Not my Climate Change

Risk, Expert Systems and Ownership of the Climate Change Issue in a Rural Community in Norway

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Abstract

The global climate change issue is generally met with an expectation that it can only be solved through global solutions. Within this global framework, the various local and cultural experiences of climate change may be overlooked, and with it, local voices for climate change solutions are excluded. This thesis asks why climate change is not a subject of political talk in the public sphere of a rural community. Based on qualitative interviews with individuals and focus groups in Dovre, Norway, during the summer of 2017 it was found that people in this rural community lacks ownership to the climate change issue and therefore do not see it as relevant as a subject for political talk in their everyday lives. A lack of ownership is argued to come first, as a result of a low perception of risk of climate change to their lives compared to other more pressing issues, and a view that this issue "belongs" to other groups. Second, the matter of climate change is perceived as exclusive to expert systems. This leads the informants to conclude that climate change is not their concern.

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1 Introduction

The global community seems to have woken up to the complex and serious issue of climate change. The Paris-Agreement was widely considered a great diplomatic success, as almost all nations ratified a common mission to reach an ambitious goal of keeping global temperature rise well below 2 degrees. Investments in new technology and renewable energy to reduce emission are on the rise, and climate change seems to be on the agenda everywhere. However, it is at the local level that climate change is felt and policies are implemented. Overarching global goals say little about the real lives and experiences of people in their local place. So where does this global framework leave local communities? Is there room for cultural and place-specific values, worries and perspectives in the quest to reach distant global goals? Moreover, could it be that the dominant, technical discourse excludes the general population from the debate and limits their possibility to be part of the solution?

The point of departure for this thesis is an acknowledgement of the importance of understanding the many ways local people respond to the global threat of climate change. Appreciating the various ways people navigate their views of risk and responsibility, influenced by local values, wishes and needs, I explore the experience of one such community: a small, rural place in Norway by the name of Dovre.

My main research question is: *How can the absence of climate change as a subject of political talk in the public sphere in Dovre be explained?*

Structuring my analysis along two concepts – risk and expert systems – I will answer this question and discuss the role of these concepts in explaining the lack of engagement in the climate change issue among my informants.

1.1 Rationale

The Intergovernmental Panel on Climate Change (IPCC) states that "[c]ontinued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems." (IPCC 2014, 8). The first few sentences of this thesis seem perhaps naïve and overly optimistic about the commitments of the global community to take climate change seriously. The reality is that if we are to avoid the risks described by IPCC, we need a radical transformation of the way we organise our societies, from production and consumption of food and commodities, to mobility, education, city planning and way of life. Thus, adapting to climate change in the long-term requires more than a technical solution; it must also address and challenge the various social, political and economic systems and structures that drives risk and vulnerability in the first place (O'Brien 2011). Increasingly, scholars have embraced the concept of transformation, as a more holistic approach to the challenges of climate change (Fazey et al. 2017).

The IPCC defines transformation as "the altering of fundamental attributes of a system (including value systems; regulatory, legislative, or bureaucratic regimes; financial institutions; and technological or biological systems)" (IPCC 2012, 564). At a deeper level, it can also be understood as an "internal shift that results in long-lasting changes in the way that one experiences and relates to oneself, others, and the world" (O'Brien and Sygna 2013, 1). Transformation can be both forced and deliberate depending on how capable society and people are at transforming. Therefore, social and cultural responses to the climate change issue are important for the successful implementation of climate change policies and mitigation efforts. If significant segments of the public are not convinced that policies in response to climate change is necessary, and of high priority, efforts to mitigate may be contested and resisted in the localities in which changes take place. Furthermore, not prioritising climate change in policy-making remains and option for politicians as long as a majority of the voters do not perceive the issue as urgent.

Moreover, adaptation and mitigation of climate change cannot be addressed through a one-size-fits-all approach. Rather, Adger et al. (2009) argue that locality, place and culture are important in what adaptation measures will prove successful:

> *More often, adaptation to climate change is limited by the values, perceptions, processes and power structures within society. What may be a limit in one society may not be in another, depending on the ethical standpoint, the emphasis placed on scientific projections, the risk perception of the society, and the extent to which places and cultures are valued"* (Adger et al. 2009, 349).

We therefore need to be sensitive of the indirect and cumulative losses that may be invisible in environmental decision-making, such as "cultural and lifestyle losses, loss of identity, self-determination and influence, and changes which for those experiencing it represent 'loss of order in the world'" (Adger et al. 2009, 348). In order for adaptation to be transformative and just, we need to be explicit about what may be lost in the process: what values and needs are prioritised? This must be done through "active public engagement on the different values, discourses, and potential loses involved." (Schlosberg, Collins, and Niemeyer 2017, 416). But what can public engagement and participation add to the debate?

Public participation in the public debate can contribute to legitimise policy development and implementation, as well as increase accountability of decision-makers. Local participation also has the potential to provide new knowledge, particularly lay knowledge, that is unavailable to more abstract empirical methods (Fischer 2000, 2). However, public participation in decision-making processes may be negatively affected by the way in which discourses around climate change are framed. Although it is often discussed as a global issue in need of global solutions, it is at the local level that people experience the impacts of climate change as well as policies to adapt and mitigate.

Therefore, municipalities can potentially play a key role in how we address climate change, both by transforming within their own organization, and by being a catalyst for transformation in the local society in general. By coordinating local actors such as local businesses and organisations, local governments can actively partake in and be drivers of the transition to sustainability (Amundsen et al. 2018, 26). According to Pasquini and Shearing (2014, 272) municipalities are essential because:

> *(a) they are the level of government closest to where the impacts of climate change will actually be felt; (b) communities are the scale at which the behavior of individuals is most directly influenced […]; and (c) the local level is the scale at which responses will be put into action.*

Municipalities can potentially address climate change through many of their key functions, such as land-use management, community education, disaster management, transportation and environmental management (ibid). However, prioritising climate change policies within local communities may be difficult without the support of the local population. Exploring how people within one such community relate to the climate change issue may thus improve our understanding of how to unlock these potentials and what prevents it.

1.2 Outline

The thesis is outlined as follows: in chapter 2, I present my methodological approach and the process of gathering and analysing my primary data. In chapter 3, I provide a contextual frame of previous research and a general introduction to the climate change issue in the Norwegian context, as well as an introduction to the place of study, Dovre. Chapter 4 introduce the analytical approach of this thesis. Chapters 5 and 6 are dedicated to my analysis. Chapter 7 discusses and concludes the findings of the two previous chapters, and elaborates on how engaging laypeople in political talk on this issue can contribute to a successful transformation of societies.

2 Methodological approach

This study is based on a qualitative fieldwork in the Dovre-region of Norway in August 2017. I interviewed individuals representing different segments of the rural communities in the municipalities of Dovre and Lesja as well as foot tourists enjoying the mountains and nature in the area. The purpose of the fieldwork was to gather empirical data on people's relationship to the climate change issue, with the aim of understanding their perception of the issue and uncovering some of the underlying factors that played into their relationship to this issue. In-depth interviews were chosen as the main method of data collection, using a combination of individual interviews and focus groups of 2-6 people. I conducted 15 in-depth interviews with a total of 36 people. Of these, 8 interviews have formed the basis of the analysis.

This study answered the call for master students to participate in a larger research project aiming to chart the social and cultural basis of defiance against a low emissions future. The project, called CLIMECHART, is a collaborative project between the Norwegian Centre for Nature Research (NINA) and the Centre for Development and the Environment (SUM). One other master student participated in the same project, and the fieldwork was a collaborative project between the two of us. Apart from the preparation and conducting of fieldwork, my co-researcher has not been involved in the process of writing this thesis or in analysing the data as it is presented here.

2.1 Gathering data

We spent the first days of fieldwork right below the famous and symbolic mountain *Snøhetta*, in a tourist cabin called *Snøheim* run by the Norwegian Trekking Association (DNT). The two days at this cabin allowed us to get in direct contact with the environment surrounding the municipalities, and acquire useful insights about the national park and the natural fauna that would facilitate our conversations with local informants later on. Having experienced the natural environment and learned about the management of the national park increased our understanding of this area. The rest of the fieldwork was conducted in the area surrounding Dombås, the biggest town in Dovre. My informants came from both Lesja and Dovre municipalities.

Before arriving in Dovre we reached out to a wide range of community groups in Dovre and Lesja through e-mails with a short description of our project, contact information as well as other relevant information. Contact with informants was achieved mainly through e-mails and phone calls to key members of the community groups we contacted. The format of e-mails gave the recipients time to read through the description and consider the request, as well as to familiarize themselves with our project and names before we contacted them by phone. The phone call was undeniably more efficient and reliable in ensuring the message was heard and responded to. Additionally, one focus group contacted us through a local Facebook page in which we were allowed to post information about our project.

During fieldwork, I kept a journal and wrote down immediate thoughts and observations after interviews which I also discussed with my co-researcher. Observations during our fieldwork also gave a deeper understanding and personal experience of the practicalities of everyday life, such as the distance between services and people, limited public transport and the closeness to the beautiful surrounding nature.

2.2 Interviews

In-depth interviews are the main source of primary data for this study. This method enables a comprehensive conversation with people, and is invaluable when trying to understand personal thoughts and experiences. Focus groups add to the general benefits of qualitative methods a process of "sharing and comparing" among the participants (Morgan 1998, 12). Through their discussion, the participants explore and discover important aspects on their own, and generate their own interpretations of the topics that are discussed. The context and depth of the focus group method allows for new perspectives that increase our understanding of the underlying reasons for the way people think and act. During the interviews, we experienced the benefits of the focus group method, as the conversation flowed in a different way given that the informants discussed the topic between themselves. The method seemed to ensure a more flexible and dynamic conversation, where the informants built their arguments based on what others had said before them, or remembered something they perhaps would have failed to mention had they been alone.

Prior to going to Dovre, we developed an interview guide and did a pilot interview. This allowed us to experience an interview situation, and assert which of the questions would work in an actual interview setting. After experiencing the interview setting, we decided to release ourselves from the confinement of the interview guide, and use a rather unstructured interview style with open-ended questions, only guided by a list of certain topics we wanted to cover (see appendix). The flexibility of an unstructured interview allows for the interviewee to go off track, revealing what they consider important and relevant (Bryman 2012, 470). In this way we achieved a conversation-like interview, which created an open and comfortable space for the interviewees to share experiences, opinions and thoughts that might have been missed in a more structured interview setting. This proved useful when talking about a topic people initially felt uncertain about, but also challenged us as interviewers to keep guiding our informants towards the topics we wanted to discuss. Beyond this chapter, the interviews will be referred to as "conversations".

2.3 Analysis

I transcribed my data using the transcription tool HyperTranscribe™. After transcribing, I colour-coded the interviews based on topics and created categories for analysis and comparison between the different interviews. This study is mainly based on the empirical research, aiming to stay close to the empirical data. In line with this, the process of applying theoretical contributions to inform my analysis has been flexible and dynamic, exploring different approaches according to where the empirical findings directed me.

Of the 15 interviews we conducted, eight interviews formed the basis of my analysis. Some of the interviews were discarded as the focus of my thesis narrowed down. Choosing to narrow my focus to people living in Dovre, the interviews with foot tourists have not been analysed or made use of.

2.4 Informants

Aiming for a semi-representative selection of informants, we contacted different community groups and associations before going to Dovre. My group of informants with a total of 36 individuals is comprised of eight group and seven individual

interviews. The different community groups and professions encompass farmers, a grazing association, local hunters, a local women's group, municipality workers, teachers, students, people operating within tourism and some individual members of society. People within each of the focus groups knew each other as they were engaged in the same association or even had friends and family in common. Below is an overview of the informants whose interviews have been analysed. I have given all informants pseudonyms and approximate age in order to protect their identity.

Table 1: List of Informants

Pseudonym and approx. age	Characteristics of interview
Bjarne (70)	Individual interview. Worked in a tourist cabin at Dovrefjell. From Dovre or surrounding areas.
Beate (45)	Individual interview. A local librarian from Dovre or surrounding areas.
Åse (60) Solveig (60)	Group interview. Associated with the local Women Association of Dovre. Both homemakers and married to farmers.
Bjørg (70) Anders (45) Silje (40)	Group interview. A family from Dovre or surrounding areas. Bjørg was a retired farmer. Anders and Silje both worked with tourism.
Janne (45) Morten (45) Rune (45)	Group interview. Members of a local grazing association, farmers. From Dovre or surrounding areas.
Anne (45) Berit (45) Geir (50) Astrid (50) Fredrik (25)	Group interview. Teachers at the local high school. All from Dovre or surrounding areas.
Tore (65)	Individual interview. Retired, hunter with a good knowledge of the local mountain area. From Dovre or surrounding areas.
Peder (45)	Individual interview. Worked with forest management. From Dovre or surrounding areas.

My informants were either from Dovre, Lesja or surrounding areas, and/or had lived in Dovre for several years. I would like to point out that while some of my informants lived in Lesja, the neighbouring community to Dovre, in this thesis I will continue referring to Dovre and Lesja municipalities as Dovre, unless stated otherwise, and apologise to those who might be offended by this simplification.

2.5 Collaboration

As part of the CLIMECHART-project my co-researcher and I conducted all the interviews together. The only exception were three interviews, one where my co-researcher was absent due to illness and the other two that required us to split up as they took place at the same time. Conducting interviews together had its benefits and drawbacks, some of which are especially relevant to highlight. It is important to establish that we went into the field with the intention of writing two separate thesis based on the same primary data. Being two during the process of writing an interview guide, contacting possible informants and conducting the interviews was both rewarding and challenging. On the one hand, having a second researcher to rely on during the interview and with whom one could discuss the issues that arose after was an invaluable form of support. On the other hand, working with someone aiming to develop a separate study limits the degree of independence and control of the interview situation. Both of our needs for information had to be taken into account during the interviews, which has unavoidably had some effect on the information we procured. Aware of these challenges we made sure to develop a common understanding of what we wanted to explore and developed a guiding overview of questions we wanted to answer during our interviews. That being said, the product of this thesis beyond the collection of data is the independent work of the undersigned.

2.6 Ethical considerations

We followed ethical guidelines throughout the research process. Although the topics of our interviews were not necessarily of a sensitive nature, we attain that the personal experience and opinions expressed during the interviews should be treated

respectfully. I ensured my informants that they would be kept anonymous (although several expressed that this was unnecessary), and have kept that promise to the best of my ability during transcribing, analysing and discussing. Dovre is nonetheless a small place, and some recognition by community members cannot be avoided with complete certainty. Considering the limited sensitivity of the conversation, I consider this acceptable.

2.7 Reflexivity

As a researcher my gender, age, education and background will unavoidably affect my perception, as well as how others perceive me. Entering a field and analysing data as a researcher unbiased is not possible. Being two people of different gender, age and background during the interviews, as well as during the discussions of our data, has provided a more balanced approach and thus facilitated in reducing the impact of the bias.

It is relevant to note the absence of the younger generations in this study. The younger generations in Norway (those 30 years and younger) are generally more acceptant of climate change science and policy and rank this issue higher compared to other political issues than the general population (TNS Gallup 2016). Including them could have given additional perspectives.

It is worth mentioning some factors that have potentially influenced the composition of my informant group. The timing of the study overlapped with the first week back from the summer holiday for many, and thus a busy week for the community. It was also the first week of the long anticipated and highly valued hunting season in the area, as well as the first week in a long time without any rain, which prevented some farmers to participate due to harvesting. As participation in the study was voluntary and with no compensation for their time, participation might not have been something they prioritised at this time. It is also relevant to mention that several of my informants already in the beginning of their interview expressed that this topic was something they knew very little about, or had no interest in, and assumed therefore that they would be of little help. Others might have declined to participate based on the same argument. In pursuit of overcoming these limitations, we were careful with the way we presented the topic of the interview to possible informants. If time had not been an

issue, a longer fieldwork could have provided additional perspectives. Nevertheless, my informants represent a wide and diverse segment of the local community. I do not aim for this thesis to be generalizable, but rather add insight to some of the underlying factors influencing why climate change is not on the agenda in a rural community.

3 A contextual frame

Before embarking on the findings of this study, this chapter will present the contextual frame from which I have developed my approach. I will start by introducing the reader to the place of fieldwork, before I provide relevant background information about climate change in the Norwegian context. Finally, I will present previous research on the topic of public reception of climate change science that have influenced and inspired the development of this thesis and my understanding of this issue.

3.1 Dovre – a national symbol

> *Dovrefjell [the Dovre Mountain] does not invite conquering (...), rather, Dovrefjell conquers us. Not immediately and overwhelmingly, but as a slow process that starts once we physically and mentally take a step into this diverse mountain region and open our minds to the history and nature it has to offer* (Steinsland 2014, 15; my translation)

Figure 1: Dovrefjell, approx. 1470 mamsl (photo from private collection)

These descriptions might give you an idea about the majestic and mysterious reputation of the high mountains surrounding the area in which this study takes place. In Norwegian cultural history, this area is connected to a unique symbolism, and has an important position in the national memory. For example, the high mountains of

Dovre figures prominently in Norwegian legends and sagas. In fact, of the many mountain areas in Norway, none have been as significant and present in Norwegian history and folk tales as Dovrefjell (Langenes 1988, 20). Both Vikings and kings fought snow and storms to travel between Trøndelag and the South of Norway, being the fastest road connecting the north and the south (see figure 2 below to place Dovre on the map of Norway). The Norwegian population gained knowledge about this mountain through folk tales and superstition from this mysterious place. These folk tales and superstitions have manifested themselves in Norwegian literature and music during all times, most famously known perhaps is Peer Gynt by Henrik Ibsen and Edvard Grieg's "In the Hall of the Mountain King" (Dovregubbens Hall).

Figure 2: Dovre and Lesja placed on the Norwegian map (Google Maps 2018a) (Dovre and Lesja edited in).

It is not only historically and symbolically that Dovrefjell has a unique position; it is also a haven for biologists and botanists. The area has a rich variety of both plants and birds (Steinsland 2014, 291). Most known is perhaps the musk ox, a re-instated species from the prehistoric era. 40,000 years after the species disappeared from the region, it was successfully reintroduced after WWII, and is now widely regarded as a true "dovring" (someone from Dovre). Beloved as it is, the municipality of Dovre has chosen it as the icon of their Coat of Arms. Dovrefjell is divided into several protected zones, both national parks and different protected landscape areas and nature reserves. Dovre municipality consists of 73% protected areas (Dovre kommune 2017), and the Dovre-Sunndalsfjella National Park is one of the largest protected areas in the country (Kaltenborn, Qvenild, and Nellemann 2011, 85).

Neither tourism nor centralised decision-making is new to the local population of Dovre. In addition to the general responsibilities of a local government, municipalities that include a national park face responsibilities and challenges in managing national heritage and protected areas. The symbolic position of Dovrefjell lies upon its protectors a responsibility about which other municipalities do not have to worry. Having experimented with many forms of governing the national parks, conflicts in establishing, implementing and managing parks are growing, partly due to "competing visions of the future of the countryside" (Kaltenborn, Qvenild, and Nellemann 2011, 83).

Figure 3: The valley of Dovre and Lesja (photo from private collection)

The description above of a mysterious and majestic mountain area stands perhaps in contrast to the everyday life of the small communities below. Dovre municipality has a population of 2644 people, with a declining population rate (Statistics Norway 2018). Its inhabitants are employed mainly within tourism, trade and service, health- and social services as well as agriculture. Figure 4 shows a satellite map of the area, illustrating the scattered settlement in the valley, and the surrounding mountain.

As nature-based tourism is growing globally so does the tourism in Dovrefjell, and the various forms of nature tourism is developing into a considerable economic importance to surrounding communities (Kaltenborn, Qvenild, and Nellemann 2011, 83). Much of the tourism is based on nature-experiences such as hiking, skiing and exotic wildlife. The natural environment surrounding Dovre thus provides the local population with everything from economic opportunities, responsibilities and livelihoods to local pride, cultural heritage and recreational possibilities. Important recreational activities in the area are connected to nature and wildlife, such as hunting and skiing.

Figure 4: Map of Dovre and surrounding areas, satellite (Google Maps 2018b)

The high mountain regions of Norway are simultaneously some of the places most evidently affected by climate change in Norway today, as alpine ecosystems and plants are considered particularly vulnerable to climate change (Holten et al. 2009). As mentioned, the communities in these areas are dependent on their local environment, both through farming practices, tourism and general use of nature. Compared to urban areas they have a unique physical closeness to nature that allows them to observe changes in their local environment much more than do urban residents. It is therefore interesting to see whether people in these areas have experienced changes in their natural surroundings, and whether they connect this to anthropogenic[1] climate change.

3.2 Climate change in Norway – impacts and policies

Climate change impacts in Norway in general will be relatively benign compared to the rest of Europe, with many potential impacts assumed to be less adverse than in other regions. Norway also has a high national adaptive capacity, scoring well in factors such as wealth, technology, management capabilities, skills, education and access to resources (O'Brien et al. 2006, 50-51). However, there are still large uncertainties when it comes to future climate conditions on the local and regional level in Norway. Models show that climate change will vary considerably across the country, and is likely have different effects according to sector and geographical position (for an overview of regional impacts, see Hisdal et al. 2017). For this reason, conducting research on attitudes towards climate change with a local focus such as the one this study takes can be beneficial for understanding the broader Norwegian context regarding the issue at question.

Oppland County, in which Dovre municipality is situated, has a continental climate with cold winters, with a temperature between -8 on a medium cold day and -40 at the coldest. The summers in the valleys are often warm and dry, with temperatures reaching over 30 degrees at the warmest (Hisdal et al. 2017, 72). Towards the end of the century, it is expected that the yearly precipitation will increase with approximately

[1] During the interviews anthropogenic climate change was refered to as ”climate change caused by human activities” or ”anthropogenic climate change.” However, in this thesis I choose to use ”anthropogenic climate change.”

20 per cent, as well as a mean yearly temperature rise of 4 degrees. The warmer and wetter weather is expected to increase the growth season by 1-2 months. Episodes of heavy rainfall are expected to increase in both intensity and frequency, leading to a continued threat of floods affecting people's lives and livelihoods (Hisdal et al. 2017, 75). The effects of a climate change is already showing in the mountains surrounding Dovre; the warmer climate has enabled an elongated growth season, and made room for plants growing in lower altitudes to climb higher up in the mountain (Holten et al. 2009, 7). It is expected that the biodiversity of the area will increase at first, but eventually the vulnerable alpine plants will lose its advantage and perhaps even go extinct in the area. Furthermore, there is evidence of more dramatic temperature increases in soil temperature, posing a threat to the stability of the permafrost (Holten et al. 2009, 7).

Although future scenarios of climate change impact on the national level is not as critical compared to other European countries, regional and indirect effects may in turn challenge important or desired goals in the Norwegian society, such as social equity and thriving rural communities (O'Brien et al. 2006, 53). Some outcomes can potentially benefit the Norwegian economy, such as potential for increased competitiveness of Norwegian agriculture. However, the disadvantages are considered to considerably outweigh the benefits (Prytz et al. 2018). Furthermore, local effects of climate change taking place elsewhere do not get as much attention, leading rich countries like Norway to conclude that the risk of climate change is less dramatic than might be the case (Aall 2012). Climate change knowns no borders, and emissions from one country feed into the total climate budget of the global community. Similarly, the fluidity and interconnectedness of a globalised world means that *impacts* of climate change are not confined to the place in which climate change occurs. For example, climate change impacts in other countries will have socio-economic consequences for Norway through increased migration, increased insecurity in geopolitical relations, and reduced availability of trade commodities due to e.g. vulnerabilities in food production and infrastructure (Prytz et al. 2018). These indirect impacts of climate change is often not visible to the public eye, and can lead to a false sense of complacency, or a feeling of security unaware of potential danger (O'Brien et al. 2006, 51).

Measures to mitigate and adapt to the impacts described above will also pose challenges to municipalities. Achieving the transformation to a low emission society in line with the Paris-agreement will, by 2050, require an emission reduction in Norway of at least 80-90 per cent compared to emission levels from 1990 (Westskog et al. 2018). Such reductions will require more than mere adjustments to existing systems; it requires a fundamental change of systems, the processes within these systems, and the way we organise and lead them. Global and national leadership is important, but it is at the local level that climate change policies are implemented and felt. The processes within each municipality and region are therefore crucial for a successful transition (Wang et al. 2016). Wang et al. (2016) argue that municipalities in Norway can function as catalysts for transition by using their legitimacy as democratic actors to strengthen collaboration and dialogue across established sectors, administrative levels and different stakeholder groups both within the municipality and at different levels of society. To achieve this, climate change needs to become an integrative part of the municipalities' collective view of challenges and possibilities.

According to a report by CICERO, however, the municipalities in Norway face multiple challenges in implementing climate policies and transformation to a low emission society (Westskog et al. 2018). These barriers are based in both the practical and the political challenges as well as in the values within the communities. Many municipalities lack structures for climate policies; climate policies are often not institutionalised through practice, routines and habits, and they lack the necessary human and financial resources, such as knowledge and capacity, to institutionalise and implement an efficient climate policy. The report shows that climate policies also lack legitimacy among local politicians or in the local community, which makes efforts for transformation a lower priority. Within the context of the many responsibilities and challenges that the municipalities face, climate change often falls short on the list of priorities (Westskog et al. 2018).

Looking back at the broader national context, an important part of the identity of the Norwegian nation is the country's position as a peace- and environment leader, and much of Norway's engagement in the environment has gone into investing in sustainable development in other countries, particularly through protecting the rainforest. However, the identity as an environment leader is increasingly difficult to balance with the state's dependence on offshore petroleum production (Haugseth,

Huseby, and Skjølsvold 2016, 4). Because of these two opposing identity markers, Norwegian climate change debate is characterised by a paradox: an ambition to continue as an oil exporter combined with a political self-image as one of the drivers of global emission reductions

Thus, the challenge for the Norwegian government has been to minimize the tension between the contrasting role as climate leader and high-tech offshore oil, petroleum and gas producer (Eckersley 2013, 387). This dilemma has resulted in what Jensen (2010) calls discourse-cooptation – a practice in which one stand (in this case "oil production for the environment") takes the argument of the opposing stand (stop oil production), turns it around and manages to use the argument in favour of their own belief. According to Jensen (2010) the Norwegian argument for opening up new areas for off shore extraction of oil in the Barents sea is possible through the use of discourse-cooptation. The logic of the opponents of opening the Barents sea is that Norway has the most 'clean' oil industry in the world, and that therefore Norway should start extracting oil as soon as possible in order to influence the Russian production in a cleaner direction (Jensen 2010, 195). This means that by opening the Barents Sea for extraction we help the Russians, the environment and make profit all at the same time.

The Norwegian government's climate change policy is guided by compromises made by the Parliament in 2008 and 2012. Through the agreement in Parliament, Norway has a range of measures that will be implemented in Norway in addition to international initiatives. On government pages they highlight the main focus areas (Regjeringen 2014), which are as follows:

- Implement a climate and technology initiative funded through the return from a new climate, renewable energy and energy conversion fund.
- Phasing out heating with fossil oil.
- Strong energy requirements in the construction sector.
- Continue to step up climate research.
- Maintain or increase carbon storage in the woods.
- Contribute to the development of biogas in Norway.
- Target that the growth of passenger transport in the metropolitan areas are made up of public transport, bicycle and pedestrians.

- Car fees will be used to contribute to a more environmentally friendly and climate-friendly car fleet.
- Strengthen the role of the railroad in the transport system.

These are the targets that guide climate policies in Norway, and set the tone for the public debate on climate change. What strikes me with this list is the absence of people. There is an overweight of targets aimed at energy and technology initiatives, increased climate research and transport, and reduction of the use of private car in metropolitan areas. This leads me to wonder if there is no place for individuals and local communities in the Norwegian government's approach to climate change. As presented in chapter 1, however, a successful transformation of the Norwegian society requires attention to social and cultural responses, as well as public participation and engagement. I will explore how this technical approach influence how my people relate to climate change in chapter 6 and 7.

3.2.1 Norwegians' perception of climate change in numbers

According to a recent quantitative study among the adult population in Norway with over 4000 participants, 53.2% of the respondents believe that "climate change is a reality, and that it is mainly caused by human activity" (Kaltenborn, Krange, and Tangeland 2017, 5). 39.4% believed that climate change is a reality, "but is mainly caused by natural fluctuations". The rest did not believe climate change is a reality or responded that they did not know. This means that although over 90% of the Norwegian population believe that climate change is happening, almost half the population questions the scientific consensus that it is mainly caused by human activity. Another study shows that only 25% view climate change as one of Norway's three biggest challenges, rated below immigration, unemployment and health (TNS Gallup 2016). Simultaneously, almost half the population (46%) is worried about the consequences climate change might have on their lives, while 43% believes Norway is doing too little to adapt to climate change. It would seem like climate change is an issue that people worry about, but an issue that stays in the shadow of other important issues that are perceived to have more immediate and short-term consequences (TNS Gallup 2016).

3.3 Lay engagement from an expert view

I use two different groups of "experts" in this thesis. The first group are the experts conducting and presenting climate change science (e.g. experts from the natural sciences). The second level consists of experts that interpret the effects of climate change science on the social world, as well as the responses of the social world to climate change science, and communicate this to the scientific community and policy-makers (e.g. experts from social sciences and the humanities). Unless stated otherwise, "experts" and "expert knowledge" refer to climate change scientists of the first group throughout the analysis and discussion. In this section, however, I will present some of the relevant explanations from the latter group on public response to climate change. Due to a low public engagement in this important issue, researchers from many fields of study have tried to understand how the public respond to climate change. Explanations ranging from lack of knowledge, psychological barriers, denial and resistance, and underlying worldviews and identities have been suggested. This section gives a brief introduction to some of these.

In his book *Why We Disagree about Climate Change*, Hulme (2009) approaches climate change not just as a physical phenomenon, but more importantly as an "idea". Climate change as an idea captures this thesis' approach more so than do the actual physical changes in climate that we can observe and measure. People's idea of climate change, or how they conceptualise this issue, can be an important pathway to understanding people's relationship to it. By looking at climate change as an idea, Hulme (2009) recognises that "our cultural, social, political and ethical practices are reinterpreting what climate change means." When this happens, climate change becomes something more than what is described in the natural sciences:

> *as this idea meets new cultures on its travels and encounters the worlds of politics, economics, popular culture, commerce and religion […] climate change takes on new meanings and serves new purposes* (Hulme 2009, xxvi).

Thus, to uncover why people respond to climate change the way they do, understanding the cultural and place-specific context in which they make up their mind about this issue is essential, and will be touched upon in this thesis.

The complexity of climate change requires expert knowledge from various fields of research. For the layperson it can be difficult, if not impossible, to understand the full

scope of cause, impacts and solutions of climate change and other environmental threats. When the complexity of natural climate science meets the complexity of the social world, it is not easy for people to navigate the landscape of the climate change issue.

> *Complexity is in fact the fabric of events, actions, interactions, retroactions, determinations, and chance that constitute our phenomenal world. But complexity presents itself with the disturbing traits of mess, of the inextricable, of disorder, of ambiguity, of uncertainty. Hence the necessity for knowledge to put phenomena in order by repressing disorder, by pushing aside the uncertain.* (Morin 2008, 5).

Solving global climate change is undoubtedly a complex issue; the combination of intricate ecosystems, political economy and entanglements of human cultures, worldviews and belief systems make for a challenging collaborative project. If this is complex even for the "experts" set to govern global institutions, how is it perceived and responded to by the average person?

3.3.1 Where is the public in climate change?

Historically, environmental politics have been local politics, connected to people's emotional attachment to particular places and landscapes (Martello and Jasanoff 2004, 7). People build up their knowledge of a local environment through generations of practical interaction and experience with nature. Knowledge on *climate change*, however, is framed with a global discourse that is insensitive of local knowledge (Hulme 2010). Globalised knowledge can be defined as "knowledge which erases geographical and cultural difference and in which scale collapses to the global." (Hulme 2010, 559). Such knowledge is not as available as the practical experience of the everyday life. Thus, not only is climate change in itself unnoticeable or personally experienced, but the language we use to describe it further distances the issue from our everyday life.

With globalisation, policy problems are increasingly framed in global terms all over the world, and climate change is not an exception. Miller (2004, 82) argues that globalisation brings with it a shift towards globalised ideas, beliefs and worldviews. In order to convey a value-free message that transcends borders and can provide a foundation for collaboration, advice and goals on climate change are depoliticised.

One way this is visible is the way in which climate change has been portrayed largely as "the story of global temperature" (Hulme 2010, 560), manifested in the Paris Agreement's (COP21) goal to keep temperature rise well below 2 °C. A focus on global mean temperature is effective in the way that it offers a specific number around which global goals and policy can be developed – it is a concept that is easy to understand and work with. However, an increase in global mean temperature cannot be experienced by anyone, and it requires "extraordinary efforts of the imagination" to have an effect on people's daily lives (Hulme 2010, 560). When knowledge is made global, cultural practices and the multiple ways of knowing and knowledge-making is underestimated, and place-based knowledge can be marginalised as the global climate change agenda trumps local processes and agendas.

Jasanoff (2010, 235) explores the consequences of this "impersonal, apolitical, and universal imaginary of climate change" taking over from the "subjective, situated and normative imaginations of human actors engaging directly with nature." Universality and abstraction can indeed be useful and necessary to make sense of what is happening scientifically, but when this framing is transferred to the communication to the public, she argues, it becomes insensitive to local value and meaning and as such spatially unbounded; "[i]t is everywhere and nowhere, hence not easily accessible to imaginations rooted in specific places" (Jasanoff 2010, 237). This means that the issue of climate change becomes impersonal and fails to consider the various values and worries of local communities. This can be problematic, as incoming information on climate change can be received negatively if it poses a threat to existing beliefs, identity and way of life (Moser and Dilling 2011, 166). Narratives on climate change interact with existing beliefs as people interpret climate change information through their own cultural lens. Thus, how people view risk, what is seen as acceptable risks and how to respond to risks are all mediated by local culture and worldviews. Responses may therefore not be consistent with what is considered "rational" by experts and institutions (Adger et al. 2013, 113).

Even as international institutions and organisations aim for climate change to be apolitical and universal, globalised knowledge of the environment is not value-free; it is produced and developed within a broader global discourse. Dryzek (2013, 9) defines a discourse simply as "a shared way of apprehending the world," within which people can construct meanings and relationships, as well as determine what is "common

sense" and legitimate knowledge. Thus, the dominant discourse on how to solve climate change may undermine the various cultural- and place-specific responses and values of local people.

In international institutions the discourse of "Sustainable Development" has influenced decision-making since the Brundtland-report came out in 1987 (Dryzek 2013, 152). This concept states that the solution to climate change is to improve and develop our technology and social organisation of environmental resources. Within this discourse, there are no actual limits to growth, as technocratic solutions will "make way for a new era of economic growth" (Vetlesen 2015, 12). According to Vetlesen, this discourse is in fact exercising denial:

> *The ideology of managerial, technology optimistic "resourcism" on display here [in Sustainable Development] qualifies as a grand, and to this day immensely influential, exercise in denial, conveniently avoiding the growth- and profit-based capitalist roots of the problem, defusing the conflict between growth and environment by turning it into a managerial exercise that instils in people at large a vague sense that the problem is being taken care of* (Vetlesen 2015, 12).

This technological optimism is part of a 'technocratic' science-policy model in which politicians become increasingly dependent on experts to develop policies. The model is today widely accepted by both the public and politicians as well as scientists (Hulme 2009). Within this model it is believed that all relevant variables can be revealed through science. Policies are made based on the belief that there are "discoverable and objective scientific 'facts', which are socially and politically neutral" (Hulme 2009, 103). However, simplified global models can result in a false sense of confidence among decision-makers when problems seem easy to identify and the implementation of solutions seems straightforward (Hulme 2010, 563).

Other scholars point to the relationship between political economy and public perception, e.g. how fossil the fuel industry influence government policy. For example, despite the overwhelming scientific consensus, a well-funded, complex and relatively coordinated group of stakeholders and actors have created and fostered a paralysing doubt concerning the climate change issue (Dunlap and McCright 2011, 144). Driven by fossil fuel corporations, contrarian scientists, conservative think tanks, and other invested groups, the spread of contention and uncertainty about the reality of

anthropogenic climate change has been detrimental to the progress of change, and is considered part of the explanation for a decline in public belief in climate change around the world (ibid). Although the motivations for opposing climate change science are many, the organised denial movement share the common opposition to governmental regulations, e.g. to reduce carbon emissions, and a staunch commitment to free markets (ibid).

Considering the global framing of climate change, it is perhaps not difficult to understand that this issue can be challenging to comprehend at the individual level. One commonly used explanation is that people do not act on climate change because they do not have sufficient knowledge. It is also one of the most contested explanation (Moser and Dilling 2011). This explanation assumes that if we spread information and knowledge people will wake up, change their behaviour and demand sustainable transformation (Norgaard 2011, Hulme 2009, Moser and Dilling 2011). The information deficit model has been criticised and proven insufficient in explaining climate change inaction. Moser and Dilling (2011, 163) argue that the model is flawed because of its assumption that information and understanding of the issue are both necessary and sufficient to engage people in action. In fact, research based on a survey from the U.S. by Kellstedt, Zahran, and Vedlitz (2008, 122) shows that "the more information a person has about global warming, the less responsible he or she feels for it; and indirectly, the more information a person has about global warming, the less concerned he or she is for it." Norgaard (2011, 71) criticises the information deficit model for reinforcing a sense of public innocence; if we assume that people do not act on climate change simply because they do not have enough information, we also assume that if people *did* know they would act on it.

In psychology, the concept of psychological distance has influenced explanations for inaction on climate change (McDonald, Chai, and Newell 2015, Spence, Poortinga, and Pidgeon 2012, Singh et al. 2017). The concept refers to "the extent to which an object is removed from the self" (McDonald, Chai, and Newell 2015, 110). There are four dimensions at the core of discussions about the psychological distance of climate change: hypothetical (or uncertainty), temporal, spatial, and social (McDonald, Chai, and Newell 2015, 110, Spence, Poortinga, and Pidgeon 2012). The hypothetical distance refers to the perceived certainty about climate change being real, and the severity of the impacts that might occur. Climate change might also feel

psychologically distant because the potential impacts are considered to be in the distant future or happening somewhere else, which is what is referred to as temporal and spatial distance. The social dimension refers to a perception of climate change as socially distant from the self, meaning that climate change may be perceived as distant from the self if people who are affected are socially distant from the perceiver (McDonald, Chai, and Newell 2015, 113-114). These four dimensions are all interconnected and influence each other and, most importantly, they are all influenced by belief, ideology and worldviews.

The challenge of using scientific knowledge to engage people in the climate change issue is also reflected in Moser and Dilling's (2011, 162) outline of the four assumptions that communicators of climate change make when trying to engage the population in action. The assumptions are: i) that lack of information can explain lack of engagement, and therefore, more information is needed; ii) that catastrophe framing and fear will motivate people to action; iii) that the most persuasive and relevant way of moving lay audience to action is through a scientific framing; and iv) that the most effective way of reaching the audience is through mass communication. Moser and Dilling claim that these four assumptions have reduced the efficiency of climate change communication. These assumptions will also be challenged through the analysis and discussion of this study.

3.3.2 Living in denial?

Research on climate change perception is most often focused on how individual traits, beliefs and convictions influence attitudes and behaviour. According to an increasing field of research within the social sciences, however, this focus neglects the important social and cultural factors that influence how people perceive their surroundings. Some of the cultural and social aspects of people's relationship to climate change have been presented above. However, one Norwegian study is particularly relevant to present, due to its similarities to my study, and the inspiration it has provided this thesis.

Norgaard's study of a rural town in Norway (a place she calls Bygdaby) has been important for the study of how people relate to climate change, arguing that denial is *socially organised*. Her book *Living in Denial* (2011) based on this study provided a new perspective in the field of research on people's relationship to climate change.

Norgaard's study leads her to argue that understanding climate change perception cannot be complete without tending to the social relations and aspects of how people make sense of the world. She emphasises the importance of emotions, social interactions and context, and political economy in shaping people's relationship to climate change (Norgaard 2011, 63). Moreover, she argues that denial does not happen within a vacuum. Rather, people's perception is a product of a social process in which their beliefs are negotiated and confirmed. By engaging in a "collective deflection" through cultural narratives, this Norwegian rural community produces a collective nonresponse to climate change through cultural practices of everyday life. In that way they can go on with their life with an affirmation that "everything is fine" (Norgaard 2011, 207).

Norgaard (2011, 3) recognises an interesting paradox in Bygdaby. Norway's population is among the highest educated in the world, and global warming was mentioned frequently during her time in this community. The people seemed to be both informed and concerned about the issue. Yet, the issue was uncomfortable, and in general people avoided the topic altogether (ibid). They spent their days worrying about more local, manageable issues instead. Because knowing about climate change awakens a range of complicated feelings, such as guilt or feeling of helplessness, ignoring the issue works as a form of self-defence.

> *[W]hether people notice information about climate change is related to socially shaped systems of perception and attention, whether they remember what they hear is a function of social systems of memory, whether it is considered morally offensive or not is a function of whether it is inside or outside socially defined limits of concern; and the relevance of climate change to daily life is a function of socially shaped systems of cognitive organization* (Norgaard 2011, 6).

Whether climate change was inside or outside socially defined limits of concern and to what extent it was seen as relevant to daily life are questions I will explore in this thesis. How I approach these questions is the topic of the chapter that follows, as I present some important analytical concepts for this study.

4 Analytical Approach

There is a number of different ways to approach an analysis of people's perception and relationship with climate change. Having given a short overview of some perspectives and previous research that has been done on this topic in the last chapter, I will now present how I have chosen to approach my analysis. With a strong foothold in the empirical findings, I make use of a few different concepts that ensure a deeper understanding of my informants' views on this issue. My two analysis chapters each take one concept as an analytical starting point: in chapter 5, the concept of risk is important, and in chapter 6, expert systems and lay knowledge. In addition, ownership, denial, resistance and apathy are overarching concepts important for the analysis and discussion of this thesis.

4.1 Risk perception

According to Ulrich Beck's analysis of modernity, the risk of climate change is "a product of successful industrialization which systematically disregards its consequences for nature and humanity" (Beck 2009, 8). In other words, the devastating losses and high risk of climate change and other environmental threats are caused by the same mechanisms and developments of modernity that have provided positive advancements, such as increased quality of life through medical advancement, increased global communication and transportation. This two-faced modernity clown is difficult to deal with, as we are caught between a desire for the benefits of modernisation and the need of avoiding its devastating faults (Beck 2009).

By objective measures provided by domain experts, climate change is considered a risk to natural and human systems, and is likely to both amplify existing risks and create new risks (IPCC 2014). Such calculations and measures of risk are highly necessary to predict future scenarios and develop efficient mitigation and adaptation strategies. However, the complexities of the systems at play, both ecological and social, make calculating the risk of climate change particularly difficult. Furthermore, people perceive risk in different ways, and lay perception of risk is not necessarily in correspondence with the conclusions of expert knowledge. Especially when a risk is

difficult to calculate, such as the risk of climate change, cultural perceptions of risk become more influential (Beck 2009, 12).

Risk refers to the anticipation of unwanted events, or "future events that may occur, that threaten us" (Beck 2009, 9, original emphasis removed). To clarify different ways of perceiving risk I find psychologist Elke Weber's (2006, 104) outline of two main pathways two establish a feeling of "being at risk" useful: First, a feeling of risk is established "through consideration and possibly mental simulation of adverse consequences based on a statistical summary of the hazard, typically provided by domain experts." This is what she calls a description-based perception of risk. Second, a feeling of risk is established through "personal exposure to (adverse) consequences, typically repeatedly and over time." (ibid). This is what she calls an experienced-based perception of risk. Psychologically, the latter is the most efficient, as it is more likely to provoke visceral reactions, such as emotions of fear and worry. In other words, if you personally experience consequences of climate change you are more likely to be concerned than if you are only basing that concern on scientific reports.

The dominant position of expert calculations of risk is an important aspect of what Ulrich Beck terms "risk society." He defines risk society as " a systematic way of dealing with hazards and insecurities induced and introduced by modernization itself" (Beck 1992, 21). Risk society involves a hierarchical relationship between expert knowledge and lay knowledge, in which the expert, rationalistic calculations of risk is considered more valid than the cultural perceptions of risk. Within risk society, assessments made based on purely statistical-mathematical identification are considered the most appropriate way of approaching risk, and thus people do not take into account the various and often less rational *perceptions of risk*. (Beck 2009, 11). Within this dominant rationalistic understanding of risk, lay people are regarded as "poorly informed." (Beck 2009, 12). Improved knowledge with the laypeople is considered the solution to conflicts of risk perception, just as with the information-deficit model as described in chapter 3. When experts are defining risk and an abstract and complex issue as climate change threatens life, people's senses, including their common sense, are removed from them, or expropriated. Their capacity to make judgment based on their senses regarding this issue are limited (Beck 2009, 116). Also in risk society there is an underlying hierarchy of knowledge – the superiority of

experts vis-à-vis the layperson. (33). This leads me to the analytical starting point of chapter 6: expert systems and lay knowledge.

4.2 Expert systems and lay knowledge

The impact of expert knowledge framing on people's relationship to climate change is a central topic of this thesis. According to Anthony Giddens (1990) the complexity of modern societies and the technological advances has resulted in a dependency on abstract systems of expertise, or "expert systems." These systems penetrate most aspects of society, and are increasingly present in both policy-making and people's everyday lives. Expert systems are defined as "[s]ystems of technical accomplishment or professional expertise that organize large areas of the material and social environments in which we live today" (Giddens 1990, 27). For example, society is dependent on expertise from doctors, therapists, scientists, technicians and engineers. These are experts essential for organising lives and societies, as they provide a sense of security, as long as these experts are trusted.

Importantly, expert systems are abstract, and involves a distancing in time and place, and removing knowledge making from local context and interactions (Giddens 1990, 21). Within such an abstract system, trust becomes essential. Trust is, just as knowledge and social relations, according to Giddens, related to time and space – there would, after all, be no need to trust someone whose activities and thought process were at all times visible and transparent. Giddens (1990, 34) defines trust as "confidence in the reliability of a person or system, regarding a given set of outcomes or events, where that confidence expresses a faith in the probity or love of another, or in the correctness of abstract principles (technical knowledge)." Since people are so dependent on trust in their everyday lives, be it in their doctors, therapists, engineers or scientists, trust is not necessarily a result of a conscious decision, but trust rather becomes part of a generalised attitude of mind that underlies decision-making.

Giddens' concept of expert systems easily connects with Beck's risk society, in that risk society depends on the trust of experts in estimating risk in an increasingly complex system. Whereas expert systems in itself is an interesting topic, this thesis will specifically view expert systems in climate change from the perspective of laypeople. In defining "local knowledge" or "lay knowledge," I refer to "knowledge

that does not owe its origin, testing, degree of verification, truth, status, or currency to distinctive… professional techniques, but rather to common sense, casual empiricism, or thoughtful speculation and analysis" (Fischer 2000, 194). Such knowledge is often connected to a local context or setting, and includes empirical knowledge of events and circumstances as well as normative understandings (ibid). Simply put, a layperson can be defined as "someone who is not an expert in or does not have a detailed knowledge of a particular subject" (Cambridge Dictonary 2018). In this thesis, then, a layperson is defined as anyone who is not an expert in or does not have detailed knowledge of climate change issues.

4.3 Issue ownership and engagement

The concept of "issue ownership" is another important aspect of this thesis. Issue ownership is traditionally a concept used to describe elements of voter behaviour in politics. Stubager (2018, 349) defines it as "the perception in a voter's mind that a specific party over the long term is most competent at handling – in the sense of delivering desired outputs – on a given issue". Although I do not discuss voter behaviour or party issue ownership, the foundation of this definition is applicable to the research of this thesis. I choose to operationalise this definition as pertaining not only to voters' relationship to political parties, but citizens' view of what actor *in general* is "most competent at handling" the climate change issue. This could indeed be politicians or political parties, but also scientists, technological experts and innovators, international organisations or individuals.

Ownership in itself is perhaps more commonly used as an act or right of possessing something, often a material thing, but also intellectual property. I therefore want to extend the definition of issue ownership to include an aspect of "belonging to" or "act or right of possessing". Importantly, an issue may be perceived as "belonging to" someone, but someone else might be perceived as "most competent at handling" that issue. However, seeing someone else as more capable at handling an issue does not exclude the possibility of feeling ownership. This is illustrated by the concept of "mental ownership." Mental ownership develops in situations where a person's mental energies are invested, and can influence a person's future engagement and motivation in situations or issues that person feels ownership of (Breiting 2008, 162-163). Thus,

feeling mental ownership for something gives associations to related concepts, such as commitment, involvement and engagement as well as a sense of belonging (ibid).

By using ownership as an analytical concept, I argue that the extent to which people feel issue ownership has implications for people's engagement. I follow Lorenzoni, Nicholson-Cole, and Whitmarsh (2007, 446) in defining "engagement" as a "personal *state* of connection with the issue of climate change." This requires three elements: cognitive (a mental understanding of the issue), affective (they have an emotional response, such as interest or concern) and behavioural aspects (an active response through action). It is in other words not enough to know about climate change; engagement carries the notion of care about climate change, and motivation and ability to take action (see also Moser 2010). While this definition encompasses a range of important factors, I find it lacks an issue that overarching touches upon all the three elements, namely *engagement as political talk*. Political talk can develop and reinforce the three other states, and vice versa. In this thesis, engagement will therefore also refer to engaging in political conversations with friends, family or others in the community as well as in the public debate on the topic. The concept of political talk will be explained further below.

Feeling ownership may be difficult when it comes to abstract and distant phenomenon such as climate change. This leads me to the next concepts important for this thesis: denial, apathy and resistance.

4.4 Denial, apathy and resistance

An important field of study when it comes to climate change inaction internationally are the various studies on *denial. Denial* can be understood as "a defence mechanism consisting of an unconscious, selective blindness that protects a person from facing intolerable deeds and situations" (Corsini 1999 in Opotow and Weiss 2000, 479). It can be "a form of selective inattention toward threat-provoking aspects of a situation to protect a person from anxiety, guilt, or other ego threats." (Opotow and Weiss 2000, 479). Put in a simpler way, denial is perhaps most commonly used as an "outright rejection of the notion that certain information is true" (Norgaard 2011, 10). Denial is a common way of dealing with small and big problems through life, and can help

people function in the everyday, but it can also block people's attention to potential dangers.

However, denial can take many forms, not only as an "outright rejection." Most important for this thesis is what Opotow and Weiss (2000, 485) call "denial of self-involvement". By "involvement" in the context of climate change they refer to the "willingness to take action, to allocate resources, to be concerned about others, and to make sacrifices that ameliorate an environmental problem" (Opotow and Weiss 2000, 485). Additionally, involvement in the case of climate change also includes responsibility and capacity to make a difference, or agency. Denying one's own self involvement in the climate change issue could include:

> *displacing blame for harms on those harmed; believing that one's contribution to an environmental problem is undetectable; denying personal responsibility for environmental harm by seeing it as the result of collective rather than individual decisions and actions; and casting oneself as a clean and blameless outsider in comparison to dirty, irresponsible, reprehensible stakeholders (Opotow and Weiss 2000, 485).*

Thus, a denier would minimise the extent to which an environmental issue is personally relevant for them to concern themselves with. Another category of denial relevant for the issue of anthropogenic climate change is "implicatory denial," which refers to a denial not of the information, but "the psychological, political or moral implications that conventionally follow" (Cohen 2001, 8). Thus, even if people accept climate change as real, the appropriate responses may still be absent.

Closely related to these two categories of denial are the concepts of "nonresponse" and "apathy." In this study, I understand apathy as a lack of interest, enthusiasm or concern.[2] Apathy is considered a passive state, often resulting in a lack of response, or nonresponse. As a contrast, "resistance" is considered an active position, one in which those who are subordinate challenge domination in an unequal relation of power. Resistance must at some level or another be intentional, and is thus connected to the meaning that individuals attribute to their actions (Krange and Skogen 2011, 469). Thus, not responding to climate change may be connected to resistance if it is intended as such.

[2] This understanding is based on the definition of apathy in Oxford Dictionaries (2018).

4.5 Political talk and deliberation

For people to take active participation in a democratic transition to sustainability, engaging in the public discussion on problems and solutions is important, as it can influence people's understanding of the issue and their emotional and behavioural response. In section 2.3 I included the importance of political talk, or political conversations, in defining "engagement," together with these cognitive, affective and behavioural aspects. Everyday political talk can be defined as "nonpurposive, informal, casual, and spontaneous political conversation voluntarily carried out by free citizens, without being constrained by formal procedural rules and predetermined agenda." (Kim and Kim 2008, 53). Such conversations takes place in the public sphere, "a domain of our social life in which […] public opinion can be formed" (Habermas 1991, 398). The public sphere is neither a public institution nor a political organisation, but exists somewhere between the private and the political. It is open to all citizens, and is "a space where private citizens engage in dialogic deliberations on public issues" (Kim and Kim 2008, 63).

Building on Martin Buber's concept of "dialogue" and Jürgen Habermas' concept of "communicative action," Kim and Kim (2008) conceptualise everyday political talk as "dialogic deliberation". They argue that:

> *[e]veryday political talk itself might not be ideally deliberative nor reasonable, but it is perhaps the only practical way through which citizens construct and reveal their identities, understand others, produce rules and resources for deliberation, enhance their opinions, transform the domestic spheres into the public sphere, and bridge their private lives to the political world (Kim and Kim 2008, 66).*

There are two forms of deliberation, dialogic and instrumental. Dialogic deliberation takes form in informal, everyday political talk by people in their local places, while instrumental deliberation takes place within formal settings, e.g. in a political debate among politicians (Kim and Kim 2008, 53). While this study does not explore the instrumental deliberation in itself, dialogic deliberation can prepare the public for instrumental deliberations and improve their understanding of these as they get a better understanding of their own and other's interests as well as the common good. Furthermore, through dialogue people can develop a common understanding of reality, and use this as a guide for how they choose to act (Eriksen and Weigård 2003, 4). As

behaviours are made understandable and normal through deliberation with others, political talk can influence practice and habits (Kim and Kim 2008, 60). Combined with providing new insights and improved understanding of the societal aspects of this issue, political talk can thus be a facilitator for increasing support for climate change policies, and behavioural change.

5 The Risk of Change

For people to engage in a dialogue on the issue of climate change in their everyday lives, it in some way must feel relevant or fulfilling to discuss. In this chapter I will explore to what extent climate change felt relevant to my informants' lives, through the concept of risk. As mentioned in the previous chapter, people perceive risk in different ways, and lay perception of risk is not necessarily in correspondence with the conclusions of expert knowledge. How then, did my informants perceive risk in the case of climate change, and in what ways could this explain the lack of engagement in political talk on the subject? Before I answer these question, I will present the findings that support the claim that climate change was not part of everyday conversations in Dovre.

5.1 Climate change silence

As with many other social issues, there are unspoken social rules that influence when and where one can engage in a discussion on climate change. This was something we experienced during the fieldwork. My informants usually started the conversation by exploring the ways in which the local nature and society in Dovre had changed in their lifetime. Their immediate response was to connect this to other local issues, such as reduction of farms and changing grazing patterns. These topics fostered engagement as people gladly shared their knowledge and opinions on the state of their local community. However, once we mentioned climate change, something changed. Although one would think that to bridge the conversation from weather and nature to climate change would not be a difficult task, the first question directly related to climate change was often met with an awkward silence or even an awkward laugh and a shaking of the head. After the initial response, most of my informants would emphasise that they did not know much about this, and warned me and my co-researcher that it might not be very useful to talk to them about it. Their sudden puzzlement and withdrawal from what had just seconds ago been a lively discussion indicates that climate change is not a topic they were comfortable or familiar with.

R: Do you think it [climate change]is something that people are concerned with here?

Beate: The climate?

R: Yes, if you think about your own social network, for instance? Is it something people talk about?

Beate: People are mostly worried about the weather, I think. That "it's so cold," you know. "It wasn't like that before!" Haha! But how much more people go in… reflecting on it I don't know…

Answering the question on whether they talked about this with their friends and family, Berit said "not so much climate change, but more *weather*. Hello, it's Lesja and Dovre we are talking about here!" The rest of the group responded with an affirming laugh. Apparently, people in this area, as in the rest of Norway, like to talk about the weather. This, however, did not necessarily inspire a further exploration of the topic of climate change. Berit explains:

I feel that it is more like we just state that 'that is how it is'. At least among the people I surround myself with it is seldom that we have like a debate about why. It's more like you state how it is and what has changed and then it stops there.

She was not alone – all of my informants clearly stated that climate change was not a topic they talked about with friends and family. None of my informants thought that it was common among the people in Dovre to discuss climate change. In other words, it was not on their agenda.

According to Zerubavel (2006, 4), "[…] the simplest way not to acknowledge something of which we are personally aware is to remain silent." In order to deny something, one of the most efficient tools is simply to not talk about the challenging topic. This is what Zerubavel calls a "conspiracy of silence". In this way, not talking about an issue is, "the most public form of denial" (ibid). Through socialisation, people are taught what to pay attention to, when to ignore something and at what times it is suitable to discuss difficult topics. These social rules are internalised, which again forms our behaviour, beliefs and attitudes. If climate change is never discussed with friends and family by any of my informants with any of their friends and family, could the conspiracy of silence explain why people did not talk about it? Or was there other reasons for the silent response to climate change?

Leading up to the Norwegian parliamentary election of 2017, the climate change issue featured frequently in the public debate during the time of fieldwork. As the people in Dovre, while located in a remote place, do not live in isolation form the national reality, the question is: did the people of Dovre actively avoid this topic, or was it not seen as relevant for them to talk about? If so, why?

Bjørg, the most climate change concerned informant, was frustrated and bewildered that people did not seem to worry about it. She had tried to engage in conversations about it with her friends and family, but did not feel she received much response: "It's not very relevant. No, I am a bit of a lonely soul there," she said with a sigh. Bjørg was particularly concerned with the topic of climate change. Indeed, when we asked the group if climate change was something that people in the village was concerned with, everyone looked at Bjørg with a laugh as she raised her hand up in the air. Judging by the reactions from her family members it was not unusual for her to express her worry: "She is probably among the extremists on that side," her son said with a laugh.

Compared to issues more directly related to their everyday life climate change was not a topic people in Dovre wanted to talk about. In some of the conversations, jugging from the reactions of my informants, it felt almost impolite to bring it up when we had such an interesting conversation on the importance of keeping the villages alive. In our everyday life, certain things are left unsaid, and surprising people by breakig this social code can lead to an awkward situation, such as when Bjørg tried to talk about this with her friends, or indeed, when I tried to talk about it with my informants. One reason could be that climate change is placed in the social category of "things we don't talk about." An important and interesting question then is why it is put in this category, a question many researchers have tried to find the answer to, as I presented in the background chapter. In the endevour to contribute to answering this complex question, in the following chapters I will present my analysis based on the research conducted in Dovre. First I will explore their personal experiences with changes in the weather and nature, and analyse to what extent they connect this to climate change and human activities. Then I will explore to what degree this topic appears relevant to their own lives.

5.2 Weather change is climate change?

In one of the group interviews, Rune's first reaction to the questions of changes in the weather was that he was far too young (45 years) to have experienced any change. After considering concrete experiences in their lives, however, the whole group came up with examples that could illustrate that there had indeed been a change in their lifetime after all. This was mostly connected to their use of nature as farmers; "I've almost never participated in gathering sheep in bad weather the last ten years," Morten said, "Before I started with sheep I remember people gathering sheep in snow and rain and it was often bad weather." Although Rune pointed out that the gathering of sheep used to happen later in the year back then, he agreed that the summer season seemed to be lasting longer than before: "The spring comes sooner, and I think the autumn is much nicer than it used to be. I think. The summer isn't necessarily nicer, but it is longer in each end."

Since most of my informants had a direct connection with a farm, they could, and often did, connect their perception of changes in the nature and weather to practical activities on that farm. The practical use of nature thus informed them of how the weather had changed over time, and reminded them of specific memories they had in which weather played a role. All of my informants expressed with great certainty that they had experienced some form of change in weather conditions, be it from their childhood or the past five years. Their main reports consisted of warmer winters and rainier summers.

For example, most of my informants agreed that they had experienced an increase in rainfall during their lifetime. To illustrate the difference between the present and her childhood, Berit explained:

> *When we were children there was a water pump on the fields at all times. That was what you had to be doing, in a way. Now it is seldom you even see a water sprayer on a farm, it's quite uncommon.*

Several of my informants used the example of the reduced need for water pumps on farms. Although the region is considered a very dry region with low precipitation, the past summers had been so wet that that they almost had too much rain. Moreover, all my informants had noticed a change in the winter season - that the winter was less stable than it used to be. Geir describes the difference in the excerpt below:

> *When I came here in 2003, the best thing in the winter was that it was a stable, good winter with… well, maybe a bit too long cold periods, it could get a bit tiresome when it had been 35-30 minus in 2-4 weeks, so it was a hard adjustment in that sense. But it was dry and nice. And I think the last five, six, seven years we've had a more unstable winter with even degrees over zero so we get ice and slippery streets.*

Although all informants believed there had been a change in weather, it had thus far not brought much harm other than some annoyance over unstable winters. Solveig was the exception here, explaining how a flooding had recently ruined some of their harvest. Their fields were close to the river, and after a particularly rainy period, the river had flowed over and taken some of their field with it. The damages from the flood had had economic consequences for the farm, and she was worried that a continuous increase in rainfall would make this a recurrent issue. Both Solveig and Åse expressed concern that there had been an increase in animals such as snails and ticks, which had not been that much of a burden in Dovre earlier. They saw this as a confirmation that the climate must have changed, as these animals thrived more in coastal climates as far as they knew.

The first response for most informants regarding the changes in the nature was to direct the attention to the rising tree line in the area, and a general increase in the vegetation. "I see a densification," Anders said, "a higher tree line, even since I was born. I notice that the trees grow higher up." Another informant mentioned artwork and paintings from the 1940s and -50s that showed how the vegetation in the area was at that time, and that this showed how it has increased since then. When asked what they thought the main reason for this was, the main explanation given by all my informants was decreased grazing in the area. "I mean, the primary industry used the uncultivated areas much more back then," Anders explained.

What this section shows is how practical experiences are important for how my informants perceive local changes in weather and nature. It also shows that they interact with nature and weather to an extent that their everyday life would be affected if the impacts of climate change increased. So far, however, the changes they witness had not reached a degree that worries them.

5.2.1 An undercurrent of doubt

While there was consensus among my informants regarding the noticeable changes in weather and nature over the past years, when asked whether they connected these changes they experienced to anthropogenic climate change, many informants responded with: "I don't know anything about that." There was an uncertainty as to the extent to which local changes could be connected to anthropogenic climate change. When addressing the topic of climate change my informants were more likely to talk about natural fluctuations.

Among my informants, no one expressed a belief that climate change was entirely human made, nor did anyone fully deny that humans could have at least some impact on it. They all attained that people could have some degree of impact, but almost all were uncertain to what extent it could be prevented. "It goes in waves" was a common statement, referring to changes in the climate. Similar to the findings in another Norwegian study by Ryghaug, Sørensen, and Næss (2010), this shows an "undercurrent of doubt and uncertainty" among my informants regarding the issue of anthropogenic climate change.

In all the conversations people would emphasise the role of natural fluctuations when the topic of climate change came up. Some informants used specific events in their own or their community's memory as signs that climate change is a natural phenomenon. Bjarne, for instance, used his memory of earlier days to argue that climate change was part of a natural cycle:

> *What I notice with climate change where I grew up is that we could have cold periods… yes, in the 1970s-80s the winters could be very harsh. We haven't had that the last years. So in that sense, the mean temperature in Dovre I think has risen a little bit the last few years. But in 1922 the ice did not arrive in Vålåsjøen up here the whole winter! And the hard 30s! It was a Fimbulwinter[3] for 7 years!*

Almost as if they felt it was not expressed enough in the public debate, several focused on the importance of climate change being fundamentally a natural phenomenon going in cycles. They all agreed that whatever humans did, only added onto an already

[3] In Norse mythology, a Fimbulwinter (in Norwegian: fimbulvinter) is the harsh winter preceding Ragnarok, or Armageddon. A translation of Fimbulwinter is "terrible, great winter" (Store Norske Leksikon 2018)

existing phenomenon. An example of this is Anne's first reaction to the question on anthropogenic climate change:

> *I mean, human activities do not make it any better, rather the opposite, but I'm a bit concerned with these natural climate fluctuations. I mean… I remember I learned about that in my one-year university course [in Norwegian: grunnfag] in geography – these natural… and the Earth's ecliptic path around the sun and all that. I mean, humans aren't making it any better, but it's not as if I think it is all human made. There are two sides to that matter.*

What also is interesting to notice here is that she values what she learned in a one year course in geography more than what numerous climate scientists who have worked on the topic for decades, but this is something I will come back to later. The uncertainty about anthropogenic climate change that Anne's answer implies, however, shows doubt regarding the cause and responsibility for the changes they witness in the climate and nature in Dovre.

Going further into the matter of doubt, another informant, Åse, said she did not know what to think about anthropogenic climate change: "I can't really decide what to believe," she said, "sure, we are doing *something* with all that pollution, but there has been climate change before..." The explanation Åse gives opens up for further questions: Why is there a need to decide what to think about climate change or whether to believe or not? Is it not enough to trust the experts' opinion? I will argue that there is an uncertainty regarding who to trust, when exploring the topic in the next chapter.

Frequently people would confuse climate change with weather. A quote from Peder is an excellent example of this: "When they talk about it getting so and so much warmer, and then you get up in the morning and it is 35 below zero!" He was not alone in pointing out specific events they had experienced or read about that could disprove (or at least make him doubt) the credibility of climate change science.

In general, it was the rapid and extreme changes that my informants saw as signs that humans had something to do with climate change. As Berit explains:

> *There's so much of everything, though. It wasn't like that before. There is so much wind, there is so much rain, there is so much of everything when it first comes. And I think this is happening more and more. Things are happening*

so fast – there's so much more, and it so fast and so sudden. It has to be something more than natural fluctuations.

Geir agreed and said: "I mean, since it happens so *fast* indicates that people have something to with it." Slow changes on the other hand, such as changes in local nature, were not enough to convince them. They had indeed noticed changes in their lifetime, but when asked if this had anything to do with anthropogenic climate change they were not altogether convinced.

In addition to the changes they saw in the local environment, many would mention the increase of news reports on big storms "over there" in the United States (U.S.). Here is an example from the teachers' conversation:

Fredrik: "You could just look at the last year, how many storms there have been over there in…"

Berit: "Yeah, they get through the alphabet before we even… I mean, earlier we could plan for a long time what the next hurricane should be called, but now… There are new names all the time!"

Astrid: "Yeah, you get through the alphabet before I even realised we had started on A!"

They were concerned with what they saw as a rapid increase in extreme weather events in the U.S. In all the conversations conducted, a concern for climate change primarily came through examples of such extreme weather events in different parts of the world, most notably in the U.S.

To summarise the findings so far, there are three recurrent issues that appear among the answers given that form the undercurrent of the doubt about climate change; the juxtaposition of natural fluctuations to anthropogenic changes, specific examples from their own memory in local environment, and increased frequency of extreme weather events in other parts of the world. From these three recurrent issues, I identified a pattern. First, local changes in the weather and nature were associated with natural fluctuations and changes in grazing practices. Second, a rapid increase in extreme weather events in other areas of the world was associated with anthropogenic climate change. So far, my informants navigated their views about climate change on practical experience and news reports. Scientists and the scientific consensus had yet to be mentioned, which illustrates an important finding I will explore further in chapter 6:

their initial response to the question on climate change is to resort to lay knowledge. As a reminder, lay knowledge refers to "empirical knowledge of specific characteristics, circumstances, events and relationships" (Fischer 2000, 194). How does this influence my informants' perception of risk?

5.3 "It doesn't concern us"

As seen, the rapid changes and extreme weather affect my informants' attitude towards the origin of climate change. Given the remoteness of such events, could such associations with the distance and overwhelming power make climate change seem less relevant to their lives? Indeed, when asked why climate change was not a topic they were concerned with, all informants pointed out how they did not feel it physically, or as they put it, "feel it on their bodies".

When discussing climate change, almost none of my informants mentioned any way in which climate change could affect Norway. Even Bjørg, who was very concerned with how "we are destroying for those who come after us," did not use examples from Dovre or even Norway to illustrate how climate change might affect future generations. This can be attributed to the fact that they were under the impression that climate change would not have much impact on Dovre, or Norway in general. In chapter 3, I presented the issue of complacency that arises from an arguably misguided sense of safety from the impacts of climate change (O'Brien et al. 2006). As mentioned, climate change impacts in other countries may have socio-economic consequences for Norway through increased migration, increased insecurity in geopolitical relations, and reduced availability of trade commodities due to e.g. vulnerabilities in food production and infrastructure (Prytz et al. 2018). The risk of such indirect effects was not something my informants mentioned, or seemed to worry about.

Although some would worry about the changes they saw elsewhere, they all argued that it was difficult to engage themselves in something that they did not feel exposed to themselves. Reflecting on this, several of my informants suggested the idea that "we are too well off" as an explanation for lack of engagement. The following conversation is a good example of the general argument of my informants:

> *Fredrik: "We are too comfortable. I mean, most people think that we… we are so comfortable anyway so this doesn't concern me."*

Berit: "It doesn't concern me."

Researcher: "That you won't be affected?"

Fredrik: "Yes!"

Geir: "Yeah, I mean, if you hear those negative news then you just think 'nah, that…' and then we just cast it aside."

What the conversation illustrates is that my informants saw themselves (and Norwegians in general) as too comfortable to experience climate change as a risk to their lives, and as an extension, they choose to ignore unpleasant news on climate change because they felt it did not concern them. In a different conversation, Silje similarly said, "I think people are in a too comfortable situation – we lean back and say 'oh well, it will all be OK." Together, these examples certainly give associations to what Norgaard (2011) found in Bygdaby[4]. She argues that ignoring unpleasant news was a way for her informants to protect themselves from emotions of fear or guilt. Was this also the case among my informant?

The conversation above does not indicate any strong emotions. The way they explain their lack of engagement is primarily that it does not concern them – it is not their problem. The sentence "it doesn't concern us" came up in one form or another in all the conversations we had. But if it does not concern them, who did my informants think it concerned? The following excerpt from the conversation with a group of teachers is a good example of the reasoning most people followed:

Astrid: It doesn't concern us. Distance to the others.

Researcher: What do you mean, distance to the others?

Astrid: Well, that it doesn't concern us. It concerns, like, the people who live in the city.

Berit: We distance ourselves from the whole problem because we live here, you know.

Researcher: So you don't notice it as much here?

Berit: Yes, I was much more annoyed with it and thought much more about it when I lived in Oslo. Here I sit in the car, drive to work and that's that. And all is green and fresh and it's like… yes, it's very distant from me.

[4] See chapter 3 for a presentation of Nordgaard's (2011) study.

Fredrik: I don't think you really consider it before you feel it on your body

Astrid: It's like that with most things.

This was followed by confirming sounds from the whole group. They all agreed that you do not really think about it until you are physically affected, and that climate change a bigger part of the everyday life in the city. The way they argue for this is through *pollution*; climate change is a more urgent and present issue in the city because you can personally experience pollution from cars. I see two important points here: first, they use local pollution interchangeably with climate change, and second, pollution, visual and concrete as it is, becomes a way of conceptualising climate change. As my informants do not experience pollution as a problem in Dovre, this conceptualisation reinforces the distance between the problem and them.

What Berit said is important to note here: "we distance ourselves." In other words, it is an active act of distancing (whether conscious or unconscious). By living in Dovre they have chosen to live in a fresh and green environment away from pollution. Berit continued:

> *I think if you would live in a place where you'd really feel what it does to the air, for example, it would become a more natural part of your day. I think for us, we take it for granted. We are used to fresh air, we are used to having it all*

Similarly, when we asked Peder why he thought people did not talk about climate change, he said:

> *I think they don't feel that it concerns them. When we live here we don't notice much of things being polluted. If they live in a city then, if they see that the river turns red and there is a thick layer of exhaust then I think one gets more concerned with it.*

This quote illustrates a common idea of the urban city as dirty and polluted, in stark contrast to the green and fresh environment in Dovre. Peder was not alone holding this attitude. Urban pollution issues in contrast to the fresh air and green landscape in Dovre came up in every conversation conducted for this study. This was often extended to the idea of Dovre as much more environmentally friendly than big cities like Oslo. Thus, my informants believed that it was more relevant for urban dwellers to concern themselves with this issue.

Although scientists argue that climate change is affecting the Dovre-region today, these impacts are not yet noticeable to an extent that could have negative effects on my informants. Apart from Solveig's flooding and a general dislike of a warmer winter, no one mentioned any experiences where the changes in weather had affected them in an alarming way. This illustrates that although there is a high consensus on the risk of climate change based on objective scientific measures, people are not necessarily experiencing this as a risk to their own life. My informants had limited experience with the consequences of climate change, and therefore perceived the risk to their life as much lower than scientific reports would suggest. Consequently, they perceived it as nothing to be concerned about. The next question to explore is how my informants perceived responsibility of climate change. Did their perception of climate change as not their concern influence what agents they considered responsible and capable of handling this issue?

5.4 Responsibility and risk

Despite an undercurrent of doubt, my informants did accept that anthropogenic climate change is happening. Some of them even expressed worry about the extreme weather events they connected to this change, primarily in foreign countries. Therefore, it is relevant to ask whether they had the same perception of responsibility as they did of risk, namely that it did not concern them. And if so, whom did they see as responsible? Furthermore, who ought to concern themselves with this issue, if not them?

5.4.1 "Let us do something, just in case"

Given the lack of conviction of the seriousness and urgency of climate change among my informants (with a few exceptions), an interesting finding is that all of them believed that Norway should do what they can to mitigate climate change and to be an environmental leader internationally. They all adhered to the precautionary principle, and even those who were uncertain if it would help thought Norway should mitigate "just in case." Janne was explicit about this and said:

> *Janne: I think it's really important that we take action on these things, whether it's human made or not, because it's clear that the big CO^2 emissions and such are not good for our nature! So I think it's important to work on climate policy."*

Researcher: Just in case, you mean?

Janne: Yes, just in case! [everyone laughs] Yes, I really think that!

The rest of the group agreed that we should follow the precautionary principle. "We should be precautionary, as if it was human made and try to do something about it. Just in case, that's what I think," Janne repeated. In a different conversation, Tore said something similar: "Instead of saying 'we don't know anything about this,' we need to be precautionary and try to reduce climate gas emissions. Because we can do something about that."

Once we started discussing solutions and the extent to which it was possible to mitigate, most of my informants were more positive and optimistic than expected. It seems like just because the topic is too complex to *them* does not mean they think it is too complex for *others*. With a few exceptions, people were optimistic about what could be done with the help of renewable energy, technology and international agreements. Most of my informants believed that Norwegian politicians took climate change seriously and therefore did not see the need for them to be concerned with it. Their confidence that it was taken care of by others was part of the explanation for the limited concern.

Not everybody agreed, however, that politicians in Norway are taking the climate change issue seriously enough. Some trusted that both Norway and the international community would take the necessary measures, while others felt the politicians did not care at all. Not surprisingly, the latter group was also those who had strongest emotions connected to climate change. Berit, for example, argued:

> *You feel a little bit powerless in a way as an individual when there is little will to do something at a national level, and even further away at the international level when it comes to thinking about solutions […] You feel that it does something to you and your attitude when there is an indifference from those who decide.*

Berit was one of the most engaged informants in all the conversations I had, and although she normally would not talk about climate change she expressed great worry and despair. In the quote above she expressed that lack of action from policy-makers and politicians did something with her attitude at the individual level. The analysis in the section above indicates that my informants did not see the people in the rural

village of Dovre as important actors to mitigate climate change. But what about the Norwegian society in general?

Bjarne, who had travelled a lot in his lifetime, contrasted Norway with other countries, such as the U.S., Australia, India and China, to show how insignificant the Norwegian contribution is in the bigger picture.

> *I am not really concerned with the traffic in Norway, I mean, there are long distances and it is difficult to get around. The traffic we have is very little. I see that, I was in Australia this winter… just think of the morning traffic into Sydney – they have seven lanes! When you know the amount of cars that drive there in the morning, and then we complain about a queue on our roads? Forget it! It is nothing compared to that!*

Tore said that he had actually "Googled" Norwegian climate emissions compared to other countries, and showed with his index and thumb how insignificant Norway's contribution was. What this illustrated was how tiny the portion of Norwegian emissions is in the big picture. The fact that Norwegian emission per capita is relatively high (Nordic Energy Research 2012) was not something my informants seemed to be aware of, as illustrated by their emphasis on Norwegians' small contribution in the global context. Nevertheless, the general view of my informants was that Norway should contribute to the global ambitions of mitigating climate change. In addition to leading by example with investments in renewable energy and technological innovation many argued that Norway could use their position as an environment leader to increase the effect of the efforts from bigger countries, such as China and the U.S.

Thus, at the national level my informants agreed that Norway had a role to play, either directly or indirectly, and although a small contribution they considered it important that Norway take responsibility and contribute where possible. But what about taking responsibility and contributing at the local and individual level?

5.4.2 "It probably doesn't help anyway"

Those informants who believed that their actions were not mirrored in policy were more likely to be concerned and feel powerless in the climate change issue. The complexity of climate change and what they perceived as a wide range of contradictory messages on what was sustainable functioned as a barrier to action. The confusion on

what is really going on, and the struggle to make sense of what they perceived as different messages and statistics, facilitated an inner struggle on what to do. Berit, especially, struggled with this:

> *And I can know things, but then you get a bit… trapped in… You won't even bother recycling your trash... you know, you get like that at a micro level 'yes, but it probably doesn't help anyway,' and then you make an effort but then you…*

Berit clearly had an inner struggle about what to do here. She went back and forth questioning whether her actions mattered or not. She admitted here that she was aware of some measures she could make, like recycling, but questioned whether it is worth the effort. For most informants, this part of the conversation revealed a frustration over the difficulties of living more sustainably.

Their frustration was often directed at the lack of initiative in the "society," referring to structures or to policy-makers who failed to make sustainable choices easy for the consumer. Anne argued:

> *I think that the message that comes out should in a way encourage me to take the measures I can take. And give me some simple knowledge on why it is important. So then, you get things more free, in a way, so that it's not such an effort to do something…*

Measures to live more sustainable were perceived as an effort and a sacrifice unless there were clear instructions and economic gain (or at least no economic loss). Their message was clear: suggestions for individual measures needed to be made concrete and simple. They could agree to make small adjustments if they were guided thoroughly through it and given comprehensive proof that it would make a difference. If not, it was too much of an effort in their daily life. Thus, what was earlier a complex issue quickly turned into simplified measures. This could be connected to their low perception of risk, as found previously, and that someone else was taking care of it. As mentioned, most of my informants were optimistic about what could be done with the help of renewable energy, technology and international agreements. Thus, they doubt their own significance and deny self-involvement, something I will elaborate on in chapter 7. For now, it would seem that my informants did not see themselves as active participants in reducing emissions and contributing to the necessary changes.

If my informants felt climate change measures at the individual level were inconvenient and with little impact, what was it that they felt they were asked to do? How did climate change measures as they saw them fit into their daily lives? Moreover, what impact did their view of solutions have on whether or not my informants saw it as relevant for public discussion?

During the conversations, we talked a lot about individual responsibility and the extent to which my informants saw themselves as agents of change. This was always met with statements like "nothing will help unless we see initiative from above." My informants saw climate change primarily as an issue that needed to be solved by politicians, scientists and engineers. As mentioned, they considered technology, renewable energy, transformation from oil dependency and facilitation of sustainable living through policy as important.

Although most of my informants argued that individuals could have an impact to a certain degree (but only if all individuals joined in), they did not see that Dovre, or even Norway, could have that much of an impact on climate change mitigation. Peder argued:

> *El-cars and fossil fuel cars… When you get to the countryside I'm not really convinced that we are the big bad wolf if we drive our diesel car up in the valley here. It would be like pissing in the ocean.*

The saying *pissing in the ocean* was used by several of my informants to explain the impact people in Dovre have on climate change in the global scheme of things. Their views and the options they have in terms of participation in mitigating climate change were limited to simple tasks such as recycling, driving electric cars and reducing meat consumption. In other words, they should change their behaviour as consumers. What I refer here to as "simple tasks," however, may have great implications for my informants.

Reducing the car use, or driving an electric car, were by far the most mentioned measures my informants thought of when asked about individual solutions. In each conversation someone would express that it was impossible to live without a car in Dovre. A common statement was, "there is no bus!" Morten elaborated: "You can't rely on the bus here. It just doesn't work. You won't get anywhere, neither to work nor back home again. Everyone drives a car here." What my informants touch upon

here is the need for structural changes to facilitate the transition towards sustainability among the public.

As mentioned, many of my informants were farmers or had a connection to a farm in the elongated Dovre area. Their livelihoods were therefore often dependent on meat production, and people were dependent on the use of a car or a tractor for getting around. Thus, making the changes they felt individuals were asked to do would in the worst-case scenario be devastating for their livelihoods. Considering that my informants did not perceive climate change as a high risk, would they even be willing to make the changes for the sake of a rather invisible, not yet noticeable threat? The measures they believed individuals could contribute with have a high impact on their everyday lives, but individually a low impact in the global efforts of mitigating climate change. Thus, they experienced the risk of changing for the sake of climate change as higher than the risk of climate change itself.

Cambell and Kay (2014) suggest that denial stems not from a denial of the problem per se, but from an aversion towards the solutions associated with that problem. According to them, people will be sceptical of scientific evidence to the extent that the existence of that problem will threaten that person's ideological motives. May it not also threaten their way of life? For my informants this was important and it further influenced their relationship to climate change policies. They were worried about what engaging in the climate change issue would mean for their way of life. For example, increasing the cost of driving a car was a source of anger towards politicians. Almost everyone met such suggestions with a statement that the politicians did not know what it was like to "live in the real world". They believed that efforts that individuals could make were primarily changes in consumption habits, such as electric cars, recycling and reducing meat consumption. These changes would make a big difference in their personal life, but arguably little change in the bigger picture. Considering their view of themselves as insignificant in the bigger picture, their frustration is understandable.

Laidley (2013) argues that social and environmental problems may align with cultural and class distinctions in complex and significant ways. He asks whether 'climate consciousness' could be culturally desirable to some and not to others, and argues:

> *the approach both academic and non-academic actors often take – one of crafting 'concrete, achievable and manageable' policy strategies which often*

> *involve this kind of marketing – fundamentally err in tacitly assuming these individual-level actions are both simple and desirable for all types of people if only the correct information and incentive structures were present* (Laidley 2013, 168).

Although some of my informants claimed that if individual measures were made concrete and manageable it would be easier for them to involve themselves, the general impression was that individual-level actions were particularly inconvenient for rural areas. Several of my informants argued that there needed to be different measures in the countryside and the city. They considered the car as much more of a problem in the urban areas, and simultaneously argued that it was much more feasible to live without a car there. Many of my informants argued that it was easier for the urban population to make the necessary changes, partly because the necessary structures were more in place there.

Could it be that the individual-level actions that politicians and experts communicate to the public are insensitive to the various contexts and cultures in which people live their lives? Some of the issues that my informants were most engaged in and concerned with was the fear of losing local services, workplaces and facilities. Many of them felt that they constantly had to fight to keep the structures of their society alive. Morten and Rune reflected on the effect of this:

> *Morten: And that might be some of the issues in Dovre and Lesja municipality, you know… instead of using time and effort to try to develop and get new industries and such we have to spend all the time fighting to maintain what we already have. And there has been a lot of fighting.*
>
> *Rune: We are always on our heels.*
>
> *Morten: Yes, almost every year there is one of those big issues that you have to fight to maintain workplaces for.*

The risk of these changes is also experienced as rapid, as they need to be *on their heels* at all times – they need to be aware and pay attention to whatever policy might threaten the local community they cherish. As my informants experienced it now, climate change policies targeting individuals asked them to make sacrifices for the sake of climate change mitigation in a reality in which they had to fight to keep essential public services and workplaces in their community. With this immediate risk looming in the background, it is perhaps understandable that climate change did not come high on the

agenda. The experience of constantly having to fight to maintain their structures came partly as a result of exclusionary decision-making processes. Janne explained:

> *Janne: You feel a bit powerless when things are pressed on you from above, and you don't have anything to say about it, your views are not taken into account… that you're not listened to!*
>
> *Researcher: Do you feel like that with climate change mitigation measures?*
>
> *Janne: I don't know… but that is often why you get a bit sceptical towards things because things are decided without you having a say. You feel you don't have any impact, any participation or co-determination in a way.*

Janne's words lead me to an important question that I will discuss further in chapter 6, namely whether a sceptical attitude towards climate change can come from an experienced exclusivity of the climate change issue? Can climate policies that are insensitive to the local issues such as centralisation, depopulation and reduction in workplaces, feed into existing attitudes towards dominant groups in society? Incorporated into a wider discussion on the impact of expert systems I will explore these questions in the chapter that follows.

5.5 Summary and conclusion

In the beginning of this chapter, I established that climate change was not on the agenda in local public talk in Dovre, and was met with silence and awkwardness at first mention – it seemed unfamiliar and uncomfortable for them to talk about. The topic of climate change was characterised by uncertainty. With the exception of a few informants at each end of the scale, my informants found themselves on a scale somewhere between climate change being caused primarily by humans or primarily by natural fluctuations. All my informants (with the possible exception of Bjarne) accepted that climate change is at least partly caused by human activities. Nevertheless, everyone would draw attention to the importance of natural fluctuations, which characterizes their relationship to climate change as accepting, but with an undercurrent of doubt. This doubt was primarily based on historical evidence of a naturally fluctuating climate, and a lack of personal experience with the rapid changes associated with anthropogenic climate change.

Anthropogenic climate change was primarily linked to extreme and rapid changes, exemplified by the rise of the storms in the U.S. In addition, my informants associated climate changes with local air pollution in cities originating in the emissions from cars. This was contrasted with the fresh air and the green nature of Dovre. Local changes in nature and weather in Dovre were more often associated with natural fluctuations, exemplified by events that showed how the climate had constantly varied with extreme winters and wet summers one year and the opposite a few years later.

Due to a low feeling of risk that climate change would have any impact on Dovre, my informants perceived climate change as irrelevant for their lives. Another finding was that my informants did not perceive themselves as relevant to the climate issue. Even though their actions were viewed as part of a collective effort, they did not see Dovre as responsible for or capable of emission reductions. They looked at life in Dovre as more environmentally friendly than life in the city, and believed the responsibility lay elsewhere than in this rural community, primarily at the national and international level. In addition, they argued that other actors contributed more to climate change, thus having more responsibility. This applied to two levels: first, cities were seen as more polluting, and thus more responsible. Second, they argued that larger countries with bigger populations and a higher emission rate, such as China and the United States should take the lead. My conclusion was that the relationship of the informants with responsibility for the climate issue was characterized by denial of self-involvement, by emphasizing their own insignificance compared with other agents.

In conclusion, this chapter has found that my informants relationship to climate change is characterized by an undercurrent of doubt, a denial of self-involvement, and a perception that climate change did not concern them.

Before moving on the next chapter, I will return to the two pathways to establish concern about climate change, or the feeling of being at risk, as described by Weber (2006). The first, most efficient pathway is through a personal exposure to adverse consequences, leading to an experienced-based perception of risk. According to the findings of this chapter, a feeling of concern and of being at risk was not engaged through personal exposure. Thus, it is relevant to ask whether the second pathway – a description-based perception of risk – could do so.

6 Experts and laypeople

As discussed in the previous chapter, the experienced-based perception of risk fails to create visceral reactions to climate change among the informants. The description-based perception of risk is established "through consideration and possibly mental simulation of adverse consequences based on a statistical summary of the hazard, typically provided by domain experts" (Weber 2006, 104). As this chapter will explore, this could be dependent on my informants' relationship to expert systems. Furthermore, can their view of expert ways of knowing help answer the question on why talking about climate change was not on the agenda?

As presented in chapter 3, Moser and Dilling (2011, 162) outline four assumptions that communicators of climate change make that have reduced the efficiency of climate change communication. As a reminder, these assumptions are: i) that lack of knowledge on climate change can explain lack of engagement, and therefore, more information is needed; ii) that a catastrophe framing and fear will motivate people to action; iii) that the most persuasive and efficient way of moving lay audience to action is through a scientific framing; and iv) that the most effective way of reaching the audience is through mass communication. These assumptions may not be as efficient as communicators believe, as the findings of the previous chapter indicate. Building on the findings so far, this chapter will touch upon the first three assumptions, and how they influenced the extent to which my informants felt they could involve themselves in political talk on this topic. Fear was not a prominent reaction among my informants. However, the role of emotions in general, or lack thereof, will be explored in chapter 7.

6.1 Climate change as an exclusive topic

While discussing with my informants the way climate change was being communicated one particular group was more engaged in this issue than the others; Silje, Anders and Bjørg – a family we met on their farm. As mentioned in the previous chapter, Bjørg was personally involved and concerned with the climate change issue. She, together with Berit from the teachers group, showed elements of ownership, being concerned with what 'we' were doing to the planet, and how it would affect 'our'

children and grandchildren. The members of the family were all under the impression that climate change knowledge was unavailable to most people. Silje worked in tourism and had a degree in Business form a Norwegian University, and was due to that familiar with research and the academic language. Still, she argued strongly for the need to popularise the scientific reports on climate change:

> *I mean, there are a lot of really nice research reports and journals and such, but then they aren't transformed to a more popular language, you know. Many times it's such difficult language that you drop out after a couple of pages.*

In other words, the scientific framing of climate change was seen as a barrier to learn more about the issue itself. Silje felt that by using the technical language the scientists did not take into account that most people are not like them, and because of that they failed to share their knowledge.

> *It's something about the dissemination of knowledge… and I think that it's about all these scientists – they need to take into account that if they want this to get out someone needs to take the responsibility to simplify the message. It's a very technical language.*

There is no doubt that climate change is a complex issue in many ways, and can therefore appear incomprehensible to an average person. But how much do people actually need to know to be concerned with climate change and engage themselves in the issue? There was certainly an impression among my informants that, in order to understand and concern oneself with climate change, you need to understand the complex natural science behind it – both the cause of climate change, its effect and the solutions to it. My informants argued that the lack of knowledge was an important factor explaining why they did not engage in the topic of climate change. However, as previously presented, the information-deficit model is considered largely insufficient in explaining the lack of engagement. So why were my informants then claiming that the lack of knowledge was important?

Considering that my informants did not read climate change research, it is reasonable to assume that they were not aware of this paradox. It should also be noted that it was not common for my informants to actively seek out information about climate change. In the previous chapter I argued that the informants saw climate change as best solved by someone who knew more about it, and could make more of a difference than individuals could. The expert framing within a world of expert systems seem to

reinforce the view that this issue is 'owned' by someone else, someone with expertise on the matter. As a reminder, the concept of expert systems describes an aspect of modernity where society increasingly relies on expert knowledge for decision-making and where people are increasingly dependent on experts in their everyday lives (Giddens 1990). As a consequence, it is necessary to trust abstract and distant expertise.

A scientific framing of climate change to a lay audience assumes that science is a central interest of people, and that people are interested in climate change research (Moser and Dilling 2011, 166). Although climate change experts in all fields of study would like to think so, most people do not go around their days worrying about climate change. Average people have a lot of other things to think about in their everyday life. As one of my informants, Anne, said:

> *I feel that when I come home from work I am not really motivated to sit down with a cup of coffee and like 'now I want to read some difficult climate statistics!*

Science and scientists have nonetheless been used actively to convey the message of climate change, resulting in a technical framing (Moser and Dilling 2011, 166). The dependency on expert knowledge for policy-making is after all a characteristics of modernity (Giddens 1990). However, already in the 1920s, the American philosopher John Dewey asked how the mass public can participate in political decision-making when the nature of the problems is increasingly complex and so obviously dependent on expert knowledge (Fischer 2000, 6). The examples thus far illustrates how my informants did indeed find it difficult to engage themselves due to a complicated, scientific framing. Thus, could my informants' focus on knowledge and information as an explanation be a sign that the information they had received thus far had been ill-equipped to make climate change relevant for them to discuss and engage themselves in?

Several of my informants expressed that climate change was too complex for them to understand and engage in. Anne said:

> *It's [climate change] tiresome to get into. You need the knowledge, you need the interest, you need the time and the energy. It might be easier just to read about Dancing with the Stars or something.*

Anne's wording here points to three elements that she feels need to be present for her to learn more about climate change. First, you need the knowledge. This could be interpreted as the need for the knowledge to decipher the scientific framing. Second, you need the interest. This could be an interest in the scientific research, but it could also refer to interest in the climate change issue as a whole. If you do not feel personally affected by it, as seen in the previous chapter, the interest may be low. Third, you need the time and the energy. Altogether these elements felt overwhelming to Anne, and it was easier for her to not get involved. Similarly, Solveig said:

> *I'll be honest and say that I live in my own little bubble. I am not very good at looking things up on the Internet, and I don't like to watch TV – it's all just misery. So I like to be in my own little bubble, I have to admit.*

She enjoyed her quiet life in the countryside and aimed for a life with as little "hustle and bustle" as possible. She was at her happiest when she was up in the summer mountain pasture with no electricity and no people. To live in a bubble is something that Norgaard also found in her study of the people in Bygdaby. I understand Solveig's choice to live in her bubble as motivated, at least partly, by her wish to avoid negative feelings, or "misery." She was not only referring to climate change in her statement, but seemed to avoid other societal issues as well. Among the rest of my informants however, I understood the avoidance of this topic to be less emotionally motivated and more as a result of what Anne said above: it is not something they are capable of engaging in, or prioritising in their everyday lives. Furthermore, a low feeling of risk and an impression that it is taken care of by others, leaves room to choose to stay in the bubble and avoid getting involved. As Åse said, "Well, I think that there are a lot of good people who have both a lot of time and interest to work with these things, so then I can do other things."

Considering that my informants were not interested in or had the time to read and learn more about climate change (or reading climate statistics) it is perhaps wrong to think that giving them more and better information would necessarily eliminate scepticism, raise concern and engage people in action. Thus, lack of engagement is most likely not solely the result of deficit in comprehension and knowledge.

6.1.1 Different ways of knowing

We have so far looked at some of the elements that Anne felt were necessary for her get involved with the issue: knowledge, interest, time and energy. Risk society and expert systems require at least one more essential element: trust (Giddens 1990, Beck 2009). As I introduced in chapter 4, trust in abstract systems has become part of everyday life in modernity. People rely on their doctors and therapists, as well as engineers and scientists. Accepting anthropogenic climate change also requires trust in expert systems, particularly climate scientists and scientific institutions. The previous section illustrated that my informants did not see themselves as capable of or interested in attaining knowledge on climate change. Trust in the institutions where the information they get comes from is therefore essential. For instance, Kaltenborn, Krange, and Tangeland (2017, 11) found in their quantitative study of Norwegians that levels of trust in institutions with a responsibility for climate change mitigation and adaptation was significant in explaining people's relationship with this issue. According to their study, the lack of trust correlates with a greater belief that climate change is mainly caused by natural fluctuations. If is therefore relevant to explore how trust in the science and the institutions connected to climate change play a role among my informants.

During the conversation with the group from the grazing association, Morten and Rune reacted to the question on anthropogenic climate change with an awkward laugh, followed by Rune answering, "Not easy to say. That is what most of the experts and the UN Climate Panel and such *claims*. So if you choose to trust the majority I guess you would believe that." When we asked if it was difficult to trust the majority, he answered, "No, I guess I don't have any problems with that, really." Why, then, did he feel the need to emphasise that climate change was something scientists "claim"? This quote is representative of the general relationship my informants had with climate change science. On the one hand they did not have any reason not to trust scientific evidence of climate change, but on the other there was an underlying scepticism, or an "undercurrent of doubt" they could not explain (Ryghaug, Sørensen, and Næss 2010). Where could this underlying scepticism come from? And is it reflected in my main research question?

Environmental governance is an issue where different ways of knowing become prominent. Previous research on expert and lay knowledge in environmental conflicts shows that lay knowledge often does not hold the same value as expert knowledge in decision-making regarding environmental issues (Syse 2010, von Essen 2017). Erica von Essen (2017, 471), for example, argues that, "[i]n a critique of modernity, scientifically framed knowledge has achieved hegemony by becoming 'the real game in town' […] insofar as it crowds out alternative knowledges, experiences, and values that are based in lifeworld contexts." Alternative discourses are often delegitimised as driven by emotions or as ill-informed (ibid). An example of this from my own study was something Solveig said, one of the women from the local women's association. She was quiet for a long time after we mentioned climate change, and only when asked directly did she share her thoughts on this:

> *I might be a bit old-fashioned there and think that it is these cycles in the world. Basically. It has been like that in all times, that when there are too many people the black plague comes. I mean, there is something that happens, in the system, which is already there to sort of regulate.*

In other words, she believed that there are mechanisms in the Earth system that regulate itself to regain balance, e.g., when the population rate is too high, or there is too much pollution. Her reason for saying this seemed to come from her own perception, or feeling, rather than based on a scientific theory. When we asked her why she called this "old-fashioned," she answered:

> *Well, I don't know why I say that. But I think that maybe… Maybe because I feel that way. Maybe I feel it is a bit old-fashioned. Because I feel that it is that sort of thinking that you in a way can't put any science to. I mean, the modern society wants statistics and answers and such… but I think this is something here that I can't base such things on, but I can say "I think this is how it is.'"*

This could simply mean that she did not have the knowledge or scientific background upon which to base her statement and beliefs, and therefore chose to trust her "feeling". It could also give evidence for a lack of trust or a form of scepticism towards science, or "statistics and answers and such." Perhaps she felt that the other ways of knowing, such as the one she refers to as feeling, were unappreciated and unacknowledged in modern society defined by its dependence on expert systems? From the point of view as interviewer, it appeared as though because she believed people would perceive her

as "old-fashioned," Solveig was reluctant to share her views during our conversation, perhaps out of fear of being judged. She was well aware of the fact that my co-researcher and I were doing research for a master thesis, and could have seen us as representatives of this modern society in search for "statistics and answers and such." She seemed comfortable, although perhaps a bit excluded, with her "old-fashioned" way of knowing. I perceived her as a woman with a strong sense of tradition and a believer in the importance of carrying the traditions to the next generations, something she talked about with great passion. This holdfast position in the old-fashioned way could indicate a longing for the traditional, the known. However, if she believed that this position would not be respected or accepted by others in a conversation on climate change, this could be an explanation for why she chose not to take part in it.

Although none of my other informants expressed a worry that their views would be seen as "old-fashioned," some important remarks can be made based on this example. As mentioned, almost all of my informants claimed to have little knowledge on this topic, and several of them mentioned other people I could reach out to that would know more about it. In this way they removed themselves from the conversation by claiming that they were not relevant for this issue – that they have nothing to add to the conversation that would be useful for me as a researcher.

As a contrast it is interesting to consider the way my informants related to other environmental issues. All of them expressed great pride in their natural surroundings, and of their connection to this symbolic place. However, some of my informants expressed frustration over what they perceived as too much management from the top. They were all supporters of protecting the surrounding areas through national parks, but complained about some aspects of management. Anders, for instance, felt the local people were not given the trust they deserved:

> *It has something to do with the respect for the local people's ability to manage their own areas, and the culture that is in the countryside as a sort of agricultural society. People in agriculture need to think far ahead and build up through generations. And I think they are really aware of this also in the mountains. The mountain cabin at Hjerkinn is run by the 14th generation now, and they would like to continue in as many generations ahead."*

What he meant by this is that he believes the mentality of the local population is long-term management, a mentality transferred through generations of working with the

same cultural landscape. When it comes to managing this nature, however, he feels that the practical knowledge local people have acquired over generations is not accepted and acknowledge compared to scientific rationality and management. This gives associations to what Karen Syse (2010) found in her fieldwork in Scotland; the local people in Argyll were unimpressed with the lack of holistic knowledge the experts showed when discussing local management issues, and felt that their intimate, practical knowledge of their local environment was disregarded and unacknowledged. Another example of this comes from the conversation with Solveig and Åse:

> *Solveig: I think they have forgotten where they came from. And many politicians haven't done anything other than politics. They don't know how it is like in real life.*
>
> *Åse: Yes, I think that's true. I personally know someone who hasn't been anything else than a politician. And I don't think they could have done anything else either… because the practical approach doesn't exist – they spend their holes life making policies, and that is something completely different than what it is living here anyway.*
>
> *Solveig: Especially when it comes to agriculture and such… I am sure those who make policies for agriculture have* never *touched a dung fork,* never *even been to a field, I'm sure of it.*

This excerpt is a good example of how most of my informants valued and trusted the practical, empirical knowledge more than expert knowledge. The lack of practical knowledge was a reason to mistrust the politicians. This illustrates the dichotomy of two different ways of knowing. Based on these findings, it seems inappropriate to assume that communicating climate change and the need for change through a scientific framing is the most efficient way of igniting engagement.

6.1.2 The heuristics of climate change

Moser and Dilling (2011, 167) argue that when trying to make sense of complex phenomena outside your own field of knowledge, people often tend to heuristics, or "mental shortcuts." This often involves choosing what information to trust based on the social or cultural group the messenger belongs to. Thus, a recipient will likely trust the information coming from someone in the same social or cultural group more than from someone they do not identify with. If recipients of climate change communication are basing their judgement of that communication on the extent to

which the messenger belongs to the same social or cultural group, messages that go against the majority can be reinforced within a community. This means that more science and greater dissemination of knowledge from the same sources is insufficient in solving the dispute (Dryzek, Norgaard, and Schlosberg 2013, 26); this might even give deniers more science from which they can "pick and choose to support their case."

As the expert framing of climate change was considered unavailable to them, the informants in this study relied on other sources to navigate their view on climate change. In the first analysis chapter I discussed how their memories of personal and practical experience with local nature informed them of the changes in their local environment and climate. For example, based on memories from their childhood they argued that the weather had changed in their lifetime. They also referred to general knowledge, such as "there has been ice ages before." These accounts could function as a reassurance that the climate change issue was not as bad as the scientists claimed, and thus not important for them to be concerned with. Furthermore, if they chose to trust these accounts, did were they supported by any other sources? And how can we explain the apparent scepticism towards the scientific reports? Is it just the lack of knowledge of how big the consensus is, or does it go deeper than that?

The scepticism towards climate change science among the informants came in three forms: i) the uncertainty about the consensus which was perceived as lower than it actually was, i.e. the percentage of scientists who support the accounts of the seriousness of climate change (support of IPCC) versus those who disagree (those who doubt the consensus); ii) the belief that climate change was too complex for anyone to be certain of anything, followed by arguments that the science was not certain and therefore might be proven wrong in the future (those who doubt the science); iii) scepticism towards the scientists themselves, with the belief that they had some sort of agenda that would benefit them.

One of the teachers, Anne, told us about a graph in one of the schoolbooks in geography that showed the development of ice sheets in the Arctic Ocean,

> *There's this science teacher in Lillehammer – he wrote an opinion piece saying that if that graph was correct, it should have been totally free of ice a long time ago… And it isn't. And then they [students] sit there and we present*

> *it like this is how it is, and then it's the same in the newspapers and that's how it is.*

As a teacher in geography at the local high school, Anne feared that she was teaching her students incorrect information. But what does she mean by "that's how it is"? She explains her worry further:

> You are presented with these statistics that are established, but then there are a lot of different sources you could go to and… what is decided upon is the things that are written in… well, what is most available.

Anne's wording here is interesting; first, she is under the impression that the statistics she is presented with are something that is "established"; and second, she refers to the "most available" statistics as something that is "decided upon". Is she here questioning the neutrality of the research she encounters? Does she think it is politically motivated? What is clear is that she values the mentioned teacher's opinion more than the people who wrote the book, which could be explained by a tendency to tend to "mental shortcuts" in complex issues, as mentioned above.

Similarly, Bjarne, the most outspoken denier[5] of the informant group, points to a research report he once read that argues that the ice in Antarctica is growing:

> *It is growing! It is growing and it has grown so very much in very few years! And why is that? I think, as I've said, that it comes in cycles, there are other things that are affecting it than… I don't think it's human made all.*

He could not remember where he had seen the report, but later in the conversation he would criticize the dominant news sources in Norway to be biased and influenced by government, or as he said it "in the politicians' pockets." I will look into this in more detail later, but for now this could indicate that he looked to "alternative" news sources that challenged the dominant discourse.

On several occasions, Bjarne showed a mistrust in science, politicians and media. He also often expressed belief in "alternative facts." For instance, he used the example of the ozone layer and claimed that this had fixed itself, even though "they" said it was mended through efforts from the international community. He argued that perhaps a

[5] Bjarne was the only informant who fit into the most common definition of climate change denial as an "outright rejection" of the notion that anthropogenic climate change is real (see chapter 4 for a presentation of the different forms of denial).

few women had stopped using hairspray because they were afraid of the ozone layer, but that in reality, no measures were made and it really just fixed itself. According to scientific facts, this is of course not true, as the historical international agreement on the Montreal Protocol in 1987 led to global measures to reduce ozone-depleting industrial chlorofluorocarbons. Some thirty years later the measures had proven successful, as in 2015 the ozone hole was 4 million square kilometres smaller than at its peak size (Hand 2016). He accused the scientists of frightening people on purpose:

> *I think it is scaremongering, because these scientists they need a job and get funding for new projects. So I think a lot of it lies there – many times it is not as bad as they say, although there are a lot of bad things going on today.*

Interestingly, Bjarne was concerned with a number of other international issues, especially other environmental issues, such as plastic pollution, oil spills and destruction of the rainforest. Climate change, however, was nonsensical in his view. When asked if he knew anything about how big the consensus on climate change was, compared to those who oppose, Bjarne was unsure. What was interesting, however, was his tendency to trust the few who disagreed more than the dominant narrative, and to put emphasis on the few articles he had seen that disproved the majority: "I just register what I see," he says, "and then I enjoy myself when I see that people are going against them." So why would some of my informants have the tendency to trust the few rather than the many?

When asked what they thought the agenda of the scientists could be or why scientists would want to find signs of climate change, the informants had no answer. The exception was Bjarne, who argued that scientists needed a job and funding for new projects. For the rest of the informants it seemed like scepticism towards science was their default mode, but when asked they could not explain why they struggled with their trust. It was as though there was a constant conflict between having no reason not to trust the scientists and the government, while staying fundamentally sceptical towards the issue as a whole.

More common than an outright mistrust was a general lack of knowledge and uncertainty of how big the consensus on the climate change narrative was. It is important to emphasise that Bjarne, with his attitude of denial, was on the outermost side of the spectrum compared to more moderate attitudes of the other informants. The

others did not directly mistrust the "agenda" that scientists have as such, but rather questioned the extent to which they agreed and to what extent the "established view" gave room for those who opposed. As mentioned above, Anne was worried that "established" statistics went unchallenged as alternative views were excluded from the conversation. Some also questioned the reliability and validity of the science. Solveig argued, "If you *want* to find something, you will, I say. And that is what makes me sceptical towards science."

Åse did not think there was much disagreement among scientists when it came to the certainty of climate change, but argued that science sometimes make mistakes: "a hundred years pass and then it wasn't like that after all." Morten was also under the impression that scientific knowledge was not so certain:

> *My impression is that the scholars disagree on this too, because it depends on what journal you read. Some predict that the ice will melt, the ocean rise and such, and others write that it gets cooler and cooler… So it's not always easy to know what is really going to happen, but the only thing I'm thinking, like roughly, is that if you see the long term there have been ice ages before.*

It seems like the uncertainty and the lack of knowledge indeed led my informants to trust what they can draw from lay knowledge and heuristics more than expert knowledge. Again, the influence of different ways of knowing is confirmed. However, as the consensus on climate change science is widely accepted in the Norwegian society and public debate, tending to heuristics does not seem like a sufficient explanation for the lack of trust. It is therefore interesting to question whether trusting the few was just a "mental shortcut" to understanding a complex issue, or if it could be part of an active stance against dominant ways of knowing.

6.1.3 Resisting climate change

All of my informants had a personal relationship to the surrounding nature. Either they lived off the land through farming and livestock, some engaged in hunting, hiking or they used the land through other recreational activities. It was an important factor for why they wanted to live in Dovre and not in the city. What was prominent in all conversations was my informants' engagement in what happens with their local nature and environment, and everyone had an opinion on how their surrounding nature should be managed. However, they expressed some concern that their knowledge of managing

their local environment received little acknowledgement in decision-making processes.

Research on environmental conflicts in rural areas of Norway show that expert knowledge on environmental issues in a local area often clashes with local knowledge and becomes the apparent source of conflict between a local community and experts from the outside (e.g. Skogen and Krange 2003, von Essen 2017). An example of this is the conflict of the conservation of large carnivores, primarily the wolf, in Norway, that has provoked much engagement and emotions among both rural and urban citizens. Krange and Skogen (2007) argue that the conflict over the conservation of large carnivores in Norway often is an expression of a long-lasting but often latent antagonism in the Norwegian society between the rural working class and the urban middle classes. For the rural working class such conflicts become a symbol of a lack of autonomy, as urban politicians, bureaucrats, scientists and environmentalists use their influence to make decisions that affect the life in rural areas without regard for the rural populations worries and wishes (ibid). Krange and Skogen (2007), (Krange and Skogen 2011) argues that this provokes what they call a "cultural resistance."

The concept of "cultural resistance" refers to a use of cultural means to challenge the dominant groups in society. For example, engaging in traditional rural activities, such as hunting, can be a form of cultural resistance if it is intended as such. Furthermore, von Essen (2017) argues that a public debate dominated by expert ways of knowing can provoke resistance through the creation of a new, alternative discourse, a "counterpublic" where dominant discourses are challenged and alternative perspectives can emerge and develop. Through this retreat from the public arena to private and counterpublic spheres in society, attitudes may undergo radicalisation as feelings of injustice are magnified (von Essen 2017, 483-484). Although resistance does not necessarily imply a desire for fundamental social change, it can be understood as a desire for *autonomy* – a reach for power and self-determination in a situation dominated by expert systems (Krange and Skogen 2007, 237). This desire for autonomy and experience of exclusion in decision-making was present among several of my informants when it came to local issues they cared about.

As shown earlier in this chapter, my informants did indeed feel that scientific rationality often dominated in decision-making, and that lay ways of knowing were

undervalued. Anders, for example, missed a respect for the local people's ability to manage their own areas, as shown previously in this chapter. Furthermore, he argued that there was a distance between the experts and the lay population.

> *Anders: I mean, academia has really always had a tendency to be the observers and analyse other people's achievements, instead of actually being in it.*
>
> *Researcher: Is that a problem?*
>
> *Anders: It can create a distance.*

Rather than motivating engagement, the scientific framing substantiates the distance my informants felt towards the issue. Anders is here using the same kind of narrative for scientists as was often used against politicians: scientists do not know what they are talking about because they have not personally experienced it. Especially when it came to local, rural issues, they would argue that experts did not know anything about life in the countryside. Framings like "they don't know what it is like in the real world" and "they forget where they come from" that I introduced earlier, also show that both scientists and politicians were groups the informants felt they had little in common with and struggled to identify with. These framings most often came up when we talked about policies that they thought would affect them personally or have an impact on their community. It was clear that, among my informants, lay knowledge was often valued more than expert knowledge. Thus, this chapter has so far shown that my informants did challenge dominant discourses and emphasised alternative perspectives. Several of them also engaged in activities that could be connected to a cultural resistance, such as Åse and Solveig who was engaged in traditional food and handicraft, or the many informants who enjoyed hunting.

It is possible that the resistance towards expert knowledge in issues other than climate change is transferred to how they see expert knowledge as a whole, and thus influence their trust in climate change science and climate change scientists. But would this necessarily lead to resistance also in the climate change issue? An important difference between the environment and the climate is that it is possible to personally experience your local environment. The climate, however, is difficult to know much about based on lay ways of knowing. As discussed in the previous chapter, my informants had no personal ownership of the issue, rendering it far from their everyday lives. They saw

it primarily as a problem that would affect other people (the urban population both in Norway and other countries) and as a problem that other actors were more capable of handling. Therefore, climate change expertise seemed to impact their lives much less than expertise on more local issues, and the strong feelings involved in more local issues were absent. Based on this, I find it inadequate to categorise my informants as resisting the climate change issue. Instead of "resistance," what I witnessed in Dovre had greater resemblance to "apathy". In other words, whereas expert knowledge on other issues may become part of a counterpublic and resistance to the elite, climate change results in the much more passive reactions "nonresponse" and "apathy." This could explain why some environmental issues receives so much attention while climate change does not.

As previously discussed my informants were not particularly concerned with the impacts of climate change, and had little direct contact with climate change scientists. However, the clearly expressed attitude towards the policies implemented (see chapter 5), indicate that it is the climate change policies that inspire resistance more than the issue as a whole.

To summarise thus far, the findings of this chapter indicates that different ways of knowing is an important factor in understanding my informants' relationship to the climate change issue. A scientific framing had the effect of reinforcing my informants' perception of climate change as not their concern, and resulted in an apathetic attitude towards the issue. Some of my informants blamed the scientific community for not translating their research into a more available language. However, since scientific research requires a certain level of scientific language, perhaps it is just as important to improve how the findings of scientists are communicated through mediators? This leads me to another highly important factor I have yet to discuss: the media.

6.2 Media as mediator

Scientific research reports on climate change are not necessarily meant for laypeople to make sense of without mediation through a different channel, such as the media. Furthermore, media is often the source for political conversations in the private sphere (Kim and Kim 2008, 64). Thus, it is relevant to ask what information my informants received through media and how that information was framed. Most of my informants

had not actively sought out information on climate change, and so the little information they got was mainly through media. Returning to Moser and Dilling's four assumptions made by communicators of climate change (see the beginning of this chapter), I shall now look at the assumption that mass communication[6] is the best way to reach people.

A wide range of academic research by psychologists and communication specialists have looked at how uncertainty and risk are communicated in media and how these framings have influenced public understanding and engagement with climate change (Painter 2013, 7). Painter (2013) argues that the lay public has a different relationship to uncertainty than scientists, and is often unaware that uncertainty is present in many areas of science. My analysis shows that uncertainty plays a significant role in most of my informants' relationship to climate change. Could this come as a result of the way climate change is framed in Norwegian media?

According to Ryghaug (2006) the media coverage of climate change in the early 2000s was characterised by an emphasis on scientific disagreement on whether climate change was caused by human activities or whether it was as a result of natural fluctuations. Additionally, Boykoff and Boykoff (2004) have famously argued that the goal of a balanced view of climate science reporting in U.S. media has resulted in a biased reporting where the attention to climate change sceptics is disproportionately high. Paradoxically the aim to create a balanced debate results in an unbalanced reporting that makes it seem like the scientific controversy is much higher than it is. However, following a study of the Norwegian media, Duarte (2010) argues that the so-called "balance as bias" has not been significant in the Norwegian media, and that uncertainty is not a prominent voice in media coverage of climate change in Norway today. So what characterise media coverage of climate change in Norway?

Duarte's study also shows that media coverage is dominated by elite voices, such as politicians, climate scientists and public spokespersons (Duarte 2010). The dominance of elite voices could further substantiate my informants' perception of this issue as primarily a concern for experts and policy-makers. This could reinforce a sense of security and legitimise their own nonresponse and apathy. In a recent study, Marken

[6] By mass communication I refer to the use of media in communicating a message to a large number of people in a short amount of time.

(2017) found that the framing in the news media in Norway is focused on a technological optimism and the green shift, much in line with the focus in the Norwegian public debate in recent years. A combination of elite voices and technological optimism could substantiate my informants' perception of climate change as not something to be concerned with, as it may seem as if everything is taken care of. Many of my informants were indeed under the impression that politicians and other decision-makers in Norway took the climate change issue seriously.

An example to revisit that illustrates this is what Åse said: "Well, I think there are a lot of good people who have both a lot of time and interest to work with these things, so then I can do other things." For others, the emphasis on elite voices could reinforce already existing resistance and scepticism towards the climate change issue, as discussed in the previous section. Bjarne, for example, had a clear scepticism towards the media. When we asked him what media he followed, he said:

> *"Not VG or Dagbladet, I don't read them because they are afraid they will lose support from the government, so they write what the politicians have told them to write. And NRK and TV2… They're in the politicians' pockets."*

He was one of the informants who mentioned having read an article or two on climate change from one of the online news sites he followed. As mentioned earlier, these sources opposed the climate science consensus on climate change, something he enjoyed reading. However, Bjarne's strong mistrust towards the dominant news outlets in Norway was not representative of the opinion of the informant group as a whole. Most people did not express such mistrust.

Another aspect of the role of media in people's perception of climate change is explained well by Moser (2010, 10):

> *information overload, declining newspaper readership, reliance on "bite-sized" television news, much reduced diversity in news sources as a result of media industry consolidation, and increasing reliance on, and high selectivity among internet news sources can limit depth of coverage, understanding of an issue, and frequently does not offer individuals the breadth of views that may allow them to develop a well considered opinion.*

In other words, the quality of the information that people receive through different media outlets are insufficient to develop a comprehensive understanding of complex

issues, and thus limits people's possibility to develop and maintain engagement and concern. As mentioned, some of my informants would selectively choose internet news sources that they identified with or that provided alternative perspectives that challenged the climate change consensus.

Considering that mass communication has not been successful in engaging the public, what about targeted media coverage in local news outlets? During fieldwork, my co-researcher and I approached the local newspaper in Dovre to see to what extent climate change was a possible topic for them to cover. According to my informants, this paper would not cover issues related to climate change. Confirming what the others had said, the journalist explained that their role was to give their readers local news about local people, relevant to their readers' daily lives. Again, climate change was not considered as one of those topics. Our conversation with Beate illustrates this:

> *Researcher: But you said that climate change and the debate around it is something that is covered in a higher level – what do you mean by that?*
>
> *Beate: Yes, that decisions are in a way made a bit more… or more centralized.*
>
> *Researcher: In Oslo, you mean?*
>
> *Beate: Yeah. But that doesn't necessarily mean people don't worry about it here. But to debate it in the local newspaper...? Maybe not that relevant?*

First, Beate's answer supports the findings from before that my informants view experts and politicians as having ownership of the climate change issue. Second, she feels that because the decisions about climate change are made and debated where the political power is centralized (Oslo), the topic is not that relevant for discussion in Dovre. Media coverage is subject to journalistic standards such as "novelty, controversy, geographic proximity and relevance to readers" (Ryghaug, Sørensen, and Næss 2010, 779). If climate change is not considered to cover these standards in the local newspaper, the perception of this issue as global or national rather than local is substantiated.

As my informants did not actively seek out information on climate change, they were dependent on the communication that came through channels they were already familiar with, such as national and local news and media outlets. Importantly, the local newspaper did not see climate change as a relevant issue for them to cover, as they

followed the principles of giving their readers local news about local people, relevant to their readers' daily lives. This could potentially form a dialectic relationship: local media does not cover climate change issues because their readers (and journalists) do not see it as a local issue; thus, their readers' perception of climate change as not a local issue is substantiated, and a dialectic is formed.

6.3 Summary and conclusion

This chapter has analysed and discussed how my informants' relationship with expert systems influenced their views on climate change and their own role in this issue. It turned out that the undercurrent of doubt found in chapter 4 could also be associated with my informants' relationship with expert systems.

I found that several of my informants experienced climate change as unavailable when it was communicated through expert knowledge, such as scientific reports with technical language. Some argued that climate change should become more accessible to laypeople. Research shows, however, that more knowledge is not enough to engage people in action. Nonetheless, my informants' focus on this can be an expression of the distance my informants felt to those who dominate the debate and decision-making processes in the climate change issue. As my informants were unfamiliar with and sceptical towards expert ways of reasoning, they experienced this form of communication as exclusionary and alienating. This substantiated my informants view of climate change as not their concern.

The distance described above led my informants to base their view of climate change primarily on lay knowledge. They would emphasise the few examples they had from personal experience, acquaintances or a one-year course ten years earlier that challenged the consensus on climate change. Their lack of identification with expert systems and their way of acquiring knowledge was for some of my informants reinforced by the feeling that their own knowledge was not recognized and taken into account in decision-making. The absence of local, practical knowledge among experts and politicians was used as an argument to not trust their decisions and reasoning. I further found that my informants were sceptical of experts, and showed tendencies of resistance towards both politicians and scientists. This was most apparent when the informants discussed local issues that they were concerned with, including local

environmental management. Despite the fact that resistance was generally aimed at experts and politicians, it would seem as if the climate change issue itself was not characterized by resistance. Connected to the overall finding that my informants lacked ownership to this issue, particularly that this issue did not concern them, I argue that rather than witnessing an active response of resistance, my informants responded passively with apathy.

7 Not my Climate Change

The main question I posed in the beginning of this is thesis was: *how can absence of climate change as a subject of political talk in the public sphere in Dovre be explained?* Based on the findings of the two previous chapters, I will now discuss how they relate to the question posed, and elaborate on how engaging laypeople in political talk on this issue can contribute to a successful transformation of societies.

7.1 Risk perception

In chapter 5, I presented my informants' perception of the noticeable changes in local nature and weather, and whether or not they associated these changes with anthropogenic climate change. More than anything, my informants conveyed doubts and uncertainty. Except for Bjørg, no one was comfortable with uttering a clear "yes" when asked if they believed in anthropogenic climate change. Similarly, no one except Bjarne would give a clear "no." Almost everyone would emphasise the role of natural fluctuations. Many of my informants would discuss the evidence for and against anthropogenic climate change. This revealed some interesting findings. First, their initial responses were to consider their personal experience with changes in weather and nature. In most of the conversations the scientific consensus on climate change would not be mentioned until we specifically asked whether they trusted the science or scientists behind it.

Although everyone accepted that climate change was connected to human activities to a certain degree, most of my informants would emphasise the role of natural fluctuations, especially when they talked about local changes in nature and weather. Although the climate change issue was not something they could obtain lay knowledge about, they struggled with fully trusting the consensus on this matter. Accordingly, they trusted people they identified with, often relying on heuristics. Thus, my informants primarily based their perception of risk on lay knowledge, or "knowledge pertaining to a local context or setting, including empirical knowledge of specific characteristics, circumstances, events and relationships, as well as the normative understandings of their meaning" (Fischer 2000, 194). To decide whether or not

climate change was a personal risk to them or a risk to their community they considered the changes in nature that had occurred in their lifetime.

A low perception of risk appeared because they had no experience of being affected by climate change, so they did not worry about it. They associated climate change with local air pollution as well as with an increase of extreme weather events (mainly abroad). Thus, they were seemingly unaware of the subtler ways in which they could be affected, either through indirect, socio-economic consequences of climate change as described by O'Brien et al. (2006) (see chapter 3), or the relatively slow changes in their local nature.

Because climate change in itself was seen as low risk, climate change policies that would affect them personally were considered much more of a threat. Furthermore, my informants were worried about other urgent issues threatening their community, such as the loss of workplaces, a decline in the number of people living there, and the threat of centralisation. In conclusion, my informants believed in anthropogenic climate change, but their focus was elsewhere: on the nearby natural environment and various local issues.

7.2 Denial of self-involvement

One finding is that the absence of climate change in everyday conversations seemed to be connected to a *denial of self-involvement*. As a reminder; denial of self-involvement is characterised by:

> *displacing blame for harms on those harmed; believing that one's contribution to an environmental problem is undetectable; denying personal responsibility for environmental harm by seeing it as the result of collective rather than individual decisions and actions; and casting oneself as a clean and blameless outsider in comparison to dirty, irresponsible, reprehensible stakeholders* (Opotow and Weiss 2000, 485).

In what ways did this present itself among my informants? If we begin at the bottom of the definition, my informants undeniably viewed life in Dovre as more environmentally friendly than the lifestyles and living of urban dwellers. As mentioned in chapter 5, they would often contrast the fresh air and green environment with the grey and polluted city. They considered this in itself a sign that they were "clean and

blameless". Furthermore, they argued that urban dwellers were not as dependent on the car as they were, and that policies because of this ought to target this group when aiming to reduce emissions from cars. The dichotomy of the urban polluted city and the "green and fresh" rural village of Dovre, substantiated their view that this was not a topic of concern to them. Questioning who can handle an issue, and ought to be engaged in that issue, did not always go hand in hand. Because of this my informants argued that it was easier to engage in an issue when they experienced it as threatening, as a risk. They also projected the normative view that the urban dwellers *ought* to be more engaged because they could actually do something about it. Thus, my informants applied ownership of the climate change issue to the urban population, because they believed urbanites were capable of making a difference.

My informants argued how individual action made little difference if the issue was not handled at a higher level. They emphasised the importance of international agreements, commitment from politicians and the lack of structures in place to facilitate individual action. Nevertheless, they believed that individuals *could* make a difference through the collective efforts of individual action, if only the necessary structures and incentives were in place. Thus, the responsibility was primarily placed on society as a whole, rather than individuals.

In her study, Norgaard found that the people felt responsible and described fears of the severity of climate change, of not knowing what to do, that their way of life was questioned, and that the government did not adequately handle the problem. She explains that emotions of guilt were significant in explaining why her informants were *Living in Denial* (Norgaard 2011, 8). Ignoring unpleasant news was a way for her informants to protect themselves from feelings of fear or guilt. Was this also the case among my informants? The feeling of powerlessness influenced my informants' lack of engagement, and it was easier just to not think about it, or as Solveig said, live inside your little bubble. Preferring to live in a bubble is also something that Norgaard found in her study of Bygdaby. My informants, however, argued that their lack of concern was because they felt it was not their problem. My informants' relationship to climate change did not hold any strong emotions of fear or responsibility. The few who did, were the exceptions, such as Bjørg and Berit. Whereas Norgaard connected her informants' avoidance of the climate change issue to a psychological protection mechanism against difficult emotions, supported by a socially organised denial, I

would argue that my informants did not avoid this topic because they felt guilt or fear, but rather due to a lack of interest and relevance. Rather than difficult emotions, I would explain the absence of climate change in public discussions among my informants with a *lack of emotions*, or *apathy*, felt towards the issue.

The low experience of risk and the feeling of insignificance in the climate change issue led my informants to argue that climate change was not something they had to concern themselves with. As mentioned in the begging of chapter 5, the initial response of my informants to the mentioning of the climate change issue was that they did not know anything about it, and that I should probably talk to someone else. Thus, they considered themselves insignificant to the climate change issue, just as they considered the climate change issue unimportant to their lives.

7.3 Trust and resistance

One of the arguments I made in chapter 6 was how response to the climate change issue was different than other issues in which expert systems were involved. I argued that rather than resistance, climate change provoked apathy and nonresponse. I presented Krange and Skogen's (2011, 2003) study on environmental conflicts (primarily the issue of wolf conservation) in similar areas of Norway and Karen Syse's (2010) study in Argyll, Scotland and how their respective informants met expert systems with resistance. Some of my informants showed similar tendencies of resistant attitudes to both scientists and politicians, particularly by emphasising the experts' lack of understanding of and emphasis on contextual and practical lay knowledge.

Importantly, what separated the climate change issue from other local issues was the absence of ownership. Whereas my informants engaged actively in local issues such as local nature management and maintaining workplaces, they had no personal relationship to the climate change issue. One of the most common responses was "it doesn't concern me." This response was somewhat challenged when we discussed the issue of car use and incentives to reduce emissions by raising fees and the price of fuel. However, resistance towards this was primarily directed at politicians who, according to my informants, were ignorant or overlooked how difficult it was to live without a car in Dovre. Thus, the emotions that the issue of the car provoked were associated not

so much with the climate change issue itself, but to the broader, underlying debate of rural issues.

Interestingly, most people did not connect the dots between environmental and nature protection and climate change. Although engaged in nature protection, many did not care much for climate change issues. As discussed, either they did not know much about climate change, doubted the extent to which humans could affect this, or simply thought it was someone else's problem. My informants seemed to associate climate change with expert knowledge, and local environmental issues with lay knowledge. Thus, the distance between expert and lay knowledge would manifest itself in a misleading dichotomy of climate change and environmental concerns.

As mentioned in chapter 5 it became evident that my informants placed much emphasis and trust in lay ways of knowing. They valued practical and empirical ways of knowing, and found this more trustworthy than some expert systems. Several of my informants would use lack of practical knowledge as a reason to mistrust politicians and scientists. However, they did not feel that their way of knowing was acknowledged when this knowledge was in conflict with expert ways of knowing. My informants felt that climate change science was presented in a technical, complex language unavailable to laypeople.

Although my informants' relationship with climate change was characterised by a denial of self-involvement and an undercurrent of doubt, they believed that Norway should take responsibility, directly or indirectly, for reaching the goal set by the global community and the commitments made when Norway signed the Paris Agreement. The informants supported policies to mitigate, "just in case." This is paradoxical, because they chose to trust the science of climate change despite the apathy they conveyed which I described above. Furthermore, their support for climate measures was primarily tied to the measures that Norway should take as a country, not the local actions they could make in Dovre. Was supporting climate change measures connected to their perception of responsibility and relevance? Most of my informants trusted that national politicians took climate change seriously, and were optimistic about technological innovation and renewable energy solutions. These were also seen as the most important and efficient measures. Furthermore, my informants were not worried that these initiatives would affect them, and they therefore had no reason not to give

their support, "just in case." However, they perceived their own involvement insignificant.

7.4 The alienation of laypeople

When my informants were unable to base their decision on what to actually believe on their own way of knowing, they became passive recipients of climate change information. Expert systems and the psychological distance of climate change seemed to influence them towards passivity, or apathy. Furthermore, they were uncertain about what and how they could contribute, and the measures they were aware of could potentially threaten their livelihoods. Because of this they did not feel they could be active participants in the transformation to more climate change friendly lifestyles.

The informant Solveig's "feeling" that her way of interpreting the world and making sense of climate change was old-fashioned is an excellent example of how scientific knowledge was considered more valuable in modernity than lay knowledge and personal experience. Solveig experienced this in a way that made her unwilling to share her views without being directly asked. She felt the need to excuse her view and her lack of knowledge throughout the conversation. As discussed, most of my informants excused their lack of knowledge and could not see the point in us talking to them about this issue. Because the feeling of being submissive or ignorant is uncomfortable, people would rather avoid talking about it. Thus, the asymmetry between the experts (in this case we could be considered *experts* since we were master students in environmental studies) and the layperson in this issue made Solveig exclude herself from the conversation, until we specifically asked her for her opinion.

Could a belief and trust in science and technology to solve our problems without regard for social and cultural perspectives exclude laypeople from feeling ownership? I ask, as Wynne (2010, 291) does:

> *whether the intensely scientific primary framing of the issue, combined as this is with an intensely economistic imagination and framing of the appropriate responses, may engender profound alienation of ordinary human subjects around the globe from 'owning the issue' and thus from taking responsibility for it.*

In chapter 3 I presented an overview of key targets for Norwegian climate policy as presented on the government website. There was an overweight of targets aimed at energy and technology initiatives, increased climate research and transport, and reduction of the use of private car in metropolitan areas (Regjeringen 2014). None of these targets can be directly connected to my informants, nor the rural population in general. Seemingly, the message communicated by the government supports my informants' view that individuals like themselves are neither responsible nor capable of handling climate change. These targets primarily emphasise the importance of technology and energy innovation, issues my informants cannot influence. The findings of this thesis show that a scientific framing alienated my informants, and made it difficult for them to feel ownership and responsibility. When this was combined with an emphasis on technology and energy solutions in the public debate, my informants experience of being insignificant was substantiated, and issue ownership was allocated to the climate experts, politicians and engineers.

It would seem that my informants' relationship to climate change was not primarily one of ignorance or denial, but rather *lack of interest, relevance* and *apathy*. Given that my informants showed a personal engagement and interest for other environmental issues, one can question whether perhaps the climate change issue leaves limited opportunities for my informants to develop the same interest and agency. I have argued that a technical discourse on climate change is alienating, supported by the goals set by the Norwegian government and the international community in which culture and place is close to absent. Furthermore, a lack of experience with impacts of climate change and the failure of communicators to make visible the various indirect consequences of climate change, results in a low perception of risk. Together, this left little room for people to develop their interest and ownership of the issue, and led my informants to conclude that "it doesn't concern us." My informants engaged in issues they felt an ownership of (and felt capable of handling). When a debate is based on complex language and technological solutions, it becomes exclusive and alienates those with a different way of knowing, as my findings illustrate. Like my informants signalled, it becomes a debate that belongs to the experts.

7.5 Participatory dialogue for successful transformation

My informants were unaccustomed or disinterested in expert ways of knowing. Therefore, the domination of expert knowledge in the public debate on climate change makes it difficult for them to involve themselves, should they wish to do so. Maybe a dialectic relationship has formed, in which my informants see little reason for engagement, and accordingly choose to remain uninvolved. But ought the local population in Dovre engage in the debate on climate change? What could lay knowledge perception add to the debate? Would it lead us closer to a lasting solution to climate change? Perhaps individuals are important for a climate friendly transition in society less through their individual actions and changes in consumption patterns (although this is also important), but more by their awareness, engagement and input of place- and culture-specific knowledge when developing and implementing climate change policies and other environmental policies? Méé

Because experts dominate the debate, place-specific, cultural perspectives are neglected. These perspectives could inform policies that are inappropriate or a threat to the local aims and values. If the global and national climate change agenda trumps local processes and agendas, it could ignite a resistance as seen in other environmental issues. Engaging people in the conversation through democratic participation does not necessarily guarantee transformation or other desired outcomes. However, excluding them through ignoring public engagement, and as an extent of it, a democratic transition, may well produce significant resistance and defiance towards the changes needed, thus reducing the feasibility of the transformation (Moser 2010, 2). My informants could have important knowledge of the local environment and contribute with ideas and solutions that experts unaccustomed to this area and community overlook.

Von Essen (2017, 471) argues that a result of an overemphasis on expert knowledge at the expense of lay knowledge is that "the debate is 'frozen' at a level of technical-ecological reasoning […] when it may be symptomatic of deeper problems and embedded in cultural tensions." Engaging place-specific knowledge in the debate could uncover such problems and resolve cultural tensions by taking the worries and values of the local people seriously. Futhermore, reducing inequality in the public sphere and public debate may help reduce the remoteness that my informants felt

towards decision-makers in the climate change issue (Plumwood 2005, 625). The fact that citizens experience climate change as distant and irrelevant, and the apathy that follows, may reduce the accountability of policy-makers in this issue. After all, if citizens do not care or see this as an important political issue, how can they hold decision-makers accountable? If my informants had been included, and included themselves in the conversation, they could enhance their opinions and understanding of this issue, possibly increasing their engagement and perception of urgency.

The distance that my informants felt towards expert systems directly influenced their view of climate change as beyond their concern, and stopped them engaging in a conversation about it with their friends and family. As mentioned by Berit, people would not go further into a debate on the climate change issue. The hesitant responses I met during our conversation indicate that they did not know what to discuss about climate change, nor how to do so. As mentioned in the introduction, citizen participation in the public debate covers three important goals: i) deliberation gives meaning to democracy; ii) citizen participation contributes to legitimise policy development and implementation; and iii) "[p]articipatory forms of inquiry […] have the potential to provide new knowledge—in particular local knowledge—that is inaccessible to more abstract empirical methods" (Fischer 2000, 2). Furthermore, people's everyday conversations often set the agenda for the public debate. In the words of C. Wright Mills (1959, 13):

> *Before an issue can make it into a council meeting, onto picket signs, into the framing of a local news story, or into a newspaper editorial, somebody has to start talking about it. When people get together and talk, a number of important things can happen. Conversation is the site for exchange of information and ideas, for human contact, and for the building of community. Conversation can help people understand their relationship to the larger world or obscure them. It can engage the sociological imagination, that "quality of mind necessary to grasp the constant interplay between our private lives and the political world.*

Since my informants did not talk about the climate change issue with their friends and family, maybe the uncertainty and doubt that I found could be connected to their lack of familiarity with this issue? The combination of not mastering a topic and a range of different opinions and ideas entering the conversation from other participants could perhaps make my informants vulnerable to inconsistencies. Allow me to illustrate this point: First, due to the lack of experience with political talk on this topic, my

informants might not have internalised the issue or developed a consistent line of argument to support their views. One piece of evidence for this was how my informants often could not explain *why* they believed what they did, or would explicitly say that they based their argument on feelings and personal experience. Initially, they were also uncomfortable with the topic and would often subtly shift the conversation towards topics they were more familiar with.

Engaging in political talk can influence how citizens construct identities, understand others, enhance their opinions and bridge their private lives with the political world (Kim and Kim 2008, 66). This leads me to my second point. If the conversation initiated through this study was the first time they had engaged in political talk on this topic, they may have enhanced and developed their opinions and views throughout the conversation. This inexperience could make them vulnerable to suggestions from other participants.

Third, when the basis of the argument is the personal experience or feelings, contradictory statements could emerge because you might feel one way about one aspect of it but differently about another. For example, my informants supported climate change mitigation at a national level – maybe because they did not believe they would be affected by it. Therefore, they had no reason to oppose precautionary initiatives, "just in case." However, when the potential of them being affected appeared, they were more likely to emphasise the uncertainty of climate change and doubt the effect their community had.

Engaging the people in the conversation through democratic participation does not necessarily guarantee necessary transformations or other desired outcomes. Some local communities may resist necessary climate policies because they threaten local agendas or values, for instance, or because they do not see the relevance of their implementation. However, excluding them through ignoring public engagement, and as an extent a democratic transition, may produce significant resistance and defiance towards the changes needed, thus reducing the feasibility of the transformation (Moser 2010, 2). As Fazey et al. (2017, 205) argue, "[a] 'good' process does not necessarily guarantee a 'good' decision […] particularly over the kinds of timeframes imposed by a rapidly changing climate." However, it is clear from my study that more inclusive work towards adaptation and eventually transformation is necessary for people to

engage, and including them in a deliberative discussion could increase awareness and make their concerns evident in a way that reduces legitimacy challenges and apathy.

So, in conclusion, *how can absence of climate change as a subject of political talk in the public sphere in Dovre be explained?* The title of this thesis, *Not my Climate Change*, points to my main finding: the informants have no ownership of the climate change issue. Within this lack of ownership there is a dialectic relationship between apathy and the different findings discussed above. The order in which I have chosen to present them are based on the point of departure: the silence with which the climate change issue was met. Nonetheless, the absence of climate change as a subject for political talk could also be a source for the distance my informants felt towards expert systems and why they lacked a feeling of relevance and responsibility, and not just the other way around.

This study is by no means generalizable for all localities, but has aimed to provide an insight into how one local community in Norway is experiencing this great challenge that is often presented in a technical and global discourse, remote from the everyday lives of individuals. The findings here illustrate the importance of considering the countless different receptions climate change provokes in different localities, and how different cultural contexts demand a variety of solutions adapted to the values and worries of people. Facilitating for the participation and engagement of local people in the public debate on climate change could contribute to uncover important challenges and possibilities for a successful transformation.

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