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EXPLORING THE IMPACT OF CLIMATE CHANGE ON TOUR GUIDES' PRACTICES IN THE ARCTIC

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Abstract

Climate change is the greatest threat for humankind and life as we know it. It is inevitably bringing new practices to our daily lives. The climate is warming four times faster in the Arctic region than elsewhere on the globe, having already caused changes in everyday life and practices. Tourism is one of the biggest livelihoods in Finnish Lapland, so the influence of climate change cannot be ignored when talking about the future of tourism business in the Arctic. Covid-19 revealed the vulnerability of the tourism field, but now, when influence of climate change is already well studied and its effects are known, businesses can prepare for these changes and mitigate them through their own actions.

Climate change is bringing new challenges to tourism in Lapland, for example increasing cloudiness will complicate the Northern Lights tours and the changing temperatures bring challenges for operating tours. This thesis explores how the guides at a small tour operator are changing their working practices in response to climate change and how the guides are experiencing these changes. Another issue is how the guides feel about the future and what hopes they have for tourism with the facts of climate change.

Qualitative research was used to gather the data and it consists of five semi-structured interviews and participating observation. The findings indicate that new practices regarding communication, safety issues and implementing tours have emerged. The findings also reveal concerns that the guides were experiencing regarding the future and suggest new practices that tour companies can adopt. The results also reveal some ethical dilemmas that the tour guides are facing while working in the tourism industry, as it accelerates climate change.

key words: practice theory, ethnography, climate change in the arctic, guide work

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1. INTRODUCTION

1.1 Background to the study

I have been interested in guide work for a while now and especially how climate change affects guide work. I got the spark for this interest from Heimtun's (2016) article *Emotions and affects at work on Northern Lights tours*. The study explores the complexity of emotions and affects on host/guest interaction. The most intriguing section was on the tourists' emotional expectations and how the guides enacted emotional labour. I spoke about this interest to one of the owners of a small tourism company, which is located in Rovaniemi. After our conversations, she suggested writing my thesis for their company, as they value new information that might help them develop their actions related to guide practices, especially in the field of sustainability.

At first, I wanted to focus on Northern Lights tourism, but as I went on, I wanted to concentrate on the practices of guides and how the guides feel about the future. Covid-19 seized operations at this tourism company as well, therefore the guides have already seen how fragile the business can be. And as climate change is already happening in the Arctic area, they are the ones affected by it.

Tourism is one of the most significant economic sectors to drive growth and progress in the world. It represents 10% of global GDP and 10% of employment on a global scale. According to the latest UNWTO calculations, the number of tourists crossing borders are predicted to reach 1.8 billion per year by 2030 (World Tourism Organization, [WTO], 2019). According to Maher et al. (2014), tourism in the Arctic has grown in recent years and it brings increasing income to the Arctic region. Arctic tourism is often described as remote and hard to access. The development of Arctic tourism involves some difficulties, such as strong seasonality, fragile nature and lack of trained staff (Maher et al., 2014).

Tourism is extremely vulnerable to climate change and the impacts are direct and indirect. Tourism is greatly climate-sensitive and highly affected by many issues including the state of nature, perceptions of personal safety and ability to cover travel expenses (Scott, Hall & Gössling, 2019, pp. 49 – 50). At the same time, tourism causes climate change and CO_2 emissions, and even though we have limited access to information on tourism, we know that in

2005, the tourism sector caused approximately 5% of all man-made CO_2 emissions. Transport made up 75% of these emissions (WTO, 2019).

Rovaniemi is the second-most-visited international tourism city in Finland after Helsinki. Every year, more than half a million people visit Rovaniemi. More than 65% of them are foreign tourists (Business Rovaniemi). December is the most popular month among foreign visitors. In December 2022, there were 127 000 foreign overnight stays, 23 800 domestic overnight stays and 151 000 overnight stays in total (Visitory). The main attractions during the wintertime in the Rovaniemi area are visiting Santa Claus, snow, the Northern Lights, Arctic animals and nature. A lot of these attractions are weather-dependent.

Tourism is increasingly important to the Finland's national economy and it creates new businesses, jobs, livelihoods and infrastructure. The total impact of tourism on the Gross Domestic Product of Finland is approximately 8 percent. This includes direct, indirect and consequential (includes spending by those either directly or indirectly employed by the tourism sector) effects (Matkailu- ja Ravintolapalvelut [MaRa]).

In 2020, Covid-19 spread around the world and the Finnish government declared a state of emergency in Finland in May 2020. The resulting restrictions affected foreign visitors' travel to Finland and movement within the country. In Lapland, the effects were alarming for the financial situation of the companies in the tourism sector. Overnight stays in Rovaniemi dropped from 135 000 (2019, December) to 24 100 (2020, December). In 2020, there were 2800 foreign overnight stays in December. Domestic tourists mitigated the impact, but the companies who rely on foreign visitors were in a difficult situation. A lot of businesses were shut down during the covid restrictions, which affected the whole tourism and hospitality industry. Companies had to lay off and fire their employees and they were struggling with rents and payments (Lapin Liitto, 2021, p.8).

When Covid-19 stopped all foreign tourism travel to Rovaniemi, the whole tourism sector realised how vulnerable the industry is. Those who provide products only for foreign tourists lost their income. Tourism companies realised that their products were aimed only at foreign tourists and domestic tourists would not buy them. The prices were too high for Finnish people and demand was minimal.

In 2020, the Finnish journal *Apu* interviewed local tourism entrepreneurs in Rovaniemi about the effects of Covid-19 (Manninen, 2020). Even the title of the article told what happened in Rovaniemi in 2020: "Covid took the children away from Santa Claus – Domestic tourism does

not sufficiently cover the gap left by foreign tourists". The usually busy Santa Claus Village was quiet, sledge dogs were left without work and hundreds of safari company workers were unemployed. "Finns are not used to buying services and experiences. They are independent people who prefer cottage holidays" told Santa Park Oy's Christmas Park and Hotel Entrepreneur Ilkka Länkinen in the interview (Manninen, 2020). As winter tourism in Lapland relies on international tourists, these kinds of global disasters deeply affect the local economy.

We have also experienced the loss of snow and the negative publicity that comes along when the Irish media called Rovaniemi "Crapland" in 2018 (Parker, 2018) because of the late snowfall. For international tourists, the main attractions in Rovaniemi are winter-orientated and tourism is strongly dependent on snow conditions and the Northern Lights.

The company that commissioned this study is solely targeted at foreign tourists. They practically have no domestic clients. This is why Covid-19 affected them so seriously and as all their products are nature-based, they are among the first ones to feel the effects of climate change in Lapland.

Not all the threats to tourism are known, but climate change is one of the biggest challenges the tourism industry faces today (Lopes, Remoaldo, Silva, Ribeiro & Martín-Vide, 2022, p. 2). Extreme weather, natural disasters, sea level rise, drought, extreme heatwaves, wildfires, declining snow cover and floods will have an effect on tourism on a global scale (Climate Information...). These phenomena may influence the dynamics and effects of violent political conflicts and restlessness (Nordqvist & Krampe, 2018, p. 1) and have increased the risk of illnesses and diseases (Eskola & Lanki, 2019).

In the Arctic, the effects of climate change are notable and the Arctic is warming four times faster than the rest of the globe (Rantanen et al., 2022, p. 2). The effects on winter tourism will be seen through lack of snow, increased precipitation, shortening of the thermic winter season and the rise of average winter temperatures (Ilmasto-opas, 2022). January 2023 in Rovaniemi was the warmest on record, which have been kept since 1950. The average temperature was -5,8°C (Rytkönen, 2023).

This Master's Thesis aims to understand the guides' perspectives on the impacts of climate change in their field. The interviewed five guides are working for the commissioner of this thesis. The company has 15 guides in total, but all of them do not work full-time. The company is committed to protecting the nature in Lapland and their core values are sustainability and responsibility. They received the Green Activities Environmental Award in 2021 and made the

Sustainable Travel Finland pledge the same year. The company has set three steps to sustainable travel and these key areas are protecting the Arctic nature, being local and telling authentic Lappish stories (Sustainable travelling). This study explores how the guides think their work practices and work will change due to the changing climate and weather patterns, whether they can already see the changes and how they see the future shaping up.

Covid-19 surprised the whole tourism industry, and many companies faced very negative repercussions. In order to avoid similar outcomes, educated predictions about the future are valuable tools in preparing for possible changes.

1.2 Previous research on tourism and climate change in the Arctic

As seen with Covid-19, tourism is an extremely vulnerable business worldwide. Scientists have found strong evidence of a warming climate and the ongoing impacts on the Arctic regions (Ilmasto-opas, 2022; Rantanen et al., 2022, p. 2; Rytkönen, 2023). The biggest effects on the Arctic areas are changes in species ranges, the locations of tree lines, melting of glaciers, melting permafrost, the loss of volume in sea ice sheets and increasing extreme weather events (Anisimov et al., 2007, p.655). This will undeniably affect tourism in the Arctic areas as well.

Recent research by Rantanen (2022, p. 2) reveals that the Arctic has warmed nearly four times faster than the rest of the planet since 1979. The effects of climate change might be seen in the Arctic sooner rather than later. It has been predicted that winter precipitation will increase from 3% to 40% for the period 2040-2069 and surface air temperatures in wintertime are estimated to increase by 2-7 °C (Ruosteenoja et al., 2016, p. 17). When precipitation increases, there is more cloudiness and it decreases the chance of seeing the Northern Lights.

According to National Snow and Ice Data Center, the Arctic is a lot more than a geographic region. It is a biological, chemical, physical and climatological system that affects everything that happens on Earth. Cold temperatures in the Arctic and Antarctic are in a key role for the circulation patterns of the oceans and atmosphere. Defining the Arctic region varies among scientists, but a common borderline for defining the Arctic is the Arctic Circle (National Snow and Ice Data Center [NSIDC]).

According to Arctic Centre, only about 4 million people live in the Arctic region and around 10 percent of them are indigenous peoples. Two-thirds of the population is concentrated on

cities, otherwise the Arctic is sparsely inhabited (Arctic Centre). According to Arctic Monitoring and Assessment Programme (2019), climate change affects Arctic communities, as it interacts with other health and environmental aggravations. There will also be a range of social, political and economic factors. The changing climate will affect, for example, migration, local development, resource extraction, recreation and tourism. These changes will challenge the Arctic communities to adapt and maintain flexibility. The loss of sea ice and shorter snow seasons will affect traditional activities, for example hunting and foraging. Melting of the permafrost impacts buildings, infrastructure, transportation and industrial facilities. Wildfires are causing safety and health risks and loss of natural resources. For the indigenous peoples, climate change is endangering their traditional ways of life. For example, in Russia, many reindeer herds have gone through mass starvation during rain-on-snow events when reindeer are not able to eat food form the ground because of an ice layer in the snow (Arctic Monitoring and Assessment Programme [AMAP], 2019, pp. 6–9).

As the climate is changing in the Arctic and the weather gets warmer, the habitats of Arctic species shrink and new species venture into the region. It is affecting the Arctic ecosystems and, in some cases, even causing the loss of entire habitats (AMAP, 2019). For example, species dependent on sea ice, like polar bears, seals and whales, are most likely to face large population drops and even extinction risks (AMAP, 2019; Campbell et al., 2009).

Isolated tourism destinations in the Arctic are confronted with several challenges. For example, limited transport infrastructure, climate limitations resulting to seasonal tourism, human resource shortages in labour and skills capacity and rivalry with natural extraction economies (Brown & Hall, 2000; Grenier & Müller, 2011; Krakover & Gradus, 2002, as cited in de la Barre, 2013, pp. 826 – 827).

The Northern Lights are one of the most famous features of the Arctic region and also one of the biggest tourist attractions. Auroras appear when solar winds reach the Earth's magnetic field and cause disturbances (NASA). Climate change does not affect the Northern Lights themselves, but the increase in cloud formation and precipitation in the Arctic will most likely block their visibility from the ground.

In Finnish Lapland, tourism has been a central growing sector since the early 1980s and there has been rapid growth since then in the winter tourism sector (Rantala, Hallikainen, Ilola & Tuulentie, 2018, p. 344). Referring to Jóhannesson et al. (2022, pp. 8–11), the Arctic region has become an increasingly popular tourism destination recently. It has been presented as a

factor of economic growth and an answer to the decrease of traditional primary industries, such as fisheries, forestry and mining. For example, even if Rovaniemi's tourism infrastructure has been developed and tourism in the city has grown over a long time period, lately there have been questions over how much tourism can grow until it becomes unsustainable. The phenomenon of overtourism is often related to dysfunctional relationships between locals and travellers (Jóhannesson et al., 2022, pp. 8–11).

The future of the climate is studied with climate models that are based on equations corresponding to the laws of physics and chemistry. The equations describe the behaviour of the atmosphere, oceans and land (How do we…).

In the research of Lopes et al., (2022) the main theme is to "establish the evolution of the relationship between tourism and climate, since relevant studies were published from 1940 to 2020" (Lopes et al., 2022, p. 2). By using qualitative and quantitative methods they measured the coverage share of tourism and climate studies. Scopus and Web of Science databases were used as a base of analysis, and they found 889 publications related to tourism climatology. The studies focused on the impacts of climate change on tourism, urban and bioclimatic comfort of tourists in destinations, policies of climate change and strategies and real-world options to prepare tourist destinations for climate change (Lopes et al., 2022, p. 2).

A lot of research has been conducted about the implications of climate change on winter tourism. Hall and Saarinen (2020) reviewed the main topics in Nordic climate change research for the past 20 years. Climate change and adaptation seem to be well-known among the tourist businesses and stakeholders. According to them, future observations will focus on tourist behaviour and visitation. Tourism researchers will also keep an eye on the changes of the environment and social construction. Mostly the research is concentrated on how the businesses can adapt to the changing climate and how they can reduce their negative impacts. Hall and Saarinen (2020, p. 105) also claim that Nordic researchers must concentrate on "wider socio-spatial, economical and policy contexts of tourism and climate change relations". As tourism is often seen as a tool to develop local communities, it should also be analysed and considered through the impacts of climate change to tourism-dependent communities. Also, Hall and Saarinen's study indicated that according to Gössling et al., (2020, as cited in Hall & Saarinen, 2020, p. 105), in order to offer more sustainable solutions to the climate crisis, the biggest challenge that needs to be resolved is finding out how to integrate tourism with other economic sectors that are also affected by this global development.

Kyyrä (2017, p. 201) mentions that a project called Visit Arctic Europe (VAE) created a tourist trend analysis which was carried out in Finnish Lapland, Northern Norway and Swedish Lapland in 2016. It examined changes in consumer behaviour and its possible effects on tourism in the Arctic. The purpose of the study was not only to improve marketing or product development, but also to inspire the stakeholders to discuss the future of tourism in the Arctic (Kyyrä, 2017, p. 201). According to Kyyrä (2017, p. 199), anticipation is a way to challenge us to think about our values. In this study (VAE), the stakeholders also discussed carrying capacity and factors that affected the development of the area. The options of potential futures help us understand what possibilities are wanted and which values each option represents. Kyyrä (2017) also claims that the future is never free of values. Tourism operators' visions of the future are always based on their values (Kyyrä, 2017, p. 201). Kyyrä (2017, pp. 201–202) summarises the research articles about the future of tourism during the years 1980–2015 in four international journals of tourism research. There were around 150 articles and one third of the studies were about statistical forecasting and about 30 were speculations on the future of tourism and anticipatory work in tourism. There were also some studies that view future tourists as consumers and some which researched tourism destination management. Around 20 studies were about the effects of global or regional changes in tourism sectors or areas and the benefits of future-oriented approaches for tourism operators.

Varnajot and Saarinen (2021) discuss the future of tourism in their paper *After glaciers? Towards post-Arctic tourism*. They argue that Arctic tourism is highly stereotyped around northern, snow-related activities and discuss how climate change is going to affect them. As the climate is changing, the Arctic is estimated to go through several socio-ecological changes. They mention that some scholars already see the Arctic as a destination for "last-chance tourism". In their paper, they investigate "post-Arctic tourism": what will happen after the chances of seeing these things are gone (Varnajot & Saarinen, 2021, p. 2).

Welling and Abegg (2021) have empirically studied how the local glacier tour operators in Vatnajökull, Iceland, are adapting to climate change. The results of the study demonstrated that the interviewed entrepreneurs did not see climate change as a major threat to their business, but they saw that it was already affecting their daily practices. The study also mentions that co-operation with the tourism sector, scientific community and land-use management should be formed to improve decision-making about responses to climate change in glacier tourism in Iceland (Welling & Abegg, 2021). The future glacial landscape scenarios have been made without the involvement of local stakeholders. The study proposes to form a common platform

for conversation of current and future consequences of climate change at a local level in Vatnajökull to help form common practices and climate-change policies (Welling & Abegg, 2021, p. 713).

Gössling's and Scott's (2018) research article starts with a statement: that the emissions from global tourism are continuing to grow fast and that is in an absolute contrast to the Paris Climate Agreement and its settled emission reduction for the tourism sector. Seventeen tourism leaders in global tourism were interviewed to determine their views on climate change, climate leadership, mitigation needs and strategies for decarbonisation. The common understanding was that climate change is real and the tourism industry should play their part in its mitigation, but the respondents revealed different perspectives on how the tourism industry should contribute. Some of them were of the opinion that the sector should proceed according to market-based measures, but they were critical about the growth of the sector. Some were "technological optimists", and they recognised the need for governance to speed up technological innovations. The "carbon conservative" were of the opinion that technological innovations will solve the reduction problem and that the climate regulations are unfounded. The latter group held many beliefs that are not supported by science. The study considered this a major barrier for the tourism industry's participation in the low-carbon economy, which is fundamental for the future of tourism (Gössling & Scott, 2018). This study was interesting: since tourism is a significant industry in Lapland and as it is growing continually, it has an accelerating effect on climate change. Lapland's tourism strategy (Lapin Liitto, 2021) says the region has adopted "sustainable travel", but it does not mention the effects of air traffic. When discussing tourism and climate change, this must be taken into consideration. Air traffic is an integral part of tourism to the Arctic region and cannot be left out of the equation. Lapland's official marketing and communication company, House of Lapland, urges tourists to travel to their destination by direct flights and compensate for the emissions accumulated from their flights (Lapland).

Martínez and Mackenzie (2022) studied how climate change is affecting the wellbeing of adventure guides. The research was conducted with semi-structured qualitative interviews. The study reveals that the guides who felt more connected to nature were reported to feel a higher sense of environmental responsibility. They experienced ethical dilemmas more often between their connection with nature and the unsustainable practices of guide work. The analysis also highlighted the fact that the guides' wellbeing stems from the love of nature they share with their clients. Scholars have recognised the need for sustainable adventure tourism and the

importance of creating a more environmentally responsible tourism industry to combat climate change. The focus of research has been mostly in improving the sustainability practices of tourists, operators and guides, but not understanding how climate change might affect guide work and wellbeing (Martínez & Mackenzie, 2022. p. 2).

Määttä, Saarinen, Sakko, Siikamäki and Tervo (2007) have studied tourism entrepreneurs' means of adaptation to climate change in Lapland and Koillismaa, the future of winter tourism in Koillismaa and the interviewed entrepreneurs' attitudes towards climate change. The study was conducted already in 2007, so it might not reflect current opinions in light of the latest information about climate change and its effects.

Based on the previous research, there are significant changes underway in the Arctic region. The influence of climate change on winter tourism is well-studied. These effects are already seen in nature and the weather, and predictions about the future state that the impacts on the Arctic region are inevitable (Ilmasto-opas, 2022; Rantanen et al., 2022; Rytkönen, 2023). Studies have mainly focused on adaptation and tourism behaviour (Hall & Saarinen, 2020; Kyyrä, 2017; Lopes et al., 2022; Welling & Abegg, 2021). Anticipation is one of the most effective ways in which tourism operators and stakeholders can react to climate change. Guide work and the wellbeing of guides in this field have not been studied much. For example, Northern Lights tourism is one of the most challenging types of nature-based guiding because of the unpredictability of the Northern Lights (Heimtun, 2016, p. 237), and as the weather changes and possibly makes it even harder, the emotional work of guides must not be underestimated.

1.3 Aim of the study

This thesis aims to understand the guides' views on their changing practices in a small tourism company in the era of climate change. The company's main focus is on photography tourism, so the weather and overall conditions play a big role. The main tourism products of this company during the winter season are based on different activities. The main tours and activities include Northern Lights tours, skiing, ice fishing, reindeer farm visits, national park visits and husky farm visits. Most of these activities are weather-dependent. All the clients on their winter tours are foreigners. All tours contain photography and one of their main products

is the Northern Lights tour. It is possibly one of the company's most vulnerable products to climate change because of the cloudiness that warm weather brings.

The perspective of guides is chosen as they are in the field daily and see the changing climate in the Arctic first-hand. As the climate is warming four times faster in the Arctic region (Rantanen et al., 2022, p.2), tour guiding is one of the first professions in the Arctic affected by changes in the climate. Tour companies' activities are mostly dependent on the weather and the conditions in nature. Their activities are highly based on what nature has to offer, so they observe the weather and nature from a different perspective than regular citizens. Also, their livelihood is dependent on nature, therefore this study aims to understand how they feel about the changing conditions, how they see their practices changing and how they see the future from their perspective as guides.

This study aims to find out how the work practices of guides are changing in the era of climate change and how they can anticipate for the changing climate in their work. I also want to study how guides see and experience their future in perhaps the greatest crisis of our time.

The main research question of this study is *How are guides' working practices changing in the era of climate change?* and the sub-questions are: *How do guides see it and how can guides anticipate climate change?* and *How do guides see and experience their future in the greatest crisis of our times?*

This Master's Thesis study deploys an ethnographic approach through participant observation and interviewing with the help of practice theory. "Ethnomethodology requires you to 'live` your research in the sense of getting an insider perspective on your chosen research topic" (Botterill & Platenkamp, 2012, p. 82). I wanted to discover the guides' vision of how their work practices will change in the coming years, how they experience the changes now and how they see their future and what they hope from it. As the research indicates that global warming is already happening and what will happen to our climate here in the Arctic Circle (see e.g. Ruosteenoja, Jylhä & Kämäräinen, 2016), the threats for tourism are already known (see Ilmasto-opas, 2022).

1.4 Structure of the study

This thesis consists of five main chapters. In the first chapter, the reader is introduced to the topic and why it was chosen. It introduces the background of the study, the previous research on the topic and the aim of the thesis.

The second chapter is concentrated on the theoretical framework of the thesis. Practice theory is divided into two sub-chapters, as it introduces practice theory and then changes in practice theory. It also discusses guide work and tourism in the Arctic and how the Arctic is affected by climate change.

Research methods and data are discussed in the third main chapter. Qualitative and ethnographic approaches are introduced and how the data of this study was collected through interviews and participant observation. It also introduces the analysis process and the research ethics.

The fourth chapter is concentrated on the findings of the study and what they indicate. There are four different categories of practices which introduce and analyse the already existing practices of guide work and discuss possible future practices. The last chapter brings together the entire study. It also goes briefly through the limitations of the study and what should be researched in the future in the light of this study.

2. THEORETICAL FRAMEWORK

2.1 Practice theory

Practice theory was chosen in order to study the changing practices of guides in the era of climate change. Practice theorists comprise practices as "embodied, materially mediated arrays of human activity centrally organized around shared practical understanding" (Schatzki, 2001, p. 11). As social realities are constructed through the human mind, there are several realities (Slevitch, 2011, p. 79). This thesis aims to understand how practices are developed and how they are changing due to climate change in the Arctic from the perspective of guides.

Practice theory is a social theory that has been formed by many authors, such as Bourdieu, Giddens, Taylor and Foucault (Reckwitz, 2002, p. 243). There is not just one practice theory, but practice theories constitute a family of theoretical approaches. Practice theories can offer a new way of describing and understanding social organisational phenomena (Nicolini, 2012, p. 1).

Practice theories aim to explain the role of practices, who constructs them and how they are created. These approaches have been used increasingly in social sciences and tourism studies (Bargeman & Richards, 2020). According to Schatzki, Knorr-Cetina and von Savigny (2001, p. 11), "fields of practices" are phenomena such as knowledge, meaning, science, human activity, language, social institutions and historical transformations. Practice theorists consider practices as embodied, materially mediated collections of human activity, organised around common practical understanding (Schatzki et al. 2001, p. 11).

Practice theories emphasise the significance of activity, performance and work in the creation and continuation of social life. Practice theories are processual and usually see the world as a continuing, repetitious and routinised accomplishment (Nicolini, 2012, p.3). This approach brings up the crucial role of the body and material things in social relationships. Most practice theories consider practices as bodily activities made possible by the impact of material resources (Nicolini, 2012, p. 4).

Referring to Reckwitz (2002, pp. 251–252), practices are routinized bodily activities and at the same time sets of mental activities. Bodily practices are connected with know-how, aims, emotional levels and ways of interpretation. If someone "carries" a practice, he or she must adopt both mental and bodily patterns to create the practice (Reckwitz, 2002, pp. 251–252).

By adopting a practice approach, one can drastically change our view of knowledge, discourse and meaning. By becoming part of an existing practice, it involves learning how to behave, talk, what to say and even how to feel and what to expect and what things mean (Nicolini, 2012, p.5). According to Nicolini (2012, p. 6), discursive practices are seen more as a way to interfere and act in the world than to represent it. They need to be treated alongside with other forms of material and social activity. Practices are always inevitably open to debate, and this keeps them constantly in a state of pressure and change (Nicolini, 2012, p. 6).

Giddens' (1986, pp. 25–26) "duality of structure" claims that human actions cannot be understood correctly by separating social structure and human agents and every competent member of society is very skilled in practical achievement in social life. They do not have only incidental knowledge of the patterns of social life, but they are integrated to it (Giddens, 1986, pp. 25–26).

2.2. Changing practices

Practices change when there are new elements introduced (Shove, Pantzar & Watson, 2012, p. 30). One example of a new element that has been introduced to us and has changed our lives almost all around the world is the Internet and smartphones. When the Internet became available to most people, it changed many things profoundly – and now everyone in the Western world has a small computer with all the information of the world in their pockets. Anyone can do anything (Berger, 2015). Now guides can plan their own tours with their smartphones, as they have all the necessary information (weather & aurora forecasts and maps) in their phones. In this study, the new key element introduced to guides is climate change, which is forcing many practices to change. It also influences people's way of thinking and steers their values. Blair (2006) claims that climate change is "the greatest long-term challenge facing the human race" (Shove et al., 2012, p. 100).

The last time European levels of consumption were within planetary boundaries was in the 1970s. Shove and Spurling (2013) ponder how ways of life have become so resource-intensive in such a short period of time. Warde (2005, as cited in Shove & Spurling, 2013, p. 1) claims that "people consume objects, resources and services not for their own sake, but in the course of accomplishing social practices". From this perspective, shifting towards a more sustainable society depends on individuals and on helping them make better choices for the environment

(Shove & Spurling, 2013, p. 1). Today there are different tools to measure an individual's ecological footprint, such as carbon footprint calculators. Those tools help people understand how their choices impact nature and their personal contribution to climate change (Shove & Spurling, 2013, p.1).

Social practices are made of elements that are integrated and formed when practices are performed. Practices "emerge, persist and disappear as links between their defining elements are made and broken" (Shove et al., 2012, p. 23). As practices harmful for climate and nature have been formed during a short period of time, it means we can direct them to disappear too and make new practices. By understanding theories of practice, we might be able to change, and there is a lot of potential for understanding change (Shove et al., 2012, p. 11). Even if bringing individuals' carbon footprint back within planetary boundaries might seem impossible, Shove and Spurling (2013) believe that it is possible. They mention as an example practices of diets and personal hygiene, which have been very different fifty years ago. In tourism for example, contemporary mass tourism based on air traffic and travel packages has been defined as starting in the post-Second World War era (Vainikka, 2012, p. 26). Information technologies also have altered the tourism and hospitality industry (Khatri, 2019).

"Values have power in tourism" and "travellers are increasingly interested in the carbon footprint of their journey" claims Visit Finland (p. 24). Visit Finland has launched the Sustainable Travel Finland programme for tourism companies where sustainable actions can help companies and regions achieve a label that tells their clients that the company or region is doing things sustainably. According to Ajzen (2005), people behave in a certain way when they have the means and possibilities to do so. If tourists are interested in their carbon footprint of their travels, these kinds of labels make it easy for tourists to make sustainable choices and to choose companies that operate sustainably (Sustainable Travel).

2.3 Guide Work

According to Pond (1993, as cited in Weiler & Black, 2015, p. 11), guiding is likely one of the earliest professions in the world.

> Tour guide is defined as a person, usually a professional, who guides groups (and sometimes individuals) around venues or places of interest such as natural areas, historic buildings and sites, and landscapes of a city or a region; and interprets the

> cultural and natural heritage in an inspiring and entertaining manner, in the language of the visitor's choice (Weiler & Black, 2015, p. 3).

According to Pond (1993, as cited in Christie & Mason, 2003, p. 2), the role of a tour guide is to decipher the local community and the place to a tourist. She also suggests that a modern tour guide has five different roles: leader, public relations representative, educator, host and conduit. A tour guide's role is seen as an assisting role of the interpretation of the site. Interpretation is not only transmission of knowledge, but also used to develop empathy towards the place and culture (Pond, 1993, as cited in Christie & Mason, 2003, p. 2). It can also change attitudinal and behavioural change. Interpretation on the field might make the educational process more effective than something taught in the classroom (Christie & Maison, 2003, pp.3–4). De la Barre (2013, as cited in Weiler & Black, 2015, p. 63) uses the term "storied ways of knowing", as tour guiding is seen as telling stories and narratives.

According to Weiler and Black (2015, p. 1), tourist guides are found in every tourism destination and they are an important part of tourism business. Despite of this, tour guides and tour guiding have been subjects of researchers and scholars for a relatively short time (Weiler & Black, 2015, p. 1). The earliest scholarly publication was published in 1961 (Valene Smith's call for trained tour guides in *Professional Geographer*) (Weiler & Black, 2015, p. 1).

According to Veijola (2010, p. 84), jobs, occupations and employment related to tourism are often uncertain, low-paid and labour-intensive and they often require bodily presence, personality and particularly feminine skills and female bodies. They rely on the effect on the viewers as a measurement of success and they form an essential part of the constantly growing experience industry in Western countries (Veijola, 2010, p.84). Guide work is so-called "new work" and it has been studied from the point of views of work skills, seasonal work, recruitment and as a performance of "women skills" (hospitality, creating an atmosphere, social skills, care taking and language skills) (Veijola, Hakkarainen & Nousiainen, 2013, p. 176).

According to Weiler and Black (2015, p. 2), many scholars argue that guides "make or break" the tour and they are in a crucial role for the tourist experience. Researchers recognise the active role of guides in safety and the fluency of the tour, but now they have started to increasingly emphasise the role of guides in intermediary processes. The role of guides in promoting sustainability has become subject of review, especially in influencing tourists' behaviour in nature tourism and ecotourism and in giving messages that affect post-travel behaviour and mindsets (Weiler & Black, 2015, p. 2). Christie and Mason (2003, p. 12) assert that no action

is value-free. All tourist guides and companies who claim to be apolitical, a-cultural and unbiased are misguided: guided tours are inserted in the cultural, political and social context in which they appear (Weiler & Black, 2015, p. 13).

A lot of guides' professional knowledge is so called "know-how", which is also called tacit knowledge. Nonaka (2008, p. 15) describes tacit knowledge as something that is hard to communicate to other people because it is very personal. It has an important cognitive dimension. It contains beliefs, mental models and viewpoints and it profoundly shapes how we see the world. Explicit knowledge is systematic and formal, and it can be easily shared (Nonaka, 2008, p. 15).

Ehn and Löfgren (2010, p. 67) describe routines as "helpful tools for organizing the flow of time". Routines can also work as what must be done at work, for example. According to Berger and Luckmann (1994, as cited in Alasuutari, 2007, pp.34–35), the social construction of reality is explained in such a way that when routines become customary, they become a self-evident part of the next generation's world. In organisational theories, Nonaka (1994, as cited in Alasuutari, 2007, p. 35) has formulated similar ideas in his theory of knowledge, a spiral model, where the tacit knowledge in practical awareness turns into discursive awareness and a new routine. Most of the routines are created by practicing guide work (Rantala & Valkonen, 2011, p. 589). In tour guiding, the tacit knowledge becomes routines. Lately, many routines have been altered because of the weather conditions and changing climate.

According to Weiler and Davis (1993, as cited in Weiler & Black, 2005, pp. 23 – 25), guides have multiple roles in nature-based tourism and ecotourism: they can be categorised to roles of an organiser, entertainer, group leader, teacher, motivator and nature/heritage interpreter. The guides working for the commissioner of this thesis must hold a massive amount of knowledge. They have social skills to manage customer service, they know how to drive a car in challenging conditions, they know how to make fires and they know minute details about Finnish nature and animals. They can also explain how the Northern Lights are formed and how to use different databases, forecasts and cloud maps to find the best conditions for seeing the Northern Lights. They also must know photography, multiple languages and Finnish culture as well as history.

In her dissertation, Rantala (2011) analyses the role of Lappish forests in commercial use from the point of view of the guides. The analysis emphasises the practices of preparing the forest foray, practices of moving in the forest and practices of being by the campfire (tulistelu).

According to Rantala (2011), transforming the experiential knowledge into routines enables the guides' creative use of the forest. However, this requires that the safety factors are in order and that moving around the forest is effortless. As the guide is responsible for creating a nature experience for the tourist, the guide must have emotional and aesthetical skills to create an unhurried experience. For the guide to create this experience, the Lappish forest must be functional and ready for this commercial purpose. To facilitate this, there are also other responsible operators, such as land use planners and operators in the tourism industry. According to Rantala (2011), using the forest for commercial purposes involves a lot of knowledge and skills that were previously learned by moving in nature, but which nowadays should be passed on even for the unexperienced operators in nature in the form of training and instructions. This requires that guides become aware of their own practices and be able to pass on this kind of information (Rantala, 2011). Through practice theory, Rantala (2011) has studied the relationship between tacit knowledge and creative activity related to the use of the forest in nature tourism. In this thesis, I am studying the guide practices from the point of view of guides through practice theory. But my focus is on how climate change is changing their practices and how they see the role of climate change in this process.

3. RESEARCH METHODS AND DATA

3.1 Qualitative research as an approach

As a term, qualitative research is an umbrella term for many different types of qualitative research (Tuomi & Sarajärvi, 2009, p. 9). It stems from more than a century of sociology and anthropology and now it is accepted by all social sciences and used in many fields of practice, also in tourism (Merriam & Grenier, 2019, p. ix). Qualitative research is empirical in terms of research type, and it is a method of empirical analysis of studying observational data and assess it (Tuomi &Sarajärvi, 2019, p. 22). Researchers of qualitative study are intrigued of knowing how people are experiencing and understanding their world in that certain point of time and in that certain point of context. Studying how people experience the social world is established on interpretative or constructivist perspectives embedded in the qualitative approach and they both stem form idealism (Merriam & Grenier, 2019, p. 4).

Qualitative research forms a whole where data-gathering and analysis cannot be separated, but according to Törrö (2000, as cited in Tuomi & Sarajärvi, 2019, p. 68), today it is not thought primarily through the collection of data but through analysis. This comes up in the research report and what should be written on it so it would be reliable. “How can I understand another person?” is a question that culminates the totality of qualitative research. In Western philosophy, this is related to one’s self awareness of itself. Self-awareness severs the world in two, me and not-me, subject and object. Here arises a question: how can a person ever understand another? In qualitative research, the question about understanding each other goes two ways. For example, a question about how the researcher (the interviewer) can understand the subject of the research (the interviewee). On the other hand, the question is how some other person can understand the research report made by the researcher (the interviewer) (Tuomi & Sarajärvi, 2019, pp. 68–69).

According to Tuomi and Sarajärvi (2019, p. 71), the most common data collection methods in qualitative research are questionnaire, interview, observation and information based on different documents. These methods can be used side by side or separately, according to the problem of study or the resources (Tuomi & Sarajärvi, 2019, p. 71). Some qualitative research reports use quotations from the original interviews to support the analysis. Even though some might claim that using quotations improves the reliability of the research, it is about bringing the text alive and about examples (Tuomi & Sarajärvi, 2019, p. 22).

In the constructionist approach, the social meaning of the world is constructed with history, society, ideas and language (Botterill & Platenkamp, 2012, p.32). Referring to Slevitch (2011, p. 79), in the qualitative approach reality is constructed from points of view of several people. Social realities are dependent on minds, and they always include people's values, points of views, interests and purposes. Reality is understood through the human mind and socially constructed meanings (Slevitch, 2011, p. 79). Through the ethnographic approach (interviews and observational study), this thesis aims to understand the phenomena of changing guide practices by using the constructivist social sciences paradigm.

Bargeman and Richards (2020) do not see practices as the activity of individuals, but "doings and sayings" of carriers of practices and social structures, which includes material objects and infrastructures. Doings and sayings are the contributions that the individual brings to the Western culture and society we have created, and as we have created it, we are the ones who can alter it. According to Cetina, Schatzki and Von Savigny (2005, p. 61), since practices are a collection of doings and sayings arranged by a set of rules, they can be altered by random events over time.

3.2 Ethnographic approach

Ethnography has been defined in many ways. The word ethnography has been used for example when the method used by the researcher includes their in the community that is the subject of research (Lappalainen, Hynninen, Kankkunen, Lahelma & Tolonen, 2007, p. 9). According to Geertz (1973, as cited in Lappalainen et. al., 2007, p. 9), ethnography is a "thick description" of culture. For him, the culture is a symbolic system that is built on structures of meaning that form the context of activity. The aim is to understand and theorise the studied phenomenon (Geerts, 1973, as cited in Lappalainen et al., 2007, p. 9).

According to Merriam and Grenier (2019, p. 135), an ethnographic study uses an emic approach, "insiders' perspective", to study human society. The target is to understand and explain the culture or a group. Ethnography can refer to the approach, i.e., how the researcher carries out the research or the end product, i.e., a cultural depiction of human social life. Research is ethnographic if the information has a cultural relevance. It needs people's own stories and experiences from their own words and it demands researchers to submerge themselves into the world of the participants (Merriam & Grenier, 2019, p. 135).

In this study, the ethnographic approach is used by interviewing the subject of my research (guides) and taking part in their daily work as a participating observer. My ethnographic material contains the recorded interviews and my research diary. The interviews give the opportunity to hear the participants' own interpretations instead of the researcher relying only on her own observations (Lappalainen et al. 2007, p. 90). Participant observation is a method where a researcher joins in the daily activities of a group of people, aiming to learn and understand the explicit and tacit aspects of their life practices. Explicit aspects imply in this case "a part of what people are able to articulate about themselves" and tacit aspects refer to "aspects of culture largely outside our awareness or consciousness" (Musante & DeWalt, 2010, p. 13).

Referring to Ruusuvuori, Nikander and Hyvärinen (2010, p. 40), in ethnographic research, the core of data collection is field work based on participant observation. But the "field" is understood as a wider concept in current research. Field is not only a place, but a space formed by social relations (Ruusuvuori et al., 2010, p. 40). In this study, I understand my "field" to be the social field of guides and their clients. The field is also the concrete field of Northern Lights tours, where I did my participant observation.

3.3 Data Collection

Semi-structured thematic interviews were the chosen method, allowing me to set the questions according to the topic relevant to this thesis. Semi-structured thematic interviews (Appendix 1) proceed with certain key themes chosen in advance and with the detailed questions related to them. Thematic interviews are aiming to find meaningful answers according to the purpose and questions of the study (Tuomi & Sarajärvi, 2009, p. 75). I also did observation tours myself to get a deeper understanding of the tours and what the work practices in these were. Participant observation describes a particular data gathering strategy where the researcher acts as one of the participants in the setting he or she is studying (Hatch, 2002, p. 72). Observation is a justified data-gathering method when the studied object is known very poorly or not at all. Here, the objects are seen in their proper contexts (Tuomi & Sarajärvi, 2002, p. 81).

In addition to interviews, I chose participant observation because I was not familiar with this company's work practices and wanted to understand them better in their real context. Practice theorists see practices as "embodied, materially mediated arrays of human activity centrally

organised around shared understanding" (Schatzki, 2001, p. 2). Practices are not fully conscious, so telling about them in interviews can be difficult. This is also a reason why participant observation is a valid addition to interviews.

A semi-structured interview offers a selection of possibilities. It is structured to cover specific issues related to the phenomenon of study. It leaves space for the participants to indicate new meanings to the focus of the study (Galletta & Cross, 2013, p. 24). According to Hirsjärvi and Hurme (2001, p. 48), methodologically semi-structured interviews emphasise people's interpretations of things, the meaning they give to things and how meanings arise in interaction.

The interviewees were selected at the tour operator company. The interviewees were selected based on their experience in the field of tour guiding. I wanted to interview guides who had been in the business for a few years already, so they might have garnered a bit more vision and experience than people who were tour guiding for their first season. I think this was essential so the guides could evaluate if the practices had been changing already and if the effects of climate change were already visible in their daily work.

The empirical data was collected through five interviews which were conducted during January-February 2023. One of the interviews was conducted online because the interviewee was ill, but the rest were face-to-face. The length of the interviews varied from 40 minutes to one hour and they were conducted in a meeting room at a local hostel.

All the interviews were recorded with the audio recorder on the computer and a backup was recorded with a smartphone. They were transcribed with Word Online and checked with the backup record from the phone. The interviews were conducted in English and Finnish, depending on the nationality of the interviewee. The Finnish guides I interviewed in their mother language and other nationalities in English. All the guides were proficient in English, so there were no ambiguities.

I started the interviews with some background questions so I could understand their experience in guiding and their personal perspectives to the interview. The questions in the interview were divided into three main groups: 1) Climate change in winter tourism, 2) Changing practices at work and 3) Guides' role in a changing climate. With the first theme, I wanted to know how much the interviewee knows about the effects of climate change on the Arctic region, as it was

essential to know at least something in order to be able to answer the questions. I also wanted to find out if they considered the information important and to assess their general feelings for the connection between climate change and their work. In the second section I was concentrating more on changes observed in their practices and how they feel about their work in the future. The third section concentrated on their interactions with the clients and their discourse about climate change.

I conducted a test interview and included two photos at the beginning, thinking they would bring more value and content to the interview. Photo elicitation is using visual methods like photographs in an interview to create discussion and produce data and knowledge (Glaw, Inder, Kable & Hazelton, 2017). I planned to include a photograph of a husky ride on wheels, without snow, and another one where there was a snowy but cloudy forest scenery. I meant to show the interviewees how climate change might manifest itself in the future and get their comments on the photos. But as the test interview revealed, they brought no extra value for the body of the interview. The questions were enough to get information about the depicted weather, so I removed them from the questions before I started the actual interviews.

I also did participant observation by taking part on tours as a guide. I was a helping guide on two Northern Lights tours in December 2022. I was helping the main guide, as he took the lead on the tour. I was also participating as an observer on the tour. According to Musante and DeWalt (2010, p.12), participant observation is a method where the researcher takes part in the subject's daily activities. The aim is to understand the unspoken and specific routines and culture (Musante & DeWalt, 2010, p. 12). I wanted to understand the tacit practices of the guides by seeing them work. I also wanted to understand how the tour is formed and what materials they use.

By combining different methods in my research, I expected to get more information. Adding my own observational diary to the interviews gave me an extra viewpoint for the research as well as another viewpoint. This means I have six different perspectives to base my research on.

Participant observation is a valid approach for collecting data in natural situations with the people being studied (Musante & DeWalt, 2010, p. 13). I was mostly helping setting up the venue, cooking food and talking about other topics than the Northern Lights. The main guide took all the photos of the customers and explained how the Northern Lights are formed and how they chase them. Normally this company caters to small groups, but sometimes during the

high season they also have bigger groups where two guides are needed. With smaller groups, the guides have more time to talk with the clients and the atmosphere is more intimate, as there are fewer people there. On these particular tours, there were around 15-20 people in total and we travelled by bus.

I did not have time to take field notes during the tour, but I recorded a spoken diary immediately afterwards about everything I observed and noticed. I assume I could have done only the interviews, but as my first study, I wanted to experience participant observation as well. I believe I received enough information through interviews because the material was already saturated. Saturation is when the material is starting to repeat itself and the informants do not bring any new information (Tuomi & Sarajärvi, 2009, p. 87). Even though five interviews are a relatively small sample of the guide industry, it is comprehensive in a company where there are only 15 guides and when the research is concentrated only on this particular company.

The most typical tour is the Aurora tour, which is also the best-selling tour at the company. The tours usually take place in the Rovaniemi area and include transport with a minibus. The tour starts with a team meeting with clients. The clients get a short briefing about the Northern Lights forecast, the current weather conditions and about the destination of the night. During the night, the team travels to 2-3 different locations which have been chosen based on the current weather conditions and photographic opportunities. In total, the company has over 50 locations to choose from for the perfect spot for photographs. When the team reaches the destination, they leave the minivan and continue to the location where the Northern Lights can be spotted. The team makes the decisions together depending on what they want to do, and if they wish, the team can sometimes also have a little campfire snack. Usually, when people come to this kind of tour, they do not want to waste any time and they concentrate on chasing the Northern Lights.

I did not want to name and separate the interviewees by any characteristics, because the company is so small that specific information would reveal who answered what in the quotations. The interviewees included four men and one woman and their guide work experience varied from 2 to 17 years. And as the interviewees were promised full anonymity, I decided to use numbers to distinguish the interviewees, making them untraceable.

3.4 Analysis process

This chapter introduces the main themes that were brought up in the content analysis. There were four themes that emerged in the interviews. I wanted to include them because these were important issues according to the main question and the sub-questions of the thesis.

All the interviewed guides have been working at this company for at least two seasons. Most of them had guiding experience from other companies as well, some of them have been guiding for over 10 years. Only one of them went to school for guiding, the others learned on the job. Guide work has been and still is a profession where guides learn all the time by doing and through experience on the job (Weiler & Black, 2015, p. 117).

Data-driven content analysis was used to analyse the research material. Content analysis can be used as a loose theoretical framework or as a single method. It can be used for many types of research, for example for the analysis of heard, seen and written entries (Tuomi & Sarajärvi, 2009, p. 91).

As the operation of this company is based on photography tours, all guides must be proficient photographers. The interviewees mentioned photography and nature as their passion and these interests were common to all the interviewees. A passion for the Northern Lights and interaction with people were important for many of them.

For the data analysis, the interviews were transcribed, then printed and after careful, repeated reading, they started to show four distinct themes that emerged clearly. They were organised into four practices, as they were so apparent and persistent.

1) The practice of telling clients about climate change
2) Safety practices
3) Practices related to changing conditions
4) Possible practices in the future

Choosing content analysis as the method of analysis is well-founded when the object of interest is language as a means of communication and the object of examination is the content of communication (Tuomi & Sarajärvi, 2009, p. 47). As the guides were interviewed, all material was obtained from spoken information. In qualitative research, there are always several

interesting things in the material, so it is important to choose a precisely defined, narrow phenomenon (Tuomi & Sarajärvi, 2009, p. 92). Miles and Huberman describe (1994, as cited in Tuomi & Sarajärvi, 2009, p. 108) data-driven analysis as a three-phase process, 1) reduction of the material 2) clustering the material and 3) creating theoretical concepts. Before starting the content analysis, the unit of analysis must be determined. It can be a single word or a sentence or, as in this case, a body of thoughts that contains several sentences (Tuomi & Sarajärvi, 2009, p. 110).

After all the spoken data was transcribed on the computer, the written version was checked by reading and listening to the recordings at the same time. The data was spellchecked and the interview data was reduced by trimming the irrelevant material off. Once all the necessary and relevant material was gathered, the interviews and personal observation diary were printed.

During the interviews, many interesting topics emerged and some themes already started to come up repeatedly. Also, the observational participation revealed some of the same topics. After narrowing down the phenomena, the interviews were themed. Theming means breaking up and organising the text so it is easier to compare and read (Tuomi & Sarajärvi, 2009, p. 93).

The interviews brought up four different practices that I themed up into groups of practices. The first one I named *practice of telling about climate change to clients*, because guides told me repeatedly how they have started the practice of telling clients about climate change and the situations where the theme was brought up in conversations. The second part is called *safety practices* and it is about new security issues and practices that have started to come up with the changing weather. The third part is called *practices related to changing conditions,* because that part describes the new practices that were brought up in the interviews. The last chapter is *possible practices in the future*, where other themes that were brought up in the interviews are discussed, but which were not new practises in guide work. It is a chapter about hopes and thoughts the guides had for the future and possible new practices the company can introduce in their business.

As the material was printed on paper, the text was easier to read and manage. The coding was made by hand and the recurring themes were marked with a highlighter. As the text was read several times, themes started to stand out and as different themes were marked on the paper with different colours, they were easy to distinguish from the text. All the expressions were written down to a separate sheet as the guides had told them. As different themes kept on

repeating, the most common ones were counted and written down. The analysis is a compilation of them.

3.5 Research Ethics

The Finnish National Board on Research Integrity (TENK) have published the national guidelines on the ethical principles of research. Every time a researcher conducts a study, they must take the ethical issues into consideration and work within these responsible guidelines. TENK has principles for research and the most important ones are that the researcher must take into consideration the dignity and autonomy of the participants. The researcher also needs to have respect for material and immaterial cultural heritage. One of the main principles is that the researcher must conduct their research in a way that does not cause any harm to the participants. The ethical principles protect and support the people who are taking part in the research. (TENK, 2019, p. 8).

My research includes semi-structured interviews and participant observation, so there are people involved and therefore I followed these ethical guidelines.

The ethical issues of anonymity, confidentiality and voluntary participation were considered and included in the study. First, before the interviews, I asked the guides in the company if they wanted to participate in my study and made sure they knew it was voluntary. They were asked to sign a consent form (Appendix 2). I also told them they could withdraw at any time, even if they had signed the letter of consent. I explained why I was conducting the research and I also explained that the intention of the study is only for research purposes and the material is not going to be used for other purposes. I also told them that I was the only person to know their names and answers and the whole interview was done with complete anonymity. When conducting the analysis, I did not include any personal details from which the interviewees could be identified. The commissioner accepted the subject of the study and gave me the contact information of the guides, but they did not intervene in the study.

I see the tourism company as a community and according to TENK (2019, p. 9), “it is important that researchers familiarise themselves with the community they are researching, and its culture and history in advance”. I did this by getting to know their activities, by taking part in their tours and working there for few shifts as well. I did ask for the consent of another guide as I

was observing his working methods. I did not ask consent from the tour participants, because the focus was on guide practices, not the tourists.

I conducted my semi-structured interviews in either Finnish or English. It depended on the guide and what was best for them. The language used in the interviews was clear and easily understood, using words and terms that are general and not highly specific to any discipline or field. It was important that the participants understood the questions and did not feel confused.

The work and achievements of other researchers were considered accordingly and their publications were referred to in the appropriate manner.

4. FINDINGS AND DISCUSSION

4.1 Practice of telling clients about climate change

As January 2023 was the warmest in Rovaniemi since the records started in 1950 – with an average temperature of -5,8°C (Rytkönen, 2023) – and the interviews took place at the end of January and the beginning of February, the guides clearly recalled the warm January. Based on the interviews and participant observation, there was no question if climate change was present already in the guides' daily work.

The first issue that came up repeatedly in the interviews was the relatively new practice of telling clients about climate change and how it affects nature and the weather. All the guides told me that they explained the impacts of climate change on the Arctic to the tourists. They also told how the Arctic region is more vulnerable than other parts of the world and how climate change affects animals and nature in the region. Almost all the interviewees brought up that especially during this season, they told clients that the weather was not normal. Weiler and Black (2015, p. 45) highlight the importance of the communicative role of the tour guide. Interpretation is described as "an approach to communication that goes beyond the provision of information or commentary and also goes beyond entertaining or amusing visitors" (Weiler & Black, 2015, p. 50). Interpretation possibly offers plenty to tour guiding, for example improving the visitor satisfaction and experience, influencing positively visitors' behaviour and attitude, completing the local residents and communities' goals for tourism, contributing to sustainability of the destination and making the tour guides' practices more enjoyable (Weiler & Black, 2015, p. 49).

Guides are seeing the effects of climate change in their daily work and according to the interviews, they tell their clients increasingly about the ways how climate is changing the Arctic region. They tell personal stories of their own experience or stories that their elderly relatives or their local partners have told them: about how the weather and nature used to be different years ago and what the Artic people have already lost. They also tell tourists how they personally see the changes in nature that are caused by climate change. As climate change is happening all over the world and everyone is aware of it, it is one of the topics that people are often curious and willing to talk about. As the findings indicated, the values of the interviewees were quite similar regarding nature and climate change, they all wanted to interpret the

influence of climate change and the changing nature. They used different stories and examples to enliven the interpretation and they felt it was very important to share knowledge about climate change in the Arctic. This was illustrated in the following quote:

> *I usually tell clients a story about my grandparents, who remember the time when there used to be a lot more snow and ice-skating conditions, for example… and for example that sometimes it has snowed in the summertime. – – if I tell them that it's exceptionally warm now, the clients are interested if I can notice it (climate change) in this area. (Interviewee 5)*

"'Narratives of loss' reveal relationships to disappearing landscapes, landscapes that are perceived to be endangered and landscapes that have already been destroyed, as well as relationships to cultural traditions that are vanishing or already gone" (Braun, 2002; Brown & Perkins, 1992, as cited in de la Barre, 2013, p. 834). I was able to distinguish "narratives of loss" from the interviews of guides. They told me about the snowy landscapes that were missing because the changing climate is altering the seasons to be shorter and different from before: snow-caked trees are becoming harder to see, ice-skating on lake ice has become harder and some fishes are already vanishing from the lakes and rivers. Narratives of loss were also intertwined in the guides' narratives on their tours. They narrate what they are afraid of losing and what has been lost already. According to Duggan, Haddaway and Badullovich (2021, p. e854), for those who work in the front lines of climate change, such as climate scientists, there are real mental health risks. It has been shown that environmental change can lead to emotional distress (Duggan, et al., 2021, p. e854). Duggan et al. (2021, p. e854) refer to climate scientists, but considering that guides in the Arctic region see the effects of climate change in their daily work and as we can already see "narratives of loss" in their discourse, I suggest that they also can be at risk. According to Martínez and MacKenzie (2022), guides that felt more connected to nature felt a higher sense of environmental responsibility and often experienced ethical dilemmas between their connection with nature and the unsustainable practices often involved in their work.

Some guides told me that the tourists themselves ask about how the local people see climate change in their surroundings. As climate change is seen everywhere in the world already, people are more interested in discussing the topic and know more about it. Most guides told me that climate change comes up naturally when they talk about the changing weather conditions. For example, the 2022–2023 season has been warmer than ever, so when clients wonder how it is so warm, the climate talk comes up inevitably. As one interviewee reflected:

> *At the moment, the clients are disappointed that there is so little snow or it's cloudy or they are like "I didn't know it's so warm here". So, me as a guide, I am like "yeah, me neither, but have you heard about a thing called climate change"? And then everyone is nodding like "Right". It's like that. (Interviewee 2)*

The behaviour and interactions are defined by qualities of the actor and circumstances of the contexts. Characteristics of individuals, e.g., background, experiences, lifestyles, motives and preferences influence the formation of practices (Bargeman & Richards, 2020, p. 3). Christie and Mason (2003, p. 12) argue that there are no tourist companies nor guides who are apolitical, a-cultural or unbiased. In addition to their work, all the guides were united by a common concern for nature and the future of the climate in the Arctic regions, even though they all have different backgrounds, experiences and lifestyles, for example, and they hail from different countries.

Considering this shared concern for nature and the climate, the findings indicate that the interviewed guides had similar values towards climate change in the Arctic. Many of them wanted to discuss the fact that tourism is strongly related to accelerating climate change and many of them mentioned flights and how much tourists use them to get here. Many of them were also concerned about the uncertainty of the future, how fast the climate is going to change and what it will do to our nature and animals. They also voiced their concerns over how great an impact tourism is having on the nature in Rovaniemi as well as the limits of sustainable tourism.

Their concerns are not in vain. The Paris Climate Agreement includes a pledge from the tourism sector to reduce its greenhouse gases by 70% by 2050, but the current emission trends show that they are tripling within that time frame (Gössling & Scott, 2018, p. 2071).

Almost all the interviewed guides mentioned that they were worried about the speed that climate change was progressing with and pondered what will happen in the future. Emission compensations also came up, which shows that the guides were thinking about how they could minimise the impact of emissions.

Values and political views can also cause some unintentional confrontations on tours. Guides need to be sensitive with the customers' attitudes towards climate change before delving into the topic. As one of the guides mentioned, some people from the United States of America, for

example, see climate change as a politically charged topic. This means that talking about climate change might be a risk in terms of customer satisfaction:

> *The risk we that we run to with that (talking about climate change), is that it's a politically charged situation. So, it depends on the guests. Most European guests aren't going to care. But you might get some American guests that are from the South, or they are on one side of the political spectrum who might not want to hear it. Or they might just try to say you're wrong and then it turns into something you don't want to deal with. (Interviewee 4)*

Most of the guides felt that they would like to know more about climate change and that it is important to know about it. Some of them wanted to gain a greater understanding about the subject, but all of them believed that the guides' role was to inform the clients about climate change. Not preaching or blaming, but to tell them honestly what is going on and how we do things in the Arctic to alleviate the effects:

> *It actually makes me think that we should do it more. That we should start having conversations with our clients, because if we're trying to change something… that you can tell people like, "look, if you do your part, you might (still) have this place in two years from now, or three years, if you want to come back." (Interviewee 4)*

The interviewees raised their competencies individually and obtained their information about climate change mostly from national and local news, social media, current affairs programmes, articles, documentaries and by talking with co-workers. Some of them hoped for more discussion about climate change within their work community. According to Weiler and Black (2015, p. 135), the benefits of tour guide education and training grow at the individual, operator and industry levels. At the individual level, training can improve specific skills and improve their knowledge of different specific topics. It was also seen as an opportunity for reflection, self-evaluation and discussion. For the employer, to have trained guides to support the organisation's vision and in the long-term increase their profits. As the company in my study is committed to sustainable travel, their benefit could be that the guides were trained to discuss climate change and their knowledge of the topic could help guides connect with the values of the company.

Some of the interviewees also told me that they are experiencing conflicts of values in their work. They are working in a business that is mostly based on customers who fly to their holiday destination (Rovaniemi), most of them with several flights, and this way they increase CO_2 emissions that are accelerating climate change. Lapland's tourism strategy for international

travel states that the most important form of transport is air travel. The goal of the strategy for 2020–2023 is that all airports are in operation and traffic volumes increase (Lapin Liitto, 2021). But as the interviewed guides love nature, they want to tell people about how the things they love are vanishing and changing rapidly. They noticed that what they do for work contributes to the acceleration of climate change, but they know that the least they can do is to tell people what is going on. They also felt that this was their chance to inform people about how climate change is affecting the Arctic. They knew that these tourists would come here anyway and go on some tours, so at least they would do it "right" and educate the people by showing what is happening to the Arctic:

> *I just think it's good that we try to find a way to talk to the customers about it. Without doing it in a bad way. – – when you have their ear, why not use it for a good reason? (Interviewee 4)*

Tourists potentially do not care about the changing climate, but it possibly influences them when they are actually in a location that is changing rapidly and a local person tells them what is going on. People might even understand that what they are doing might be so-called last chance tourism even though they did not seek for it or realise this when booking their trip. Last chance tourism is described as tourism where "tourists seek to experience the world's most endangered sites before they vanish or are irrevocably transformed" (Lemelin, Dawson, Stewart, Maher & Lueck, 2010, p. 477). Even though last chance tourism is more common in more fragile places like Svalbard in Northern Norway or Antarctica, it might not be long until Finnish Lapland is advertised as a last change tourism destination as well. One of the guides describes their clientele as "educated enough to be aware of things" (interviewee 3) and their market segment as "where there are more conscious people around" (interviewee 3). They all were hoping that clients would take something home from the provided information about climate change in the Arctic and maybe change their behaviour and attitudes towards climate change. According to Weiler and Black (2015, p. 39), an individual guide can be in a key role of confirming or challenging a tourist's current perspective in controversial issues like climate change.

Eijgelaar, Thaper and Peeters (2010) carried out a survey for Polar cruise ship tourists to find out the tourists' motives to take part in last chance tourism to the Antarctic and if they changed their attitudes towards climate change after seeing the Antarctic themselves. Participants of the survey were generally highly educated, a bit older, professionals or retired. Last chance tourism has been claimed to improve environmental understanding among tourists and make them

"ambassadors" for conservation and the place where they visited (Eijgelaar et al., 2010). However, there was no evidence that the trips raised environmental awareness, changed any attitudes or supported more sustainable travel choices (Eijgelaar et al., 2010).

Climate change is bringing up new practices. Even though the guides might not be climate activists, their new practices spring from concern and they feel the need to tell people about the changing climate. Climate change is the biggest long-term challenge in the world and it is indeed very challenging because the possibility of an efficient response depends on changing social practices (Shove et al., 2012, p. 99). Shove et al. (2021, p. 12) claim that "behaviours are driven by beliefs and values" and this emerged in the findings in this study. Even though there are no guidelines in the company rules that guides need to talk about climate change, some of them feel like their values steer them towards bringing it up on their tours.

My field notes from the participant observation illustrate that when the weather was cloudy and there was no chance of seeing the Northern Lights, tour participants were more interested in discussing climate change. They also had more time to discuss it with the guides, as there was not much to do outdoors. As it was cloudy and snowing, it was easy to steer the conversation to the changing climate and tell them that this season had been very cloudy and why it was like that.

> *People also asked about how the climate is changing here, and they told me that the last summer was one of the hottest summers in their home country, Spain. We talked a little about climate change and I told them that as the snow comes later (it was snowing), it is harder for the animals and plants to hibernate and hide (personal field notes, December 5, 2022).*

Behaviours and choices reflect people's attitudes towards environmental engagements. To turn these values into actions, there needs to be removal of the barriers which seem to block people from acting according to their environmental beliefs (Shove et al. 2012, pp. 100–101). According to Shove (2010, as cited in Shove et al., 2012, p. 101), there are two classical strategies for promoting more sustainable ways of life; one is to convince people of the importance of climate change and this way to increase their green commitment and another one is to remove the barriers of turning these (green) values into action. These can be turned into a dominant paradigm of ABC; A stands for Attitude, B for Behaviour and C for Choice (Shove, 2010, as cited in Shove et al., 2012. p. 101). What the guides are trying to achieve in their new practice of talking about climate change on their tours, either consciously or

unconsciously, is to convince their clients of the importance of climate change. They do it by showing and telling what is happening in the Arctic region because of climate change.

In this analysis, the most considerable change in the existing guiding practices that results indicated through interviews, was the new practice of guides telling about climate change to clients. In practice theory, the world is seen through actions (Schatzki et al.2001, p.11), so as the practices of guides are being forced to change when climate change is changing the temperatures, cloudiness, snow conditions etc. they adopted new practices of relating this to their clients. They are also, in a sense, forced to change because they so strongly feel that they need to tell people about what is happening to the Arctic region because of climate change.

4.2 Safety practices

Ensuring safety during a tour is a very important role of the guide (Häikiö & Kangasniemi, 2016, p. 25). This emerged also in the findings. Even though there are no dangerous animals in the nature of Rovaniemi during the winter and the activities are not considered high-risk at the company, there are still safety concerns that need to be taken seriously on tours. One of the biggest concerns might be the cold, to which guides are already well prepared and they take it into account on every tour. When the weather is changing and bringing unexpected and new conditions, there are new issues that need to be considered in the practices. Concerns with risk management in tourism where clients are involved are important because of unpredictable and unfamiliar environments (Bentley, Cater & Page, 2010, p. 563). As all the clients in this company are from abroad, there is a high probability that they are not familiar with Finnish winter conditions. Safety is also part of sustainability in organising tourism activities (Rantala & Valkonen, 2011, p. 581).

According to Rantala et al. (2018, p. 344; Beedie & Hudson, 2003), the Arctic environment is similar to a mountain environment, and when tourism has brought urban characteristics to the Arctic wilderness, it has made the tourism more complex to manage. When inexperienced people come and travel around the Arctic, there needs to be more scripting for the tours and tour guides must be ready for unexpected situations (Rantala et al., 2018). In the case study that was conducted in Finnish Lapland, local tourism operators felt like the tourists do not pay enough attention to the specific facts and potential skills needed in the Arctic (Rantala et al.,

2018, p. 356). According to the study, most problems were caused by people being equipped too lightly for the Arctic circumstances and not having enough skills or strength to perform the activities they wanted to do or were already doing. Since holiday plans are made on short notice and booking trips has become so easy, tourists are possibly less informed and less ready for the circumstances of their travel destination. This all requires guides to be more prepared for changes and it requires more skills and knowledge (Rantala et al., 2018). As the findings of this study indicate, it is more complicated for guides to decide what the clients should be wearing on tours, as the weather has been so unpredictable lately and the temperatures are changing greatly.

According to Rantala & Valkonen (2011, p. 585), safety is relative. It is a positive characteristic that means the absence of a risk or danger. The accepted level of risk depends on the operational culture and practices. In this case, the findings indicate that the risk is something where a person can physically hurt themselves in some way during a tour or activity in circumstances that are not familiar to them or a risk that is caused by unstable weather, such as slippery conditions.

When asked whether the guides already notice the changes in their daily work, one of the biggest issues was the safety of the tours due to slippery roads and bad driving conditions. Also, slippery conditions on pathways were something that all the guides brought up. They were worried about their clients falling and hurting themselves.

All the tours carried out by the company require car travel. The guides must be confident drivers and used to driving in Arctic conditions. As the weather gets more unpredictable due to climate change, the driving conditions on the roads get more difficult as well. Almost all the guides mentioned the increasingly difficult driving conditions first when asked about the changes in practices they are experiencing:

> *Driving conditions, they become more slippery I'd say. Because if you have a good winter and the roads are properly ploughed, you know you can just drive safely. If it's raining at minus one, you know you get ice everywhere. The roads get slippery. You need to slow down, and in that sense, operating tours becomes a little tricky. (Interviewee 3)*

According to the guides, they have been forced to drive more because of cloud cover and when the roads get slippery, it makes their job more challenging.

In Heimtun's (2016) six aspects of guide's emotional work, *the hunt* is one of them. Meaning in this, that the guide "writes a script" for the tour as a hunt or a chase. This brings a sense of

excitement for the tourist and involves the tourist in the action, such as location seeking. As guides use this dramaturgical approach, they involve the clients to hunt the Northern Lights with them. They involve them in decision-making and show them possible locations on a map and discuss together where they should go. In Heimtun's analysis (2016), this kind of communication showed that the guide was devoted and enthusiastic. The aim in this practice in Heimtun's analysis was to create hope among the clients and build trust that the guide was able to locate the Northern Lights. So, the Hunt contains driving around based on weather forecasts and decisions made by the tour guide and the Northern Lights hunters, but the kilometres travelled were increasing because of the changing climate.

The second concern regarding safety was again ice, but on the pathways and the ground where tourists walk. They pointed out that changes in temperature make the ground very slippery and tourists might fall down and hurt themselves. This issue came up several times during the interviews. The worst scenario is when it is warm during the day and cold at night. That makes the ground extremely icy and slippery. That has narrowed down the locations where guides can take their clients safely, and Korouoma Canyon, for example, where the company takes their clients to photograph the frozen waterfalls, has become a more challenging location because the paths have been very slippery.

According to the survey done in Finnish Lapland (Rantala et al., 2018, p. 349), the tourists in Lapland look for a safe and well-organised trip. The guides must – and already have –changed their practices by telling the clients to be careful when walking. One of the guides told me that he noticed that even using big tents for cooking has become risky sometimes. When the temperature is changing, it forms water runoffs from the tents and that forms a big slippery pile of ice in the tent doorway. They need to make sure to clear it out before the clients enter the tent so no one will slip and hurt themselves. He also told me that some of the tents have gravel to put on the ground to prevent slipperiness. There are small but important issues related to the weather and the changes of practices in safety issues. One of the guides was pondering if they should put a small box of gravel inside every tour car in case their locations are very slippery.

Ice thickness on the lakes was also mentioned several times. The guides can safely get on the ice much later nowadays and they must be very careful where they take their clients. The thickness of the ice must be measured regionally and they need to stay informed of the ice conditions.

Centre for Economic Development, Transport and the Environment (ELY-keskus) measures ice thickness every year around Lapland, and this year the strength of steel ice in all waterways was clearly weaker than the long-term average. The reason for the weaker than usual ice is the warm winter, as there have not been periods of frost long enough to form the ice (Syväjärvi, 2023). If the guides have been using a certain location to take their clients for various ice activities, these places cannot be necessarily trusted anymore. This will cause extra precautions: they need to make sure the ice they are heading on is thick enough. The problem is that even if they drill the ice to measure the thickness, it might be different at another spot, even nearby. Especially in springtime, when the sun is warming the ice, its thickness no longer indicates its bearing capacity (Kevätjäillä…, 2023). Guides also mentioned that there is a lot more water on the ice these days:

> *I've noticed in some places it was literally this much (shows with hands) water on the ice. It's a lot more than I'm used to normally. You'd be able to get like 10-15 centimetres sometimes at the end of the winter, when the ice and the snow really starts pushing down. But now I had it like 25 centimetres, which is a lot, it's really a lot. (Interviewee 3)*

In the lake, water rises and falls slightly during the winter, and this forms various cracks in the ice. Especially if there is a lot of snow, the weight of it pushes the ice a little and water gets on the ice through cracks. This is not dangerous if the lake is properly frozen (Uusitalo, 2010). Even though water on the ice might not always be a sign of danger, it is almost impossible to take clients into the icy water. Also, warm weather causes problems with using the lake ice for activities, as it stays slushy and is hard to move on. This causes problems with ice fishing tours, for example.

In recent years, tourism has been more and more invested in customer safety. Tour operators have highlighted the need for better communication between tourists and guides, especially in cross-cultural encounters (Häikiö & Kangasniemi, 2016, p. 1). Taking into consideration that foreign tourists are not used to Arctic conditions, the guides must assure the safety of the clients. The changing climate brings along new conditions that guides must take into consideration, and they need to create new practices. The results of this study indicate that new practices are already in use: guides need to warn clients about slippery pathways, they need to drive more carefully and they need to be more aware when they go on lake ice.

4.3 Practices related to changing conditions

It emerged from the interviews that the guides have already changed their work practices in the field due to the changing climate. In addition to that, they tell clients about climate change and changed safety practices, as they have seen a change in the weather. All the interviewees mentioned that one of the biggest challenges this far has been the increased cloudiness. Especially the current season before the interviews (which were carried out in January–February 2023) had been extremely warm and cloudy. That has forced the guides to drive more, longer and further. As routines can be seen as tools for organising time (Ehn & Löfgren, 2010, p. 67), changing practices can easily break the routine. That must be taken into consideration when planning tours. For example, in case of driving further, the tours are going to last longer, and they might need to work more hours.

An overview of target image studies revealed that natural beauty and climate were universal in determining the attractiveness of a destination (Scott & Lemieux, 2010, p. 147). In addition to the Northern Lights, people come to Lapland to see the beautiful, snowy scenery. According to my interviews, the guides have found out lately that snow-caked trees were harder to find. Because of changing temperatures, the trees are losing their dramatic snow cover in the forest. And it is strongly affecting their photography tours, as the reason they go to Riisitunturi National Park, in Posio, for example, are the crown-snow-loaded trees (tykkypuut). On the other hand, the uncertain and warm weather patterns give tools and material for guides to show the clients the actual effects of climate change. For example, while driving from higher altitudes to lower, they can show how the warm weather impacts nature and melts the snow-covered trees.

> *I can show people "this is what it's supposed to look like because we're higher up. It hasn't been raining over here, so the trees are all covered with snow. All the birches are dangling down and all the spruces and their branches are tucked together with snow on top. And that's gorgeous." But you drive back to Rovaniemi, and you can actually illustrate: "Ok, now we're going to go down into the river valley, it's been warmer over here. The snow is going to disappear because we've had rain." So, you can literally, during the tour, in the changes in the landscape, actually show that. "This is what climate change has done last week". (Interviewee 3)*

The guides also mentioned that on the other hand, the warmer weather made dressing up the customers easier, as they do not need that much clothing anymore. But on the other hand, it

was also harder to dress up the clients since the weather was so unpredictable. People might have enough clothes on their own already, so with the changing temperatures, it is hard to know whether they need overalls or not. Previously the temperatures have been so cold that giving out overalls during the cold season of the year made sense. The warm weather makes it easier for people to stay outside to see the Northern Lights, but the warm weather also often means more clouds.

This season's warm weather has also meant that moving on the ice has been harder. As the ice forms later in the winter and is more unstable, it cannot be relied on as a location for activities. Warmer weather also brings more water on top of the ice, making it unsuitable for Northern Lights tours, for example. It also causes problems for other activities which happen on ice, like skiing and ice fishing. Moving on the ice requires more care and the guides cannot take clients on the ice as early in the season as before. They also need to measure and make sure that the ice is thick enough and safe to walk on. They also must be more aware of where they are going.

As it has been harder to spot the Northern Lights, customer service has been changing as well. The results of the interviews indicated that guides have been doing more expectation management. Expectation management here means that tourists might have huge expectations for the Northern Lights since they have seen photos of amazing and multi-coloured lights and they are expecting to see the same on their tour. To lower their expectations, the guides use their knowledge to correct their assumptions. They often explain why the Northern Lights look brighter in photos and show weather and Aurora forecasts (Heimtun, 2016, p. 231). They have been doing expectation management before as well, but now they need to do it more because of the unpredictable weather. They need to keep things fun, but still make sure that the people know there is a chance they might not see anything:

> *We're not setting them up for a disappointment. We are setting them up for a surprise, hopefully. (Interviewee 4)*

As managing expectations often involves explaining why the weather is so cloudy and how climate change has an effect on it, the guides have told their clients that they make a plan for every Northern Light tour by using different databases and various forecasts based on cloud maps and different weather simulations. This often worked as a transition to explaining how the Arctic is affected by climate change and how everything is changing. There is also forecasting for the solar storms which are accessed on applications and websites. The phone applications also provide the speed, density and polarisation of the solar wind. The guides also

always tell clients that forecasts are always only estimations and calculations and the very exact truth is happening in the moment. My participant observation revealed that the guides use applications on their phones to show clients how to read the Aurora forecasts. On the first observation tour, the guide also showed the clients that the clouds were covering Lapland entirely and there was no use for us to start driving any further. The different phone applications are very useful for expectation management. The clients do not have to only take the guide's word for it, they can also study the application and find out for themselves.

It emerged from some of the interviews that if there is a prolonged period of cloudiness and the guides have not been able to see the Northern Lights, it starts to affect the guides' motivation for work. The guides must give 100% of themselves in the Aurora hunt, and if the weather is constantly cloudy or snowy, it requires more effort from the guides. If the tour is hard and the clients are difficult, it requires a lot more time to recover from work. If the Northern Lights are good, the guides' work is notably easier. This was also noted during the participant observation. There was a thick layer of clouds on the first tour and no Northern Lights, therefore the guides had to make an effort to keep the clients entertained and pleased:

> *The other guide was running behind the group spinning a colourful light when taking a long exposure photo and pretending that the light was Northern Lights. The clients considered it very funny, because he had to run in a snowy swamp, and he was exhausted doing it. The clients were laughing and having fun even though there was no Northern Lights during that night. (personal field notes, December 5, 2023)*

The second tour I participated on was considerably easier than the first one, because there were Northern Lights. The tour went by easily, the clients got what they paid for, and everybody seemed to be happy. On the second tour, I observed Heimtun's (2016) aspect of emotional labour called *stepping back.* Here it means that the lights "do most of the emotional labour of guides", and the guides are just there for the tourist. On this tour, the guide was taking pictures of the clients, but he did not have to entertain them. The Northern lights took care of it and the guides could step back on the emotional labour.

Also, the uncertainty of weather and weather forecasts emerged from the interviews several times. The guides stated that they do not put too much trust on the weather applications and forecasts, because as they work in the field, the weather might change. Unpredictable weather causes the tours to be more unpredictable, and there is more improvisation required on tours. The guides must be prepared for anything, and the plans change often during the tours. All the

changes in their routines make the tours more unpredictable and the guides need to allocate more time for them. This causes more driving, too.

Climate change has an influence on many tour operators and tourism destinations, as they are extremely climate-sensitive. Winter and Northern Light tourism are also very climate sensitive and as seen in this study, the effects are already showing with Northern Lights tours, for example. The variety and intricacy of guide work does not support a "one-size-fits-all" approach to tour guide education and training (Weiler & Black, 2015, p. 134). In tour guiding in the Arctic region, tacit knowledge and experience are very valuable in guide work. Rantala, Valtonen and Markuksela (2011) identify three types of weather-related practices in wilderness guiding: anticipating, coping with the weather and discursive practices related to weather (Rantala et al. 2011, p. 285). According to Rantala et al. (2011), the coping skills are needed for example when the weather has the power to change the course of the day and even though the anticipation has been done correctly, there is a chance that the weather might restrict some of the planned activities. The study of Rantala et al. (2011) indicates that discursive practices can "save the situation" by guiding the attention from the negative side of the tour by using different narratives. For example, if the weather is windy and cold, the guide might be able to turn the clients' attention to more uplifting aspects of nature through narratives (Rantala et al, 2011, pp. 294–295). On the first participation tour, I noticed this myself. The tour took place in December and there was too little snow on the ground for the thermic season. It was snowing and the clients were a little disappointed because they could not see the Northern Lights. Instead of telling them that it was unfortunate that it was snowing, I told the clients it was really good for nature that we got snow, as it helped a lot of animals and plants in their preparation for winter, i.e. their hibernation and protective colours. This narrative hopefully helped the clients understand that even if the weather was not ideal for seeing the Northern Lights, it was benefitting nature.

Cloudiness, changing snow conditions and dressing up the clients are factors that guides need to react to, often by improvising on the spot. Practices are not static, they can be altered by random events over time (Cetina et al., 2005, p. 61) and when new elements are added, the practices change (Shove et al., 2012, p. 30). As it is predicted that there will be less snow, more precipitation, the thermic winter season will shorten and the average winter temperatures will rise (Ilmasto-opas, 2022), guides must be prepared for the fact that tours change and cannot be pre-planned as well as before. But as the effects of climate change can be predicted to some extent, they can prepare themselves for these situations and even train for them.

4.4 Possible practices in the future

All the subchapters above were practices that the guides are doing already. The guides are either forced to change their practices because of external influences or they are willing to do so because their instincts and moral steer them to. Practices analysed in the previous subsection are practices that are already happening, and in this chapter, I want to discuss different future-related themes the guides wanted to talk about.

As I wanted to know how the guides react and feel about their future as guides, I asked them some future-related questions. They voiced a lot of concern about the future of local ecosystems and tourism in Rovaniemi.

Most of the guides expressed their opinion that in the future, the winter season will be shorter. Previous research also supports their concerns (see Ilmasto-opas, 2022; Ruosteenoja et al., 2016). They saw that as the weather was becoming more unpredictable, there was no more certainty that there will be snow for Christmas, for example. How can we promote Santa's Winter Wonderland if there is no snow? Varnajot (2020, p. 70) claims that from the perspective of the tourist, proper Arctic experiences should be winter-based, and he developed the term *cryospheric gaze* for his argument. The term is based on Urry's *tourist gaze,* which limits and defines the tourist's behaviour in the destination and creates an assumption about the environment of the destination. It varies in different historical periods and social groups. 'Brokers', who are officials, guides, hotel workers, guidebooks and other intermediaries, steer the tourists' activities (Tuulentie, 2017, p. 208). Santa Claus tourism in Rovaniemi is based on the image of snowy surroundings that provides the magical illusion of a Christmas fairy-tale (Varnajot, 2020, p. 82).

The guides stated that the winter season will start later, as basically all the winter activities need ice and snow to operate on. Obviously, ice fishing, husky sledding, snowmobile tours, snowshoeing, skiing etc. need ice and snow, and if the weather patterns are going to stay as unpredictable as they have been lately, or get even worse in the future, the tour operators cannot operate anymore. Even though the guides do not sell the tours, cancelling tours was mentioned a few times. This obviously influences guide work too: cancelling their work shifts and that again might have an impact on their income.

The guides also talked about the species (fauna and flora) that are forced to move north because of climate change. They believed tourism to have a similar fate: at some point, tourism will also have to move up further north. If there are no suitable conditions for winter tourism, tourists will stop coming to Rovaniemi. Some of the guides also mentioned that at some point, advertising will have to change if the conditions change drastically. Tour operators will not continue to sell trips for early December if there is no snow in Rovaniemi. Nobody wants to spend their money on a grey and wet landscape when they seek the Winter Wonderland of Lapland.

> *It's going to get harder to see the Northern Lights. I also worry that it's going to get harder to visit really beautiful places like Riisitunturi or Korouma, – – because those places look a specific way because of the weather. So, if the weather is changing, is that going to change how they look and how long those conditions are going to stay? (Interviewee 4)*

One of the biggest hopes regarding the future was that the company would compensate all the driving they did on tours. By buying emission compensation units, people can try to combat climate change. The money used on this is directed towards developing, for example, the use of renewable energy or sustainable forestry and land use in developing countries (Sitra). For example, in Rovaniemi, Lapland Safaris compensate the CO_2 emissions of their snowmobile safaris by financing carbon sinks through Nordic Offset Oy. The compensation funds have been targeted at Gold Standard certified projects supported by WWF (Lapland Safaris). The popularity of voluntary carbon offsetting is growing among businesses in Finland. There are many companies offering carbon offset programs, but evaluating their reliability and quality can be challenging for companies (Ministry of Agriculture and Forestry, 2022). When asked about carbon offsetting, the commissioner of this study said that the matter has been discussed in the company. But the problem was precisely what was mentioned in a press release by the Ministry of Agriculture; evaluating reliability among the various companies was difficult. According to Lapland's tourism strategy, a calculator for measuring the carbon footprint of companies has been developed in their Välkky project. Only a small number of companies has adopted the calculator, but it is expected to become more popular soon (Lapin Liitto, 2021, p. 49). Even though the tourism strategy mentions the compensation system, it does not offer any working solutions.

Northern Lights tours are becoming more difficult because of the increased cloudiness and lack of clear skies. The guides also need to drive longer distances and use more fuel. It was clear

that some of the guides struggled with this practice, and they hoped that it could be solved by the company. Some of the guides brought up that the whole tourism sector should adopt compensation. Tourists come here to admire the clean and beautiful nature, but at the same time, they stress the local ecosystems. Most of the guides were also concerned about the explosive growth of tourism in Rovaniemi and its effects on nature and the city itself. Several guides also told me about the conflict of values they were experiencing in their work: they work with tourists who fly to Rovaniemi and are forced to drive long distances for their tours.

Wang, Xu and Song (2020, p. 30) claim that the more an employee feels that an ethical conflict exist, the more psychologically tense they feel. Research on the topic indicates that a conflict in work values might activate perceptions of tension and uncertainties at work, causing stress for the employees.

In many interviews, the guides brought up their concerns about climate change and its affects. Studies indicate that the further the ecological crisis reaches, the more people are experiencing many forms of eco-anxiety and ecological grief (Pihkala, 2022, p. 1). Uncertainty, unpredictability and uncontrollability appear to be essential factors for eco-anxiety (Pihkala, 2020). These both are seen as profoundly healthy reactions to loss and threats. In ecological coping and adaptation studies, not everyone admits to feeling ecological grief or eco-anxiety even when they are experiencing it. Scholars argue that long-term grief can stimulate and maintain action. People often want to act for things they care for, and there is interconnectedness in ecological grief, eco-anxiety and ecological action (Pihkala, 2022, p. 28). According to Pihkala (2022, p. 28), "Action refers to all kind of efforts to react constructively to the ecological crisis, such as various instances of pro-environmental behaviour and community building". As noted in the interviews, many of the guides felt uncontrollability, because of the flights that keep coming and causing emissions and the growing tourism in Rovaniemi, for example, and they could do nothing about these issues. They also expressed narratives of loss when they talked to their clients about how climate change is affecting nature and how things used to be in the past. A need for ecological action came up in the narrative of compensation, which is something they hoped the company would do.

When talking about climate change and ways to fight it, you cannot help but mention the meat and dairy industry. Meat and dairy diets have the greatest climate impact: in total, they account for 65% of the climate impact of our diet (Saarinen et al., 2019, p. 42). Two of the interviewees mentioned the meat sausages that the company serves to their clients. The other one tried to

serve vegan sausages first and the other suggested that all the tour operators should cut meat off their menu to reduce the climate impact of food:

> *One of the things that tour operators could do like straight away, it's to cut the sausages out. The meat industry is one of the biggest causes of carbon emissions on the planet. – – I think it would still be good to see if we can find an alternative to the sausages. I know it's very Finnish, it's very culturally embedded. – But I think, like, toast bread with some Koskenlaskija cheese in between would be really nice. (Interviewee 3)*

According to Pohjolainen et al., (2023), the food system is in transition. It means that there are fundamental changes ahead in how food is manufactured, processed, delivered and consumed. Most of the environmental burden is caused by livestock production. A change to a sustainable path in terms of staying within planetary boundaries, could mean increasing the emphasis of plant-based food in wealthy Western countries, for example (Pohjolainen et al., 2023). By switching to meat-free foods on their tours, the company could anticipate future changes and be a pioneer in this matter.

According to Lapland's Tourism Strategy, the province of Lapland is to be among the pioneers in the country's green transition. There are already many sustainable tourism operations and businesses that support green transitions in the region. They are mostly concentrated on energy, sustainable transport solutions, year-around themes, R & D activities (Research and Experimental Development) and digital and design themes (Lapin Liitto, 2021, p. 29). The tourism strategy does not concentrate on individual tour companies, so it seems that their sustainable actions are in their hands and dependent on their own willingness to take voluntary action. The tourism strategy is based on the growth of tourism, which I consider to be contradictory to sustainability. Especially when the target groups of said tourism strategy are for example the UK, DACH-countries, Southern Europe, USA, China, Japan and Australia. It also mentions that air travel is a key to accessibility in Lapland (Lapin Liitto, 2021, p. 20).

Winter tourism was seen to be moving up North and summer tourism was seen as a growing sector, because as climate change is turning Southern Europe's weather extremely hot during the summertime, some guides saw that as an opportunity for Arctic summer tourism.

> *I'm worried about the future of the whole industry. – – I wish I could be a guide and continue it, but I'm also concerned if I can be a guide in Rovaniemi or in Lapland. I know in some part of the world I can be a guide, but here... This is a very uncertain industry. – – I think the pandemic taught me that I need to have another profession as well, because suddenly the service business can die. (Interviewee 2)*

Covid-19 was also mentioned. The guides remembered well the uncertainty facing the tourism industry when asked how they felt about the future of their profession. The industry was seen as unpredictable, and one mentioned that guides must have another profession just in case.

When asked about the future of guiding, the guides were clearly concerned about the future because of climate change. They mentioned the shortening season and tourism moving further north. They were also wondering when there is too much tourism in the Rovaniemi region and how much impact tourism causes to nature. There was also discussion about the feelings of uncontrollability with flight emissions that are part and parcel with tourism.

When it comes to hopes about the future, many of the guides were hoping for compensations and carbon offsets. As climate change is causing more cloudy weather and the guides are forced to drive more, the driving clearly weighed on the minds of the guides. It seemed that they wanted to change some practices they can control and influence, but felt helpless about things they cannot affect, such as the number of tourists and carbon emissions from flights.

According to Pihkala (2022, p. 28), one of the coping mechanisms to ecological anxiety is to react constructively to the ecological crisis through community-building. The results indicate that the guides would like the company to take certain actions in changing some of the practices. The results suggest that the company can promote more of their ecological values by implementing compensation for the driving they do. The guides were suggesting this because the distances they must drive on their Northern Lights tours are increasing and they feel responsible for the emissions.

Moving from serving meat to only vegetarian food on the tours could support their efforts of reacting to the current ecological crisis. This could be implemented, for example, by changing the sausages to rye bread and Finnish cheese spread (Koskenlaskija-juusto), which would reduce the harmful impact of their campfire snacks (Interviewee 3). Implementing the change from meat to vegetarian food could also promote their pioneering spirit in Lapland’s tourism sector.

One of the hopes that was mentioned was that the company could provide more training so their guides could talk more confidently about sustainability and climate change on tours. The results indicated hopes that the company would give them tools for talking about climate change and the company would encourage their guides to talk about it. My suggestion is to add

more educational conversation about climate change and its impacts on Arctic when training the guides, giving them more confidence when talking about climate change with their clients.

5. CONCLUSION

Scott and Lemieux (2010, p. 147) state that climate variability and climate change influence the tourism industry in many ways. Some claim that the climate is one of the leading causes that attracts tourist flows. As climate change has accelerated, there has been more signs of it everywhere in the world. It causes heatwaves, drought, cold, heavy rain and storms, for example. It also influences products that attract tourists, such as snow (Scott & Lemieux, 2010, p. 147). It also influences the comfort and safety of the tourists. As the Arctic region is warming four times faster than the rest of the globe (Rantanen et al., 2022, p. 2) and January 2023 was the warmest since measurements started in 1950 (Rytkönen, 2023), the influence of climate change is already noticeable in Rovaniemi. It is predicted that the Arctic will experience increased precipitation, a rise of average winter temperatures, lack of snow and shortening of the thermic winter season (Ilmasto-opas, 2022).

In this thesis, I have studied changing guide practices with the help of practice theory and ethnographic research methods. The focus of this study has been on the guides and their work practices in a small tour company in Rovaniemi. This thesis approached the study from the viewpoint of social constructionism, where social realities are dependent on minds and include people's values (Slevitch, 2011, p. 79). Five guides from this company were interviewed, and the aim was to understand how they personally see the changing climate affecting their practices and how they feel about the future. The main question was *How are guides' working practices changing in the era of climate change?*

The results indicate that there were different practices that already have changed. One of the biggest practice changes was in the narratives of guides. The guides experienced that their values steered them to share their knowledge about climate change with their clients and tell them how the changing conditions affected the Arctic region. The interviews also revealed some concerns of the volume of tourists in Rovaniemi, how much the tourists fly and how much stress tourists put on nature. Another change in the practices of guides were the safety issues. The changes in winter temperatures have brought ice on the roads and pathways, and the guides mentioned the worsening driving conditions and slipperiness of pathways. Also, increased cloudiness and unpredictable weather force guides to drive more on their tours. Since safe and well-organized trips are something that tourists are looking for in Finnish Lapland (Rantala, et al., 2018, p. 349), guides must pay more attention to safety measures. Guides also brought up their observations of lake ice. It forms later in the season, and it tends to gather a

lot of water on top of it. As measurements revealed in the spring, the thickness of steel ice in the waterways has been clearly diminished from the long-term average (Syväjärvi, 2023). Guides must take these changing circumstances into account when planning their tours. They must improvise more on their tours since the weather might change, and the weather forecasts cannot be trusted as much. Also, conditions in some locations where they used to take their clients before have been affected by changed climate.

The results of this study also indicate that the guides had concerns about the future. The interviewees were worried about the length of the winter season and the future of tourism in Rovaniemi related to climate change. The guides had hopes for the new practices of guiding, such as compensation for driving and meat-free food served to clients. The results also indicated hopes that the company would provide more education and tools for talking about climate change in the Arctic region.

This thesis provides understanding on how the changing climate has affected guide practices, but it also revealed concerns about the future that the guides had. The interviews revealed that climate change had made their work easier, as the temperatures are rising in the winter and it makes it easier to stay outdoors with their clients. But on the other hand, climate change makes their work harder in terms of increased cloudiness, fluctuating temperatures and shorter seasons. The results also indicated some signs of climate anxiety among the guides, since nature is changing because of climate change – and tourism supports increasing air traffic, which in turn contributes to climate change. The results also suggest that tour companies could implement some new practices in mitigating the effects of climate change in their businesses. This study reveals that tour guides have concerns and suggestions for the future of their profession.

It is acknowledged that this study has its limitations, as the number of interviewees was rather small and the interviewed guides were only from one company. Also, only two days of participant observations were available. As the guides were very like-minded, the results indicate a somewhat narrow point of view.

The research question revealed that practices have already changed and the future-related questions revealed concerns about the future. It also brought up more questions about the wellbeing of guides and how nature tourism is going to change in the future. It also suggests some new practices that tour companies can adopt to improve their mitigation of climate change.

Future research should study more about the wellbeing of guides in the times of climate change. Also, the ethical dilemmas that nature guides are experiencing could bring more understanding about wellbeing in guide work and how to improve it.

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APPENDIX 1: Semi-structured interview

Hi, my name is Katja Karjalainen. I am going to do an interview for my thesis. I study Northern Tourism at the University of Lapland. This interview relates to my thesis in which I study how the work practices of guides will change in the era of climate change. I am studying these practices in the context of winter tourism.

I will ask you questions about your background as a guide, a little bit of your daily practices and work, questions about climate change in the Arctic and how you see guiding work in the future in the times of climate change.

All the answers will be anonymous, and you can withdraw from the interview anytime. You can refuse to answer the questions if you feel so and you can also refuse the use of the interview even when it is done. The interview will be recorded, is it ok for you? If you have any questions, please don't be afraid to stop me and ask!

First, I will ask you some.

BACKGROUND QUESTIONS:

1. Where are you from?
2. How long have you been working at this company?
3. How long have you been a guide?
4. What kind of guiding you have been doing?
5. What kind of education you have related to guide work?
6. Why did you start in this particular business?

Part 1. CLIMATE CHANGE IN WINTER TOURISM

1. How much do you know about how the climate is going to change in the Arctic area in the future?

2. Do you think it is important to know about climate change in winter tourism business? Why yes/no?

3. How do you think guides could prepare for changing weather conditions in the future? (Increased precipitation/cloudiness and lack of snow)

4. What kind of information could help you anticipate upcoming changes at work? How could such information help?

5. Where do you get your information about climate change in the Arctic?

Part 2. CHANGING PRACTICES AT WORK

1. Can you already see the effects of climate change at your work during the winter season? How? Can you describe how?

2. How do you prepare for a tour during the wintertime? What do you do before a tour? What do you pack with you for example? Do you see that this might change somehow with a changing climate?

3. How do you see your work practices changing in the future? Can you give me possible examples?

4. Are guests acting differently if the weather is not optimal for the activity you were supposed to do? Can you tell me more?

5. Are you concerned about something related to guide work in the future? Can you tell me more? (For example, are you worried about any particular thing related to your job?)

Part 3. GUIDES' ROLE IN A CHANGING CLIMATE

1. If the weather and conditions are not optimal for the planned activity, how do you talk about it with the clients? (For example, if there is no snow)

2. How do you discuss about climate change with clients?

3. How SHOULD guides talk about climate change?

4. Are clients interested about climate change and its effects in the Arctic? Do they know about it? Do they want to talk about it or do they want to "keep things light" on their holiday?

Anything else on your mind you would like to add? Anything at all related to the topics we just discussed?

APPENDIX 2: Letter of consent

Dear xxx,

My name is Katja Karjalainen. I am Master student at University of Lapland, Rovaniemi, Finland, under the supervision of Professor Outi Rantala. You are invited to participate in my master thesis study. The purpose of the study is to find out how the work practices of guides will change in the era of climate change. The result of the study will be published as part of my master thesis. The thesis is conducted as part of the Master's Degree Programme in Northern Tourism (NoTo).

By signing this letter, you give consent to use the interview material confidentially and exclusively for research purposes. The research follows the principles for responsible conduct of research dictated by the Finnish Advisory Board on Research. The data will be handled anonymously. Your participation is voluntary and you can withdraw your permission even after signing this document, by informing the below mentioned contact person.

Please feel free to contact me or my supervisor if you would need further information regarding the study and the use of the research data.

Sincerely,

Katja Karjalainen

NoTo Master student

I give consent to use the interview as data for the purpose mentioned above.

_____ _____

Signature Date

_____

Print Name