance; a question pertaining to a new species consisting of what Nietzsche (1968a [1883–1885]: 352–363) designates as höhere Menschen, “higher humans”; in Nietzsche’s words:

Die Sorglichsten fragen heute: “wie bleibt der Mensch erhalten?” Zarathustra aber fragt als der Einzige und Erste: “wie wird der Menschen überwunden?” (ibid.: 353)

Those who care most today ask: “How are human beings to be preserved?” But Zarathustra is the only one and the first one to ask: “How shall human being be overcome?” (Nietzsche 2006 [1883–1885]: 232)
Thus, in the world ruled by technoscience, the question is not how the human remains *preserved*, but how the human becomes *overcome*. This is the question concerning the becoming of the cyborg as becoming-cyborg; this is the question concerning the posthuman.

But, in fact, in which manner the genealogy of the cyborg, its post-Darwinian descent, transgresses the borderlines between the human, the animal and the machine, and, in the end, the very limits of the human itself in its post-Nietzschean manner of *Selbst-Überwindung* (see Nietzsche 1968a [1883–1885]: 142–145), the “self-overcoming” of the human? To see this it is necessary first to briefly consider the historical context in which the cyborg emerges.

The cyborg is an American invention in which the specific features of American culture are combined: (1) an ultra-modern socio-technological regulation of society; (2) a streamlined consumer capitalism and as its reverse side the medicalization of psychic problems and associated normalization of deviants based on a psychiatric conception of the human being; (3) an unlimited faith in technology as the salvation not only of the individual, but of the society as a whole; (4) an ultra-individualistic doctrine of happiness and a self-help ethos based on it, including the increase of the performance capacity of the self; (5) a secular religiosity manifested by millenialism that presents the future in the perspective of a paradise on Earth, a paradise whose realization is the duty of each individual citizen; (6) a militarization of economy, politics and culture reaching into the innermost parts of the society and an accompanying surveillance of citizens; and finally, (7) a childlike faith and confidence in the American mandate, that is, Americanism as the unquestionable precondition of the salvation of the whole world (see, for example, Baudrillard 1988a [1986]; Angus & Jhally 1989; Henriksen 1997; Agre & Rotenberg 1998; Sennett 1998, 2007; Zita 1998; Melling 1999; Thompson & Findlay 1999; Bogs 2001, 2003; Bose & Perotti 2002; Whitfield 2004; Agnew & Rosenzweig 2006; Bacevich 2007; Collins 2007; in terms of “American exceptionalism,” see de Tocqueville 2008 [1835/1840]; Lipset 1997; Madsen 1998; cf. Haraway 1991a: 170–173).

All this implies a millennial mission that is inscribed in American culture from the very beginning, from the visionary politics of the “Founding Fathers” for whom freedom, religion and capital constituted the Holy Trinity instrumental for the survival in the “New World.”

In this sense, in the late 1950s, all these factors, each in their own way, came together to contribute to the formation of a scientific-technological constellation in which a white American laboratory rat became the first experimental model of the cyborg in the world (see Clynes & Kline 1995 [1960]: 30–31; Gray 1995: 43–46; for a genealogy of the cyborg in terms of the “experimentalization of life,” cf. Ruf 2001; in terms of “biofacticity,” cf. Karafyllis 2003; Spreen 2006); that is, a cybernetic organism in the post-Wienerian sense of the term (for the conception of the organism and the machine in Wienerian cybernetics, see Wiener 1961 [1948]: 11–15, 26–27, 39–59, 117–161, 164–178, 1968 [1950]: 16–38,
In other words, what later, by way of the postmodern, turned into a neo-religious phantasm of technological redemption, began as a laboratory experiment in the constellation of the Space Age, an apotheosis of scientific-technological reason of the modern.

The Body in American Superpower Politics

Yet, the impulse that set the process in motion that finally led to the creation of the cyborg as a human body-machine assemblage actually came from outside America. In this respect, the primordial origins as the Herkunft of the ur-cyborg, in fact, go back to the scientific-technological reform in the Soviet Union; a reorganization of sciences in which, after Stalin’s death, cybernetics went through a development “from an object of unbridled ideological criticism during the anti-cybernetics campaign of the early 1950s to a vehicle of reform in the post-Stalinist system of science in the late 1950s to a fashionable trend in the 1960s to a convenient tool of bureaucracy in the early 1970s” (Gerovitch 2002a: 293, 2002b; cf., for example, Hoffmann 1978: 66–70; Cave 1980: 1–10; Beissinger 1988: 165–182; Rezn 1996: 15, 21, 33, 54–59; Trogemann et al. 2001; Mindell et al. 2003; for a contemporaneous contextualization of cybernetics during the Cold War, see Steinbruner 2002 [1974]; for the “Soviet science wars” during the Stalin era, see Pollock 2006; cf. Krementsov 1997; Kojevnikov 2004; for the eminent role of the Rand Corporation in this constellation, see Ware 2008). During this era, Soviet science took a big leap forward, literally onto a planetary scale (see, for example, Shaffer 1969 [1963]; Graham 1993; Siddiqi 2010). As a consequence, Soviet Union became a real threat to American supremacy based on the power of advanced technology constitutive of the military-industrial complex.

But, paradoxically, it was the United States that in the long run mostly profited from the Soviet military-technological challenge. If, in retrospective, as Carolyn Guertin (2007: 244) sums up, “[w]e have become Donna Haraway’s cyborg, and now inhabit an entirely mediated and technologicalized environment,” a change of culture that “began on October 4, 1957,” the day that “marked the beginning of the Space Age with the launch of the first artificial satellite, Sputnik” (ibid.; see, for example, Shelton 1968: 45–80; Heppenheimer 1997: 126–146; Crouch 1999: 141–143; Launius et al. 2000; Brzezinski 2007; for the Sputnik pro-

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111 It should be noticed that Norbert Wiener, the founder of cybernetics, does not use the term “cybernetic organism” nor “cyborg” for the simple reason that, in Wiener’s conception of cybernetics, all organisms, be they biological organisms or machines, are always already, in themselves, cybernetic systems; that is, functional systems the functionality of which is based on information, communication and control regulated by feedback. In this sense, the human body as an organism functions in the similar manner as the bodies of animals or technological systems and machines. All of them are “cybernetic organisms” in the sense that their functional principle is self-regulation by means of feedback, the constitutive idea of cybernetics (see Wiener 1961 [1948]: 11–15, 26–27, 39–59, 117–161, 164–178, 1968 [1950]: 16–38, 48–57, 64–79, 134–163, 175–182; cf., for example, Mindell 2002: 4–8; Muri 2007: 87–89).
gramme in terms of “the Soviet threat,” see Freedman 2003 [1981]: 131–145; for the creation of the military research agencies ARPA and DARPA as one of the counter measures to the Soviet missile programme as a follow-up to Sputnik, see Lakoff & York 1989: 55–77; Bille & Lishock 2004: 112, 152–163; for a historical contextualization, see Golden 2009 [1980]).

From the American perspective, this implied a nation-wide emotional upset known as the “Sputnik shock” (see, for example, Levine 1994: 59–60; Dickson 2001; for the radical reorganization of the American military capacity in the aftermath of Sputnik under McNamara’s Pentagon administration, see Kaplan et al. 2006; for the positive experiences of the “Sputnik generation” in the Soviet Union, cf. Raleigh 2006: 1–23). The launch of Sputnik, the “companion” or “fellow traveller” of the Earth, was the Soviet Union’s stake in the politics of the Cold War, the arms race based on nuclear weapons and the militarization of science and technology (see, for example, Nash 1997: 2–41), a spiral of horror which was originally initiated by the American military operation devastating Hiroshima with an atomic bomb in August 6, 1945: over one hundred of thousands dead in a couple of seconds (see, for example, Wainstock 1996; Kort 2007). In American society in the 1950s, living amidst the euphoria created by the post-Korean war economic boom, consumerism and welfare, and, as its reverse side, the hysteria of racism and anti-communism, Sputnik occasioned a shock that shook national confidence, having political and cultural consequences which dominated the American way of life for years to come (see, for example, Matusow 2009 [1984]: 8–13, 376–377; Divine 1993). In these circumstances, Sputnik became an American trauma.

Sputnik II, launched in November 3, 1957, carrying the dog Laika as the first living being in space (see, for example, Angelo 2006: 14–15; Burgess & Dubbs 2007: 78–81, 146–165), only aggravated the panic spreading across America not only in political but also in academic and educational circles, having two results: firstly, the obsession that Americans should be the first in space and conquer the Moon, and secondly, what was immediately needed in America for the recovery from the “Sputnik shock” was a fundamental and comprehensive reform in science education to allow for appropriate intellectual resources for the tightening system rivalry between capitalism and communism, also in terms of the conquest of Space (see Leslie 1993; Kauffman 1994; Levine 1994; McDougall 1997 [1985]; Stern 2010). In fact, from the very beginning, the project of space settlement is inscribed in the idea of Americanism: the United States of America were born as a frontier nation (see, for example, Nobles 1997; Griffin 2008; for the idea of the frontier in the American Space Age narrative, see, for example, Harrison 2001; Launius 2004), a nation that from the very beginning saw itself predestined to a mission to conquer and settle ever-new frontiers, a nation based on a mythical drive forwards (in terms of the counterculture and “digital utopianism,” see Turner 2006: 73–97, 126–127, 222–236; Diederichsen & Franke 2013; for the personal computer as a frontier metaphor of an “open territory” appearing as a “dreamspace,” see Dean 2002b: 87–88).
At one stroke, the “Sputnik shock” made the US government aware of the enormous deficits in science teaching within the American school system and, as a result, new teaching programmes were launched to increase the scientific-technological efficiency of the country through innovative research in all fields of sciences (see, for example, Haraway 1997: 105; Spring 2006: 85–86, 95–104; Zhao 2009: 9–12, 20–27; Wang 2009). Along with the foundation of NASA (the National Aeronautics and Space Administration) in 1958 (see, for example, Byrnes 1994; Kay 2005), the interests of the military were integrated with the government science and education policy resulting in a school reform emphasizing mathematics and science teaching.

The National Defence Education Act (NDEA) provided funds especially for young people who chose to become engineers and scientists, and the National Science Foundation pushed a curriculum reform, reaching down into the elementary schools, featuring the “new math.” Not only could Johnny not read, his technical competence was thought to be well behind Ivan’s. Military demands mixed with the 1960 presidential-campaign claims by John F. Kennedy of a dangerous “missile gap” to spur on a politically charged atmosphere ending, in 1961, with then-President Kennedy’s declaration that this nation’s space program goal was to place a person on the moon within decade. (Pursell 1995: 278)

As a consequence, American society was militarized in a new way: the development of nuclear weapons and missile delivery systems became a nation-wide scientific and educational challenge. As Carroll Pursell states, the “arms race appeared not to be with the Soviet Union at all, but rather with Americans themselves,” and, accordingly, America was confronted with the

Fig. 83. Mobile Space Suit (1956/1962), designed by Constantin P. Lent, an American engineer specialized in missile and space technology.

“We are now entering an era when even higher altitudes and greater speeds will be possible, with the pilot being required to remain aloft for extended periods of time. Also, in rocket ships moving at speeds of two to three thousands miles per hour (or even more), the pilot’s physical requirements and his natural comforts must be taken under consideration. Before it is too late, it is necessary to plan now ahead of time for improvements in aviation garments and suits which not only may be safe, but also may provide greater comforts. Interstellar navigation (a thing of the very near future) too needs better pilot suits. [...] Into such a suit the pilot may be hermetically sealed to operate the various control instruments in the craft electrically or by remote control from the inside of the capsule suit.” (Constantin Paul Lent, Application submitted to the US Patent Office, 1956)

From here, it is only a small step to the world in which Stelarc feels himself at home; as Stelarc says: “Technology has speeded up the body. The body now attains planetary-escape velocity, has to function in zero-G and in greater time-space continuums. For me this demonstrates the biological inadequacy of the body [and thus] we can’t continue designing technology for the body because that technology begins to usurp and outperform the body. Perhaps it’s now time to design the body to match it’s machines. [...] We have to start thinking of strategies for redesigning the body.” (Atzori & Woolford 1997: 197; cf. Appleby 2002; in terms of Ernst Jünger’s vision of a techno-totalitarian future, cf. Jünger 1980 [1930], 1982 [1932]; Armitage 2003)
fact that “the real race was with its own laboratories” (ibid.). In this situation, new chances opened up throughout the country. As Haraway says of the “odd perspective” she was given by her own “historical position” as a prospective scientist:

a PhD in biology for an Irish Catholic girl was made possible by Sputnik’s impact on US national science-education policy. I have a body and mind as much constructed by the post-Second World War arms race and cold war as by the women’s movements. (Haraway (1991a: 173; cf. Conley 2001: 660–661)

In this manner, the becoming-cyborg was inscribed in the studying programme Haraway that went through from the late 1950s to the early 1960s: Sputnik epitomized the American lag in sciences and higher education which soon became interpreted as what was called the “missile gap” in military terms (see, for example, Wenger 1997: 154–178; Douglass 2000; Van Dyke 2000; for the technocratic, “factory-like” university system resulting from the science and education reform in the aftermath of the “Sputnik shock,” see Woessner 2011: 146–147).

Yet, the history of the cyborg, in fact, began fifteen years before Sputnik, in Peenemünde, in the Heeresversuchsanstalt, the Army Research Centre, of Nazi-Germany: without Wernher von Braun and the V-2 rockets developed by him there would, perhaps, have been no American space programme (see, for example, Bilstein 1996: 9–23, 243–247, 348–363, 394–400; Hunley 2007: 7–47, 74–85, 102–121; Neufeld 1995, 2007; Devorkin 1996), without which, in turn, there would probably not have been a cyborg, at least at that time, in the sense of extending and complementing rocket technology by a human component, the astronaut (see Clynes 1995 [1970]; Clynes & Kline 1995 [1960]; Gray 1995; cf. Halacy 1965a: 149–153; Rosenfeld 1969: 274–277; Gordijn 2004: 129–131; Dinello 2005: 12, 117–127; Land 2006: 112–114; Angelo 2007: 20–21; Eglash 1995). It is in this sense that the cyborg is an embodiment of military reason, the most pragmatic form of scientific-technological rationality. As such, the cyborg implies a contradiction: on the one hand, as Manfred E. Clynes and Nathan S. Kline (1995: 31) point out, the astronaut-cyborg incorporates “exogenous components” that extend “the self-regulatory control function” of his own body thus leaving him free to focus on the exploration proper during the flight, but, on the other hand, by becoming an integral part of the technological system of the space ship, the astronaut turns into a subservient subsystem of the machine: a machinic subject as a body-machine assemblage.

The Army and the Air Forces of the United States, the military-industrial complex, the CIA, private and university science institutes, government agencies for national health, physicians, hospitals and the pharmaceutical industry, all these spheres of American society had been carrying out research activities after the Second World War in order to develop means to increase the human performance capacity that was needed in the struggle to avert the threat of a Communist conquest of the world, as it was understood in the prevailing political climate of the Cold War, by way of economic and technological superiority, the power of the insurmountable superpower as America perceived itself (see, for example, Kimball 1992; Crockatt 1995). The emblem of these efforts came to be the idea of a militarized body, an ideal of a high-performance, strictly controlled
biomachine in the service of progress; that is, the vision of the human body enhanced and amplified by technology, a scientific-technologically re-engineered human organism the physiological regulation system of which was to be empowered by body-external equipment, be it pharmacological methods or technical apparatuses (see, for example, Yelles 1971: 175–176; Smith & Rowland 1974: 6–7; Glorioso 1975: 117–118; Mindell 2002: 71; Noble 2008: 285–289; Loo 2009; Barca et al. 2009; for a historical contextualization, see Levidow & Robins 1989a; Edwards 1996; in terms of the Arbeiter as the proto-cyborgian Gestalt embodying the scientific-technological pathos of the modern, the idea of “total mobilization,” cf. Jünger 1980 [1930, 1982 [1932]).

This is the background of the real cyborg as it was proposed by Clynes and Kline in their research report on the technological regulation of the functions of the human organism funded by NASA, presented to an Air Force sponsored conference in 1960 (see Spreen 1997: 89; Ruf 2001: 282–285; Mirowski 2001: 107; Launius & McCurdy 2008: 198–202; cf. Dinello 2005: 117–126; in the military context, cf. Blackmore 2005: 40–42; in terms of “transhumanism,” cf. Campbell et al. 2008: 241–242). In this sense, the cyborg is a product of the Cold War; a wish-image of a body that is a “resource,” a Heideggerian Bestand, to be utilized in its entirety, or, as Haraway (1997: 102, 245) says, to be “enterprised up.” The final embodiment of this kind of scientific-technological reconstruction of the human body is what Haraway (1991a: 150–151) calls “a man in space” manifesting “the ‘West’s’ escalating dominations of abstract individuation, an ultimate self untied at last from all dependency” (emphasis mine).

In this way, the cyborg is a consequence and a result of Sputnik, representing the idea of a techno-biological being able to transgress the human constraints, the constraints of the body as a biological organism (cf., for example, Hoffman & Shields 1981: 102–104; Gray 1995: 47; Edwards 1996: 260; Dean 1998: 70–72, 93–94; Mann & Niedzviecki
This was a projection of an entity that literally embodied the fantasy of the “superman,” an emblematically American idea that drew in its own way on popularized versions of cybernetics founded by Wiener in the late 1940s (see, for example, Ettinger 1972: 73–78; Larabee 2000: 9, 12, 32–33, 36–37, 77–81; Halacy 1965a; Rorvik 1971; Caidin 1972; Freitas 1985; for Wiener’s own contribution to the popularization of cybernetics, see Wiener 1968 [1950]; Keller 2002: 142–148; Mindell 2002: 4–5; for cybernetics in terms of counterculture, see Pickering 2010: 73–76, 204–210, 387–400; for cybernetics as part of “American youth subculture,” see Eglash 1998; for cybernetics in the context of American literature, see Cartwright & Baker 2005: 250–261; Seed 2005b: 173–182; Warrick 1977, 1980; Porush 1985, 1987, 1992; Clarke & Henderson 2002; for a reading of cybernetics in terms of, and, at the same time, as a form literature, see Hayles 1999). Thus, the figure of the cyborg, both as an experimental idea and a popular fantasy, manifested the faith in the unlimited power of science and technology as a result of the instrumental reason peculiar to the modern, driven to its logical conclusion in American technoculture (see, for example, Marcuse 1941, 2002 [1964]; Jay 1973; Held 1980; Wiggershaus 1986).

This is the historical context in which the white laboratory rat makes its entrée to the genealogy of the cyborg as its originary becoming, as a conjunction of ideas from science, science fiction, popular culture and engineering. In other words, the emergence of the cyborg as a hybrid being is based on a discursive hybridization: language, technology and biology intertwine with one another in the body-machine assemblage constituting the cyborg, originally an experimental animal as a model for the modification of the human body by means of science and technology to increase its performance capacity (for an overview of the genealogy of the cyborg; see Ruf 2001; from a historical perspective in terms of menschliche Cyborgs, “human cyborgs,” see Sreen 2004).

A Giant Leap in Terms of Human Evolution

The very beginning of the process that resulted in the notion of the cyborg is a scientific idea elaborated on in a laboratory environment. In 1960, Manfred E. Clynes, the chief research scientist in charge of the Dynamic Simulation Lab at Rockland State Hospital (Orangeburg, N.Y.), and Nathan S. Kline, a clinical psychiatrist and the director of research department at the same institution (see Haraway 1989: 108–110, 1997: 51–52, 2000a: 136–138; Schneider 2005: 60), pondered upon the implications of an experiment in which an osmotic pump was attached to a laboratory rat. The purpose of the experiment was to automatically regulate the organism of the rat by adding chemicals to its blood circulation in order to observe their effects on its organic functions, that is, to control its organs from outside, by means of technology (see Clynes & Kline 1960: 30–31; cf. Haraway 2003: 62–63; Clark 2009: 172–178; Scheldeman 2010: 138–140). As Clynes and Kline report in their 1960 joint paper:

One device helpful to consideration of the construction of Cyborgs, which is already available, is the ingenious osmotic pressure pump capsule developed by S.
Rose for continuous slow injection of biochemically active substances at a biological rate. The capsule is incorporated into the organism and allows administration of a selected drug at a particular organ and at a continuous variable rate, without any attention on the part of the organism. (Clynes & Kline 1995: 31; emphasis mine)

What is important here is that the constitutive idea of the cyborg, literally a cybernetic organism, is automatism; that is, the regulation functions of an organism are carried out automatically, without conscious intervention by the organism, and these functions thus control its organic life processes through feedback, the principle of circular causality or recursivity defining all that is cybernetic (see, for example, Rasch & Wolf 2000: 9–12; Cordeschi 2002: 125–126; Hammond 2003: 64–67; Pickering 2005: 229–232; Johnston 2008: 26–29; Krippendorf 2009: 37–39).

In this sense, “[o]ne of the first Cyborgs” was a “220-gm rat” that had “under its skin the Rose osmotic pump” (Clynes & Kline 1995: 30; cf. Flaherty 1961: 348; Ordway et al. 1962: 523–525; Sharpe 1969: 134–135; Rorvik 1971: 80, 106–197; Yum & Wright 1983: 80–83; Clark 2009: 170–172). In other words, as an experimental animal, the laboratory rat, equipped with a device that in its function imitated the self-regulation or biofeedback constitutive of all organisms (see, for example, Birbaumer & Kimmel 1979: 21–22; Pickering 2010: 82–86, 156, 379), was a techno-organic, quasi-biological hybrid that presented a model of a potential enhancement and augmentation of the human body by means of technology, that is, a cybernetic organism in the sense of cybernetics (see Wiener 1961 [1948], 2003a [1954]; Galison 1994; cf. Ashby 1961 [1956]; Pask 1961).

This was the decisive moment in the genealogy of the cyborg. The experiment implied a transgression of the borderline between a living organism and a technological device; what came out of Clynes and Kline’s speculations was the idea of transferring the test results from the technologically manipulated laboratory rat onto the human being. In this sense, the technologically modified organism of the rat as an entirely new category of life, an experimental manifestation of techno-life, had become a scientific model, an intermediate or transitional form of life between the living being and the machine, a hybrid between a biological organism and a technological apparatus (in terms of “biofacticity,” cf. Karafyllis 2003; Spreen 2006); in short, Clynes and Kline’s technologically modified rat was the first cyborg in the world, both as an idea and its implementation in the form of an experimental organism with far-reaching implications (cf., for example, Yaszek 2002: 8–16; Ekbia 2008: 66–93; Smeds 2009: 48–51; Munnik 2001 [1999]; in the context of space flights and robotics, see Launius & McCurdy 2008:

112 The Rose implantable osmotic pump was originally developed by two Australian physiologists, S. Rose and J. F. Nelson, in 1955, as a medical device in a research context purporting to find a cure for cancer; the device “incorporates a pressure pump capsule role of delivering injections at a controlled rate” (Clark 2009: 172). The idea is “to combine the implanted pump with an artificial control loop,” creating thus “a layer of homeostasis” with the purpose to “operate like the biological [system] without the need for any conscious attention or effort,” and might even be applied in “specific extraterrestrial conditions” (ibid.; cf. Ordway 1962: 523–525; Yum & Wright 1983: 80–83). What is important here is the idea of an “artificial control loop” and the principle of “homeostasis,” both of which are constitutive of Wienerian cybernetics (see Wiener 1961 [1948], 1968 [1950]; cf. Pask 1961).
for the metamorphosis of the astronaut to the cyborg warrior, see Blackmore 2005: 40–42). This “artifact-organism system” (Clynes & Kline 1995: 29–31) demonstrated that it was possible to regulate the functions of an organism by connecting it to an extraneous system **organically integrated** into the organism itself.

In these terms, the machine-organism assemblage constructed by Clynes and Kline was a paradigmatic example of the basic principle of cybernetics: automatic self-regulation by means of information, communication and control, in a word, feedback as a circular causal process (see Wiener 1961 [1948]: 6–24, 102–114; von Glaserfeld 1992 [1987]: 2–3; Jerison & Stroock 1997: 14–15; Gerovitch 2002a: 62–63; Kern 2004: 299–303; von Foerster 1950, 2003a [1979], 2003b [1974], 2003c [1990/1991]). This, indeed, is what Evelyn Fox Keller (1995) calls “refiguring life”; applied to the Clynes and Kline case: the notions of “function, coordination, interdependence, and purpose” (ibid.: 91), pertinent to systems science and engineering, all represented here by a new kind of techno-organism, were redefined by the central idea of cybernetics, “the circular feedback” peculiar to “systems and organisms” understood in terms of cybernetic regulation (ibid.). That is, the Clynes-Kline “artifact-organism system” was a laboratory model of the cybernetic organism as a **techno-organic hybrid**, that is, a cyborg in the precise sense of the term; in other words, a **homeostatic system** able to control and regulate its vital functions by a built-in mechanism (see Cannon 1967 [1932]; cf. Wiener 1961 [1948]: 115; Wallace 1996: 81–87; Luu & Tucker 2003: 124–127; Schulkin 2004; for a historical contextualization in terms of systems theory, see Hammond 2003; Ramage & Shipp 2009).

**Fig. 86.** The cyborg: man in space, a “self-regulating man-machine system” (Clynes & Kline 1995 [1960]: 30) as a prototype of the future artificial human (cf. Haraway 1991a [1985]: 150–151, 1995a). According to Rosenfeld (1964: 124): “He would be encased in a skintight suit, needing no pressurization because his lungs would be partially collapsed and the blood in them cooled down while respiration – and most other bodily processes – would be carried on for him cybernetically by artificial organs and senses, some of them attached to the outside of his body, some of them implanted surgically. His mouth and nose, too, would be sealed over by the suit, because he would not need them to breathe with. Cyborgs would communicate with one another by having the electrical impulses from their vocal cords transmitted by radio. The artificial organs – actually a tiny, complex computer system constantly receiving and feeding back information to regulate the body to its changing environment – would keep a Cyborg’s metabolism steady despite radical fluctuations in external temperatures and pressures. The Cyborg could travel in an unsealed cabin through the vacuum of space, walk around on the moon or on Mars protected from heat, cold or radiation by a variety of chemicals and concentrated foods being pumped directly to the stomach or bloodstream. Wastes would be chemically processed to make new food. The tiny bits of totally worthless waste matter would be deposited automatically in a small canister carried on the back. […] Thus man would find space no longer hostile and he could move unencumbered anywhere in the accessible universe.” This is an apotheosis of **technological autarchy** anticipating Stelarc’s (1991) prosthetic body as an embodiment of “postevolutionary strategies” (cf. Dery 1996: 159–169). As Haraway (1991a: 150–151) says, the cyborg is the “awful apocalyptic telos of the ‘West’s’ escalating dominations of abstract individuation, an ultimate self untied at last from all dependency, a man in space.”
Although the Clynes and Kline speculative proposition was not directly part of the NASA Space Program, in its own way it elaborated on an idea that was constitutive of the American space flight project in terms of self-regulative human-machine systems. As Clynes and Kline (1995: 29) say, “[a]ltering man’s bodily functions to meet the requirements of extraterrestrial environment would be more logical than providing an earthly environment for him in space.” From this standpoint, “[a]rtifact-organism systems which would extend man’s unconscious, self-regulatory control are one possibility” (ibid.). “The task of adapting man’s body to any environment he may choose will be made easier by increased knowledge of homeostatic functioning, the cybernetic aspects of which are just beginning to be understood and investigated” (ibid.). What was provided “naturally,” by evolution, until that time, namely, the “altering of bodily functions to suit different environments” (ibid.), was now to be done artificially in an entirely new environment that space travel opened up for the human being.

“That’s one small step for a man, one giant leap for man-kind,” we recall the American astronaut Neil Armstrong saying when the Apollo 11 had landed on the Moon on July 20, 1969 and he was climbing down the ladder in order to start his historical Moon walk (see Hansen 2005: 493; for the political significance of the Apollo programme for the establishing of America’s supremacy in spaceflight in the Kennedy era, see Wang 2009: 183–189, 219–236; Kauffman 1994; Kay 2005). From the perspective of the Clynes and Kline thought experiment, the step from a laboratory rat to the astronaut-cyborg as a post-human being was, to apply this famous saying, a small step for the rat, but a giant leap for the human being in terms of post-biological evolution: in the form of a cybernetic organism, understood as an exogenously regulated integrated body-machine control system to maintain the homeostasis of the organism necessary for the appropriate functions of the body (see Clynes & Kline 1995: 30–31; emphasis mine; cf. Hughson & Bondar 1999: 290–297), the human being was about to leave the constraints of biology behind and enter an unlimited world of possibilities provided by science and technology (for a comprehensive overview of space biology, see, for example, Planel 2004 [1988]; Clément & Slenzka 2006; Brinckmann 2007).
This is the post-Nietzschean becoming of the Übermensch, a becoming through the Weg vom Wurme zum Menschen and, beyond that, to the final emergence of the cyborg through a technological metamorphosis of the human to the posthuman: the way to the Stelarcian mode of being, the posthuman being as a post-physiological prosthetic construction; that is, a post-biological, post-gender creature in its artificial “naturality” enabled by post-evolutionary body design.

From this perspective, the osmotic pump experiment with a laboratory rat and Clynes and Kline’s visionary interpretation of this kind of “cybernetic organism” was the primal act in the post-Nietzschean Herkunft of the cyborg, its multidimensional becoming in the scientific-technological matrix of bio-engineering in post-Sputnik America. A genealogical conjunction in which the aspirations and projections of American technological politics and political technology met one another in the body of a laboratory rat, an experimental animal as a model of the future posthuman being. That is, the same factors that had produced not only the Manhattan project and its achievement, the atomic bomb, the War in Vietnam and its gigantic military-technological machinery of destruction, and space flights and the body-machine systems of astronauts, but also the world in which Coca Cola, Hollywood, IBM, McDonald’s and Disneyland were as natural as the assembly-line, the commodification of the female body and tele-evangelism as a mode of postmodern spirituality – all peculiarly American inventions. Clynes and Kline’s vision of the cyborg, associated with a rat connected to an osmotic pump, paved the way to the times after the human being, to an era in which the prosthetic amplification of the human body signifies the transpolitics of the cyborg, the politics of scientific-technological self-design; that is, the post-natural “life” of the post-subject in its nomadic-monadic becoming-in-technology.

From this founding moment onwards, the challenge was to integrate the automatic and autonomous functioning of the human organism with a technological environment in a symbiotic manner. That is, the task was to redesign the body according to the principles intrinsic to “the devices necessary for creating self-regulating machine systems” (Clynes & Kline 1995: 30). The aim was the self-regulation of the body by means of a body-machine system able to function “without the benefit of consciousness in order to cooperate with the body’s own autonomous homeostatic controls” (ibid.). It is in this context that the key ideas of Wienerian cybernetics – self-regulation, feedback and homeostasis implying control and communication in the animal and the machine (see Wiener 1961 [1948]) – materialized in the form of the cyborg, as defined by Clynes and Kline:

> For the exogenously extended organizational complex functioning as an integrated homeostatic system unconsciously, we propose the term “Cyborg.” The Cyborg deliberately incorporates exogenous components extending the self-regulatory control function of the organism in order to adapt it to new environments. (Clynes & Kline 1995: 30–31; emphasis mine; cf. Stelarc 1989, 1991, 1998)

In this manner, the point of departure of the Clynse and Kline cyborg was an adaptation of two different systems to one another, the human biologi-
...cal organism and the technological environment during a space flight; that is, a cybernetic assembly of human physiology and the equipment of the space ship as a second order living system: a self-regulating techno-organism controlled by feedback that relied on a circulation of information in the life-supporting systems of the astronauts, a combined system of techno-biological homeostasis (cf. Wiener 1961 [1948]: 95–115, 1968 [1950]: 54–57, 132–134, 143–144; Clynes 1995 [1970]: 35–38; Sturken 2004: 85; Lee 2010: 88–90; Barratt & Pool 2008; in terms of biopsychiatry, cf. Orr 2010: 358–377). While technology, as such, in itself, does not recognize the problem of “otherness,” the challenge from the human point of view was the adaptation not only of the physiology of the body, but also of the human psychology to an alien environment consisting of a control system that had its own functional logic, the techno-logic of the machine. The solution was simple, in principle: as Clynes and Kline concluded, since the human being cannot change the conditions of space, what is to be changed is the functioning of the human organism in order to adapt it to the requirements of space flight.

If man in space, in addition to flying his vehicle, must continuously be checking on things and making adjustments merely in order to keep himself alive, he becomes a slave to the machine. The purpose of the Cyborg, as well as his own homeostatic systems, is to provide an organizational system in which such robot-like problems are taken care automatically and unconsciously, leaving man free to explore, to create, to think, and to feel. (Clynes & Kline 1995: 31; with regard to “the ‘West’s’ escalating dominations of abstract individuation, an ultimate self untied at last from all dependency,” cf. Haraway 1991a: 150–151; for “postevolutionary strategies” in terms of “prosthetics, robotics and remote existence,” cf. Stelarc 1991)

What was essential in the cyborg constructed by Clynes and Kline was that the human being as the subject of technology was to be, on the one hand, liberated from the control and regulation activities that were necessary to secure the reliable and undisturbed functioning of human physiology in an alien environment by becoming, on the other, paradoxically, symbiotically integrated into the technology surrounding it. This internally self-contradictory human-machine combination, predicated upon a double bind between liberation and integration, constituted a techno-biological cybernetic organism as a new kind of homeostatic system that was capable of exceeding the limits of the biological body by turning it into a part of a machine environment (cf. Cordeschi 2002: 17–27; Johnston 2008: 23–64).

The purpose of the cyborg was thus to expand the working possibilities of the astronaut by liberating him from both the constraints of the body and the control activities pertaining to the equipment that was the precondition of his survival. In other words, the fundamental idea of the cyborg was to increase the efficiency of the human body, to enhance its performance capacity, by prosthetic technology that enabled the astronaut to remain biologically unaltered, but, at the same time, to overcome the obstacles based on the biological constitution of the human body in an environment to which it was not adapted by
the evolution of the human being as a species. Thus, in contrast to the trans-politics of Haraway’s cyborg, Clynes and Kline’s project did not purport to cross the limits of biology in order to create an entirely new species, a new life form, beyond the human, but, instead, to enable the feasibility of the adaptation of the human being to new kinds of technological conditions expressly as human, without altering the biological constitution of the human body as an organism in the sense of evolution (Clynes & Kline 1995: 29; cf. Launius & McCurdy 2008: 199–200; for the potentialities of the cyborg in terms of organ transplantation, artificial implants, new organs, new senses and gene technology, see Sreen 1997: 91–94; for an “anthropology of the cyborg” as a non-posthuman being, see Sreen 2010: 171–175; for the cyborg as a new mode of being human, see Sreen 2004).

To sum up, the aim of Clynes and Kline in their cyborg project was not posthumanism, but a kind of technological humanism reminiscent of Wienerian cybernetics, an echo of Wiener’s idea of “the human use of human beings” (see Wiener 1968 [1950]; for Wiener’s aspiration to humanize technology, see, for example, Heims 1980: 301–329; Masani 1990: 292–294, 318–334; Day 2001: 49–52). Thus, the purpose of the Clynes and Kline cyborg was not to overcome the human being as a species, but to expand and augment the performance capacity of the human body, to increase its functional abilities, in an environment to which it was not adapted by evolution – an aim that now, in the postmodern condition of technoscience, reappears as the guiding principle of the contemporary politics of self-design, the ego-politics of the cyborg as a post-evolutionary mode of being (cf. Massumi 2002: 125–126; Rorvik 1971; Dyens 2001; Friedrich 2003; for the cyborg in terms of “the new order of humachines,” cf. Poster 2002: 16–17; with regard to “machines that become us,” cf. Katz 2003; from a theological perspective, cf. Waters 2006: 74–76, 80–103; for “the anthropology of the artificial human being in the twenty-first century,” cf. Irrgang 2005).

6.5.2 The Body Is Not Enough

In comparison to the cyborg proposed by Clynes and Kline, the Harawayan cyborg presents an entirely new mode of living being, a techno-biological hybrid, a post-evolutionary life form, that crosses over not only the borderlines between the human, the animal and the machine, but also the limits of the human being itself. The Harawayan cyborg abolishes once and for all the borderlines that have constituted the category of the human being until now, the whole conceptual framework of being human, the very notion of the human as a distinct entity in contrast to the animal and the machine. It is in this sense that Haraway’s cyborg is the latest – if not the last – chapter in the deconstruction of the human being, epitomized by the idea of the “death of man,” initiated by Foucault (1989 [1966]) and Derrida (1984f [1972/1968]; cf., for example, Mermier 1985: 13; Martin 1992: 1, 38–39, 45–47, 51–52; Kumar 1995: 150–152; Gutting 2001: 255–257).
Thus, along with the cyborg we have arrived at the grave of the human being and we joyfully salute the posthuman as our liberator, since what is the cyborg, in essence, if not the ultimate embodiment of the posthuman.

This is the seduction of the cyborg (cf., for example, Davis-Floyd 1998: 273; Toffoletti 2007: 130; Leeson 2008: 79; Jamison 1994; Zylinska 2002b; Benford & Malarette 2008): a continuous exceeding the limits, the limits of the organic body. As N. Katherine Hayles (1999: 84) says in her discussion on the “posthuman,” what is the “seductive” in the cyborg is the vision of proceeding “from modifications intended to compensate for deficiencies to interventions designed to enhance normal functioning” (emphasis mine). “Once this splice is passed, establishing conceptual limits to the process becomes difficult” (ibid.; emphasis mine). Indeed, but why? Hayles does not give any answer to this cardinal question, but the reason is obvious: the Eigenlogik of scientific-technological rationality, reinterpreted in terms of linguistic figuration, begins to direct the conceptual process, and, as a result, self-referential metaphors turn into theory-fictions – a process that is also typical of Hayles’ own presentation of the history of cybernetics in which historical facts, the very historicality, of cybernetics are mixed with playful linguistic figuration typical of the “post.”

What is at issue here is precisely the allurement of the imaginary of reason that I call the surrational constitutive of all that is “cyber” following the logic of the “post.” And, consequently, this is the seduction of the “cyber”: under the spell of the “cyber,” we write us into being in terms of the posthuman time and time again; what matters is not the flesh, but the prima materia of the “post”: language as the condition of possibility of all being. In the world of the cyborg, “free-floating signifiers” are the most solid guarantee of our freedom. This is the power of what Haraway (1991a: 175) calls “cyborg writing.”

The Onto–Technology of the Cyborg: The Absence of the Flesh

Referring to Haraway’s “Cyborg Manifesto” Hayles (1999: 84) states that “Haraway wrote about the potential of the cyborg to disrupt traditional categories.” What happens in Haraway’s “manifesto” is that – intentionally or insidiously, that is not the point here – the potential turns into the actual, the imaginary becomes real. In the virtual reality of language constitutive of cyber discourse things appear in their theoretical spectrality, in the light of post-futurism in which science fiction takes on the meaning of “science.” And, as a result, as Hayles points out:

Fusing cybernetic device and biological organism, the cyborg violates the human/machine distinction; replacing cognition with neural feedback, it challenges the human-animal difference; explaining the behavior of the thermostats and people through theories of feedback, hierarchical structure, and control, it erases the animate/inanimate distinction. In addition to arousing anxiety, the cyborg can also spark erotic fascination: witness the female cyborg in Blade Runner. The flip side of the cyborg’s violation of boundaries is what Haraway calls its “pleasurably tight coupling” between parts that are not supposed to touch. Mingling erotically charged violations with potent new fusions, the cyborg becomes the stage on which are performed contestations about the body boundaries.
that have often marked class, ethnic, and cultural differences. Especially when it operates in the realm of the Imaginary rather than through actual physical operations (which act as a reality check on fantasies about cyborgism), cybernetics intimates that body boundaries are up for grabs. (ibid.: 84–85; emphasis mine)

A “‘pleasurably tight coupling’ between parts that are not supposed to touch” and “erotically charged violations” of the borderlines between bodies and machines – that kind of *techno-eroticism* hovering around the figure of the cyborg is a typical American affect: nowhere else in the world is the borderline between a brazen sexualization of the cultural scenery, on the one hand, and a religious-moral prudery and a deep anxiety about the sexual, on the other, charged as affectively as in American culture in which the prevailing attitude is, as George Rousseau (1999: 3) says: “no sex please, we’re American”; that is, a culture in which, in a curious manner, the borderline between erotophobia and libertinism is simultaneously dominated by sexualization and desexualization (ibid.).

What is problematic in American culture is that the human body is constituted, at the same time, in terms of both biology and morality; that is, in the American conception of corporeality, there is a tension between the body as a biological organism (conceptualized in cybernetics as a machine similar to technological constructions) and the body as *flesh* in all its religious dimensions. While the bio-body is increasingly brought under the control of science and technology, the carnal body always tends to evade the logic of technoculture, the logic of control. Accordingly, the carnality of the body, the seductions of the flesh – that is still a deep source of anxiety in American culture, but also in general in the secularized world in which everything is supposed to follow the imperative of reason. The human flesh as the very quintessence of the *irrationality* constitutive of all that is *human* is the very opposite of cybernetic reason, a mode of reason in which control is as essential as the Holy Spirit in Christianity. In terms of cybernetics, nothing could be more dangerous, more *offensive*, than loss of control. *Control is the constitutive principle of cybernetics* – a characteristically American principle; a principle that permeates the American way of life, especially in the form of self-control epitomized by all kinds of therapies as a way of self-management (see, for example, Cloud 1998; Füredi 2004).

It is in this sense that cybernetics is a genuinely American invention: a science that has dedicated itself from the very beginning to the struggle against the evil forces of chaos, against the Manichean principle of *dissipation* understood as “entropy,” the very enemy of cybernetics (see Wiener 1961 [1948]: 15, 56–57, 165). As Wiener says:

> The scientist is always working to discover the order and organization of the universe, and is thus playing a game against the arch enemy, disorganization. Is this devil Manichean or Augustinian? Is it a contrary force opposed to order or is it the very absence of order itself? (ibid.: 33)

This anxiety concerning the loss of control is inscribed in cybernetics from the very beginning. If the Manichean devil is our opponent, we will encounter an
enemy that is determined, as Wiener says, to use “any trick of craftiness or dis-
simulation” to obtain its victory (ibid.). The Augustinian devil, in contrast, is “not
a power in itself, but the measure of our weakness” (ibid.; emphasis mine; cf. Wie-
ner 1968 [1950]: 21–29), but as such, nevertheless, able to disturb our attempts
to keep the world in order. That is, the human in itself is a source of chaos, and,
in this sense, its own enemy in the struggle against entropy, the principle of
dissipation, decay and death.

In the same way as the forces of chaos are part of the whole universe, they wield
their power in the organism that is our body. But the body in cybernetics is an
abstraction, a machinic mechanism that fights entropy, the chaotic forces of
the organism, by means of information, the means of control. As Hayles (1999:
99) remarks, Wiener saw the relationship between the body and the machine,
“between living and mechanical systems,” in terms of analogy implying a “ten-
dency to erase from view the very real differences in embodied materiality, dif-
ferences that the analogies did not express.” This “elision of embodied materiality,”
with the “emphasis on analogy,” (ibid.) was part and parcel of a “certain estrange-
ment from the flesh” (ibid.; emphasis mine) typical of Wiener as a person and of his
view of cybernetic rationalism, the reason of the machine that in itself embod-
ied reason (cf., for example, Edwards 1996: 175–351; Brick 1998: 124–135; Robins
& Webster 1999: 129–130, 142–143, 190–191; Parikka 2007: 35–38; for a “cybernetic
utopia” that, paradoxically, manifests “postmodern anarchism” in the terms of

The same tendency to elide the carnal embodiment of the human body, to
foreclose the flesh, is also constitutive of Wiener’s effort to construct prosthesis
as aids to compensate for the deficiencies of the human body. Not the body
as flesh, but the analogy between the organism and the machine, was Wiener’s
point of departure, as Hayles describes:

Border crossings accomplished through analogy include the separation
between flesh and world (sense perception), the transition between one disci-
pline and another (for example, moving from the physiology of living organ-
isms to the electrical engineering of a cybernetic machine), and the transfor-
mation of embodied experience, noisy with error, into the clean abstractions of
mathematical pattern. Even the prostheses that Wiener designed can be under-
stood as operating through analogy, for they transformed information from one
modality into another. (Hayles 1999: 98–99; emphasis mine)

The “clean abstractions of mathematical pattern” constitute the problem of
Wiener’s cybernetics that, in its scientific rationalism that conceptualizes all
that is human in terms of the machine, turns into metaphoric abstractions in
Haraway’s cyborg writing, a mode of technophile linguistic play that is entirely
purified from the sensations and affections of the human flesh, the fundamen-
tal carnality of being human. That is, the Harawayan cyborg, as a technosci-
entific construction, is sanitized from the impurity of human carnality, which,
in fact, is the reverse side of her emphasis on the “impurity” of the cyborg, its
“messy” character, as a technoscientific idea, as a subversive wish-image or a
phantasm of subversion in the sense of the “radical” typical of the “post” (see, for example, Kirby 1997: 146; Mason 1999: 116; Baker 2000: 100; Felski 2000: 141; Zylinska 2001: 128; Graham 2002: 204; in terms of the “anarchy of the cyborg,” see Call 2002: 118–119, 129–139). In other words, Haraway’s cyborg, as a model of embodiment, is purified from all the immodesty, obscenity, indecency, salaciousness and smuttiness that is intrinsic to human life in the flesh: the cyborg is free from human stain (cf. Warwick & Cavallaro 1998: 120–125; for the sanitization inherent to contemporary American culture, cf. Muri 2007: 250, 2003).

That is, the cyborg, paradoxically, celebrates the human body as an abject, as a split object that, at the same time, is both a repulsive and attractive entity; thus, the obsession of the cyborg is a body that is purified from all that is base, depraved, vile: the human flesh; in other words, the purity of the cyborg emerges from the very ideal of control: pure rationality, technoscientific reason thoroughly liberated from human contingency is the hard core of the cyborg, its constitutive rationale (in terms of Cold War rationality, cf. Erickson et al. 2013). It is in this sense that the cyborg is at home in what I call the Disneyland of Theory (in terms of the idea of nature in Disney animation, cf. Whitley 2008).

From this techno-hygienic perspective, Haraway’s “confession” – “I would rather go to bed with a cyborg than a sensitive man” (Penley & Ross 1992a: 18) – becomes understandable; or, to apply one of the most popular American idioms, the cyborg is “sexy” – in theory.

What is common, therefore, to Wiener and Haraway is a shared aversion of the flesh, which, as we know, is a deeply Christian notion; that is, the theology of the flesh is a fundamental constituent of Christian faith (see, for example, Laqueur 1992 [1990]: 59–61; Brown 1988; Monti 1995; Miles 2005; for Haraway’s “Catholic symbolism and sacramentalism,” see Haraway 2000a: 10–11, 13, 24, 86), which can also be seen in Max Weber’s (1993 [1904–1905]) theory of the “Protestant ethic” as “the spirit of capitalism,” a theory that in itself is constructed on the idea of rationality, and beyond that in Western conceptions of discipline and social order: the carnal body is the very source of chaos, the “enemy” of order precisely in Wiener’s cybernetic sense. The Harawayan cyborg continues this tradition by other means, by means of the “cyber” that are the means of the “post”: the cyborg is a theory-fiction that epitomizes the idea of control inscribed in the reason of technoscience, the rationality of scientific-technological control of all living. Haraway’s cyborg is a post-theoretical abstraction that has taken the place of the lived body; in this manner, the cyborg is “a hybrid of machine and organism” (Haraway 1985: 65), “a hybrid of cybernetic device and organism” (Haraway 1989: 138), and, accordingly, “[c]yborg anthropology attempts to refigure provocatively the border relations among specific humans, other organisms, and machines” that are to be seen in the “field side” of “the culture and practice of technoscience” (Haraway 1997: 52), in the constellation of “historical chronotopes” that extend from “World War II through the Cold War of the 1940s through the 1980s, and the New World Order of the early 1980s to the present” (ibid.: 53).
This historical period implies the triumph of control, the legacy of cybernetics, the calculative rationality of the machine, the reign of systemic reason constitutive of the scientific-technological control of all being (see, for example, Beniger 1986; Bennett 1993; Galison 1994; Levin 2000; Gerovitch 2002; Mindell 2002, 2008; Hammond 2003; Mindell et al. 2003; Pias 2003, 2004; Bissell 2009). That is, contrary to the view that the postmodern implies an empire of freedom, the postmodern is ruled by a control paradigm, the paradigm of abstract reason peculiar to technoscience and technoculture; a contemporary mode of the reason of the modern that is the rationale, the regulative principle, of postmodern – that is, scientific-technologically organized – society and its dominant cultural experience, the experience of the machine as the existential condition of being human in a world in which scientific rationalism is the measure of all living.


The Technological Anthropologism of the Cyborg

Although Haraway emphasizes the materiality of the body throughout her “Cyborg Manifesto,” it is not the materiality of the flesh as a fundamental human experience; instead, it is abstract materiality, the “materiality” of theoretical figures, in the same sense as in Wiener’s body-machine analogy. This very same elision of the flesh, typical of Wiener’s cybernetics and the techno-erotic abstractions of the body-machine constructions as its postmodern revival, is constitutive of Harawayan cyborg mythology and its view of prosthesis as a “fundamental category for understanding our most intimate selves” (Haraway 1991f: 249). Indeed, as Haraway says, “[p]rosthesis is semiosis” (ibid.); it is not an issue of real embodiment, a matter of the human body as a carnal experience, but, similarly to the body in post-theory, a linguistic figure – with all its religious dimensions peculiar to Haraway’s (2000a: 86) “Catholic symbolism and sacramentalism,” the “doctrines of incarnation and transubstantiation.” That is, like Wiener, Haraway operates in terms of analogy, not in intimate touch to the human flesh.

In this sense, Haraway is a heir of Saint Augustine, the prominent Church Father who, after Paul, established the Christian concept of the body as the source of sin, that is, a theology of the flesh according to which the desires of the body, the temptations of the flesh, lead to the depravation and corruption of the human
being, to the ruin of the soul (see, for example, Brown 1988, 2000 [1967]; Miles 2005). Thus, the Harawayan cyborg, as an embodiment of the control paradigm of technoscience, presents itself as the salvation from the damnation and perdition inherent to carnality. That is, the negation of the flesh is the affirmation of the cyborg as a model of pure life, life as an incorporation of technoscientific reason.

Refigured in terms of the cyborg, the Harawayan body is a political metaphor created by means of linguistic figuration, a theory-fiction in the mode of the “post”; and thus, the Harawayan cyborg is a post-Hobbesian “Leviathan,” a postmodern metaphor of the “body politic” in a world in which technoscience has taken the place of Christian faith, a world in which human existence is defined by the categories of scientific-technological rationality (cf. Hobbes 1998 [1651]), a vision of the prosthetic body as a posthuman materialization of the idea of a new kind of social and societal organization based on a technoscientific politics of the body, the politics of scientific-technological transformation of our very corporeal existence (cf. Haraway 1991b [1978]): away from the flesh, from the irrationalism of the carnal body, away from decline and decay, from degradation and dilapidation constitutive of all the organic, to the resurrection of the body as an intelligent machine, to a rationally organized techno-body, to a technoscientific body-machine assemblage functioning as a post-biological system of information, communication and control, the Wienerian keywords of cybernetics (cf. Krippendorff 1979; Hughes & Hughes 2000; Day 2001; Mindell et al. 2003; Floridi 2004), the signifiers of the new beginning of the human in the habitus of the posthuman, paradigmatically embodied by the cyborg.

In this sense, what is specific to the Harawayan cyborg is that, as a self-referential metaphoric construction, it is a reified metaphor: through the process of hypos tatization it has turned into a “being” sui generis, an entity the “materiality” of which is linguistic. Thus, Haraway’s cyborg, a transpolitical techno-embodiment of the posthuman, has its origin in prosthetics understood in terms of Wienerian “elision of embodied materiality” (cf. Wiener 2003a [1954], 2003b [1949]); that is, the Harawayan cyborg is a linguistic manifestation of the absent flesh; in other words, the immateriality of information is the essence of the cyborg.

All this crystallizes in the notion of prosthesis: in terms of cybernetics, there is no prosthetics without information, information that enables communication, control and feedback constitutive of the cyborg – if we take the cyborg seriously, as a cybernetic organism in the sense of cybernetics.

Love your prosthesis as yourself – that is the ethos of the body politics in the name of the cyborg. As Haraway (1991a: 178) says, the cyborg lives in a world in which “machines can be prosthetic devices, intimate components, friendly selves,” and, in this manner, according to Hayles (1999: 3), “the posthuman view thinks of the body as the original prosthesis we learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born.” In these terms, the prosthetic body is the techno-social “socius” of the self, a new form of the social body incor-
porated by the post-subject in its technologically extended and enhanced mode of being (cf. West 2001; Willson 2006); that is, the cyborg is a second self of itself, a “third” beyond the organism and the machine, the extra-corporeal prosthetic organs of which function as a technoscientific substitute for society in a world in which, in Heidegger’s (2000c [1966/1976]: 669) words, *wuβen haben nur noch rein technische Verhältnisse*, a world in which the “only thing we still have are technological relations.” This is a prostheticized form of Deleuze-Guattarian micropolitics of the body (cf. Guattari 1977 [1974]; Deleuze & Guattari 1998 [1972]): the ego-politics of the prosthetic subject, the post-subject as a Freudian “prosthetic God.”

From this perspective, the roots of the genealogy of the cyborg hark back, in fact, to the nineteenth century, to new sciences promoted and elaborated on at the time: the burgeoning sciences of physiology, biology, physics, engineering, anthropology and psychology, each specialized in their specific problem fields, but all nevertheless unified by an empirical and experimental conception of scientific research (see, for example, Rheinberger & Hagner 1993; Hagner et al. 1994; Sarasin 1995, 2001; Rheinberger et al. 1997; Sarasin & Tanner 1998; Wittkau-Horgby 1998; Schmidgen et al. 2004; Dierig 2006; Killen 2006). In this multidimensional network of scientific aspirations and projections in the nineteenth century, there were also in circulation ideas concerning the expansion of the natural form and function of the human being by means of technical devices conceived of to overcome the “natural” constraints of the human body. In the background of this approach, there was a new form of metaphorics pertaining to natural forces as well as the artificial capacities of machines and motors, machinic ideas and visions that dominated the whole physiological mindset of the nineteenth century, suggested by the metaphor-scientific notion of *Kraft*, “living force,” reinterpreted in the context of thermodynamics, also an important source of Wiener’s cybernetics (see, for example, Rabinbach 1990: 45–92, 124–136; McCarren 2003: 15–38; Bevilacqua 1993); a configuration of metaphorics that was connected, for its part, to emerging views of unparalleled possibilities of human development as a result of technological progress created by machine industry and industrialization in general (see, for example, Teich & Porter 1996; Stearns 1998 [1993]). In this sense, the modern body, as the hard core of the postmodern body, is a result and product of the “industrial revolution” (see, for example, Armstrong 1998; Morus 2002; de la Peña 2005; Pfeisinger 2006; in terms of immunity and biopolitics, see Cohen 2009).

From the 1850s to the turn of the century, a prominent issue in sciences was a similar type of scientific-technological reconstruction of the human being as a hundred years later, in the technoscientific constellation of cybernetics and the cyborg in the 1950s and the 1960s in the context of the American military-industrial complex. In both cases, the human body was in crisis: the organization of the body, the efforts of the economic optimization of its capacities and capabilities, did no longer correspond to the demands of industrial dynamics, the requirements of productivity (for a historical contextualization, see Sara-
It is through these crises, culminating in the First World War and its scientific-technological and cultural consequences, that the modern body emerges, the body reformed by a comprehensive scientificization of life constituting the historical model of the postmodern body as the embodiment of the machine (for a historical overview of the idea of reform around 1900, see Buchholz et al. 2001; in terms of the Erfindung des Menschen, the “invention of the human being,” see van Dülmen 1998).

The nearest equivalent of the postmodern cyborg project is the anthropological theory of “organ projection” (Organprojektion) elaborated on by Ernst Kapp in the 1870s, one of the first philosophers of technology (see Kapp 1877; Mitcham 1994: 20–24; Fohler 2003: 34–39; Hartmann 2006: 80–90; for a historical contextualization, see Hubig et al. 2000). As for Stelarc, Haraway and other contemporary cyborg theorists, for Kapp, the natural human body was “insufficient,” but, at the same time, Kapp deemed that precisely the inventions based on the achievements of new scientific approaches were coming to the assistance of the human being: by means of new technologies, it was possible not only to produce auxiliary devices, tools and machines emulating the functions of the human body, but also to “extend” the dimensions of the body outside its biological-anatomical limits, even to replace the “deficiencies” of the body. For Kapp, the human being was a limited form of life due to its biological properties as a species in the same sense as in the conception of the human as a “deficient being” (Mängelwesen) postulated by Arnold Gehlen in the 1940s (see Gehlen 1997 [1940]; cf. Rapp 1994: 102–103; for a historical contextualization, see Wöhrle 2010; for the idea of a proto-cyborg in the 1920s, see Haldane 1924; Bernal 1970 [1929]; for “biopolitical utopias” in pre-revolutionary Russia, see Groys & Hagemeister 2005).

In this conception, technology is anthropologized and, at the same time, the human being is technologized, amounting to a mutually reductionist view of both. As a result, human history appears as a technological evolution, precisely in the same way as in postmodern techno-theories, especially in theories that openly or tacitly draw on McLuhan’s (1964) idea of media as “extensions of man” (for a paradigmatic example, see Zylinska 2002b; for discussion on McLuhan, see, for example, Theall 2001; Yaszek 2002; Cavell 2003), most notably in cyber discourse. As the historian of science Friedrich Rapp summarizes this idea referring to Kapp:


Mutatis mutandis, we encounter the same view in the techno-euphoric theories of McLuhan, Stelarc and Haraway, and many other postmodern theorists of the technological. Thus, what is essential here, is that what I call the technological...
**anthropologism** of Kapp and Gehlen, in fact, is an earlier, a modern, version of the technomorphism peculiar to the postmodern; that is, a reconceptualization of the human *sub specie machinae*, from the point of view of the machine, as a sub-system of technology (see Baruzzi 1973; Sutter 1988; Meyer-Drawe 1996).

Thus, long before there is any idea of the postmodern we hear the sound of the cyborg: *the body is not enough.*

**A Mutation of the Human in the Name of “Prosthetic God”**

It is in this context that the ideas concerning the prostheticization of the human being already began to emerge before the scientific discipline of cybernetics founded by Norbert Wiener in 1948; ideas that clearly come to the fore in the visions of McLuhan (1964), Haraway (1985) and Stelarc (1991) concerning the empowerment and expansion of the human being, *reduced to the body understood as an organism analogical to the machine*, by means of technology.

In a similar manner as the technomorphist conceptions of Kapp and Gehlen, Haraway also postulates the human being as a “deficient being” whose deficiencies can be compensated for by means of “organ projection,” by the cyborgization of the body. To demonstrate her idea, Haraway (1991a: 178) poses a rhetorical question that, in fact, in itself implies the “right” answer, that is, the point of departure of the transpolitical programme of the cyborg: “why should our bodies end at the skin?” Yes, why? Why should the human being be content with the limitations of its own body, if, by means of prosthetics, it is possible to step outside one’s own corporeal limits; or, as McLuhan (1964: 45–67) says, to increase one’s own efficiency by means of various “amplifications” and “extensions” of the human body.

In other words, why should the human being remain *human* if it can become a “prosthetic God,” a posthuman being having the divine ability to recreate itself at will time and time again?

In this sense, the cyborg conceptions following the model of the Harawayan *ur-cyborg* (see, for example, Gray et al. 1995b; Halberstam & Livingston 1995; Kirkup et al. 2000; Gray 2001; Graham 2002; Zylinska 2002b; Ihde & Selinger 2003) imply a vision of living in an entirely new world in which the boundaries between the body and its environment dissolve, as McLuhan (1964: 56) already in the 1960s prophesied: “In the electric age we wear all mankind as our skin.” This is the body politic in the age of the cyborg, a new era in which, similarly to the Jüngerian vision of the coming post-bourgeois societal formation in the *Gestalt of the Arbeiter* (Jünger 1982 [1932]), the individual body is just an extension of the collective body which, in turn, is a global, networked body-machine assemblage: *a post-Hobbesian Leviathan as a trans-individual cyborg*. This is, in the final analysis, a return of the repressed in a form never seen before: *cyborg communism* as the highest stage of scientific-technological rationality (in terms of “cyber-communism,” cf. Barbrook 2000; May 2002: 84–85; Žižek 2002a: 308,
a dissolution of individual subjects in a global network-body, a technoscientific insect formation controlled by machine intelligence, the reason of the cyborg. That is, the post-subject is constituted by an anonymous omnipresent Doppelgänger that is always already there where one thinks one is.

This is a return with a vengeance of structuralism prevailing from the late 1940s to the mid-1960s, the paradigm of omnipotent supra-individual “structures” under which subjects were totally subordinated (see, for example, Hawkes 1977; Kurzweil 1980; Sturrock 1986; Harland 1987).

For Haraway, this kind of radical reconstruction of the body by way of deconstruction of the human implies that prosthetics constitutes the precondition of the onto-technological recreation of the human being from the very beginning: the onto-theological genesis of the posthuman being in the form of the cyborg. That is, a prosthetic redemption of the body through a technoscientific deconstruction of the “liberal humanist” subject (cf. Hayles 1999: 4–7, 85–92, 100–112). In this sense, prosthesis is posited as the very basis of becoming-cyborg, its ontological and epistemological condition of possibility; as Haraway says:

One way to read Varley’s [a science fiction author appreciated by Haraway] repeated investigations of finally always limited embodiments, differently abled beings, prosthetic technologies, and cyborgian encounters with their finitude despite their extraordinary transcendence of “organic” orders is to find an allegory for the personal and political in the historical mythic time of the late twentieth century, the era of techno-biopolitics. Prosthesis becomes a fundamental category for understanding our most intimate selves. Prosthesis is semiosis, the making of meanings and bodies, not for transcendence but for power-charged communications. (Haraway 1991f: 249: emphasis mine)

Prosthesis as a “fundamental category for understanding our most intimate selves” (cf. Stone 1995d, 1995e) in “the era of techno-biopolitics” – what does it actually mean?

We are reminded of the “prosthetic dream” of Sauerbruch, the German master surgeon, the creator of the famous Sauerbrucharm, a new type of flexible arm prosthesis, in the 1920s (see, for example, Springer 2002: 77–80, 145; Eckart 2005 [1990]: 285–286; Heller 2009: 92). It was a day-dream in the middle of war of a prosthetic body-machine construction that operated by electric power and was capable of exceeding the limits of the “natural” human body in efficiency (see Sauerbruch 1958: 195); a body-machine assemblage that, like the Harawayan cyborg, purported to extend the performative capabilities of the body by prosthetic means.

But while, in practice, prosthesis, for Sauerbruch, had expressly implied a means of helping war amputees or other disabled persons by way of technology and surgery (cf. Herschbach 1997; Betcher 2001; Ott et al. 2002; Serlin 2002, 2004; Meier 2004; Schnalke 2004; Carroll & Edelstein 2006), for Haraway the prostheticization of the human being in terms of the “post” manifests a historically new
and unforeseen era (cf. Stelarc 1991), the age of posthuman evolution set in motion by “techno-biopolitics” (cf. Graham 2002: 9–11, 176–177; Munster 2006: 132–136; Clarke 2008: 1–9, 142–162; Miah 2008: 76–79; in theological terms, cf. Waters 2006); in fact, an era in which the human being has reached the terminal point of its very existence as human (for an early vision of the posthuman, see Bernal 1970 [1929]). Prosthesis, in the Harawayan manner as the “fundamental category for understanding our most intimate selves,” is the precondition for enabling the human being to overcome itself, to abolish the constraints of its biological body altogether.

What is at issue here is no longer just to connect the human being to the machine (the principle of the modern), but to adapt the human being, reduced to an organism, to technology, the principle of general adaptation promoted and demanded by the technomorphism constitutive of both the discourse of the posthuman and the reality of postmodern capitalism: ideas and aspirations that emerge from the observation that the body is not enough under the increasing requirements pertaining to the performance capacities of the human body in the economic-political and scientific-technological order of neo-Fordism, the order of ruthless economic rationalization: the economization of the body as a resource. What I call the psychophysics of capital manifests the logos and nomos of globalization under the imperative of the political economy of neoliberalism, the post-Hegelian Weltgeist (see Hegel 1986d [1837]) in the era of a radical transformation of nature into technology (cf., for example, Böhme 1992; Bender & Druckrey 1994; Soper 1995; Robertson et al. 1996; Haberl et al. 1998; Böhme & Manzei 2003; Weber 2003, 2007; Baillie & Casey 2005).

The Harawayan prostheticization of the human body, in order to turn it into the cyborg, manifests the idea of what I designate as techno-organology constitutive of the politics of the posthuman, a politics of comprehensive prosthetics, projecting a view of a world in which technology is no longer an extension of the human being (cf. McLuhan 1964), but, on the contrary, the human being is an extension of technology. This kind of technomorphist understanding of the human being is based on a mode of thinking constitutive of meta-prosthetics, an idea proposed by Bernhard Kathan (1999: 111–144) in his critical history of medicine. In this context, prosthesis is no longer a means of compensating the deficits of the body, of restoring and thus rehabilitating a damaged body (the idea of medical prosthetics); prosthesis now represents a whole programme of body enhancement by means of technology, a techno-political programme to reconstitute the human body as a techno-organism: a theory-political agenda for posthuman techno-genesis, a transit ticket to a glorious future under the sign of the cyborg.

What does this abstraction from a concrete, living body to the body functions reconceptualized in terms of meta-prosthetics imply? In Kathan’s words, the “transfer of corporeal functions onto a device detached from the body” (ibid.: 143) entails that prosthesis does not re-member the body, because it has never been a part of the body. It is precisely this “abstraction” that amounts to the
abandoning of the memory of the body in prosthetic reconstruction of the human being. This is the logic of the instrumentalization of the body of the subject and the subject of the body in terms of prosthetics: the prosthetic body that is redesigned according to the principles of meta-prosthetics is no longer a human body as a Leib, a subject-body that has its own phenomenological body-history, its own en-membered body-remembering of its own members; instead, it is a body that is reconstructed as an embodiment of meta-prosthetics functions as a cybernetic system that follows the reason of the machine, that is, the imperative of efficiency, rather than incorporating the Lebenswelt of the body preserved by the body-memory. Thus, in meta-prosthetics, it is not the body itself, but the intrinsic logic of prostheticization that determines the implementation of prosthetic technology and thus the new parameters of the body.

It is in this manner that meta-prosthetics results from the Eigenlogik of prosthetics: it is not the needs of the damaged or deficient body that constitute the point of departure of meta-prosthetic design, but, instead, the idea of the prosthetic body as an enhanced and extended body, a technoscientific wish-image of a more capable body, which is the motive of the elaboration of prosthetics, the aim and ideal of the prostheticization in terms of the “post”: the post-body as the emblem of technoscience, the post-body as an implementation of the futurity inscribed in the project of prostheticization. In this sense, the body under the imperative of meta-prosthetics is conceived of as a machinic body from the very beginning, as a techno-organic extension of the machine. It is, of course, an altogether different matter to what extent the body in practice is disposed or inclined, that is, willing, to adapt itself to the dictates of machine logic; what counts here, however, is the technomorphic mindset constitutive of meta-prosthetics, of technoscientific thought in general.


In a paradigmatic manner, the cyborg, created by onto-technology according to the idea of meta-prosthetics, embodies the double-faced character of the “prosthetic God” of the postmodern, a technology-immanent deity manifesting itself in and through the technological imperative constitutive of technoscience: on the one hand, technology promotes the promise of empowerment, while, on the other hand, it implies the subservient position that the subject must adopt in order to comply with the demands of technoscientific society. In this manner, the technocultural constellation of the postmodern signifies
a cultural situation in which there is nothing outside technology, a world in which the reason of technology is the rationale and ethos of all being. “Prosthetic God,” in this sense, is, in Western culture, the onto-theological basis of knowledge, faith and production defined by the epistemic and practical principles of technoscience. In this way, the idea of “prosthetic God” exemplifies the scientific-technological reconstitution of the human being in terms of the posthuman to overcome the boundaries of the human.

In these terms, the power of the cyborg is based on *technological monotheism*: there is no other God than the cyborg, the “prosthetic God” of the postmodern.

The cyborg is the God of the posthuman world order, its immanent deity, its scientific-technological ideal, its *logos* and *nomos*, its reason and law. This is the founding idea of Haraway’s (1991a: 149) cyborg “myth,” a *post*-Lyotardian “grand narrative” (cf. Lyotard 1984 [1979]) in the mode of a postmodernized millennial saga, as a mythopoetic form of the secular-religious sublimation of the *Heilsversprechen*, the “promise of salvation” (cf. Bolz & van Reijen 1998), peculiar to postmodern visions of technoscience as a harbinger of a future world liberated not only from the constraints of biology, but, more fundamentally, from the contingency of human evolution. In this sense, the postmodern is dominated by the imperative of technoscientific rationality that implies the redemption of the human by the power of the posthuman.

By taking the Word of the prosthetic God into thy heart, thou shalt survive and have success – by putting thy faith in another god, thou wilt lose. *Only the cyborg can save us now.*

**Cybernetics as the Condition of Possibility of All Living**


My answer, as we have seen in the course of the study at hand, is that the emergence of cybernetics, indeed, signalled a new mode of thinking; though, neither as a new philosophy nor as a new beginning of thinking, but a manner of thinking *after* thinking; that is, *experimental epistemology* implying a calculative ratio-
nality in the Heideggerian sense: "[n]ur was vorausberechenbar ist, gilt als seiend, “[o]nly what is calculable in advance counts as being” (Heidegger 1989b [1962]: 17; for the idea of Vorausberechenbarkeit as the condition of possibility of contemporary science, see Heidegger 1977e [1938]: 123–124, 126–127, 138, 1985c [1959]: 251–252, 1994a [1949]: 43, 2000b [1953]: 22, 2006a [1957]: 155, 2006b [1959–1969]: 23, 175–177; cf., for example, Meyer 1961: 165–166; Wolf 2005: 247–248; Leidlmair 1991). That is, in terms of the “post,” there is nothing before there is a linguistic figure – a notion or a metaphor – that not only enables the naming of something as something, but, more fundamentally, calls it into being in the first place.

The term “experimental epistemology” goes back to Warren McCulloch, a neurophysiologist and mathematician closely associated with the cybernetic movement around Wiener, as a designation for “the study of the nature of knowledge through understanding the nature of the brain within which it resides” (Ramage & Shipp 2009: 28; cf. Gerovitch 2002: 75–76; Pickering 2010: 122; Van de Vijver 1992a; in terms of radical anti-anthropocentrism, see Cashman 1992; for a contextualization, see Andrew 2009), but I use it here to describe the approach of cybernetics in general. In this sense, cybernetics is based on a methodology that operates with scientific procedures in which the “objects” exist in so far as they are derived from or based on experimental settings in which they are conceptually constructed. That is, cybernetics embraces a form of knowledge, a mode of “the epistemological,” in which “the knowable” comes into being by the process of knowing, the process of Erkenntnis, that relies on mathematical and conceptual models, on epistemic constructions that are both created and verified by means of experimentation, understood as both conceptual and practical experiments (see, for example, Hagner et al. 1994; Hagen 2004; Hörl 2004; Hagner & Hörl 2008; for a historical contextualization, see Heims 1980, 1993 [1991]).

In this epistemic configuration, there are, in principle, no differences between the realms of the physical, physiological, biological and mechanical, and, by extension, between the human, the animal and the machine.

In this respect, Wiener’s statement concerning the conceptual indeterminacy of the term “life” makes the approach of cybernetics quite clear:

If we wish to use the word “life” to cover all phenomena which locally swim upstream against the current of increasing entropy, we are at liberty to do so. However, we shall then include many astronomical phenomena which have only the shadiest resemblance to life as we ordinarily know it. It is in my opinion, therefore, best to avoid all question-pegging epithets such as “life,” “soul,” “vitalism,” and the like, and say merely in connection with machines that there is no reason why they may not resemble human beings in representing pockets of decreasing entropy in a framework in which the large entropy tends to increase. (Wiener 1968 [1950]: 32)

In this sense, theoretically there are no differences between the human being and the machine, if we consider the human being as an organism in the constellation of information, communication and control, the context of cybernetics (see, for example, Gerovitch 2002a: 64–89; Johnston 2008: 27–31, 41–44, 166–168; Cordes-
chi 2004; for a philosophical problematization, see Canguilhem 1992 [1952]; from a historical perspective, see Mayr 1986; Des Chene 2001; in terms of “the vital machine,” see Channell 1991). Yet, the problem is that the human being is more than just a biological organism comparable to other organisms, and, seen cybernetically, to machines. It is this “more” that does not open in terms of cybernetics, but remains a closed area or an enigmatic lacuna in its conceptual framework.

It is quite understandable, however, that Lacan and Derrida, and mediated by them, early poststructuralism, became fascinated with cybernetics, not so much as a new mathematical science, but, rather, as a theory that expelled the subject from the world (see, for example, Forrester 1994 [1990]: 126–139; White & Hellerich 1997: 171–187; Hansen 2000: 78–85, 127, 212, 221–222; Weber 2001: 209; Rajan 2002a: 26–33, 49–54, 104, 248; Abbas 2006: 36–49, 57–81; Johnston 2008: 65–111, 423; Zylinska 2009: 39–40; Dupuy 2011: 229–233; Schwab 1994; Kroker & Kroker 1997a; Schmidgen 1997; Hayles 1999; Armitage & Roberts 2002b; Bitsch 2004; Bassett 2007). That is, cybernetics, for its part, legitimated the linguistic approach constitutive of poststructuralism, the focus on language as the basis of all being.

Transposed into the terms of the “post,” this epistemo-ontological upheaval in terms of theory entails that writing in the mode of écriture is all that we have when we are speaking about the world around us: speculative writing, linguistic figuration in the realm of the imaginary opened up by post-theory as the highest form of post-reason, reason after the end of philosophy, is the reason of the “post”: reason in terms of the surrational, reason as the highest form of the imaginary. This is the constellation of “thinking” in the world of post-theory in which the post-rational rationality of the surrational is the most productive form of heuristics in terms of “the theoretical.” What remains after this fundamental transformation of thinking, however, is the imperative of reason, the imperative to rationalize all being, finally, even to attempt to rationalize the very being of Being, das Sein, in the Heideggerian sense (see Heidegger 1977d [1927]). Thus, the “post,” in its very postality manifesting the unabated virality of postness in postmodern discourse, implies, in its hard core – contrary to the idea of “the postmodern” – the logic of the modern, the logic of rationalization, the invincible power of reason dictating its own rules.

Yet, we might ask: does the postmodern, the cultural dominant of the Western world, in fact, precisely imply the celebration of the surface, the ambiguous play of signifiers, an eclecticism that defies all that is coherent and consequent, an aesthetics of irony and parody, a hilarious glorification of the newest of the new brought about by the commodification of culture – in short, a self-aggrandizing emancipation from the tyranny of reason, from the tradition of the Enlightenment, as the very opposite of reason in general?

Yes, without a doubt, the postmodern is all that, raised to the power of the highest power. But in order for all that to be possible at all, the postmodern needs a stable basis. The imperative of reason is the hard core of the postmodern, its rational principle, its constitutive factor. As we have seen, there is no post-
modern without the Heideggerian *Gestell*, “enframing”; there is no postmodern without the appropriation of all that can be brought into the form of *Bestand*, “standing-reserve” (see Heidegger 2000b [1953]: 17–23, 1994a [1949]; cf. Dreyfus 1993: 306–308; Young 2002: 44–58; Wolf 2005: 219–251); that is, there is no postmodern without the conceptual optics defined by the *Weltbild*, “world-picture” (Heidegger 1977a [1938]; cf. Guignon 1983: 171–180; Pattison 2000: 54–58; Young 2002: 54; van Reijen 2008: 95–103; cf. Kramer 1998). This is the world in which reason has been raised to the power of the highest power. This is the world of the surrational, a world in which everything is possible because nothing is impossible under the regime of the reason of the imaginary, a world in which reason in its superior superiority has not only made the impossible impossible in itself, but has even created a situation in which the very possibility of **thinking** about the impossible has become impossible. If there is anything impossible in the world of the “post,” it is the impossible in itself.

*Just do it!* – that is the ethos of the “post”; *don’t think*, because thinking is contraproductive: thinking fosters questioning, the origin of criticism, that is, the destructive mindset of those who do not feel at home in the world of technoscience; in other words, in Heideggerian terms: those who experience the world of the cyborg as *unheimlich* (Heidegger 2000c [1966/1976]: 670; cf. Thiele 1995: 177).

As an ultramodern science, cybernetics, an interdisciplinary science of sciences studying the circulation of information, communication and control in the machine, the animal and the human being, no doubt, has been transformed into a general mindset of the scientific-technological appropriation of the world constitutive of the *historical modern*. To consider all being in terms of in-difference in respect to the differences between the organic and the machinic, the biological and the technological, is pertinent to thinking in *information, communication and engineering sciences*, paradigmatically American sciences that emerged during and after the Second World War (see, for example Bell (1985 [1979]; Hughes & Hughes 2000; Hammond 2003; Ramage & Shipp 2009). Throughout the whole scientific endeavour of Wienerian cybernetics, time and again one encounters the idea of conceiving of the machine in terms of the organism, and the organism in terms of the machine (see, for example Wiener 1961 [1948]: 1–28, 39–44, 95–115, 127–132). That is, according to cybernetics, living beings and technological constructions **function in the same manner**: they process information (whatever it is in itself) in order not only to perform the tasks at hand, but, more fundamentally, to resist the universal and ongoing increase of entropy, the process of disintegration, decay and death (see Wiener 1961 [1948]: 11, 56–58, 62–64; cf., for example, Gerovitch 2002a: 64–70, 86–91; Galloway 2004: 104–106; Taylor 2007: 320–322, 327). The **principle of the machine is the principle of life in technoscience**.

In these terms, as an organism, the human being is a machine that works to maintain the life functions of the organism as the biological precondition of human life. But the organism (regardless of whether it is conceptualized in terms of the machinic or the organic) is an entirely different thing from the
human being as a *human being*: the human being is not to be reduced to an organism, or otherwise we – as human beings – are once again returned to the level of the Nietzschean “worm” (see Nietzsche 1968a [1883–1885]: 8). In this sense, cybernetic thought is not only a posthuman mindset, it is, in fact, radical antihumanism: if there are no differences between the animal, the machine and the human being, we can abandon the notion “the human” altogether – which is actually where the idea of the posthuman ultimately amounts to.

Without the cybernetic mode of thinking, the postmodern as the continuation of the modern by its very means, the means of scientific-technological rationality, would never have risen to the paradigm of reason dominating the scientific self-understanding of the contemporary world under the regime of technoscience. That is, the gigantic, all-consuming global machinery of production that has enabled the productive consumption as the predominant lifestyle in Western societies in and through its extremely rationalized mode of functioning. Due to the providence of the blessed reason of postmodern capitalism, the world has never before seen such a well-organized affluence, such an excess of well-being, as provided by the cybernetic reason of the postmodern. Without the reason of cybernetics (which is not the same as cybernetics as a scientific discipline prevailing from the late 1940s to the early 1970), we would live in a Malthusian world, under the imperative of the reason of scarcity (see Malthus 1992 [1798/1826]; cf., for example, Dolan 2000).

In everyday terms, we only need to open the refrigerator and we are immediately in the world of cybernetic reason, to say nothing of a space flight to Mars. *Nothing* in the contemporary world escapes the reason of cybernetics, the reason of control.

**The Realpolitik of the Cyborg**

Long ago, in the world of the Enlightenment, Leibniz saw the power of mathematics, especially the extraordinary ability of the binary system, to fight the forces of chaos, that is, the forces of entropy in terms of Wienerian cybernetics; to paraphrase Leibniz’s idea: *through the order of ones and zeros a miraculous harmony comes to the world* (cf. Wiener 1961 [1948]: 12; Borgmann 2000: 141–142). In this sense, the postmodern, as the most spectacular achievement of computer technology – or, as Andrew Feenberg (1995: 123) says, it is “the computer that has put the ‘post’ in postmodernity” – is the final product of the modern; a scientific-technological world order the built-in impetus of which is the imperative of reason. What I call the surrational is the ultimate consequence of the Enlightenment: reason is no longer the enemy of the imaginary; on the contrary, reason is now subsumed by the imaginary constitutive of the postmodern and turned into its most servile servant, not dissimilarly to philosophy that in the Middle Ages was understood to be the *ancilla theologiae*.

For this reason, the modern is not the paradigm lost in the world of the postmodern; on the contrary, *the modern is the very paradigm of the postmodern paradise*. 
This is the tremendous, overpowering power of post-reason: the sublime pleasure of the sublime constitutive of the postmodern enabled by the reason of the modern (cf., for example, Jay 1993a: 543–586; Maltby 2002: 125–128; Kellner 2003a: 140–141; Hartley 2003; Tabbi 1996). In the light of this reason, the deep meaning of the negation of negation constitutive of the modern opens up in its final instance: the postmodern is the highest degree of the affirmation of affirmation. Therefore, the sublime is the most precise term to make the surrational reason of the postmodern intelligible, similarly as jouissance is the only appropriate term to describe the extraordinary pleasure emanating from post-theory as a mode of post-reason.

In terms of the surrational, the cyborg is the very embodiment of scientific-technological reason under the control of the imaginary. From the Heideggerian standpoint, technoscientific society, the society of the cyborg, entails exactly the final triumph of modern metaphysics and nihilism; in other words, the coming into being of what Heidegger (2000c [1966/1976]: 671) calls der technische Staat, the “technological state,” as a new mode of societal organization. What is a “technological state”? It is, as we recall Heidegger saying, a form of state in which wir haben nur noch technische Verhältnisse (ibid.: 670), a state in which “we have now only technological relationships,” human relations, of course, included.


In terms of the “post,” this is the supreme form of metaphysics: through the technoscientific reconstitution of the human being as the cyborg, incorporating the idea of “prosthetic God” and being thus the very embodiment of the posthuman, metaphysics has now turned into postmodern pataphysics, the imaginary reason of all that is “post” (cf. Hassan 1982 [1971]: 48–79; in Baudrillardian terms, see Baudrillard 1990b [1983]: 28, 85, 1990c [1983]: 165, 1994b [1992]: 1–9, 14–20, 1997c: 13–14, 1997e: 41–42; Kellner 1989: 162–163, 1994: 14–20; Genosko 1994a: 106–116, 1994b: 293; Levin 1996: 196–208, 277–278; for the historical origin of the idea of pataphysics as “the science of the imaginary,” see, for example, Shattuck 1979; Bök 2002; Enns 2002; Ferentschik 2006; for the writings of Alfred Jarry, see Shattuck & Taylor 1965).

From this perspective, it is clear that the cyborg is the antithesis of the Heideggerian world. The cyborg has not heard the call of das Sein, it has not encountered the Lichtung, it has not seen the Gefahr. The cyborg is mesmerized by the power of the Gestell, the omnipotence of science in a world in which scientific-technological rationality has turned everything into the Bestand of the technoscientific appropriation of all being. As Jameson (1991: 5), from his American point of view, says, “this whole global, yet American, postmodern culture is the internal and superstructural expression of a whole new wave of American mili-
tary and economic domination throughout the world: in this sense, as throughout class history, the underside of culture is blood, torture, death, and terror."

What does this sentence mean? Does it belong to the same world with Heidegger’s (1994a [1949]: 27) “agriculture sentence”?

When we look at the issue from the perspective of history, from the standpoint of the 1930s, a world emerges in which the most essential demand of scientific-technological rationality is the control of all being, das Sein des Seienden, the “being of beings,” including human existence, Dasein. As utopian as this demand is, it is nevertheless fully in accordance with the reason of the postmodern; to recall: the reason of the surrational, the reason of the imaginary, the reason of postmodern pataphysics. This is the world in which the politics of the cyborg – as Heidegger (2000h [1965]: 622) says defining the idea of cybernetics – bleibt darauf eingestellt, überall die Sicht auf durchgängig steuerbare Vorgänge bereit- und herzustellen, “[c]ybernetics remains adjusted to a position in which it is to provide and establish the prospect of procedures and operations that are able to be thoroughly regulated.” In this sense, the cyborg soldier is the contemporary incarnation of the Jüngerian Arbeiter-Soldat (see Jünger 1982 [1932]; cf. Heidegger 2004: 225–228, 278–279; Koch 2006: 297–330; Morat 2007: 80–102), the universal soldier which, as a postmodern embodiment of the Pax Americana, emblematically exemplifies cybernetic reason; the cyborg as a really-existing body-machine assemblage deployed in order to “rescue” the world by means of techno-logic (cf. Robins & Levidow 1995: 106–112; Beller 1996: 193–198, 208–214; Polan 1996: 263): the logic of the political economy of neoliberalism in the form of scientific-technological futurism, the politics of the posthuman on a planetary scale.

This is the post-Heideggerian Herrschaft of the cyborg, the embodiment of the posthuman in its radical in-difference: war is peace, peace is war. This is the Realpolitik of the cyborg.

The politics of the cyborg has perfected the scientific-technological appropriation of das Sein des Seienden, the “Being of beings,” as the contemporary form of the Gestell that, by means of techno-logic, “enframes,” determines, the Dasein of the human being redefined in terms of the posthuman. In the framework of this technoscientific constellation, nature, the whole universe of living beings and anorganic matter, be it biological, physical, chemical or of other constitution, has been reduced to an object of utilization constituting a global Bestand, “standing-reserve,” of artificial life, a hybrid environment, the realm of “post-nature” as the “natural” habitat of the cyborg, a post-organic being as the alfa and omega of a higher order of life after the end of evolution.

If there is a future for us at all after the Heideggerian “withdrawal of Being,” it is possible in no other way than through the coming-to-the-world of the cyborg on the scale of the whole universe. This is the most sublime occurrence achieved by technoscience, the reason of the posthuman: an unparalleled Ereignis in the history of humankind. Only the cyborg can save us now.
7 Coda: Greetings from the Disneyland of Theory

Theory as sausage machine, pouring texts in at one end, producing “new” readings at the other. Nothing could be less “radical” or more depoliticising than the closing-off of questioning in an endless repetition of predetermined textual exegesis. Theory should not be a stick to beat a canonical tradition on which it has always relied, in one form or another, but an experience of critical reading which imbricates itself in the text it reads. Ask not what Derrida can do for Jane Austen but what Jane Austen can do for Derrida.

Martin McQuillan et al. (1999: x)

Disneyland is there to conceal the fact that it is the “real” country, all of “real” America, which is Disneyland (just as prisons are there to conceal the fact that it is the social in its entirety, in its banal omnipresence, which is carceral). Disneyland is presented as imaginary in order to make us believe that the rest is real, when in fact all of Los Angeles and the America surrounding it are no longer real, but of the order of the hyperreal and of simulation. It is no longer a question of a false representation of reality (ideology), but of concealing the fact that the real is no longer real, and thus of saving the reality principle.


It is impossible to translate the joy, excitement, and anticipation with which we came to Donna Haraway’s newest book. With the enthusiasm of teenagers acquiring tickets to a sold-out concert we gleefully waved our new books down corridors and in the doors and faces of colleagues, who looked at us with some concern.

Ingrid Bartsch, Carolyn DiPalma and Laura Sells (1998: 165)

As we have seen in the previous chapters, “the theoretical” of theory in postmodern academia manifests the logic of the political economy of neoliberalism, the logic of spectralization (cf. Derrida 1994 [1993]; Spivak 2000; Ratmoko 2006; Tatum 2007). This is the idea of post-theory as I have been arguing above; a mode of theory beyond “the decidable opposition of true and non-true” specific to “the epochal regime of quotation marks” (Derrida 1979 [1978]: 107). In

To understand Derrida’s idea in its context, it is appropriate to recall the whole sentence in which it appears: “The question of the woman suspends the decidable opposition of true and non-true and inaugurates the epochal regime of quotation marks which is to be enforced for every concept belonging to the system of philosophical decidability” (Derrida 1979 [1978]: 107; emphasis mine; for a critical reading of Derrida’s “woman,” see Cummings 1991: 157–190; cf. Ballif 2001). As we have seen, whatever Derrida says about “the woman,” I consider “the epochal regime of quotation marks” in a broader context pertaining to the fate of theory under the power of the political economy of neoliberalism that, as I argue, has suspended “the decidable opposition of true and non-true” in a manner that has an epochal significance. In this context, theory is not a gender issue, although, as we have seen, it has very much to do with “the sexual” of sex and sexuality in the postmodern.
short, abstraction, dematerialization and virtualization are constitutive of “the theoretical” in terms of the “post”; that is, at the level of language, post-theory reflects the world of simulation and hyperreality (see Baudrillard 1994a [1981]; cf. Kellner 1989: 82–83, 112; Gane 1991b: 138–144; Cubitt 2001: 46–50; Luke 1991; Perry 1998; Smith 2001; Tiffin & Terashima 2001), an imaginary world in which things that are not there are there in the sense of the presence of the absent (in terms of “virtualism” as “a new political economy,” cf. Carrier & Miller 1998). In this manner, “[a]ll that is solid melts into air” (Marx & Engels 1975 [1848]: 46) in post-theory: “the theoretical” evaporates into the post-Platonic ideality of the imaginary (with regard to Husserl, cf. Derrida 1973 [1967]: 6–10, 50–55).

In this theoretical constellation, a radical transformation of language has taken place implying that the Wittgensteinian maxim Wovon man nicht sprechen kann, darüber muß man schweigen (Wittgenstein 2002 [1922]: 189) is no longer valid since the idea that “Whereof one cannot speak, thereof one must be silent” is now replaced by a new principle according to which (to paraphrase Wittgenstein): wovon man nicht sprechen kann, darüber muß man schreiben, that is, whereof one cannot speak, thereof one must write. This is the raison d’être of the “post” in terms of “the theoretical.” In other words, as I have shown above, what you write is what you get is not only the promise, but even the imperative of post-theory. That is, theory writing in the mode of écriture, conjured up by “free-floating signifiers” typical of the postmodern, is the language of the “post”; a post-literary language in which an unending linguistic figuration, based on the logic of postification, brings about ever-new postisms (see Derrida 1990b; cf. Rutsky & Macdonald 2003a: xi; Levine 2004: 19–23; Weinstone 2004: 181–196; Flieger 2005: 24–25) in the form of suggestive linguistic figures as spectacular and extravagant tropes and conceits effected by the inexhaustible postness of the “post” in its radical postality.

Throughout the study I have been considering the theoretical constellation of the “post” from a perspective opened up by Heidegger (1977f [1953]: 4) in his “question concerning technology”: “All ways of thinking, more or less perceptibly, lead through language in a manner that is extraordinary.” Although thinking as thinking is replaced by writing in terms of writing in post-theory, it is nevertheless Heidegger’s view of language through which I came up with the idea that there is no “cyber” without the “post”; in other words, the “post” is the condition of possibility of the “cyber.” But what is the Heideggerian “extraordinary” constitutive of the “cyber” as a specific theory object that has enabled cyber discourse as a technophilic language typical of the postmodern? It is the cyber-ization of “the theoretical” as a distinctive mode of the imaginary emerging from the linguistic configuration of hyperization effected by the spectralization of language, a figurative language that manifests the logic of postification, the logic of “the theoretical” in terms of the “post.”

It is in this configuration that post-theory as the linguistic matrix of cyber discourse becomes intelligible as post-representational theory, as theory writing that
is predicated upon what I have described above as post-Enlightenment reason in the form of the surrational constitutive of postmodern pataphysics: a redefinition of reason in the mode of the imaginary peculiar to “the theoretical” in post-theory. In this sense, as we have seen, the “post” and the “cyber” imply a radical rupture in the inherited notions of epistemology and ontology: the implosion of meaning under the excess of signification. This is the idea of the imaginary in the study at hand: the imaginary understood in terms of the sublime, the sublime as both the limit of representation and its sublation in the Hegelian sense of Aufhebung (see Hegel 1986c [1807]: 150, 1986e [1812–1816]: 113–115).

The Theory Euphoria of Postmodern Pataphysics

As a result of the epistemo-ontological break effected by the “post,” knowledge in the sense of Erkenntnis has lost its validity in post-theory; that is, knowledge is replaced by writing in the world of the “post”; writing in the form of post-representational, self-referential linguistic figuration that is both the method and the result of what was formerly called thinking. Thus, the world has now turned into a “text” to be apprehended by means of writing. It is in this manner that theory, re-theorized by the “post,” has taken the place of knowledge and, accordingly, “the theoretical” has been substituted for the knowable in the sense of the intelligible. In these terms, thinking is no longer possible in this new epistemo-ontological order: thinking has given way to post-literary writing in the mode of écriture, writing in terms of writing, writing as an effect of writing (cf. Jameson 1991: 2, 26, 29; Pefanis 1991: 5; for a historical contextualization with regard to the Tel Quel group, see Kauppi 1994: 138–140, 187–191). This is the idea of theory writing in the world of the “post”; that is, writing theory as an unending postification of “the theoretical.” In this constellation, Erkenntnisinteresse, the interest of knowledge, has been displaced by the desire for theory inscribed in post-theory; an auto-affective mode of desire that reflects the self-referential linguistic figuration of “free-floating signifiers” specific to the “post.”

It is in this manner, as we have seen in the course of the present study, that post-theory is the most sublime effect of the “post,” its most sophisticated manifestation in terms of the spectral; and, what is typical of postmodern self-reflexivity is that the “post” in itself is an invention of theory defined by the very same “post” in its autopoietic circularity (cf. Tabbi 2002: xxiii–xxiv). That is, “the theoretical” theorized by post-theory is a paradigmatic manifestation of the imaginary brought about by the surrational, the reason of postmodern pataphysics. Thus, in the theoretical configuration of the “post,” we can enjoy the extraordinary pleasure of post-reason, most adequately described by Francisco José de Goya in his etching Capricho 43 (1797–1799): El sueño de la razón produce monstruos, “the sleep of reason produces monsters,” or, alternatively, “the dream of reason produces monsters.” This sleep/dream of reason, in my reading, is constitutive of the crisis of the Enlightenment culminating in the theoretical delirium around “the postmodern,” implying the loss of critical thinking resulting from the excess of theory understood as both the sleep and the dream of reason (from
the historical perspective of Kant’s conception of *Aufklärung* and *Vernunft*, see Kant 1974b [1788], 1990a [1781/1787], 1990b [1781/1787], 1991a [1784]).

That is, the reason of the “post,” in its *extravagant somnambulism* following the logic of *dream writing* constitutive of post-theory (cf. Freud 1987d [1900]; Pabst 2004), is a hyperized form of “the theoretical” in terms of the spectral. This is the idea of what I call the surrational, the reason of the imaginary based on the imaginary of reason: the reason of postmodern pataphysics that has enabled the rise of the “cyber” as a new theory object in postmodern academia.

In these terms, the “cyber,” as an effect of the “post,” has brought about a new epistemic order based on what I designate as the *science-fictionalization of theory*; a post-literary mode of theory writing in which the imaginary has taken the place of the real (for a paradigmatic example, see Haraway 1991a [1985]).

It is this radical transformation of theory into post-representational, self-referential writing that we have been observing in the previous chapters, on the trip through cyber discourse in the linguistic matrix of the “post”: we have been visiting what I call the *Disneyland of Theory*, a postmodern theme park dedicated to the imaginary of theory in which everything that one can ever imagine takes place in the virtual reality of language. We have been travelling in the vastness of cyberspace, we have encountered innumerable cyborgs, each more astounding than the other, we have experienced the polymorphous pleasures of prostheses, each more amazing than the other; in short, we have learned what it is to be posthuman, a mode of being enabled by the amalgamation of the body and technology with on another. And, on top of all that we have had the opportunity time and again to enjoy something which in its overwhelming efficiency is even capable of exceeding the limits of the body as we used to know it: *sexual ecstasy in terms of the “cyber.”*

This, indeed, is the power of theory empowered by the imaginary of the “post,” its unique ability not only to bring into existence things that are not there, but also, in terms of corporeality, to bring the body into the state of *jouissance*.

In the world of the “post,” the principle of Disneyland is *within* theory; that is, the idea of difference has disappeared in post-theory: the difference between inside and outside, between the imaginary and the real, in fact, the very difference of difference – all of them have now succumbed to the insidious power of in-difference inherent to the “post” (in terms of *die Differenz als Differenz*, cf. Heidegger 2006a [1957]: 56). What does this mean? “It is no longer a question of a false representation of reality (ideology), but of concealing the fact that *the real is no longer real, and thus of saving the reality principle*” (Baudrillard 1983: 25; emphasis mine). This is the principle of postmodern pataphysics: the imaginary as the reality principle of post-theory. That is, the epistemo-ontological order of the “post” is based on the imaginary of language, *the linguistic* of language as the condition of possibility of signification. Language, of course, is always – *always already* – predicated upon the imaginary, to the extent that there is
no language without the linguistic function of the imaginary. In post-theory, however, as a result of the reification of the signifier (cf. Jameson 1991: 96), the imaginary has become the very substance of language. Thus, signifiers do not name something extralinguistic in post-theory, rather, they are the “objects” they signify in themselves.

It is in this manner that post-theory is a non-representational and thus self-referential mode of theory, a mode of theory in which meaning is replaced by signification ruled by the supremacy of the signifier; the signifier as the carte blanche of the “post.”

In the sense outlined above, the reason of the surrational is the reason of postmodern pataphysics, the reason of the sublime constitutive of the reason of the “post” as the counter-reason of the Enlightenment (from the historical perspective of Counter-Enlightenment thought, cf. Wolin 2004: 1–23; Garrard 2006): the reason of the imaginary that has now displaced the rationality of Enlightenment reason. This is the ultimate triumph of reason: the hyperreality of post-reason as the supratization of the sublime.

To understand this epochal transformation of reason in the Derridean sense as a mode of theory beyond “the decidable opposition of true and non-true” specific to “the epochal regime of quotation marks” (as referred to above), it is appropriate to recall Alfred Jarry’s definition of pataphysics as the reason inscribed in the imaginary of the belle époque, an era in which science was an important inspiration for artistic and poetic imagination (see, for example, Mikkonen 2001; Bök 2002; Fell 2005; with regard to Marcel Duchamp’s interest in science and technology, cf. Henderson 1998); according to Jarry:

Pataphysics [...] is the science of that which is superinduced upon metaphysics, whether within or beyond the latter’s limitations, extending far beyond metaphysics as the latter extends beyond physics [...]. [P]ataphysics will be, above all, the science of the particular, despite the common opinion that the only science is that of the general. Pataphysics will examine the laws governing exceptions, and will explain the universe supplementary to this one [...]. Pataphysics is the science of imaginary solutions, which symbolically attributes the properties of objects, described by their virtuality, to their lineaments. (Jarry 1996 [1911]: 21; emphasis mine)

It is in this sense, mutatis mutandis, that cyber discourse, as an effect of post-theory, is a paradigmatic instantiation of the imaginary reason constitutive of the surrational, the reason of postmodern pataphysics. That is, both the “post” and the “cyber” operate with imaginary solutions suggested by “the theoretical” specific to the Disneyland of Theory, a theme park of postmodern theory in which things that are not there are there, existing in the virtual reality of language constitutive of “the theoretical” in terms of the “post.” What is distinctive about postmodern pataphysics is that it redefines the very notion of technology in terms of the metaphysical which is why technoculture and technoscience are historically coterminous with the postmodern. In this sense, it is not only that “technology is the real metaphysics of the twentieth century” (Spret-
nakan 1999: 128); this is even more the case in the twenty-first century, in the era of technological millennialism (in terms of Heidegger’s reading of Nietzsche, cf. Heidegger 1998a [1961], 1998b [1961]).

It is precisely in this manner that the principle of Disneyland is an *intrinsic* moment of post-theory in the constellation of cyber discourse. That is, the imaginary has become the reality principle in the world of the “post,” a world in which the economy of the spectral not only defines the parameters of the economic, but, beyond that, it also determines the existence of all being. Thus, the question concerning “the real” of reality in the world of the “post” cannot be answered even in terms of negative theology (cf. Bulhof & ten Kate 2000 [1992]; with regard to Derrida, cf. Coward & Foshay 1992). Accordingly, *agnosis* is the *logos* of the “post,” its epistemic premise, and, as a consequence, theory has turned into a matter of faith in post-theory; faith as a belief in the *para-reality of the surrational*. It is in this sense that the “post” is the emblem of the principle of speculation in which, instead of the past, “the futural,” in the form of the absent present, is the “hauntological” evidence of the presence of the world (cf. Leitch 1996: 3–24; Spivak 2000: 8–10, 19–31; Tatum 2007: 14–28; Derrida 1994 [1993]); in other words, phantom objects as epistemo-ontological apparitions constitute the para-real “reality” of the “post,” the virtual reality of the hyperreal (cf. Baudrillard 1994a [1981]).

This is the idea of the science-fictionalization of theory constitutive of the epistemic order of cyber discourse as an effect of post-theory.

What is essential here is that the “post” has effaced the idea of difference postulated by the real Disneyland in the sense that it is a fantasy land from which we will presumably return to the reality of our real world. As a result, what is supposed to be “the real world” is just a delusion in terms of the “post.” This does not mean, of course, that reality has disappeared in the real world; rather, reality has disappeared in the world of post-theory. It is in this sense that reality has been replaced by “the order of the hyperreal and of simulation” (Baudrillard 1983: 25; cf. Bukatman 1991; Whitley 2008) under the epistemo-ontological regime of the “post.” In other words, *reality in itself has turned into a Disneyland* in the world of the “post” in which not only the principle of hyperization rules all that is thought to be real, but, more fundamentally, even the realm of the imaginary is no longer the opposite of the real, but the hard core of the real itself; a specific mode of the *imaginary real* constitutive of the political economy of neoliberalism.

It is for this reason that representation is no longer possible as *re-presentation* in the world of the “post”: representation is now replaced by an unending self-reflective *mise en abyme* (for the origin of the term, see Dällenbach 1989 [1977]; cf., for example, Hutcheon 1980: 48–56; Carroll 1987: 53–54), a post-representational, self-mirroring realm of signification in the form of self-referential play of “free-floating signifiers.”

Accordingly, in the constellation of post-theory, “the bottomless abyss of writing” (Lentricchia 1980: 170) is constitutive of “the theoretical”; “the theoreti-
cal” conjured up by the postness of the “post” in its radical postality. It is in this sense that post-theory is simultaneously a product and a reflection of the political economy of neoliberalism that rules contemporary capitalism (see, for example, Comaroff & Comaroff 2001; Harvey 2007 [2005]; Albritton et al. 2010); that is, post-theory follows the logic of the financial markets, the logic of the spectral (in terms of high-frequency trading, see Gane 2012: 65–69; Tabb 2012: 53). This is the pleasure principle of post-theory, the principle of the jouissance of signifiers that are set free from the burden of signifieds, the sublime pleasure effected by the vertigo of language in which meaning is replaced by unending signification. Thus, hyperization is the link between neoliberalism and post-theory, the link between financial speculation and the postification of theory, both of them being based on the spectral effects of surplus value, a form of virtual value that, through its very virtuality, has real effects.

It is in these terms that in postmodern academia knowledge is no longer the objective of theory; instead, theory in itself is now the objective of theory; the art of theory in the manner of theory writing, theory in the form of paraliterature (cf. Krauss 1985a [1980]); a postmodern mode of theory in which the post-literary, as the “writerly” substance of writing (cf. Barthes 1974 [1970]: 3–5, 174), is the constitutive determinant of “the theoretical” of theory. Thus, Erkenntnisinteresse, the interest of knowledge, is replaced by the pleasure of theory in post-theory; an extraordinary pleasure that is simultaneously the desire for theory enabled by the “post.” This is the specific theoretical fascination that I have referred to above as the theory euphoria of post-theory: the enchantment of the surrational in the form of postmodern pataphysics.

As we recall, it is in this manner that theory is “sexy” in the world of the “post” (see, for example, Elam 1992: 143; Rabaté 2002: 16; Radhakrishnan 2007: xiv): theory as a libidinal object manifesting the desire for theory that in itself brings about the pleasure of theory; that is, the pleasure of desire effected by “the theoretical” specific to the “post.”

Theory in the world of the “post” is therefore not so much, as Martin McQuillan and his co-authors argue, a “sausage machine” (McQuillan et al. 1999: x), but, more to the point, post-theory is a postmodern form of aphrodisiac in terms of “the theoretical,” a source of jouissance, a fount of post-literary bliss being enjoyed in the state of linguistic delirium, the ecstasy of the signifier.

The Epistemology of a “Chinese Encyclopaedia”

As we have observed above, the “post” is the final result of the revolution of epistemology inaugurated by poststructuralism and the postmodern; a revolution in the very idea of the epistemic, an upheaval in terms of theory that has been as far-reaching in its consequences as – if not even more fundamental than – the “revolution in poetic language” initiated by Julia Kristeva (1984 [1974]) in the heyday of the theoretical radicalism promoted by the Tel Quel group in Paris in the 1960s and the 1970s when, after the implosion of struc-
turalism, writing in the mode of *écriture* effaced the difference between “the literary” and “the theoretical” (for an overview, see, for example, Caws 1974; Kauppi 1994, 2010; Ffrench 1995; Dosse 1998a [1991], 1998b [1991]; Sjöholm 2005). What is at issue here is a liberation of language that has released theory from the shackles of reason, an enormously significant act of liberation that has enabled an *intellectual libertinage* unequal to anything in human history (in terms of the *Libertinage des Geistes*, cf. Nietzsche 1969a [1888/1894]: 186).

It is through this revolution in language that desire has become the driving force of theory, not as an epistemic desire in the sense of the desire for knowledge, but as a desire for the epistemic in itself redefined in terms of “the theoretical,” the very *epistēmē* of post-theory (for the idea of the *epistēmē* in Foucault, cf. Canguilhem 2005 [1966]: 79–91): the epistemic principle of what I have been referring to above as linguisticism, the hypostatization of language as the origin of all being (cf. Kant 1990b [1781/1787]: 385–386; cf. Pavel 2001 [1989]; with regard to language as “the critical fetish of modernity,” cf. Harpham 2002).

This is the power of the “post,” the subversive effect of postality in its radical postness: the ultimate radicalization of both poststructuralism and the postmodern (cf. Davis 2004; in terms of neoliberalism, cf. Peters 2001). The postification of theory has brought about what I call the *libidinal economy of signification* constitutive of post-theory, an economic order of language based on the surplus value of “free-floating signifiers,” signifiers that are liberated from the burden of signifieds, that is, extricated from the ballast of meaning, and thus exempted from the dictate of reason. It is in this sense that the epistemic of the “post” is an effect of contingent encounters of signifiers that, in the mode of free radicals, have the ability to disrupt whatever term, notion or idea they happen to affect. Thus, the “post” is the code of a counter-epistemic epistemology in which a new kind of *écriture automatique*, a post-Bretonian “automatic writing” (cf. Breton 1972a [1924]: 36–37), generates non-representational, self-referential textuality that is able to signify beyond meaning (for a historical contextualization, see Caws 1974; Brüting 1976; Harari 1979; Young 1981b; Heath & Payne 1985; Mowitt 1992; in terms of “the ideology of the text,” see Jameson 1988k [1975–1976/1986]).

It is in this manner that post-theory is a language of liberation, an emancipatory language after the collapse of the historical emancipation in the name of the Enlightenment (for a programmatic explication, see Kant 1991a [1784]; cf. Hofmann 1999; Scholz 2009).

Thus, the “post” signifies a radical heterotopia not only in the sense of signification, but also in the sense of being (cf. Foucault 1999a [1967/1984]). That is, the heterotopia of the “post” is a post-epistemic epistemo-ontological order of existence in which the principle of universality, a central idea of the Enlightenment, has been replaced by the principle of singularity, the idea of radical difference in terms of the incompatible, the incommensurable and the incongruous (cf. Pefanis 1991; Guattari 1993; Siebers 1994a; Michael 2000; Moscovici 2002). Accordingly, in the world of the “post,” just as each signifier is a world in itself, each
individual being is a universe of its own, both of them constituting a post-universal universality of singularity, a post-existential existence of post-Leibnizian monads that enjoy the freedom of absolute heterogeneity (cf. Leibniz 1998 [1714]). In this constellation, language, writing and theory embrace a realm in which desire, as the post-epistemic libido of the “post,” engenders free-flowing textuality that stems from the linguistic unconscious brought about by the unrestrained play of signifiers following the a-logical logic of radical contingency.

In other words, the art of theory in the world of the “post” is the most sublime manifestation of the logic of bricolage (for the origin of the idea, see Lévi-Strauss 1966 [1962]: 16–32; Johnson 2003: 26–28; cf. Derrida 1978e [1970/1966]: 285–288, 1997 [1967]: 104–105), the art of apprehending the world by means of linguistic figuration that has disrupted the difference between sense and nonsense; that is, a theoretical libertinage based on the imaginary reason of the surrational.

It is in this sense that the linguistic revolution brought about by the “post” has enabled the fictionalization of theory constitutive of post-theory that, in turn, is the condition of possibility of the science-fictionalization of theory specific to cyber discourse. That is, what I have been referring to above as theory-fictions peculiar to both post-theory and cyber discourse – of course, paying attention to the differences between them – manifest the suggestive power of the surrational in terms of “the theoretical,” the reason of the imaginary as the reality principle of the “post.” This is the context in which the logic of bricolage becomes intelligible as a way of “doing theory” après la française after the disappearance of the difference between “the theoretical” and “the literary” brought about by “French theory” in postmodern academia (see, for example, Lotringer & Cohen 2001a; Rabaté 2002; Cusset 2008 [2003]; Kauppi 2010; for the origins of “French theory,” see Fekete 1984; van der Poel et al. 1999; Macksey & Donato 2007 [1970]; for a historical contextualization, see Mathy 2000). That is, the logic of radical contingency intrinsic to the epistemic order of the “post” has enabled theory as “a kind of writing” (Jameson 1989 [1983]: 112), writing in the mode of écriture; and, as we have seen above, this is “the political” in and of the politics of theory inscribed in post-theory (cf. Haraway 1991a: 175–177).

If there is any short-hand that is able to condense the logic of bricolage into one image, it is the description given by Foucault (1989 [1966]: xv), referring to a story of Jorge Luis Borges, to illuminate thinking that, in its fantastic ingenuity, is beyond the tradition of normal science: a “certain Chinese encyclopaedia in which it is written”:

that “animals are divided into: (a) belonging to the Emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) et cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies.” In the wonderment of this taxonomy, the thing we apprehend in one great leap, the thing that, by means of the fable, is demonstrated as the exotic charm of another system of thought, is the limitation of our own, the stark impossibility of thinking that. (ibid.; emphasis mine; cf. Merquior 1985: 35–36; Carroll 1987: 54–58; in terms of “the return of the Baroque in modern culture,” cf. Lambert 2004)
An exotic charm of another system of thought, a “system” of thought that demonstrates the very limitations of “normal reason,” that is, the limitations not only of our everyday bon sens, but even of scientific rationality. This is the art of thinking – now, of course, in the sense of writing – beyond the constraints of thinking: thinking in terms of the unthinkable (with regard to the scientific-technological rationality of the politics of nuclear weapons in Cold War America, cf. Kahn 1960, 1962, 1984; Ghamari-Tabrizi 2005; Erickson et al. 2013).

Never before in human history has thinking been as free as in the world of the “post” in which the surrational has made the impossible impossible by making the impossible possible by means of ars combinatoria enabled by the combinatorial logic of heterotopia; in other words, bricolage as an “ad hoc assemblage of miscellaneous materials and signifying structures” (Norris 1987: 134). As we remember, this is a world in which we can enjoy the pleasure of the imaginary in the sense of significant nonsense, a mode of sense that is not predicated upon making sense (cf. Tigges 1988; Lecercle 1994; Menninghaus 1995; Robinson 1998; Hiebert 2012); that is, the unexpected beauty of random juxtapositions, aptly described by Lautréamont in his Sixth Canto of Maldoror (1870): Beau comme la rencontre fortuite sur une table de dissection d’une machine à coudre et d’un parapluie, “beautiful as the chance encounter of a sewing machine and an umbrella on a dissecting table” (Spector 1997: 211; cf. Foucault 1989 [1966]: xv–xvi). In other words, this is a world in which “[c]olorless green ideas sleep furiously” (Chomsky 1957: 15) and, as a result, “[e]ven the words floating in air make blue shadows” (Bob Perelman in his poem China, quoted in Jameson 1991: 29).

This is the world of post-theory, a mode of theory that theorizes theory objects that it has produced itself by means of linguistic figuration that follows the logic of the “Chinese encyclopaedia,” the logic of bricolage enabled by “free-floating signifiers” of the “post”: a free play of signifiers enjoying the libertinage of linguistic promiscuity, an unending polysemy of signification in which nothing can constrain the uninhibited copulation of signifiers; that is, a postmodern epistemo-ontological order based on the principle of what I call a Dionysian epistemic ecstasy evoked by dithyrambic writing as the most suggestive heuretics of theory (cf. Ulmer 1994). In other words, in post-theory, theory turns into a para-aesthetic experimentation with the linguistic of language (cf. Carroll 1987), a mode of writerly writing based on the ability of language to speak about itself by itself. It is in this manner that post-theory manifests the auto-affective principle of écriture, the most productive method of writing since the écriture automatique of Surrealism (cf., for example, Browder 1967: 72–88; Chénieux -Gendron 1990 [1984]: 47–60; Bürger 1996 [1971]: 74–83; in Lacanian terms, cf. Roudinesco 1990 [1986]: 13–27; with regard to écriture féminine, cf., for example, Moi 1985: 89–172; Felski 1989: 19–21, 33–54; Blyth & Sellers 2004: 18–34; Grosz 1989; Ségarra 2010).

In these terms, to paraphrase Heidegger’s (2000d [1952]: 133) idea that Wissenschaft denkt nicht, “science does not think”; post-theory does not think, it theorizes. As such a phantasmatic mode of theory, post-theory is based on a ludic
conception of “the theoretical” that is defined by the mode of the post-literary constitutive of paraliterature; that is, theory writing in which the epistemic is a moment of the libidinal specific to the “post.”

This is the epistemo-ontological shift from thinking to writing in the world of post-theory, a transgressive leap to a third order of theory beyond the binary opposition between true and non-true.

**Mythopoetics as a Form of Transpolitics**

It is in the manner described above that Haraway’s cyborg, as a prosthetic hybrid in its most advanced form, is a post-epistemic theory object based on the logic of the “Chinese encyclopaedia”; that is, a post-theoretical phantom object that has come into being as a para/post-literary enactment of the surrational, the imaginary reason of postmodern pataphysics (cf. Bogue 1989: 72; in terms of Surrealism, cf. Balakian 1986 [1959]: 205). Thus, the coming-to-the-world of the cyborg signifies an epochal break in human history, the inauguration of the posthistorical era of the posthuman (cf., for example, Halberstam & Livingston 1995b; Hayles 1999; Gray 2001; Graham 2002; Weinstone 2004; Dinello 2005; Vint 2007; Clarke 2008; in terms of posthuman theology, cf. Waters 2006).

As we recall, the “cyborg is our ontology” (Haraway 1991a [1985]: 150; emphasis mine) implying that in “the era of techno-biopolitics” we live in an entirely new condition of corporeality in which “prosthesis becomes a fundamental category for understanding our most intimate selves” (Haraway 1991f: 249). At the level of the techno-imaginary, the cyborg is thus an incorporation of the imperative of self-management and self-optimization specific to the political economy of neoliberalism; that is, the cyborg is an embodiment of the entrepreneurial self (cf. Peters 2001: 73–81, 109–111; Bröckling 2007), a self-interested self as a technoscientific modification of *homo economicus* (for the term, see, for example, Rolle 2005; Gaus 2007; for economics as a “cyborg science,” see Mirowski 2002). Accordingly, the cyborg is the paragon of the economization of the body-subject constitutive of the body politics of neo-Fordism, the disciplinary order of productive consumption. That is, the work on the body in order to construct a “self” in the sense of “human capital” (see, for example, Gomez Dierks 2001: 228–240; Brown 2003; Hartog & van den Brink 2007) is not only an ideal, but, more fundamentally, an increasingly important resource of postmodern capitalism (see, for example, Lowe 1995; Gebauer 1997, 2006; Pronger 1998, 2002; Johnston 2001b; Gimlin 2002; in terms of the performance principle, see McKenzie 2001). In other words, *the body is the survival machine of the postmodern subject*.

In these terms, the cyborg is the most extravagant theory object in the world of post-theory. As a discursive vehicle, the cyborg, in its very construction, functions as a postmodern “narrative prosthesis” (cf. Mitchell & Snyder 2000): it is a prosthetic figure, a linguistic hybrid, a Derridean supplement (see Derrida 1997 [1967]: 141–164), that both manifests and promotes the *prostheticization of theory* in the sense of the hybridization of language that is driving the post-theo-

It is in this sense that cyber discourse, in its academic form, is simultaneously both an epiphenomenon and a generative factor of the theory discourse about the cyborg, a postmodern discursive formation in which there is no difference between the factual and the fictional, and hence no difference between the real and the imaginary either (cf. Haraway 1991a: 149–150; Bukatman 1996 [1993]: 322–324; Luke 2003b: 92; Csicsery-Ronay 2005: 55; Melzer 2006: 23–24), inasmuch as these differences, along with all kinds of “binary oppositions,” are deemed to be only delusions typical of the forms of theory before the radical resignification of “the theoretical” by the “post.”

Accordingly, the cyborg is an emblematic instantiation of theory that is liberated from the shackles of binary logic (see Haraway 1991a: 177, 1991c [1987]: 130, 134, 148; cf., for example, Wolmark 1994: 134; Cavallaro 2000: 49; Horner 2001: 77; Currier 2002: 528–530; Badmington 2004: 87–89; Bell et al. 2004: 44–45; Melzer 2006: 21–34, 219–291; Gunkel 2007: 35–37; Toffoletti 2007: 157); that is, the cyborg has disrupted not only all “binary oppositions,” but, more fundamentally, it has eradicated the idea of the diacritical, the idea of critical distinctions, distinctions that are able to make a difference. Thus, radical ambiguity is the epistemo-ontological ideal in the world of the cyborg. In other words, the cyborg celebrates the pleasure of indeterminacy, the jouissance of post-liminal border-crossings, as the ultimate form of transgression leading to the final emancipation after the end of the Enlightenment (cf., for example, Prosser 1995; Sargisson 1996; Hussey 2006; Wolfreys 2008).

The theory discourse about the Harawayan cyborg, as the most sublime manifestation of cyber discourse, exemplifies post-theory in a paradigmatic manner, in the form of mythopoetic fabulation typical of the postmodern (cf. Sanbonmatsu 2004: 55–62; Clarke 2008: 193–196; in terms of “millennial seduction,” cf. Quinby 1999: 125–146). Similarly to all that is “cyber,” what is constitutive of Haraway’s cyborg is that it is a writerly figure (cf. Barthes 1974 [1970]: 3–5, 174; Hawkes 1977: 113–115; Lucy 1997: 74–76), a phantasmatic entity that has come into being as an effect of dithyrambic writing in the mode of postmodern pataphysics.114 As Haraway (1991a: 152) says, “the reconceptions of

114 It is appropriate to recall in this connection that in her conception of the postmodern, Haraway draws on Jameson; as Haraway (1991f: 244–245) says: “A provocative, comprehensive argument about the politics and theories of ‘postmodernism’ is made by Fredric Jameson (1984), who argues that postmodernism is not an option, a style among others, but a cultural dominant requiring radical reinvention of left politics from within; there is no longer any place from without that gives meaning to the comforting fiction of critical distance. Jameson also makes clear why one cannot be for or against postmodernism, an essentially moralist move. My position is that feminists (and others) need continuous cultural reinvention, postmodernist critique, and historical materialism; only a cyborg would have a chance.” (emphasis mine)
machine and organism as coded texts through which we engage in the play of writing and reading the world “determine our survival; in this sense, “[c]yborg writing is about the power to survive” (ibid.: 175; emphasis mine; cf., for example, Graham 2002: 200–220; Yaszek 2002: 14–15; Schneider 2005: 61–62, 73–75). Thus, the cyborg, our saviour, emerges from “the play of writing” (Haraway 1991a: 162) in a world in which “[a]ny objects or persons can be reasonably thought of in terms of disassembly and reassembly” (ibid.), a world in which “no ‘natural’ architectures constrain system design” (ibid.).

It is in this manner that writing-the-cyborg is a specific mode of figurative writing, writing in the mode of bricolage following the a-logical logic of the “Chinese encyclopaedia”; an enactment of post-theoretical mythopoetics through which the unthinkable becomes thinkable, and, finally, the possible emerges from the impossible (for the idea of writing the body, cf., for example, Dallery 1992 [1990]; Conboy et al. 1997; Kirby 1997; Irwin 2010). In these terms, the cyborg manifests the science-fictionalization of theory as an entirely new theoretical practice that Haraway (1991a: 162) calls “experimental ethnography’ in which an organic object dissipates in attention to the play of writing.” In this kind of writerly writing, “[n]o objects, spaces, or bodies are sacred in themselves,” but, instead, “any component can be interfaced with any other if the proper standard, the proper code, can be constructed for processing signals in a common language” (ibid.: 163). Haraway thus appropriates the language of technoscience in order to transcribe it into a language of liberation, “a powerful infidel heteroglossia” (ibid.: 181), a playful and iconoclastic language intended to be subversive in its radical heterogeneity, as a heterogeneous conglomeration of signifiers forming ever-new kaleidoscopically changing patterns and figurations. Therefore, as a transformative figure, “[t]he cyborg is not subject to Foucault’s biopolitics; the cyborg simulates politics, a much more potent field of operations” (ibid.: 163; emphasis mine). Accordingly, the “cyborg is a kind of disassembled and reassembled, postmodern collective and personal self” (ibid.). In this way, writing-the-cyborg is a political act in the sense of the post-political, a mode of linguistic figuration in which dissemination, dispersion and disruption rule the process of signification. That is why “cyborg politics insist on noise and advocate pollution, rejoicing in the illegitimate fusions of animal and machine” (ibid.: 176).

Rewriting ourselves in this way, in the mode of cyborgian écriture, “we find ourselves to be cyborgs, hybrids, mosaics, chimeras” (Haraway 1991a: 177): we thus become “cyborg monsters” (ibid.: 178) whose only identity is a non-identity in the sense of illegitimacy; that is, a post-identitarian “identity,” as an effect of linguistic bricolage, is our liberation from the normative constraints of “the normal” (with regard to writing-the-self in the context of écriture féminine, cf. Cixous 1976 [1975], 1981 [1977]; Conley1991 [1984]; in terms of décriture féminine, cf. Zylinska 2001: 12–48).

It is for this reason that “[c]yborgs might consider more seriously the partial, fluid, sometimes aspect of sex and sexual embodiment” (ibid.: 180), a form
of “the sexual” that is constitutive of what Haraway calls “cyborg ‘sex’” (ibid.: 150; cf. Barr 1993: 117–118; Apter 1999: 216–219; Žižek 2000: 65–66), that, in its own post-rational way, not only makes the idea of cybersex intelligible as prosthetic “sex” in the sense of the posthuman, but, more fundamentally, “sex” in the mode of the cyborg has become the paragon of the metamorphosis of the body under the scientific-technological regime of technoscience. In this sense, the ego-politics of the cyborg is based on the discontinuity of sex, gender and desire (cf. Butler 1990: 6–34; with regard to “counterpleasures,” cf. MacKendrick 1999; in terms of “queering the non/human,” cf. Giffney & Hird 2008), a mode of “the political” that is capable of exceeding the limits of liminality through the transpolitics of boundary crossings (cf., for example, Castañeda 2001: 223–224; Bromley 2004: 89–97; Saguaro 2006: 205–221; Hollinger 2009: 272–275).

In other words, the world of the cyborg is “a post-gender world” (Haraway 1991a: 150; cf. Parisi 2004: 8), a world in which the sexual body – provided, of course, that “the sexual” is still an adequate notion with regard to the affective complexity of the cyborg – is continually deconstructed by means of prosthetic constructions, and in which all borderlines are redefined in terms of the post-liminal: a world in which to be is to become through an unlimited process of subversion and transgression effected by unending différance.

In the world of the cyborg, we can thus enjoy a supreme form of freedom: the freedom of what I designate as techno-political voluntarism, a post-political programme of scientific-technological self-design. This is the ego-politics of the cyborg, a radical mode of transpolitics in which, as Haraway says above, “prosthesis becomes a fundamental category for understanding our most intimate selves.”

The Radical Chic of the Cyborg

This a world in which each and everyone can be his or her own postmodern ego-avatar, an ego-assemblage of me, myself and I, a design-ego in the sense of technoscientific body modification (cf., for example, Featherstone 2000; Siebers 2000; Holliday & Hassard 2001; Pitts 2003; Volkart 2006); that is, a singular instantiation of universal cyborgism (see Haraway 1991a: 150), a personal enactment of the posthuman body that is always – always already – beyond the repressive order of binary logic: a body that is a vehicle of one’s own post-identitarian identity construction, a mutable, transpolitical body that can always be disassembled and reassembled according to ever-new non-normative body options made available by postmodern body culture, in the mode of the post-political self-optimization of the cyborg. In other words, the cyborg embodies the idea of what Fred Botting and Scott Wilson (2002a 161–162) call “Überbarbie,” the ideal of “becoming-Barbie” as “a radical means of self-subjectification, or self-creation” (cf. Dery 1996: 242; Spigel 2001: 3, 9, 11, 20–21, 310–348; Flieger 2005: 163–164; Toffoletti 2007; van den Boomen 2009; with regard to the post-theoretically post-political gender-crossing potentialities of Lara Croft, cf. Deuber-Mankowsky 2001).
It is in this manner that the body politics of cyborgian singularity manifests what I call the **radical chic of the cyborg** (for the origin of the idea of “radical chic” in the context of American political radicalism at the beginning of the 1970s, see Wolfe 1999 [1970]; Bell 2002: 471–474; Hoeveler 2004: 73–74; for a historical contextualization, see, for example, O’Neill 1995: 199; Sassower 1995: 103; Webster 2002 [1995]: 259; Wolin 2004: 284, 306; in terms of “alien chic,” cf. Badmington 2004). In other words, the seduction of the cyborg is a libidinal form of what Arthur Kroker (2004b) designates as “the will to technology” (in terms of the Nietzschean “will to power,” cf. Nietzsche 1968a [1883–1885]: 143–145, 1968b [1886]: 21–22, 31–33, 1968c [1887]: 332, 1973a [1882/1887]: 267–268); that is, the desire to incorporate technology is part of the built-in “Barbie-ism” of postmodern technoculture in which everything is modelled on the idea of hybridity, in a comprehensive sense of the term, implying that humans, machines and animals, all those formerly separated entities, now hilariously mingle with one another in the techno-paradise of the “cyber.”

Thus, the transpolitics of the cyborg, in its radical hybridity, signifies not only the implosion of all binary oppositions, but, beyond that, the **de-differentiation of difference through the plurality of heterogeneity** (cf. Michael 2000: 29–32; for “machinic heterogenesis,” cf. Guattari 1993; for the resurrection of the human in “the new order of humachines,” cf. Poster 2002: 16; with regard to heterology and the postmodern, cf. Pefanis 1991; in terms of “heterotopia,” cf. Siebers 1994a).115

As we have seen above, subversion in its most radical sense is the ethos of the cyborg, in the sense that the tables are turned by ironic inversion, through a post-political politics of a post-Nietzschean *Umwertung aller Werte* (cf. Nietzsche 1969b [1888–1889/1908]: 363–364, 1969a [1888/1894]), amounting to a universal particularism as the most diversified form of a particular universalism, the **universalism of idiosyncratic particularisms**, constituting the singularity of the cyborg in its subversive heterogeneity. As Haraway (1991a: 151) says, the “cyborg is resolutely committed to partiality, irony, intimacy, and perversity,” and it is thus “oppositional, utopian, and completely without innocence” (ibid.). In other words, the cyborg acts as the most supreme instantiation of post-political free radicals, an *agent provocateur* not in the service of the powers that be, but for the benefit of all those who are thirsting for an ultimate redemption: post-organic life in the techno-paradise of the posthuman.

It is in this sense, as Tobin Siebers (2006: 178) says, that “Haraway’s cyborgs are spunky, irreverent, and sexy; they accept with glee the ability to transgress

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115 Regarding the post-utopian perspective implied by the cyborg in terms of the de-differentiation of difference through the plurality of heterogeneity it is appropriate to recall that, in rigorous terms, there are no differences without distinctions; in other words: “Where postmodern difference is seen as pluralism without attention to the social location of difference, power and its effects become invisible. Here difference often appears as a form of radical chic, indifferent to the (often brutal) power relations that structure difference. The postmodern move from History to histories can be productive and empowering for groups usually absent from History. But here, too, not all histories are equal. To ignore power, for example by treating all histories as if they had equal status and power, leads to a denial of specificity of oppressions.” (Jordan & Weedon 1995: 564; emphasis mine)
old boundaries between machine and animal, male and female, and mind and body,” and, as such, they “supposedly make up a future, fortunate race” (ibid.), the race of cyborgian self-designers as individually varied ego-political self-transformers, a post-biological species that is able to overcome the constraints not only of the “normal” body, but, beyond that, of all that is “normal” in general (in terms of “human enhancement,” cf. Coenen et al. 2010; for “the singularity” of an allegedly emerging species of humans able to transcend biology by means of technology, cf. Kurzweil 2005; in terms of “the totally mobilized hypermodern body,” cf. Armitage 2004).

Accordingly, the cyborg epitomizes the transpolitics of insurgent bodies, bodies that are capable of always reconstructing themselves by means of the latest achievements of prosthetics, bodies that become redefined time and time again “in terms of disassembly and reassembly” (Haraway 1991a: 162; in terms of the “new barbarians,” cf. Hardt & Negri 2000: 214–218); that is, post-subjective bodies as post-identitarian prosthetic constructions being able to exceed the limits of the self. It is in this manner that Haraway “views the prosthetic device as a fundamental category for preparing the self and body to meet the demands of the information age” (Siebers 2006: 178; cf. Haraway 1991f: 249), a new age of post-liminality, made possible by ever-new “communication devices” (Haraway 1991a: 178), in which our bodies no longer “end at the skin” (ibid.); an era of all-pervasive, all-inclusive boundary transgressions and hybridization in which “machines can be prosthetic devices, intimate components, friendly selves” (ibid.; in terms of “partial connections,” cf. Strathern 2004 [1991]: 36–39; with regard to the overcoming of “the liberal humanist subject,” cf. Miccoli 2010: 22–24; Hayles 1999: 3–7, 85–92, 100–112; for “the Artificial Paradise” in the context of science fiction and “American technological transcendence,” cf. Ben-Tov 1995: 145–149).

Yet, what is problematic in Haraway’s mythopoetic construction of the cyborg as a prosthetic hybrid is her recourse to disability, a discursive recourse to the figure of the disabled: for Haraway, “[s]evere disability is her strongest example of complex hybridization” (Siebers 2006: 178; cf. Haraway 1991a: 178); an example that functions as a metaphor to be taken literally and, at the same time, effaces its real context, which, in turn, results in the idealization of the cyborg as an empowered body that is able to exceed the limits of the human:

Haraway is so preoccupied with power and ability that she forgets what disability is. Prostheses always increase the cyborg’s abilities; they are a source only of new powers, never of problems. The cyborg is always more than human – and never risks to be seen as subhuman. To put it simply, the cyborg is not disabled. (Siebers 2006: 178; emphasis mine)

Rather than taking the challenge of disability seriously, Haraway promotes technoscientific ableism in the form of de-differentiating cyborgism (cf., for example, Betcher 2001; Campbell 2012; Reeve 2012; in terms of “cyberfeminism,” cf. Hawthorne 1999; Klein 1999), a postmodern mode of meliorism as a technoprogressivist futurism that believes in the perfectibility of the body by means
of scientific-technological enhancement and augmentation (from the historical perspective of the Enlightenment, cf. Passmore 1970; Vila 1998, Jackson 2004; Winston 2005); a vision typical of American technophilic millennialism turned into a form of academic leftism (with regard to the American counterculture, cf., for example, Braunstein & Doyle 2002; Turner 2006; Diederichsen & Franke 2013).

In this context, the disabled body is the very anathema of ableism; as the disability scholar Lennard J. Davis states:

The disabled body is a nightmare for the fashionable discourse of theory because that discourse has been limited by the very predilection of the dominant, ableist body. The body is seen as a site of jouissance, a native ground of pleasure, the scene of an excess that defies reason, that takes dominant culture and its rigid, powerladen vision of the body to task. The body of the left is an unruly body: a bad child thumbing its nose at the parent’s bourgeois decorum; a rebellious daughter transgressing against phallocentric patriarch. The nightmare of that body is the one that is deformed, maimed, mutilated, broken, diseased. [...] Rather than face this ragged image, the critic turns to the fluids of sexuality, the gloss of lubrication, the glossary of the body as text, the heteroglossia of the intertext, the glossolalia of the schizophrenic. But almost never the body of the differently abled. (Davis 1995: 5)

In other words, in its radical othering of the body in the techno-utopian Gestalt of the cyborg (cf. Jünger 1982 [1932]), the discursive figuration around hybridity and the prosthetic is not able to perceive disability in its own terms: the discourse of cyborgism has appropriated the disabled body as a paragon of postmodern “otherness” in the sense of subversive heterogeneity. Rather than facing disability in terms of real disabledness, the discourse of cyborgism dreams of “alternative bodies” – bodies that are “gay, lesbian, hermaphrodite, criminal, medical, and so on” (Davis 1995: 5) – but “lurking behind these images of transgression and deviance is a much more transgressive and deviant figure: the disabled body” (ibid.). Thus, the disabled body is the repressed “other” of the cyborg.

Keeping these critical remarks in mind, it is appropriate to ask: what, in fact, is “the proper code” referred to by Haraway above? It is, of course, the “post,” the master code of the cyborg. It is the code that constitutes the linguistic matrix of the “cyber” in terms of post-theory, the condition of possibility of the cyborg as a mythopoetic figure that implies the future in the present, a future anterior in its radical futurality, a post-historical techno-future that, in, through and by its prescient and prescriptive linguistic figuration in the mode of performative writing, even exceeds the limits of historical Futurism (for the history of Futurism, see, for example, Berghaus 2009; Poggi 2009; in terms of posthistoire, cf. Welsch 1997: 17–18; Habermas 1998d [1985]: 11–12; Niethammer 1989; Fukuyama 1992; Bolz 1993; Gehlen 2004a [1994], 2004b [1975]); that is, a futural future that postifies the technological imaginary inscribed in the political radicalism of the modern (cf. Kaplan 1986; with regard to the political radicalism of the Right in the Weimar Republic, cf. Jünger 1980 [1930], 1982 [1932]).
To sum up, the cyborg invented by Haraway is a paradigmatic example of the science-fictionalization of theory in postmodern academia. As a postmodern myth of reason, the cyborg is a hybrid of technoscience and post-theory, a dream of reason in terms of the surrational constitutive of postmodern pata-physics specific to the Disneyland of Theory. It is in this manner that the cyborg is about a new science that is even more than science in the sense of scientific thought; as Haraway (1997: 22) explains, the cyborg lives in the world of “transmogrifications” and “trans-substantiations” in which science has turned into “a family romance, or a scholarly soap opera, set in a kind of critical General Hospital or theoretical Dallas.” This is a world in which “the boundary between science fiction and social reality is an optical illusion” (Haraway 1991a: 149); that is, a world in which the difference between sense and nonsense has disappeared, and in which not only the impossible has become possible, but, more fundamentally, the very idea of the impossible has become impossible.

From the perspective outlined above, the cyborg is finally a religious figure in the sense of secular neoreligiosity, an emblem of a postmodern body cult adoring “the body” as a temple of personal salvation in the immanent transcendence of technoculture; an ideal body sublimized into a spectral theory-body by post-theory (for the idea of “Catholic sacramentalism” as a methodical principle of Haraway’s cyborg cosmology, see Haraway 2000a: 24, 86, 141; cf., for example, Graham 2002: 217–218; Åsberg 2009: 33–34; with regard to the Catholic idea of transubstantiation, see Bolt 2004: 163–164; in terms of millennialism, see O’Leary 2005: 38–39, 45–48; for the body as a temple of the Holy Spirit, see, for example, Brown 2002: 134). That is, the cyborg is a paradigmatic embodiment of the ego-politics of the postmodern subject incorporating a post-body constructed by means of technoscientific self-optimization. In other words, “the posthuman” as the “ultimate prosthetic God” (Smith & Morra 2006a: 8) constitutes the existential condition of our present future, a future in which technology has a sacralized status.

In these terms, if we take Haraway seriously, there is no other possibility than to believe that only the cyborg can save us now. So, will the real cyborg please stand up?

116 The principles of the Christian politics of the body were essentially laid down by Paul in his First Letter to the Corinthians in which he explains the fundamental relationship between God and the human being mediated by Christ. According to Paul, all humans together constitute the body of Christ as his members, and the human body, in turn, is a temple given by God. As Paul reminds the Corinthians of the sanctity of the body: “Do you not know that your body is a temple of the Holy Spirit within you, whom you have from God, and that you are not your own? For you have been purchased at a price. Therefore glorify God in your body.” (1 Cor. 6:19–20) As we have seen above, the postmodern body cult typical of contemporary culture has secularized the idea of the body as a “temple”: the Holy Spirit is now replaced by the spirit of productive consumption driven forward by the calculative reason of commodification under the disciplinary regime of neo-Fordism. This is the spirit of the political economy of neoliberalism, the Geist des Kapitalismus in its post-Weberian form.
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