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The potential of climate change journalism to motivate pro-environmental behavior among young people

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Declaration

I, Eline Johnsen Helledal, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Signature: *Eline Helledal*

Date: 02/07/2020

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Abstract

While global warming is accelerating, we are still far from a solution to climate change. The media plays a key role in engaging the public in order to motivate a transformation towards a future low emission society. This study aims to support CICERO Center for International Climate Research and their research project ACT in understanding how the meaning-making of climate change goes about. It touches upon how young people acquire and engage with information about climate change, both in terms of their choice of sources and platforms. In addition, it goes more in-depth into human motivation. The thesis investigates whether climate change journalism can motivate altruistic or pro-environmental behavior among young people. More specifically, what type of reactions, reflections and rationalities that are evoked by a set of articles. The research has a mixed-methods approach, where semi-structured in-depth interviews were the main method of data collection. 18 respondents, with an equal representation of gender, participated. These were between 18-29 years old. The analytical framework of the thesis consists of social representation theory, norm activation theory and institutional theory. A total of six journalistic texts were chosen for the quasi-experimental study, which all represented various social representation mechanisms such as emotional anchoring and objectification through personification. The findings suggest that certain mechanisms such as emotional anchoring and anchoring through metaphors have the potential to evoke altruistic reflections among young people. This is so as the articles are able to both increase the awareness of consequences and lead to an ascription of responsibility. The same goes for the articles that were linked to habits, which indicates that young people prefer information about everyday action and behavior related to climate change. The remaining articles seem to only increase awareness but are not able to evoke an ascription of responsibility. Because the materials of the experiment interact with the participants existing knowledge, norms, and so on, it is useful to think of their reflections as emergent properties. It means that the sum consists of several parts, where each of these affects each other. Therefore, each article provides different results.

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1. Introduction

1.1. Problem statement

For many decades, scientists have warned about climate change. In 2018 the IPCC published a special report on the impacts of global warming if we reach 1.5 degrees temperature increase. They emphasize the urgent need for mitigation and adaptation measures (IPCC, 2018). We are pushing the earth towards hotter conditions, reaching a planetary threshold. A deep transformation is needed to avoid this non-reversible pathway (Steffen et. al., 2018). On a daily basis, individuals are exposed to information and debates about how this transformation should go about. There is a flow of information and imagery about climate change and its impacts. Policies, science, or extreme weather events are covered and shared across platforms.

In Norway, CICERO Center for International Climate Research started the research project ACT. It's an annual examination of how Norwegians respond to climate change policies in terms of both actions and attitudes. They measure the level of concern, individual responsibility, and what motivates action. They also look at people's responses to policies concerning fossil fuels, transport, meat, etc. The goal is to provide policy suggestions that can help a transition to a low-emission society. Their analysis shows that young people differ in their level of engagement. Not only are they more concerned, but they are also more willing to shift their own habits and support climate policies (Aasen, Klemetsen, Reed & Vatn, 2019).

While press coverage of climate change seems essential in this transition, it also raises the question of how the media can help raise awareness, shift attitudes, or motivate action. Despite the increased coverage throughout the last decade (Schmidt, Ivanova & Schäfer, 2013), we are still far from a solution. The lack of action poses the question of whether press coverage is at all able to encourage a shift, or if it also leads to inaction and apathy. While there have been great improvements in the overall awareness of climate change in the last decades, Susanne Moser raises the question: "Is it not simply time for action now?" (Moser, 2016, p. 346).

1.2. Objectives and research questions

This master thesis aims to analyze news about climate change and its policies, and how these news are perceived by young people. It aims to contribute with increased knowledge on whether different ways of anchoring and objectifying climate change in the media potentially could affect 1) the way young people reflect upon their own responsibility in reducing emissions, and 2) what type of rationalities that might follow.

While ACT measures attitudes and actions towards climate change policies in Norway, this master thesis aims to support their analysis in trying to understand the role of the media in the meaning-making of climate change. Ultimately, the goal is to learn more about how individual attitudes and actions are shaped by the context of society, specifically the media. Therefore, it is relevant to understand how young people gather information about climate change. This involves learning what sources of information they trust and what news agencies they mainly follow. Another aspect is young people's choice of platform, and whether they choose to read, watch, or listen to stories covering climate change. Learning whether they prefer printed news, podcasts, social media, online news or a combination of all of these is useful. While Greta Thunberg, the Amazon fires and 'flight shaming' were among the climate change topics that circulated in media in Norway recently, it is beneficial to get an impression of what the participants themselves consider as being the most covered climate change topics or events that year. The aim is to get a list of events that young people perceive as the top, meaning most frequently covered, topics, or media stories. Hence, RQ1 is as follows: **How do young people acquire information about climate change, and what do they perceive as the most covered climate change topics in 2019?**

Following this, the thesis will look into the frequency of climate change coverage in Norwegian news media throughout 2019, in order to learn whether the group perceptions match these findings. Therefore, RQ2 is: **To what extent does young people's perception match the actual news coverage* of climate change topics in Norway in 2019?**

Lastly, the majority of the thesis will explore whether different ways of anchoring and objectifying climate change in the media might affect the way young people reflect upon their individual responsibility in reducing emissions, and what rationalities that follow from these

different ways of presenting climate change. It also compares if their perceived self-efficacy changes in the discussion of a low-barrier versus a high-barrier change of habit. Ultimately, the goal is to provide an increased understanding of whether climate change journalism might motivate altruistic or pro-environmental behavior among young people. RQ3 goes: **How might different ways of anchoring and objectifying climate change in journalism affect young people's rationality and self-reflection regarding the responsibility of reducing their own emissions?**

* Printed and online news articles available in Atekst, Retriever.

2. Background

In this section, I will briefly go through existing research that covers the relationship between climate change knowledge, the role of the media, and potential explanations of its inability to encourage public action and social change. I will also provide some insight into Norway as a context for the research conducted for this thesis.

2.1. Climate change coverage

Despite the scientific evidence supporting that global warming is caused by humans, the last decades have led to little action. If we look back at the history of climate change as a rising issue on the public agenda, a parallel development has also taken place in terms of how climate change has been communicated. Susanne Moser summarizes how this field initially focused on the very science of climate change and occasional extreme weather events (Moser, 2010). The lack of media attention to environmental issues was raised in a study by Ereaut and Segnit (2006), showing that stories in the UK with a doomsday focus or concerning specific weather events would keep the media interest of the environment and make headlines, resulting in an alarmist framing of climate change that mainly informs about the disastrous effects (Ereaut & Segnit, 2006 in Evans, 2012).

As mentioned, the early communication about climate change centered around scientific evidence. Due to conflicting interests, many had a stake in maintaining status quo instead of pursuing mitigation efforts. This led to heavy lobbying of politicians, and a growth of spokespersons. Their aim was to fight the facts and promote alternative explanations of what was causing climate change. For many years, the mass media reported climate change from the norm of balanced reporting, giving both sides equal coverage (Moser, 2010).

This norm gave climate science skeptics the opportunity to speak up, which led to a split discourse, causing a biased coverage of climate change. This divide in the perception of climate change as an issue is described as ‘Two Americas’ by Nisbet, caused by the framing of the issue in a fragmented media landscape in the US. He found that an increasing amount of Republicans disregard climate change as a problem and doubt the science of the issue in total, while Democrats are more concerned and call for action (Nisbet, 2010).

When studying the reporting of climate change in the US from 1988 to 2002 in selected prestige press such as The New York Times, researchers found that the majority of this coverage concerned especially two debates: 1) to what extent anthropogenic contributions actually mattered in the issue of global warming, and 2) what measures were needed in order to act. The discourse in the press versus the scientific one differed greatly because of the journalistic tendency of balanced reporting hindered an accurate coverage of the issue. The media had not been able to lift the scientific conversation into the popular arena. This divergence was rooted in journalistic norms and values (Boykoff & Boykoff, 2004). This tendency of ‘false balance’ has now retreated and is replaced with what Brüggemann and Engesser (2016) refer to as an active contextualization. This means that when contrarians are now featured in media, they are quoted only to be dismissed by the context of what they’re saying. Or in the case of journalists who support contrarians, they often refrain from quoting them, a tendency referred to as ‘protective omission’ (Brüggemann & Engesser, 2016).

Framing means highlighting certain aspects over others, such as the nature of the issue, stakeholders involved or potential ways to act. “There is no such thing as unframed information” states Nisbet (2010, p. 15). He emphasizes that the audience uses the frames provided by the media to understand the issue. Despite this, the outcome in terms of changed norms and actions depends to a large extent on how these presentations add up with pre-existing beliefs or social identity (Nisbet, 2010).

While the majority of research in the past has focused on media coverage in western societies, there is now a growing body of work studying geographical areas that have previously been neglected (Moser, 2016). The amount of coverage is also rising. In a study analyzing climate change media attention across 27 countries in the time period of 1996-2010, it was found that coverage had increased in *all* countries (Schmidt, Ivanova & Schäfer, 2013). Although climate change science is providing more journalistic coverage now than ever, it is not synonymous with a more engaged public. Rather “the relationship between knowledge, public perception, and our willingness to act is more complicated both psychologically and geopolitically” states Elisabeth Eide (2017, p. 34). The public is exposed to information concerning climate change events that are distant and does not relate to personal experience, making attention, and trust important issues when forming beliefs about climate change. Not only will the values of the individual matter to how they perceive the

issue, but it is also competing with the attention from a list of other life concerns, affecting how they rank the issue in terms of importance. Adding to that, trust also affects our beliefs, meaning that social and cultural processes interact with the facts and how we perceive them (Weber, 2010).

Per Espen Stoknes presents five main defense barriers, arguing that humans keep the message and information about the climate crisis away due to: distance, doom, dissonance, denial, and identity. He states that the framing of climate change in the last decades is “the greatest science communication failure in history” (Stoknes, 2015, p. 81). With distance, he refers to the fact that the climate crisis seems far away, for instance, visualized with the melting of glaciers. Doom explains how the disastrous framing of the crisis makes us apathetic, such as focusing on droughts and extreme weather events (Stoknes, 2015). There is little knowledge to date regarding the use of apocalyptic narratives and metaphors such as ‘combat’ and ‘fight’ and how this affects long-term climate change communication. But, there has been more attention towards the use of emotions, hope and positivity from a research perspective (Moser, 2016). Stoknes does in fact argue that we need more positive news on climate change. Because humans face an internal conflict between what they know and what they do, they justify their actions by ignoring the facts. This is what he refers to as dissonance. The fourth barrier denial, therefore, kicks in as a self-defense mechanism. Lastly, identity will override the facts, because humans, in the end, will search for and consume information that supports or confirm their existing values. His argument is that we can be hacked into acting more environmentally friendly through our social networks, because we seek to do and follow what our friends, family and neighbors do (Stoknes, 2015).

Susanne Moser describes a general shift in the research on climate change communication. Instead of assuming that information and raising awareness will lead to action, a great amount of research now studies how human motivation plays a role in this matter. The need to explain and educate is still there, but an emphasis is now put on empowering. Action and practical options are now crucial parts of climate communication (Moser, 2016).

An example is ‘solutions-focused’ journalism, focusing for instance on the experience of individuals going through behavioral change, or small-scale and local best-cases (Hackett & Gunster, 2017). Studies have shown that the ‘gain’ frame can have a positive effect on attitudes concerning actions on climate change (Corner et. al., 2015). With that being said,

the news media can be seen “as the primary intermediary between science, politics, and the citizens”, states Olaussen (2011, p. 295). In her study on citizens representation of climate change and the role of the media in Sweden, she argues that the meaning-making of climate change is complex and co-produced and that the media primarily takes on the role as the agenda setter (Olaussen, 2011).

2.2. Climate change in Norwegian media

The research context of this study is Norway. With an internet penetration of 99 percent, nearly 90 percent of the population consume online news on a weekly basis. The smartphone is the primary device. Although there is a decline in the use of print and TV, the latter still remains an important source of news for the majority (Moe & Sakariassen, 2018).

When looking at attitudes towards climate change, data collected in Norway through the ACT project by CICERO in 2019, indicates that only 2.4% think that climate change is not happening, while 11% do not think that climate change is caused by humans. The analysis by Aasen et. al. shows that the majority, around 70%, feel that they are responsible for taking action. It is especially the younger group, aged 18 - 29 years old, that is the most concerned. They are also more willing to support policies that can help reduce emissions (Aasen et. al., 2019).

Research on climate change journalism in Norway specifically is somewhat limited, especially concerning the link between information and attitudes or action. Yet, there are a few studies looking into framing and engagement. Before elaborating on that, it is useful with a brief summary of how mainstream media in Norway has covered climate change in terms of frequency.

Based on an analysis of articles from the news archive Atekst by Retriever, there is an increase in coverage over a longer time span. Figure 1 illustrates the number of articles mentioning ‘klimaendringer’ (climate change) and ‘global oppvarming’ (global warming). While this analysis does not dive into the content behind the numbers, one would assume that the peak in 2007 is linked to the release of the fourth IPCC report. Keep in mind that the selection of sources represented in the archive has varied over the years. For instance, VG,

the largest newspaper in Norway was for many years not included in the selection.

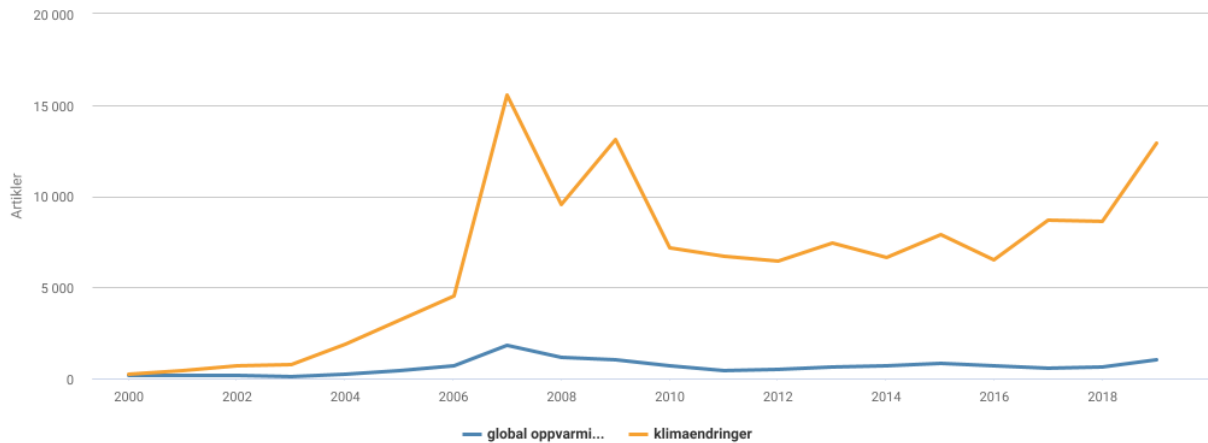


Figure 1. Number of articles in Norwegian media mentioning 'klimaendringer' (climate change) and 'global oppvarming' (global warming) during the time span 2000 - 2019.

Data from Atekst by Retriever shows that in 2019, the mention of global warming in Norwegian news media had increased by 50% compared to 2018. The mention of climate targets and CO2 emissions had increased by 102%. In general, climate and environment were among the top five most covered topics in the media altogether (Falnes, 2020).

The coverage of and focus on climate change varies greatly within each newspaper or media outlet in Norway. This is confirmed in a study by Duarte & Eide (2018), which looks into the communication between scientists and journalists working on this topic. Based on in-depth interviews with five Norwegian journalists covering climate change, the researchers found that few of these news outlets had a specific policy on how the topic should be covered. Only one of the journalists, Ole Mathismoen, was able to focus solely on climate change for a longer time period (Duarte & Eide, 2018). He writes for the newspaper Aftenposten, who claims to have covered the topic over a time span of 30 years (Tveøy Strøm-Gundersen, 2019). While many newspapers are not able to have dedicated journalists covering climate

change, there are still many examples of in-depth projects and stories. For instance, Dagbladet released the climate podcast named *Klimapodden* in 2018. It was led by the political editor of the paper, in company with the secretary-general of WWF Norway (Lea, 2018). “There is a perception among journalists that it’s hard to engage people with articles on climate. It’s simply difficult to make it clickable” states journalist Mads Nyborg Støstad. In January 2019 he wrote the article *Jakten på klimaendringene* published at NRK.no, that passed more than 750 000 pageviews, documenting the various impacts of climate change in Norway (Lindebø, 2019). In January 2020 NRK announced its new strategy on how dedicated climate journalists at NRK plan to cover the topic in the future. Three overarching targets were set: to explain, to engage, and to hold actors accountable. Coverage will concern *what*, and not whether, actions are needed to reverse global warming (Flaarønning, 2020).

When examining the media coverage of climate change in six local Norwegian newspapers, Mikaela Solberg found that both challenges and measures were mentioned in a local context and that stories concerning local adaptation measures were the ones that engaged the readers the most (Solberg, 2014).

When Norwegians are seeking knowledge about climate change specifically, the media is the number one source of information (Austgulen, 2012). As previously mentioned, the practice of journalism affects the framing of the climate change issue. The norm of balanced reporting has affected the public’s perception of climate change and the legitimacy of climate change science specifically. In the case of Norway, the need to dramatize and focus on conflicts has been dominating the interactive practice of journalists and scientists. Journalists have constructed a disagreement despite the scientific consensus, where the conflict itself is given more attention than the actual science. “The scientific certification of knowledge is by far dissolved in the quest for drama” (Ryghaug, 2006, p. 197).

In a study on how Norwegians perceive global warming, the role of news media was very much relevant. Both in its framing of natural variations and changes in weather, but also the coverage of scientific disagreement on climate change and media critique, referred to as ‘The Nature Drama’ and ‘The Science Drama’. When appropriating knowledge on the topic, these elements help shape how the focus group of the study make sense of global warming as an issue (Ryghaug, Sørensen & Næss, 2010). Ryghaug, Sørensen & Næss emphasized that while the press had made climate change more accessible and understandable, especially with ‘The

Nature Drama' focusing on effects and inviting the readers to engage, other factors also mattered to how they would perceive the issue overall, such as personal experiences (Rygghaug, Sørensen & Næss, 2010).

2.3. Young people and climate change

In a focus group study, young Norwegians state that they want more stories that can help inspire a green transition in Norway. They express feelings of frustration concerning their individual role in this process (Selboe & Sæther, 2018).

Globally, several surveys find that climate scepticism is less likely among young people, and that they tend to hold a higher degree of acceptance of scientific consensus. In general, young people are more worried about climate change than older groups. But, international studies indicate that they do not consider the issue to be a top priority (Corner et. al., 2015). When listing topics of concern, the economy and employment trumps climate change in countries such as the UK and Australia. With that said, younger groups in Europe have a more solveable approach to climate change, with a less fatalistic mindset than those older than them (Corner et. al., 2015).

In their report from 2019, the ACT project found that younger age groups to a greater extent view climate change as human made. They are more worried and have a bigger focus on making changes in own habits. In addition, they are more willing to support climate policies than older age groups. Yet, when measuring actions, they also identified a gap between these reported attitudes and actual actions. For instance, when travelling to and from work or school, cars running on fossil fuels still dominates. They also found that young people more often make long distance travels outside Europe (Aasen et. al., 2019).

The literature review by Corner. et. al. points out that “there appears to be a lack of perceived self-efficacy among younger people with regards to climate change. Young people do not necessarily see what they can do in response to climate change, and when perceived self-efficacy is limited, personal engagement with climate change is likely to be lower” (2015, p. 530). This is partly due to a low level of voting and trust in governments, which they feel possess the biggest responsibility in acting on the issue (Corner et. al., 2015).

3. Theory

As we have seen, journalistic coverage of climate change has increased both at an international level, and also at a national level in the case of Norway. Although there is a gap between attitudes and actions, data from ACT confirms that young individuals in Norway feel that they have a responsibility in acting on climate change and reducing own emissions. The following sections elaborates on theoretical perspectives, both within psychology and institutional theory, that are helpful in analyzing and understanding how young people make meaning of news about climate change.

Because this thesis aims to contribute with knowledge on the meaning-making of climate change news, and whether it is able to evoke altruistic thoughts among young people, it builds on an analytical framework consisting of three theories. These are the social representation theory by Serge Moscovici, institutional theory by Arild Vatn and the norm activation theory by Shalom Schwartz. With the help of these, I will analyse how groups perceive news about climate change, and whether different ways of anchoring and objectifying climate change in journalism might affect: 1) how groups reflect upon their individual efforts to reduce emissions and 2) what type of rationalities might be evoked.

3.1. Social representation theory

“Social representations appear as a ‘network’ of ideas, metaphors and images” (Moscovici, 2000, p. 244). Collective phenomena become social representations as they are co-constructed across minds and become social realities. These are products of thoughts or feelings being expressed verbally or through action, by individuals in social groups. (Wagner et. al., 1999). Serge Moscovici describes social representations as everyday thinking, collective cognition, or thought systems of societies. He argues that these representations are created and transformed through a set of mechanisms or communicative processes, mainly anchoring and objectification (Moscovici, 2000).

Researching social representations means studying how people act and talk about these specific social phenomena (Wagner et. al., 1999). Social representation theory is especially relevant to this thesis, because “social representations are about processes of collective meaning-making resulting in common cognitions which produce social bonds uniting societies, organizations and groups. It sets focus on phenomena that become subjected to debate, strong feelings, conflicts, and ideological struggle, and changes the collective thinking in society. As a theory of communication, it links society and individual, media and public” (Höijer, 2011, p. 3). Climate change is subject to both debate, strong feelings, and conflicts, and as we have seen, research shows that the meaning-making of climate change through media is complex.

In this thesis, I will focus more closely on the following social representation mechanisms: anchoring in antinomies, emotional anchoring, anchoring by metaphors and objectification through personification. Hence, it is relevant to elaborate on what these concepts mean, and how they function from a social representation theory perspective.

In general, anchoring means that an unfamiliar phenomenon is named or given certain characteristics by a social group to be able to understand and communicate it better (Wagner et. al., 1999). When anchoring climate change in a media context, it could for instance mean that one would emphasize fear or focus on distinctions such as the local versus the global (Höijer, 2011).

Looking at previous historical phenomena, AIDS is an example illustrating the way social groups anchor unfamiliar issues. When this disease first reached public opinion, it was connected to venereal diseases broadly and described as a ‘plague’, a familiar term or phenomenon people understood (Smith & Joffe, 2012). Once the social representation of AIDS was established, partially through the anchoring mechanism of naming, the discourse changed, making it easier to distinguish AIDS and venereal diseases (Wagner et. al., 1999).

Anchoring in antinomies refers to how meaning-making is made possible through the ability to think in oppositions (Höijer, 2011). Certainty/uncertainty, threat/hope, nature/culture and global/local are examples of occurring distinctions in the case of climate change (Höijer,

2011). Antinomies often produce tension, in which new social representations develop and sometimes lead to change (Hojjer, 2011).

In a study by Smith & Joffe, results from a sampled group of the public in London showed that they made sense of global warming by linking it to distinctions. Examples were oppositions such as us/them, natural/unnatural and certainty/uncertainty. Weighing between different positions is part of this sense-making, and this is informed not only by new information, but also by how that information is combined with existing knowledge (Smith & Joffe, 2013).

The concept of emotional anchoring refers to how unfamiliar phenomena are attached to feelings we know, both positive and negative. In this way it is made recognizable, helping us understand and evaluate social situations and objects. Typically, in the case of climate change, emotions such as fear, guilt, and hope are embedded in both visual elements and language, and we are able to compare them to other such feelings related to for instance other environmental risks or terrorism (Hojjer, 2011). Hoijer states that “emotions are to be seen as cultural-cognitive products related to values and social norms of a society”, and that emotions are an inseparable part of social representations (Hojjer, 2010, p. 720).

“Metaphors make things and phenomena comprehensible by imagining them as something else”, writes Hoijer (2011, p. 11). While metaphors might vary, and could be culturally specific, anchoring a new issue or social phenomena in metaphors might help legitimize the issue (Hojjer, 2011). When studying how tabloids in Sweden covered the issue of climate change, Hoijer discovered that metaphors of illness and death were used to, for instance stories describing how animals were ‘killed’ by climate change. She argues that this type of anchoring emphasizes the seriousness of climate change and legitimizes the need to cut emissions (Hojjer, 2010).

Objectification is another mechanism that helps groups to materialize abstract ideas, by making it concrete and sense-able through emotional objectification or personification (Höijer, 2011). In this process, knowledge gets a specific form. It is useful to keep in mind though, that within social groups, people tend to consume news and talk to individuals that maintain their personal beliefs. Therefore, it is likely that when an unfamiliar phenomenon is presented, the group interprets it in their own way (Wagner et. al., 1999). In the case of climate change, objectification is illustrated by the rapid use of polar bears as symbols of this

issue (Olaussen, 2011). In essence, objectification through personification means that one connects a phenomenon to a specific person. Once again in the case of climate change, this mechanism is apparent in the way that this complex issue is objectified in media. For instance, Al Gore has become a representative of the topic itself (Hoijer, 2011).

3.2. Institutional theory

Institutional economist Arild Vatn states that “Environmental problems are fundamentally about human action” (Vatn, 2015, p. 6), and to grasp what makes us act in certain ways, it is key to understand human motivation. Therefore, institutional theory is especially relevant to the framework of this thesis because institutions may function as contexts for explaining human action.

When discussing the role of institutions, I’m referring to the definition by Vatn, describing institutions as “the conventions, norms and formally sanctioned rules of a society. They provide expectations, stability and meaning essential to human existence and coordination. Institutions support certain values, and produce and protect specific interests” (Vatn, 2015, p. 78). They can be seen both as social constructs and as constructing the social. Institutions are made through the process of externalization, objectivation, and lastly internalization. Meaning that a certain process first is created, then observed, and at last reproduced to become an institution. For society in total, these steps are ongoing and crossing processes (Berger & Luckmann, 1967 in Vatn, 2015).

While neoclassical economics view humans as autonomous beings with individually rational preferences, the social constructivist position operates with a different understanding. It considers the society to influence a person's preferences, meaning that also what is individually rational is affected by the surrounding context. Hence, it does not assume that humans are autonomous. Moreover, it emphasizes that values and norms are created that make us able to act in ways that also benefit others. This is called social rationality and one can distinguish between two types – ‘we’ and ‘they’ rationality (Vatn, 2015).

Being able to consider what is best for the group is referred to as ‘we’ rationality. For instance, in the case of shared resources, cooperation might not be individually rational. But, for the group in total, cooperation leads to a better result. The outcome might be unequally

distributed among participants because many ‘we’ conflicts are asymmetric (Benjaminsen & Lund, 2002, Cleaver, 2012, in Vatn, 2015).

A variation in the willingness to cooperate might also affect who gains and who loses. But essentially, research shows that the majority choose to cooperate out of a free will, but if others do not follow, this willingness is reduced (Vatn, 2015).

‘They’ rationality describes how humans are able to consider what is right to do for others, referring to altruistic acts. Some researchers divide altruism into three categories: selfish altruism, reciprocal altruism and pure altruism. The former describes how altruistic acts give internal rewards, i.e., they are based on what is best for the individual her- or himself (individual rationality). Reciprocal altruism refers to solidarity or a ‘we’ rationality as described above. Pure altruism equals a ‘they’ rationality (Crowards, 1997 in Vatn, 2015). When using the terms altruism and altruistic acts throughout this paper, I’m referring to the latter category, pure altruism, also known as ‘they’ rationality. Despite the fact that these categories are conceptually clear, it has been a challenge to empirically distinguish between them since what makes somebody act is not observable. This poses a challenge to the research of this thesis, because thoughts and motivations cannot be observed, meaning that studying human motivation is based on interpretations of people’s responses and reflections.

When discussing what rationalities these articles might evoke, it is also relevant to keep in mind the concepts of ‘emergent properties’ and habits. The former is used by Vatn to expand on the human-human and human-nature relationship and its potential implications. The concept describes complexity as an interaction between parts of a system, where emergent properties are characterized by the way these potentials interact. Hence, a person that may be rather individualistically inclined may still act socially rational in certain contexts like when he is asked to join the army. So, personality and institutional contexts interact and create the concrete act as an emergent property. A fitting description would be: ‘the whole is more than the sum of its parts’ (Odum & Barrett, 2005 in Vatn, 2015, p. 84).

Moving on to habits, Rachel Dwyer (2009) describes habitual behavior as occurring on a continuum. It can involve automatic actions, processes influenced by social contexts, or even conscious decision making (Dwyer, 2009). It is this automated version of habits that is of relevance to this thesis. According to Vatn, conventions and norms of action tend to be

habituated (Vatn, 2015). Dwyer describes habits as an operation of routine and tradition, where a specific action is repeated over time (Dwyer, 2009).

3.3. Norm activation theory

To better understand altruistic behavior, Shalom H. Schwartz developed the norm activation theory within psychology, which contains elements of the social constructivist position, while focusing primarily on the individual. He refers to altruism or altruistic motivation as “intentions or purposes to benefit another as an expression of internal values, without regard for the network of social and material reinforcements” (Schwartz, 1977, p. 222). Such behavior could be helping or sharing, often labeled as prosocial behavior. Essentially it is behavior that benefits others (Schwartz, 1977).

The theory arises from research focusing on the conditions affecting the activation of norms, more specifically *personal* norms. By personal norms, Schwartz refers to “expectations people hold for themselves” (Schwartz, 1973, p. 353). He describes these self-expectations as feelings of moral obligation, in which values and norms are activated by the perception of the needs of others (Schwartz, 1977). But he emphasizes that these have their origin in socially shared norms, meaning that expectations at an individual level arise from shared expectations in social interactions (Schwartz, 1973). Hence, institutional theory is also included in the framework, to gain an increased understanding of how they function as contexts to explain human motivation and action.

Norm activation theory aims to explain the influence of personal norms on behavior. Schwartz argues that personal norms are moral obligations activated by certain criteria. First, one must “become aware of the consequences of one’s behavior for others”, and second, an ascription of responsibility for these consequences is key to activate personal norms motivating action (Schwartz, 1977, p. 229). Yet, Schwartz also points out that the activation of personal norms will vary depending on the salience of these two criteria. Such as how apparent the consequences are, and to what extent the capacity to act is described (Schwartz, 1973).

The theory involves what he refers to as three basic propositions: 1) the moral obligation of individuals affects altruistic behavior 2) norms activate feelings of moral obligation 3) this

moral obligation might be neutralized (Schwartz, 1977). This neutralization might involve a denial of consequences and responsibility, which means that norms then fail to influence behavior (Schwartz, 1973).

Lastly, the terms self-efficacy and outcome efficacy are relevant concepts to the thesis because it might affect the ascription of responsibility. When referring to self-efficacy, I will use the definition by Albert Bandura, who considers the belief of personal efficacy to be the foundation of human agency (Bandura, 1998). Self-efficacy refers to one's own belief in regulating and managing thoughts, motivations, and behavior to produce the desired changes (Bandura, 1998). When using the term outcome efficacy, I'm referring to the belief in your own actions to reduce a certain problem. Because environmental problems depend on the cooperation of many people, outcome efficacy is highly dependent on the expectation that others will engage in pro-environmental actions too (Schwartz & Howard, 1981).

3.4. Framework

The analytical framework of the thesis is built on the three theories introduced in the former sections. As illustrated in the figure below, the norm activation theory will function as a foundation. As emphasized by Schwartz, the AC and AR processes are key to activate personal norms which enables altruistic behavior (1977).

Therefore, the goal is first to analyze whether anchoring and objectifying climate change in journalism might have an effect on the 'awareness of consequences' process of young people. Secondly, the aim is to learn whether young people ascribe responsibility for these consequences. Institutional theory is especially relevant in this matter because, according to Schwartz, personal norms arise from social expectations (1973). In institutional theory, these norms, conventions and formally sanctioned rules are part of a two-way process: institutions are shaped by people, but people are also shaped by them (Vatn, 2015). Hence, institutions might explain the motivation of these young people in the given context. Relating to this ascription process, the aim is also to analyze whether the different social representation mechanisms potentially activate different rationalities.

Ultimately, the goal of this analytical framework is to provide an increased understanding of whether climate change journalism might motivate altruistic or pro-environmental behavior among young people.

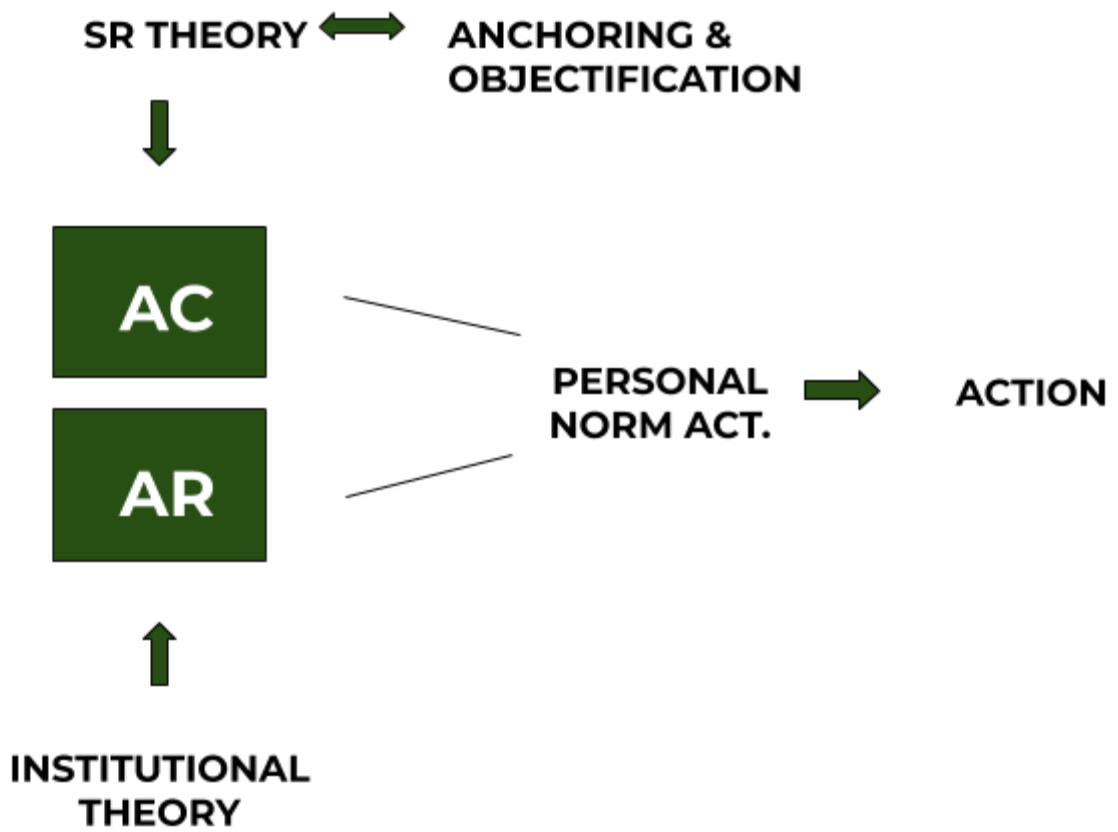


Figure 2. The analytical framework of the thesis.

4. Methods

The overall aim of this thesis is to analyze news about climate change and its policies, but most importantly how these news is perceived by young people. The thesis has an embedded design, prioritizing a qualitative quasi-experimental study. The thesis has a mixed-methods approach to be able to gather both quantitative data on the amount of coverage, in addition to qualitative data linked to perceptions. I will now further elaborate on the reasons for choosing this strategy. Following that, I will present the methods for data collection, sampling approach, materials and data analysis. I will lastly mention some of the limitations of the study.

As mentioned, the research has an *embedded design*, which in the case of this thesis means that it prioritizes qualitative methods, but embeds quantitative methods. This type of integration allows a combination of methods to produce a more complete picture (Bryman, 2016). This *mixed-methods* approach has been chosen because, as stated in RQ1 and RQ2, the aim is to get an understanding of whether young people's impression of the most covered climate change news in 2019 matches the actual press coverage. The reason for prioritizing a qualitative approach is to be able to get an impression of and to test and compare whether different ways of anchoring and objectifying climate change in journalism might affect:

- How young people reflect upon the information received
- The way young people reflect upon their own responsibility in reducing emissions
- The activation of different rationalities

This means that the majority of the data was collected through qualitative interviews, as this method help gather knowledge on “how the interviewee frames and understands issues and events” (Bryman, 2016, p. 468).

In addition, the study is *quasi-experimental*. “A central feature of any experiment is the fact that it entails a comparison” (Bryman, 2016, p. 52). The reason for choosing a quasi-experimental study is to be able to compare different ways of anchoring and objectifying climate change in journalism. With that being said, due to the small sample, I was not able to make sure all combinations were tested and compared.

Table 1 gives an overview of the materials used in the experiment. A more detailed

description is provided in the section covering the materials more specifically. The full-length articles can also be found in appendix A. Following that, table 2 illustrates how these materials were combined in the experiment.

Table 1. Overview of materials.

	Social Representation mechanism	Content
A1	Anchoring in antinomies	Norway's targets to cut emissions, put in a global context regarding responsibility
A2	Anchoring in emotions	Future scenarios of a 1.5, 2, or 3 degree temperature increase
A3	Anchoring in metaphors	Describing the globe as a person feeling sick, with a fever
B1	Objectification through personification	Scientists views of Greta Thunberg and her importance as a symbol of climate change
C1	Self-efficacy - food waste	Tips on where to keep food in your fridge for it to last longer and to toss less
C2	Self-efficacy - air travel	Norwegians fly 4 x more than Swedes, should we feel flight shame?

Table 2. Design of the quasi-experiment.

Participant	Article	Rounds of replication
1	A1 + C1	6
2	A2 + C2	6
3	A3 + B1	6

4.1. Sampling approach

As mentioned, data collected by ACT suggests that young people stand out by being more concerned, more willing to support climate policies and to change own habits (Aasen et. al., 2019). These findings make it especially relevant to study how young people perceive news about climate change, and how they negotiate new information.

Because the part of the thesis that concerns perceptions is qualitative, the sampling has been purposive. This is a strategic non-probability sampling method, with the aim of securing a selection with variety and relevance to the topic and research questions of the study (Bryman, 2016). Within this method, there are various approaches. A combination of criterion, convenience and snowball sampling has been used for this study. Starting out with the former, “units of analysis are selected in terms of criteria that will allow the research questions to be answered” (Bryman, 2016, pp. 410). Criteria were age and gender-related. The aim was a sample consisting of a balanced mix of males and females, with respondents within the age group of 18 - 29 years old. Therefore, a group of young people was sampled through a convenience approach with these criteria in mind, meaning that they were chosen based on being “simply available to the researcher by virtue of its accessibility” (Bryman, 2016, p. 187). These were gathered via the network of co-workers, friends, or relatives. The sample was chosen from the network of acquaintances, not the researcher’s personal network. Further, by using a snowball sampling approach, the remaining individuals were selected through the network of this group. For instance, one informant put me in touch with her younger brother, which again put me in touch with his girlfriend.

The limitations implied by this approach will be discussed in section 4.7.

4.2. Materials

A total of six journalistic texts were chosen for the quasi-experimental study. These materials can be viewed in Appendix A. These texts were retrieved from both print and online articles in various Norwegian news outlets, more specifically Dagbladet, Aftenposten, NRK, and Finansavisen. They were not chosen based on the source, but by their use of various social representation mechanisms. To reduce the estimated reading time of some of the articles, these were adapted and shortened to a minor extent, while still keeping the essence of the story intact. All visual elements such as images, videos, or design elements were removed,

the reason being that studying the effects of these elements is beyond the scope of the thesis.

Since the study aims to test whether different social representation mechanisms such as anchoring and objectification might affect how young people negotiate and perceive information about climate change, it is essential to choose materials that reflect these mechanisms. Hence, the six journalistic texts are carefully picked by the researcher in order to match the chosen mechanisms of the study: anchoring in antinomies, emotional anchoring, anchoring by metaphors and objectification through personification. In addition, two articles concerning individual measures to reduce own emissions were added, in order to compare reactions to a potential low-barrier and high-barrier change in habits.

All of the chosen texts were reviewed by the supervisor in order to discover any inconsistencies or unclarities and to make sure that each article reflected the intended mechanism. In this process, two articles were discarded and replaced by new ones.

Article A1 can be viewed in Appendix A. It represents ‘anchoring in antinomies’ and focus on opposites. In the case of climate change, it is relevant to focus on the global/local aspect. Hence, the chosen text concerned Norway’s targets to cut emissions in a global context.

Article A2 can be viewed in Appendix A. It represents ‘Emotional anchoring’ and focus on the various scenarios humanity will face depending on the degree of warming: 1.5, 2.0, or 3.0 degrees. It contains elements of both fear and hope, with an emotional angle.

Article A3 can be viewed in Appendix A. It represents ‘anchoring by metaphors. It is a chronicle by a biologist, where the earth itself is given human abilities. The title goes: “I’m your planet, and I’m not feeling well”.

Article B1 can be viewed in Appendix A. It represents the last social representation mechanism, ‘objectification through personification’. It is an article about Greta Thunberg, describing how she has become a spokesperson and a symbol on behalf of climate change.

The last two texts were chosen based on topics covered by ACT in their study. The aim is to test how young people react and reflect around a low-barrier and high-barrier suggested change in habits, and whether this difference affect self-efficacy. While there is an increase amongst young people stating that they are positive towards changing their own habits, ACT finds that respondents are more willing to reduce their own food waste than for instance

travel less by air (Aasen et. al., 2019).

Article C1 can be viewed in Appendix A. It describes how you can reduce your own food waste to benefit the climate and your personal economy.

Article C2 can be viewed in Appendix A. It is an article about the term ‘flyskam’ and how Norwegians fly four times more than Swedes.

4.3. Data collection

ACT is a research project by CICERO Center for International Climate Research, examining how Norwegians respond to climate policies in terms of attitudes and actions. Therefore, the setting of the data collection of this master thesis will be in Norway.

Data was collected through qualitative interviews. These were semi-structured because it allowed flexibility to both gather information about the perspectives of the interviewee on the defined topics and the materials, while still being able to pose follow-up questions or get more details as the interview went along (Bryman, 2016).

I conducted a pilot interview to get an approximate time frame, and to test whether any questions or articles needed adjustments or clarification. A few changes were made to the phrasing of the questions afterward. The interview guide can be found in appendix B.

First, in the introductory session, participants were asked about habits related to the consumption of climate change news. It concerned how they gathered information on climate change in general, what sources they preferred, whether new information had ever led to a change in habits, and lastly what they remembered as the most covered topics within climate change journalism in 2019.

The respondent was then asked to read the first article, followed by a set of questions concerning reactions, messaging and behavior related to this. Also, some questions were specific to the theme of the article. An example is the case of air travel, where the participant was asked about their thoughts or view on the term “flyskam”. This process was then repeated once more with a new, different article.

Finally, to sum up, the participant was asked to share their reflections after reading the two

articles. Questions also concerned how they might view the difference between the two articles in terms of presentation, and to reflect on how different ways of narrating appealed to them, and whether these various approaches might have an effect on their motivation to reduce individual emissions.

Lastly, due to the special circumstances caused by the coronavirus, a few questions were dedicated to this topic, with the aim of making the participant reflect upon and compare the urgency of the coronavirus versus the climate crisis in terms of mobilizing action. It also touched upon the coverage of these two issues the Norwegian press.

Please see Appendix B for the full detailed interview guide.

The qualitative data were collected and transcribed by the researcher as the interviews went along. In the majority of the interviews, I was able to type all quotes directly as the respondents were speaking. If the interviewee had lots to say and spoke very quickly, I usually needed a bit more time to be able to note everything before moving on to the next question. In those situations, I would let the respondent know that I was still typing. Some of the interviewees paused during this break, while others used the opportunity to think and reflect on the question posed, which often made them elaborate further, providing me with more data and relevant info.

Because some answers overlapped, certain questions became excessive. The semi-structured interview guide worked well in this case, allowing flexibility to skip questions when needed. Lastly, when the interviews were finalized, I read through the interviews for corrections, and any potential typos were removed.

4.4. Data analysis

The raw data of the qualitative part of the thesis makes up a total of more than 120 pages of notes. Berg & Lune emphasizes that data gathered during a research project needs to be organized and processed before being analyzed. Reducing the data means identifying patterns and themes in order to make it more manageable (Berg & Lune, 2012). In the process of this data reduction, I have used the method of thematic analysis, meaning that I've read through each interview and coded the data to identify elements that were especially salient or of

theoretical importance (Bryman, 2016). This process was repeated several times.

The identified themes were then displayed with the help of tables to visualize the findings (Berg & Lune, 2012). To simplify the analysis, one table was made for each article, this is because the study is quasi-experimental with the aim of comparing the effect of various social representation mechanisms. This structure or overview of findings is beneficial when comparing.

This level of detail, both throughout the research and the analysis specifically, is beneficial related to external reliability. Although this is a challenge in qualitative research, the degree of whether the study can be replicated, increases if the process is well documented (Bryman, 2016). By keeping a research log and making sure all procedures were clearly articulated, this eased the verification of the findings. It also makes it possible for other researchers to replicate the study (Berg & Lune, 2012). With that said, there are certain challenges related to the internal reliability and the external validity of the research. I will elaborate on this in the following section.

4.5. Limitations

For the quantitative part of the study, the variety of sources available in ATEKST affects the numbers. As mentioned previously, the largest Norwegian paper, *Verdens Gang*, was for many years not included in their archive, which affects the analysis.

There are also some limitations to the reliability and validity of the qualitative part of the study. Essentially, these concepts are measures of quality, to make sure that research is carried out through a certain set of principles and methods (Bryman, 2016). Because all interviews were carried out by phone, by me alone, this decreases the internal reliability because I am the only researcher and note-taker. Yet, the supervisor of the thesis functions as a type of respondent validator, in that his guidance on the methodological approach has increased the credibility of the study (Bryman, 2016). In addition, there are a set of limitations related to the sample. To be able to generalize the findings of this research, it would require a bigger and a randomized sample. This would increase the external validity. Also, there are some limitations to the sampling approach. While snowball sampling is useful, it also poses a challenge in terms of variety and relevance when many of the

respondents are acquaintances.

Due to the small sample size and the scope of the thesis, I was not able to test all combinations of the materials. Another weakness of this experimental approach is that their use of social representation mechanisms is not mutually exclusive. I will elaborate on this in the discussion.

Lastly, due to the outbreak of the coronavirus, interviews were carried out by phone. This eliminated the opportunity to use observation as a method in order to achieve triangulation. Triangulation would have increased the validity of the research because it allows the use of multiple methods to investigate the same phenomena (Berg & Lune, 2012).

5. Results and analysis

The analysis of the thesis is split in three. First, I will present how the sample of the study engages in information and news about climate change. I will also present what they perceive as the most covered topics within climate change in the Norwegian media in 2019. Secondly, I will present an analysis of data pulled from ATEKST on the *actual* coverage of climate change in 2019. Lastly, I will present the analysis of the data gathered from the qualitative interviews.

5.1. Acquiring information about climate change

In the introductory part of the qualitative interviews, respondents were asked about how they acquire information about climate change and what sources they prefer. Adding to that, they were asked to list three climate change-related stories or events that they remember from 2019. Lastly, respondents were asked whether they had ever acquired information about climate change that had led to a change of habits or actions. The findings are presented below.

5.1.1. Platforms

The majority of the participants stated that they acquire information about climate change via social media channels such as Facebook, Instagram, and YouTube. More than half of the respondents also reported that they acquire info via online newspapers. 10 out of 18 respondents explain that they usually combine the two. For instance, respondent 18 states: *“It’s mostly through news, and, well, whatever pops up at Facebook”*. While the consumption of video and content from channels such as Netflix or YouTube is frequently mentioned, linear television is only mentioned by one respondent. These findings correspond with the existing statistics about media consumption patterns of young people in Norway in general, suggesting a decline in the consumption of linear TV.

5.1.2. Sources

Moving on, respondents were asked to list their preferred sources of information, especially when engaging in news by Norwegian media outlets or newspapers. Overall, Verdens Gang was mentioned most frequently. Some also mentioned VGs profile on Snapchat. Followed by VG was NRK, YouTube, Aftenposten and Dagbladet, and lastly TV2, in that order.

Some also reflected upon the credibility of these newspapers. The issue of fake news was mentioned by a few respondents, and some express that tabloid newspapers such as VG and Dagbladet are perceived as less credible due to their focus on fashion, sex, and similar topics.

5.1.3. Perception of most covered stories

In addition, interviewees were asked to list the climate change-related stories or events they remember as most covered by the media in 2019. In general, respondents had a hard time recalling press coverage from last year. Four respondents did not recall any events at all, and only a few were able to list three examples like they were asked. In total, Greta Thunberg and the school strikes were mentioned most frequently, followed by the forest fires in both Australia and in the Amazon Rainforest. Other topics mentioned were the melting of the arctic, plastic pollution, traffic tolls, and the demonstration Klimabrølet.

5.1.4. Change of habits

Lastly, each respondent was asked whether they could recall acquiring information about climate change that had led to a behavioral shift or direct shift in actions. Only three out of 18 respondents recall consuming information that led to a direct change of habits. *“I became a vegetarian after watching a documentary on Netflix, it turned everything upside down”* says respondent 5. About half reported that a gradual flow of information over a longer time span had led to gradual change. When listing what these changes were, consuming less meat was mentioned the most, followed by purchasing secondhand clothing. In total, five out of 18 respondents reported that no such change has taken place at all.

5.1.5 Summary of consumption of information

The data gathered from this sample suggest that to young people, social media platforms play an important role when they acquire information about climate change. So does the press. In terms of preferred sources when catching up on news, VG and NRK are mentioned most frequently. Despite the fact that the coverage of climate change increased in 2019, respondents have a hard time remembering specific events from last year. Yet, Greta Thunberg and the climate strike were mentioned frequently, in addition to forest fires. Lastly, the findings suggest that respondents have indeed changed their habits as a consequence of new information they have acquired about climate change. But, this change does not seem to happen instantly provoked by something specific, but rather over time.

Keep in mind though that this is not a quantitative study, and with a sample of 18 respondents, the findings presented are not representative of the actual media consumption patterns of young Norwegians. Yet, the respondents differ in age, gender, occupation, and city of origin. The youngest respondent is 18, the oldest is 29, while the majority is between 23 - 25 years old. They all live in Oslo or nearby, but their city of origin is spread across the country. A few have full-time jobs, but the majority of the respondents are still students.

5.2. Climate change coverage in Norway in 2019

I will first present the amount of press coverage of climate change in 2019 at a general level. Then follows an overview of the press coverage of the themes listed by the respondents.

Figure 3 and 4 presents the frequency of climate change coverage in the Norwegian press throughout last year. These articles include press at a national, regional, and local level.

12690 was the total amount of articles mentioning 'klimaendringer' (climate change) in 2019. The monthly distribution of these articles can be seen in figure 3, which seems to slowly increase, with a peak in August and September.

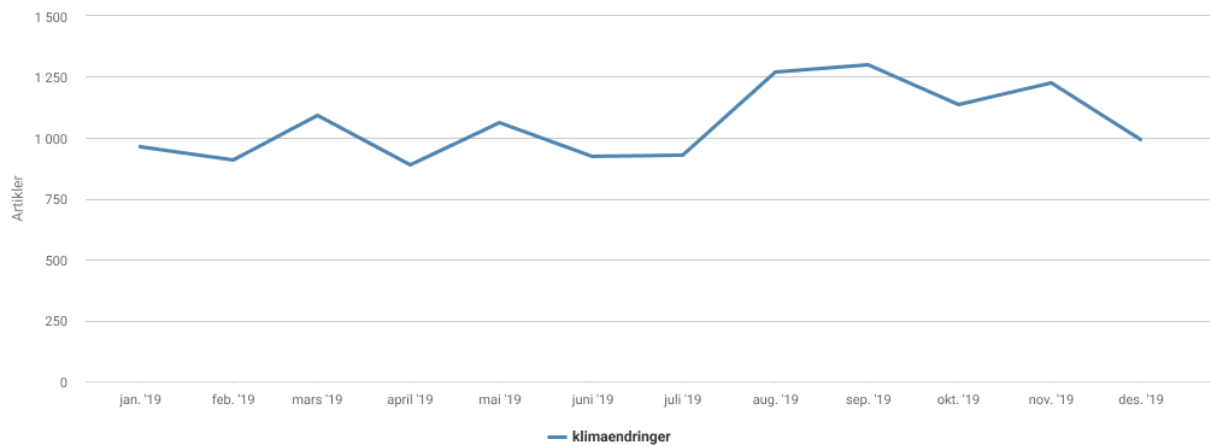


Figure 3. The number of articles mentioning 'klimaendringer' (climate change) in 2019.

5522 was the total amount of articles mentioning 'global oppvarming' (global warming) in 2019. The monthly distribution of these articles can be seen in figure 4, with a peak in March, August, and September.

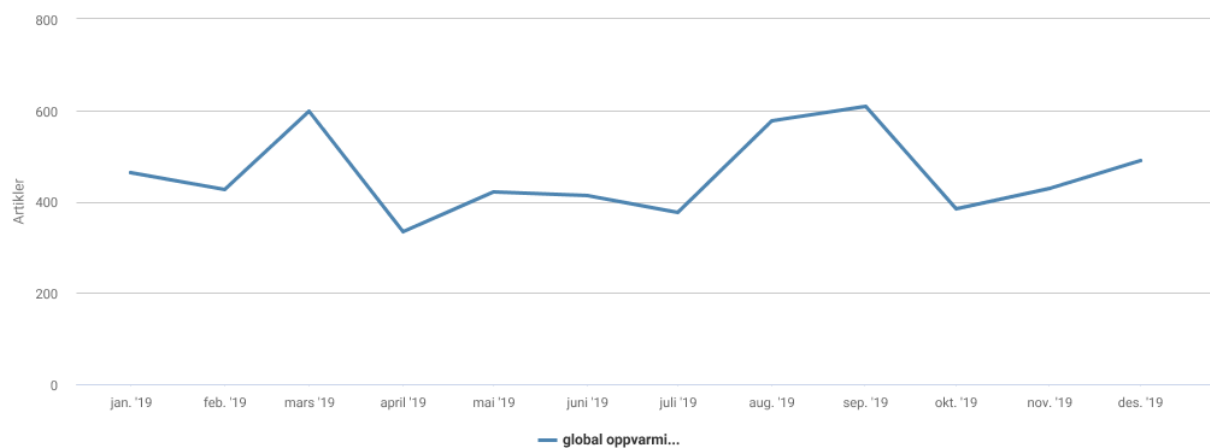


Figure 4. The number of articles mentioning 'global oppvarming' (global warming) in 2019.

As summarized in section 5.1.5, respondents were to a very small degree able to recall press specific coverage of climate change in 2019. Yet, a few themes were mentioned. Figure 5 illustrates the coverage of these themes in comparison to the general coverage of climate change.

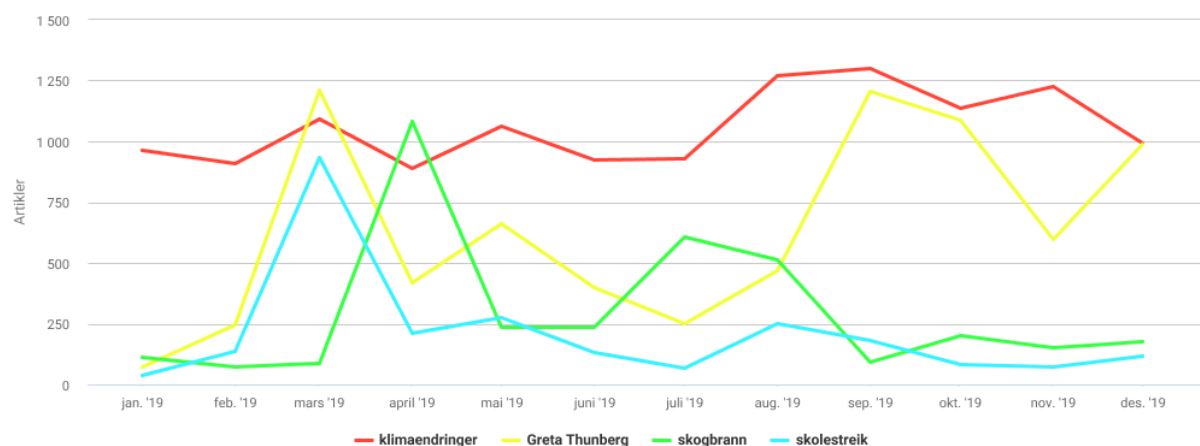


Figure 5. The number of articles mentioning ‘klimaendringer’ (climate change), ‘Greta Thunberg’, ‘skogbrann (forest fires) and ‘skolestreik’ (school strikes) in 2019.

7444 was the total amount of articles mentioning ‘Greta Thunberg’ in 2019. 2454 was the total amount of articles mentioning ‘skolestreik’ (school strike), and 3562 was the total amount of articles mentioning ‘skogbrann’ (forest fire) in 2019. These findings are presented in figure 5.

All in all, the topics mentioned by the respondents received a quite large amount of coverage in 2019. Greta Thunberg, forest fires, and the school strike were mentioned most frequently by the respondents, and these perceptions match the data from Atekst Retriever.

5.3. The effect of social representation mechanisms

In the following sections, I will present the findings from the qualitative quasi-experimental part of the study. As mentioned, the data was collected through individual qualitative interviews. Participants were asked to read two journalistic texts during these interviews. The texts consisted of a selection of six materials in total. Four of these journalistic texts varied in the way they used social representation mechanisms in their presentation of climate change, such as anchoring and objectification. In addition, two articles concerned topics of climate (un)friendly habitual behavior, to be able to collect data on how the participants perceived self-efficacy related to food waste and air travel.

An overview of all materials is found in table 3. The design of the quasi-experiment is shown in table 4.

Table 3. Overview of materials.

	Social Representation mechanism	Content
A1	Anchoring in antinomies	Norway's targets to cut emissions, put in a global context regarding responsibility
A2	Anchoring in emotions	Future scenarios of a 1.5, 2, or 3 degree temperature increase
A3	Anchoring in metaphors	Describing the globe as a person feeling sick, with a fever
B1	Objectification through personification	Scientists views of Greta Thunberg and her importance as a symbol of climate change
C1	Self-efficacy - food waste	Tips on where to keep food in your fridge for it to last longer and to toss less
C2	Self-efficacy - air travel	Norwegians fly 4 x more than Swedes, should we feel flight shame?

Table 4. Design of the quasi-experiment.

Participant	Article	Rounds of replication
1	A1 + C1	6
2	A2 + C2	6
3	A3 + B1	6

The following analysis summarizes how the use of various social representation mechanisms affects how young people reflect upon their individual responsibility in reducing emissions. The data collected represent reactions and rationalities expressed by the interviewees as a consequence of reading the articles listed above. By coding the transcripts of all interviews, a set of recurring topics and reflections were identified. These were then structured into two themes: 1) reactions relating to the topic and content of the article, and how it was presented 2) Rationalities evoked and reflections concerning own responsibility followed by the information they had received.

The study is quasi-experimental, meaning that the aim is to compare the effect of the selected articles listed above. Therefore, the identified themes from interviews related to each article is comprised and structured into a separate table with a short summary of the findings. Lastly, a separate table concerns themes identified from the coronavirus related part of the interview.

5.3.1 Anchoring in antinomies

Article A1 anchors climate change in the antinomies global/local. The story describes Norway's responsibility in a global context, and its target of cutting emissions by 50 percent within 2030.

By coding the transcripts, a set of recurring topics and reflections were identified. The themes found in table 5 emphasize the most salient topics. While the respondents made other interesting reflections and notes regarding topics such as trust, corporate responsibility, and so on, these statements were not included in the table because they were not recurring or of relevance to the research questions.

Table 5. Findings from article A1: Anchoring in antinomies.

A1: ANCHORING IN ANTINOMIES			
Reactions		Reflections and rationality	
Not appealing	Not appealing because it lacks emotion and is not oriented towards the individual. Fact-heavy and very political.	Low self-efficacy	Due to the political focus, it is difficult to see your own role in the reduction of emissions.
Feasibility	The target of emission cuts is not perceived as feasible. Described as “politikerprat”.	Individual rationality, Free-rider	Not obvious where cuts should come from. As long as large corporations still emit, individual actions do not matter.
Responsibility	Norway perceived as a ‘small superpower’ in terms of its economy and resource access, hence, we have a responsibility in reducing emissions and setting ambitious targets.	Social rationality: ‘they’	Norway's efforts matter in a global context, despite us not being the most affected and being a small country.

None of the participants found the article appealing. They described the story as fact-heavy, political, and with little focus at emotions. Several mentioned that they did not perceive the targets as feasible, but rather ‘politikerprat’ (just talking politics). Informant 1 stated, “*It sounds great, but I’ve heard those numbers and targets before, and they’re never really met*”. In general, the informants expressed low trust in politicians’ ability to implement or reach the ambitious targets described in the article. Informant 10 stated: “*It’s a lot of talking, but no doing. This is the thing about politics in general, it’s so slow. And it always comes down to money, which makes me so sad. We have to start caring about other things than money*”.

When asked about their individual responsibility in reducing emissions, the respondents questioned where the described cuts were planned to come from and stated that they struggle to see how their role would matter beyond altering everyday habits, which many felt that they were already doing. These habits could for instance be reducing travel by car, recycling, eating less meat, and so on. Informant 13 stated: “*If we’re cutting 50 percent it has to come*

from the corporations, that's what has an effect. Research even shows that we as individuals do not matter that much, compared to the corporations that are pumping out CO2 and hosting countless meetings”.

Despite this emphasis on the free-rider aspect, where individuals are hesitant to act because they carry the cost while others carry the gain, the rationality seemed to change when respondents were asked what responsibility they considered Norway to have in reducing emissions in a global context. Several stated that due to the well-developed economy and access to resources, Norway has a big responsibility in reducing emissions. It was highlighted that this applied even though Norway is a small country and not among those that will experience the worst effects from climate change. This suggests that parts of the text evoke a ‘they’ rationality, with an ability to consider what is best for others. A few pointed out that as a citizen of Norway, that responsibility implies that cuts have to come from individuals too.

5.3.2 Emotional anchoring

Article A2 anchors climate change in emotions such as fear and hope. The article describes the scenarios of what our planet will look like once we reach 1.5, 2.0, or 3.0 degrees temperature increase. It illustrates what consequences will follow for humans, animals, and nature, with a closer look at Norway’s climate specifically.

By coding the transcripts, a set of recurring topics and reflections were identified. The themes found in table 6 is a result of the most salient topics. Because the purpose of the thesis is to learn more about reactions and reflections concerning own responsibility, those statements that did not relate to this were not included.

Table 6. Findings from article A2: Emotional anchoring.

A2: EMOTIONAL ANCHORING			
Reactions		Reflections and rationality	
Doomsday	Provokes feelings of fear, guilt, and a sense of urgency. Perceived as frightening and dystopian.	Apathy and Low self-efficacy	Respondents reported a low sense of self-efficacy, describing helplessness or apathy towards the issue because the crisis feels so proportional.
A generation problem	Lack of effort described as a generation problem. Young people are adapting, while their parents are not. Expressed worry about conditions when their future children are born.	Social rationality: 'we'. The free-rider issue is not an excuse	They acknowledge the free-rider issue, but still, believe they should pursue pro-environmental habits and behavior. They need to continue their own efforts, despite older generations not understanding the urgency. A goal is to influence others.
Policies	Low trust in the ability of current climate change policies to solve the issue. More restrictions from above, e.g state regulations, are crucial. Should affect especially corporations, but also individuals.	Low outcome efficacy	It is not a matter of knowledge, but will. It is a global issue. While individual actions are important, it all depends on national and global regulations and collaboration.

Interviewees reacted by describing the article as having a 'doomsday' and dystopian focus. Several informants said it reminded them of movies with a doomsday narrative, such as *Interstellar* and *The Day After Tomorrow*. The article was perceived as appealing because of its emotional approach. It provoked feelings of fear, guilt, and a sense of urgency. Informant 4 stated: *"It makes me think of my friends who have decided to not have children, because they are afraid that our planet will not be liveable when they grow old. That's insane, that's just not a good thing [that the state of the planet provokes this decision], I think"*.

This doomsday theme seems to be linked to low self-efficacy, in the way that respondents express frustration and apathy towards the issue. They described this feeling as being provoked by the size or complex traits of the issue. For instance, informant 11 stated: *"I*

become a bit apathetic to the whole thing. It's so huge. It's a bit like corona, it's so big, you just have to do as you're told".

Additional reactions from participants were the perception that the lack of effort is a generation issue. Repeatedly, interviewees distinguished their own generation from the former ones in terms of willingness, attitudes, and actions. Respondent 17 stated: *"People probably think that one degree to and from doesn't matter, and that it's nice with a warmer climate. My dad, for instance, says that this is the way that it has always been. It goes up and down. But I know it's only going to get worse"*. They described it as harder to turn the habits of former generations, who spent their whole lives with certain consumption patterns.

Informant 8 stated: *"I've grown up trying, our generation is trying, and we're actually willing to do something about it"*. Despite this expressed disbelief in older generations' ability to change habits and make efforts to reduce emissions, participants emphasize the need to maintain their own efforts. This suggests a social rationality, more specifically a 'we' rationality. It indicates that the interviewees choose to ignore the free-rider problem and that although they consider it to be an issue, they still pursue climate-friendly behavior themselves. One respondent did not share this belief as strongly but rather felt frustrated about this way of thinking. She states that although she aims to make conscious climate-friendly choices, she dwells on the question: *"If it's only me who stops driving, how will that help the planet from getting warmer?"*.

Lastly, despite this determination in continuing to reduce individual emissions, participants emphasize the importance of regulations and political action in order to succeed. Respondent 14: *"I really hope for change. This might sound pessimistic, but I don't think we're going to be able to make those drastic measures in order to reach targets"*. This is supported by further statements such as *"we're fucked without stricter restrictions from leaders"* and *"there should be a global constitution"*. This suggests that the belief in outcome efficacy is lower.

5.3.3. Anchoring by metaphors

Article A3 is a chronicle written by a biologist. The text is written from the planet's perspective as if having human traits: *"I'm your planet, and I'm not feeling well"*. It tells the story of how our planet faces massive challenges due to human activities, with an emphasis

on issues related to biodiversity and climate change.

The following themes are a result of coding the transcripts and identifying salient topics related to what reactions the material evoked, but also their reflections concerning individual responsibility.

Table 7. Findings from article A3: Anchoring by metaphors.

A3: ANCHORING BY METAPHORS			
Reactions		Reflections and rationality	
Appealing format	It's short, concise and simplified. Without complex numbers or terminology. It's lively, poetic and shareable.	High perceived self-efficacy	It is a reminder that every choice counts. It's important to maintain own efforts, one can always do more, e.g., influence friends, politicians.
Emotional	It appeals to your emotions because you relate. It makes you more self-aware. It provokes feelings of guilt, but also empathy for 'mother earth'.	Social rationality: 'we'	You have a responsibility as a human on this planet. Take care of 'mother earth'. But also an inner conflict of e.g., wanting to travel more. Breaking habits is hard.
Message	The message of the article is not perceived as new or newsworthy. The respondents have "heard it before". It serves as a reminder.	Low outcome efficacy	Perceive own habits as climate-friendly. Despite this, they consider the lack of effective political measures to be the issue. Need more regulations.

All respondents found the article appealing. Because of its short format and simple language, it was considered easy to understand, concise and shareable. Some pointed out that the lack of numbers and science terminology was an advantage which made the issue even more obvious and clear. Respondent 3 stated: *"We've heard the big numbers before, what's happening is kind of given. It's much more appealing when it's told from this perspective. You feel guilty"*. Several stated that although they felt they were already aware of the content of the article, it functioned as a reminder and motivator to continue their own efforts in reducing emissions and environmental degradation. Statements such as *"it motivates me to motivate others"* and *"I will continue to try to reduce my consumption, travel, and so on"*

illustrated a high willingness to reduce their environmental footprint, and that their actions mattered in this process.

In addition, reactions centered on how the article provoked certain emotions among the participants. Empathy was a highly recurring description, which was explained as being a consequence of the metaphor mechanism. Because it was written from a human perspective, it felt more relatable, which provoked feelings of care, but also guilt. In relation to these expressed emotions, participants reported that only by existing as a human on this planet, they felt a responsibility in reducing their footprint. This suggests an altruistic approach or social 'they' rationality. Yet, many also described an inner conflict, for instance, that changing habits is time-consuming and demanding. Respondent 15 stated: *"I don't want to stop exploring the world and miss out on those experiences. The fact that I want to travel, is an obstacle"*.

Lastly, it was repeatedly stated that participants had "heard it before", referring to the content and message of the article. It was considered 'old news', and rather functioned as a reminder to continue own efforts. Following this, many emphasized that they were already making small everyday efforts to reduce emissions and that political measures were therefore needed.

5.3.4. Objectification through personification

Article B1 describes how Greta Thunberg has become an ambassador of climate change. It describes how she has received a great deal of criticism, but also how scientists applaud her efforts, in addition to her precise descriptions of the urgency of climate change.

Themes connected to both reactions and reflection were identified by coding the transcript and highlighting salient and recurring topics.

Table 8. Findings from article B1: Objectification through personification.

B1: OBJECTIFICATION THROUGH PERSONIFICATION			
Reactions		Reflections and rationality	
Engaging	Spokespersons are important in order to relate better. Her dedication and engagement stand out. She's closer in age, which makes it more relatable.	AC + High self-efficacy	Because the message feels closer, it functions as a motivation. Increases beliefs in their own actions.
Credible message	She's a role model and inspiration. Sacrificed a lot for the cause. She's known for her engagement, not something else (e.g., Hollywood). These things make both her and her message more credible.	AC + Not able to evoke AR	Her dedication is contagious - functions as a reminder. She sets the agenda, making people more aware. But little effect on actual individual actions.

Immediate reactions to this article emphasized the importance of Greta Thunberg and her engagement. All participants, without exceptions, expressed positive associations related to her as an activist. Some stated that the fact that the article is about her, makes it engaging in itself. Several stated that this engagement is strengthened because they support and agree to her statements. *"I like her very, very much. When I read about her, I just feel like rolling up my sleeves and get to work. Not only related to the climate, but in general. She's a role model"*, states informant 3. Greta's dedication and passion are highlighted, especially her ability to raise awareness. Informant 9 says: *"I become aware as soon as I see her name, it arouses something in me"*. Because she is young, she makes climate change feel more relatable. *"It appeals because it is closer to me. She's an ordinary girl and this is her cause"*, informant 15 states. Her background is also mentioned as part of what makes her and her message credible, in addition to her sacrifice of an ordinary life, and not being a celebrity to begin with. *"She has given up her life to do this"* says informant 9.

Yet, when asked whether Greta Thunberg or news articles about her motivate the participants to alter their actions in any way, the informants express doubt. In general, they emphasize that awareness-raising is what they consider to be her biggest influence. Several expresses

that the things Greta speak about is knowledge they already possess. Such as informant 12: *“She plays an important role, but not in convincing me, because I don’t think I’m the one who needs to be convinced. I already agree with her”*. Still, there seems to be a degree of empowerment reflected in their descriptions of how Greta Thunberg influences them. Statements such as: *“She’s doing so much, so I can at least do a little”* and *“She’s a symbol of the whole thing, and it illustrates how the impossible is possible”* support this finding. Therefore, the identified themes suggest that the credibility of Greta Thunberg, in addition to the engagement she provokes, seems to have an effect on the awareness of consequences among the respondents. But, it does not seem to affect the ascription of responsibility.

5.3.5. Self-efficacy: food waste

Article C1 concerns how reducing food waste is an important part of the climate solution. It’s oriented towards the consumer, with specific tips and tricks on where and how to store your food in order for it to last longer.

The themes presented in table 9 is a result of coding the transcripts, where recurring topics were identified, both relating to reactions and reflections concerning individual responsibility.

Table 9. Findings from article C1: self-efficacy, food waste.

C1: SELF-EFFICACY, FOOD WASTE			
Reactions		Reflections and rationality	
Presentation	The article is perceived as appealing because it’s easy and informative, practical and smart. It speaks to you, and it’s very relatable.	AC + AR High self-efficacy	Easier to become aware because it’s not so abstract. Everyone has a responsibility in reducing waste. Something you can change instantly.
Message	The facts are known to the informants, yet they emphasize that it’s sad and scary to learn about the amounts that are wasted.	Social rationality	Wasting food is not just an environmental question, but is also viewed as ‘throwing away money’. Less waste = more savings.

All participants found the article appealing because of its practical angle. *“It affects me more than abstract numbers about emissions”* says respondent 1. Participants described it as very informative, smart, and specific. The topic of food waste seems to be something that the majority of the respondents relate to. Many mentioned that they were already aware of the issue and that they in general did not waste a lot of food. Informant 1 also said: *“I’ve grown up with this attitude [not wasting food] from home, so it’s always with me. Also, my roommates and I usually go dumpster diving at grocery stores”*. Many expressed that this type of article is more relatable because of its practical approach. Respondent 4 said: *“It’s easier to see the consequences”*. Respondent 13 stated: *“I can relate to this. I can do something about it, I can make changes today”*.

While several participants mention that the facts presented in the story are not new to them, they still react by describing the amounts of food wasted with words like *“sad”*, *“scary”*, *“sick”* and *“unnecessary”*. Because a large proportion of the young group were students, they explained that wasting food was not an option because of their economic situation. *“It feels a bit like you’re throwing money into the trash. I’m a student, so I’m very careful. It takes a lot for me to waste food”* states respondent 13. This economic aspect of food waste is mentioned by all participants. *“It saves you money”* says respondent 7. This individual gain is also reflected in this statement by respondent 10: *“This story is easy to share without seeming too pushy. It’s because there’s a gain. I think that’s what it comes to, how you win as an individual. We should be able to have other thoughts than what benefits us personally, but you are the main character of your own life, and this (the article) speaks directly to me”*. This need to not seem pushy is repeated by the respondent, who expresses that in general, he avoids discussions concerning climate change because he does not want to be perceived as extreme or judgemental when sharing his opinions on the topic.

5.3.6. Self-efficacy: air travel

Article C2 concerns air travel. It describes how Norwegians travel four times more by air than swedes. It also presents a political discussion of whether the term ‘flyskam’ (flight shame), is useful in changing habits.

Themes were identified by coding the transcripts and highlighting recurring topics within

reactions and reflections concerning their own responsibility. These are emphasized in Table 10.

Table 10. Findings from article C2: self-efficacy, air travel.

C2: SELF-EFFICACY, AIR TRAVEL			
Reactions		Reflections and rationality	
Content	We travel too much by air, especially domestically. It's too easy, cheap and accessible.	AC, but not able to evoke AR	Yes, you have a responsibility, but so do politicians. A need to improve alternatives. Travelling by e.g train is expensive and inconvenient. Big belief in technological solutions.
Flight shame	Do not feel flight shame personally because they state that they do not travel that much by air any way.	Not able to evoke AC + AR	Mixed views of the usefulness of the 'flyskam' term. Some support it, but the majority feel it should be reframed because people do not relate, which hurts the message and hinders action.

All participants expressed that they feel that Norwegians fly too much. When mentioning reasons why, they highlight low prices, convenience, and high accessibility. "Unnecessary" is a recurring word used to describe the high levels of domestic air traffic in Norway.

When asked about their individual responsibility related to this topic, all participants except one acknowledge that they should reduce air traveling as much as possible. Respondent 8 states: *"I've had weekly flights in former jobs, and family who are doing the same. I feel a responsibility in that it's not an OK way to commute. It makes me very conscious"*. Another respondent, no 5, says she strives to not fly, but then refers to the free-rider issue: *"I've been discussing this with my dad. He mentions all the rich people who travel all the time, so why should we limit ourselves when they continue anyways? It seems unfair"*.

With that being said, many emphasize that when choosing to fly, barriers such as inconvenience and high prices are reasons why they do not make use of other alternatives.

Respondent 2 describes this barrier: *“My boyfriend lives in Stavanger, and I could have taken the train. But that costs me twice as much and the double amount of time. If they changed this, it might be different”*.

Although electric airplanes are only mentioned in a short paragraph of the article as a potential future solution, all participants mention this. In general, many describe the need to develop proper technology that emits less.

Moving on to the term ‘flyskam’ (flight shame), reactions are mixed. First, while almost all participants did consider themselves to be responsible for reducing air travel, none felt any degree of flight shame themselves. Such as respondent 17: *“If I was traveling every month I would, but I travel maximum one time a year for a summer trip, so I don’t feel like it applies to me”*. While several support the use of this term, the majority poses the question of whether a reframing or a change in rhetoric would be more beneficial if the aim is to make people fly less. One respondent suggests ‘emission shame’ instead. Respondent 11 describes the use of the term as alienating, which he thinks is harmful to the cause itself: *“I think you lose a lot of people with terms like flight shame and meat shame. People distance themselves from it, because they don’t want to deal with it or change their habits, and they become a bit ‘what does it matter what I do’”*. Another respondent states: *“I think we should focus on the advantages of the alternatives, for instance, that if you take the train, you get to see more of Norway”*.

5.3.7. Coronavirus

As a consequence of the unforeseen challenges due to the Corona pandemic, I chose to add a few questions at the end of all interviews in order to get the participant’s views on the current crisis compared to the climate crisis. They were also asked to reflect upon what differs in our ability to act, in addition to how the Norwegian media has covered these two topics.

Please find the identified recurring themes in the table below.

Table 11. Findings from add-on concerning the coronavirus.

THE MEDIA, CORONAVIRUS & CLIMATE CHANGE		
Category	Themes	Findings
The responsibility of the media in motivating climate action	Ability to influence	The media is perceived to have a responsibility in influencing individuals to adopt climate-friendly habits and reduce their own emissions. This is due to their general ability to spread information, set the agenda, and influence people.
Coronavirus vs climate change	Urgency	The crisis of the coronavirus is perceived as urgent and happening here and now. The climate crisis is on the other hand perceived as distant and abstract, with consequences far away in time and space.
Press coverage: coronavirus vs climate change	Frequency	Press coverage of the coronavirus is perceived as intense, more frequent, and with a higher priority. This affects the perceived urgency.

When asked what responsibility the media have in motivating actions that help reduce emissions among individuals, the majority of respondents describe this responsibility as great. *“I’ve become so aware of this now that covid-19 has taken over the media lately. I’ve thought about how much power the media has. What if the climate had received the same amount of attention as covid-19, I’m sure it would reach more people”* says respondent 9. When listing the reasons why they consider the media to be responsible, they highlight their ability to influence people, set the agenda, and spread information. *“The angle they (the media) choose and what they write, can change societies”* states respondent 5. *“What is in the media, and what the journalists choose to show, it all affects how you understand a situation”* says respondent 8. Another participant described how it is crucial for the press to cover the effectiveness of adaptation and mitigation efforts, and to reveal and disclose potential actors involved.

Moving on to the coronavirus related findings, the urgency aspect was a specifically salient theme that came out of these interviews. When asked about what they think separates the crisis of the coronavirus from that of climate change in terms of mobilization, all participants of the study described the time span and the urgency aspect. *“With corona, you can feel the*

consequences directly, and if Norway does not make measures, many people will die. But climate change is a bigger problem, over a longer time span, so people cannot deal with it, it's just too far away" states respondent 12.

Lastly, the majority of the respondents report that they feel that the press coverage of the coronavirus is way more frequent than that of climate change. They suspect that this again affects the perceived urgency of the issue. *"The climate isn't covered as a live crisis. For instance, the press doesn't have live news every day with specific stories covering the climate only"* states respondent 8.

6. Discussion

6.1. Acquiring information about climate change

Referring to the first research question, the findings suggest that young people acquire information about climate change through various platforms. While the press remains an important source of information, platforms such as Instagram and YouTube are also frequently used. This corresponds with the way Susanne Moser describes the rapidly changing media landscape: "traditional, single-media focused communication approaches are, if not necessarily a thing of the past, clearly losing their dependable impact on public audiences, given the far more fragmented, but also more diverse set of communication channels available" (Moser, 2016, p. 351).

This is also reflected in the findings related to the perception of coverage. When asked about what climate change-related stories, events or news the respondents remember from 2019, very few are able to list three examples. One respondent did not recall any examples at all, while the remaining sample was able to list one or two examples each. This might indicate like Moser emphasize, that the media is losing its impact on public audiences. Out of these listed topics, three were especially recurring: forest fires, the school strikes, and Greta Thunberg.

Despite this issue of memory, it is important to note that the majority of the respondents have in fact made changes in their own habits as a consequence of the information they have

acquired. But participants rather describe this change as a consequence of a flow of information, and they are not really aware of where it stems from. A quote from respondent 3 illustrates this: *“It’s in my feed, like a big cloud, but I can’t really define when or where I’ve read about what”*. Several also reflect upon the issue of fake news and the credibility of various newspapers. For instance, some are selective in what newspapers they choose to read because they perceive these as more credible than others. So, instead of instant shifts in behavior, they describe it as a long-term process with information from plural sources. As an example, many of the respondents emphasize that they buy more vintage and second hand. They state that they have lately become more aware of the negative environmental effects of the textile industry. Knowing that the second-hand app Tise has generated 900 000 users in Norway alone (Hegnar, 2020), it is tempting to link this shift in awareness of this rising trend amongst others. A few of the participants even mentioned the app and one of its founders, influencer Jenny Skavlan.

The findings concerning media habits and perceptions of news covering climate change supports those of Olaussen (2011). She argues that the meaning-making of climate change is complex and co-produced and that the media primarily takes on the role as the agenda setter. As we have seen, young people acquire information about and make meaning of climate change across platforms, which indicates that this co-production does indeed happen as Olaussen describes. This fragmented media landscape also poses challenges in terms of research because it is difficult to trace media habits and patterns in terms of engagement in the information.

6.2. Climate change coverage in 2019

Moving on to research question 2, the research conducted in this thesis suggests that the topics young people perceive as frequently covered in 2019 to a certain extent match the actual press coverage. Although the mentions of both ‘klimaendringer’ (climate change) and ‘global oppvarming’ (global warming) increased in 2019, the majority of the participants had, as mentioned previously, a difficult time remembering specific events or topics in the news that were related to climate change specifically. Out of these listed topics, three were especially recurring: forest fires, the school strikes, and Greta Thunberg. When comparing these topics to the actual news coverage, it indicates that the perception of the participants

corresponds with the frequency in coverage. The mentions of forest fires had a peak in April 2019, in addition to an increase in both July and August. Moving on, the school strikes also had a peak in mentions in March, in company with Greta Thunberg, which had a similar peak once again in September and October 2019.

6.3. The ability of social representations mechanisms to evoke altruism

Moving on to the quasi-experimental part of the study, the research conducted in this thesis suggests that when covering climate change, the use of various social representation mechanisms have different effects on young people's perceptions. Knowing that social representations are created and transformed through a set of mechanisms or communicative processes (Moscovici, 2000), it is relevant to learn more about how these processes evolve, and whether specific mechanisms such as anchoring or objectification can help the transformations of these representations happen faster or even ultimately help motivate pro-environmental behavior.

As discussed below, the rationalities and reflections of young people shifts from mechanism to mechanism. Therefore, the effect of each mechanism provides different results. It is in this context that the concept of emergent properties becomes relevant because it illustrates the complexity of the research. The rationalities of the participants can be seen as an emergent property, where their norms and background are parts of the system, in addition to the materials they are asked to read. The way all of these parts interact affects the outcome.

Referring to Schwartz' theory of norm activation (1977), it seems as if anchoring climate change through antinomies does not increase the awareness of consequences among the respondents. Because the article highlights emission targets, participants perceive it as fact-heavy, with little emotion, which they express as reasons why it does not appeal to them. They emphasize that the local/global focus lacks an individual aspect. Because of that, they find it hard to identify themselves and see their own role in the strategy presented, which indicates a low sense of self-efficacy among the participants.

The content of the article also seems to provoke thoughts regarding the free-rider problem. The respondents express frustration concerning emissions from large corporations, saying that individual actions do not matter until these issues are dealt with.

Despite this mechanism's inability to increase awareness, it seems to have some effect on how respondents perceive responsibility at a national level. All respondents perceive Norway as having a great responsibility in reducing emissions in a global context. Yet, none of them ascribe this responsibility at an individual level, as described in the theory by Schwartz (1977). Rather, this is expressed as occurring at a country level. Referring to institutional theory by Vatn (2015), it seems as if anchoring climate change in antinomies activates a social 'they' rationality among the respondents. Participants emphasize that Norway still has a responsibility to reduce emissions, although these numbers are small in a global context, and despite the consequences of climate change are considered milder for Norwegians. This reflects an activation of a 'they' rationality, as described by Vatn (1995), where respondents are able to consider what is best for others.

While the use of antinomies as a way of anchoring climate change might help the sense-making of the issue according to Smith & Joffe (2013), this does not seem to be the case for this study. But, this sense-making process is not only about weighing different positions but also combining new information with existing knowledge (Smith & Joffe, 2013). This is for instance seen when respondents combine this newly consumed content with their knowledge on the issue of free-riders or refer to the article as 'politikerprat' (just talking politics). Still, because there is not an increase in awareness and no ascription of individual responsibility, the use of antinomies as a way of anchoring climate change does not seem to activate personal norms or evoke a sense of individual responsibility, which could lead to a shift in actions. It is important to note the chosen material representing antinomies in this study focused on the opposites local/global. It did for instance not test opposites such as certainty/uncertainty, threat/hope, or nature/culture, which are all examples of distinctions relevant to climate change, and which could have provided different results (Hoijer, 2011).

Moving on to the social representation mechanism of emotional anchoring, the results are different. Although the article was considered appealing, this emotional approach provoked feelings of guilt and fear among participants. Referring to Hoijer, emotional anchoring might help us attach unfamiliar phenomena to feelings we know (2011). This was very much the case among the respondents, as they compared the content of the article with the concept of 'doomsday' and movies related to this. These findings suggest that this mechanism does in fact increase the awareness of consequences among the respondents like Schwartz suggests

(1977). But, when being asked to reflect upon their individual responsibility, there seem to be some inconsistencies in the way respondents speak of their individual responsibility and role. Participants reported a low sense of self-efficacy due to feelings of apathy and helplessness. They expressed that this was a consequence of the scope of the issue. This corresponds with what Stoknes (2015) refers to as the doom defense barrier, where disastrous framings can lead to apathy rather than action.

Also, participants expressed disbelief in older generations' ability to change habits and make efforts to reduce emissions. Yet, they emphasized the need to maintain individual efforts, and to not lean on this generation issue as an excuse to stop environmentally friendly habits. These habits could for instance be to eat less meat or use public transport more often. But, by saying that they should not stop pro-environmental behavior, they indicate that their actions do in fact matter and that they do ascribe a certain degree of responsibility and belief in their own abilities.

Lastly, the majority emphasizes that although actions at an individual level matter, it is first and foremost crucial to have efficient climate policies. Hence, their belief in outcome efficacy is very much dependent on governance.

Anchoring climate change in metaphors might help make the issue more comprehensible, according to Hoijer (2011). So does the results from this study indicate. After reading the article, participant reactions described the text as concise and simplified. Referring once again to the theory by Schwartz (1977), all respondents seemed to gain an increased awareness of consequences. By presenting the planet as a human, respondents expressed that the issue felt more relatable and that their sense of self-efficacy increased.

Also, empathy seemed to be a recurring feeling, which made respondents reflect upon their inner conflicts. For instance, several expressed that they had a strong wish to continue to travel by air. On the other hand, they felt that they had a responsibility in making efforts to not harm the environment for the greater good. This suggests that anchoring by metaphors might activate what Vatn (2015) refers to as a 'we' rationality, meaning that the participants are able to consider what is best for the group.

Once again, several respondents still highlight the need for efficient climate policies, and they perceive the lack of this to be the core of the issue. It seems as if they view the outcome efficacy as being dependent on governance.

Although they express that the information in the article is not new to them, they still feel that it serves as a reminder to maintain pro-environmental habits and to continue to strive to get better, which indicates that it serves as an awareness raiser. So, in the case of anchoring climate change through metaphors, the respondents seem to both become more aware of the consequences and ascribe responsibility, which might increase the moral obligation and ultimately lead to action (Schwartz, 1977).

Moving on, the last text that contains a social representation mechanism, objectifies climate change through personification. More specifically the climate activist Greta Thunberg. In terms of reactions, the respondents expressed that in general, spokespersons matter, and that her engagement and dedication is especially noticed. Also, several participants mentioned that her age makes her message feel more relatable. As a consequence, respondents express an increased motivation and a high sense of self-efficacy. So, when looking back at the norm activation theory by Schwartz (1977), objectifying climate change through personification does seem to result in an increased awareness among young people. Also, several states that after seeing what Greta has done, they feel more encouraged and empowered themselves. She comes off as credible and true to her cause, and therefore, her dedication inspires many. With that being said, all of the respondents claim that they do not feel that Greta and her movement has affected or motivated specific actions. Rather, they point out that the main effect is her ability to raise awareness and set the agenda. So, looking back at the model of Schwartz (1977) once again, the use of this mechanism seems to increase the awareness of consequences but does not lead to any ascription of responsibility among respondents, which is seen to be crucial in order to activate personal norms that eventually leads to pro-environmental action.

In addition to these four articles containing social representation mechanisms, two of the materials were chosen in order to test how young people perceived their own self-efficacy related to two pro-environmental actions: food waste and air travel. The former is considered a low-barrier change in habits, the other is not.

Respondents described the article about food waste as informative and simple. It appealed to all of the participants, in which many claimed that it felt more relatable because of its individual focus. All of the participants claimed that they had a responsibility in reducing

food waste as a part of pro-environmental behavior. Several stated that it is an obvious and easy change that can be made from one day to the other, which is partially what makes the content of the article motivating. These findings suggest that the article activates a high sense of self-efficacy among the respondents and that they both have an increased awareness of consequences and are willing to ascribe responsibility, which both are crucial steps to enable pro-environmental behavior, according to Schwartz (1977).

Because the majority of the respondents were students, they also expressed that wasting food felt like wasting money. This indicates hints of an individual rationality among the interviewees, described by Vatn as wanting to maximize own utility (2015).

With that being said, it is important to note that reducing food waste is considered a low-barrier change in everyday habits, compared to for instance flying less, which the next article speaks of. Therefore, the topic of the article most likely influence whether the participants become aware of the consequences and ascribe responsibility, rather than the article alone. Yet, the simplicity of the story was noted by the majority of the respondents, so the article did seem to evoke an increased awareness due to its presentation of these facts.

The interviewee's reactions to the article regarding air travel was that Norwegians fly unnecessary much. They perceive the reason to be the low prices and high accessibility. This implies that the respondents feel that flying in itself is a bad thing for the environment. These findings suggest that respondents once again seem to have an increased awareness of the consequences after reading the article, like Schwartz (1977) suggests as a crucial step towards pro-environmental behavior. When participants were asked about whether they have an individual responsibility, the majority of the respondents said yes. But, many of them claimed that they do not travel much anyway. They felt that in the end, it is the responsibility of politicians to facilitate better solutions. For instance, lower prices for traveling by train, or developing better technology, such as electric airplanes. The majority claim that they aim to fly as little as possible, which indicated a high willingness to ascribe responsibility. One respondent did not feel any responsibility at all though and did not feel that this change should happen at the individual level.

When asked to reflect on the responsibility of the media related to climate change, the respondents claimed that the media should influence individuals to reduce their own emissions and adopt climate-friendly behaviors. They stated that this is due to the media's

ability to set the agenda and spread information. These findings suggest that young people expect and want the news media to prioritize and present information about climate change than can have a direct effect on actions and that are closely linked to everyday habits. Also, the respondents felt that the coronavirus seems more urgent and close, which they perceive as the reason why we are able to mobilize more quickly, compared to climate change. This sense of urgency is especially strengthened through the media, they state, because of the intensity in coverage. This suggests once again that young people feel that the media have a role to play in defining what we as a society perceive as urgent and in need of mobilization.

6.4. Hidden levels, empowerment and outcome efficacy

While the aim of this study is to analyze the effect of different social representation mechanisms on young people's rationality and perceived self-efficacy, it also poses a discussion about distinctions when doing a comparative study. Firstly, the use of social representation mechanisms in the materials chosen for this quasi-experimental study is not mutually exclusive. For example, article A2 which aims to test the use of emotional anchoring also contains antinomies such as local/global and threat/hope. Or, in the case of article A3, which anchor climate change in metaphors, the article also has emotional elements.

Höijer argues that “the conceptual richness of the concepts of anchoring and objectification in the theory makes it possible to analyze also more hidden levels of the social construction of meaning” (Höijer, 2011, p. 14). This was the case in several of the interviews. Three respondents announced a type of ‘disclaimer’ at the beginning of the interview, stating that they did not have in-depth knowledge about climate change. This was repeated several times throughout the conversation and could imply that some are hesitant to share their opinions about climate change because they feel that they lack the knowledge. It is of relevance because social representations are created in social processes through actions and conversations.

Another example is respondent 10, who claims that he is very hesitant to go into discussions about climate change with other people. He expresses worry about being perceived as extreme or judgemental when having an opinion about what people should eat from an environmental perspective. He states: “*You shouldn't be the guy who yells at people when*

they have salami for lunch”. This is very interesting because social representations are co-constructed across minds, and hence become social realities (Wagner et. al., 1999). If young people are hesitant to speak of and discuss the topic of climate change with others, this affects the very representation of the phenomenon itself. As we know, social representations are products of thoughts or feelings being expressed verbally or through action, by individuals in social groups (Wagner et. al., 1999). If the social representations of climate change remain at status quo, unchallenged, a transformation towards a zero-emission society is very unlikely. This hesitation to approach discussions was only mentioned by one other respondent, so it is not a recurring statement among the respondents. It is still of relevance because it illustrates these hidden levels, as described by Hoijer (2011).

This notion of status quo brings us to the question of whether information has the ability to motivate action by itself. As mentioned previously, Susanne Moser emphasizes how research finds that knowledge alone is not able to motivate actions and that climate communication have to offer options and empower individuals to choose these actions (Moser, 2016). In the light of this thesis, it is interesting that respondents in relation to several of the articles express that the information is not new, but rather serves as a reminder to alter their own actions. Also, in the case of reducing food waste, the practical and specific options in the story were perceived as appealing and do-able, which suggests that this type of information has an empowering effect on the respondents like Moser points out. This empowering effect was also salient in the respondents’ reactions to the story about Greta Thunberg, using the social representation mechanism of objectification through personification. But, referring to the norm activation theory by Schwartz, we see that in the case of Thunberg, respondents only reported an increased awareness, but no ascription of responsibility which ultimately could motivate actions. Referring to emergent properties, it is relevant to mention once again that it is not necessarily the article itself that evokes the awareness of consequences among the participants, but Greta. This applies to the experiment itself, in terms of whether the mechanisms evokes an awareness of consequences and ascription of responsibility, or whether the topic does. Changing one or several of these aspects would affect the outcome. Testing this would require further research.

Although this focus on individual responsibility and empowerment seems to have a positive effect on the respondent’s self-efficacy, the reported belief in outcome efficacy varied greatly

from article to article. For instance, the findings from articles A1, A2, and A3 suggested that the participant's belief in outcome efficacy was low, and depended to a high degree on governance. While in the case of article B1, C1, and C2, this was not brought up as an issue at all. In the case of climate change, one would assume that the notion of outcome efficacy would not change from topic to topic, because individuals with a high belief in outcome efficacy act out of principle, thinking that others will too. Yet, the findings suggest that what is used as an argument by the participant in relation to one article, is suddenly not relevant when speaking of another article which essentially regards the same issue. So, it seems as if some of these social representation mechanisms evokes a low belief in outcome efficacy.

Lastly, I want to briefly discuss the initial strategy of this study, which was to carry out a set of focus groups where the materials were discussed in plenum. While the focus groups would be the primary method of data collection, each participant would also do a survey prior to the discussion, to be able to map out their normative background and behavior related to environmental issues and climate change. This was to be able to consider whether participants seemed to take the same stand on topics and issues in the group setting, or whether being surrounded by others would influence what opinions they shared. This use of various methods of data collection, including survey, focus groups, and observation, would allow triangulation. I will not elaborate further on this initial plan, but due to the outbreak of the coronavirus, these plans were unfortunately hindered, which had a consequence for the validity of the study.

7. Conclusion

Based on in-depth interviews with young people in the age of 18-29, the research of this thesis suggests that they acquire information about climate change through a variety of platforms and sources, but the news media still remains important. In terms of perceptions, the topics that were listed by the respondents as most frequently covered stories in 2019, did in fact gain a great number of mentions in the Norwegian news media. But most importantly, the findings of this quasi-experimental thesis indicate that the use of various social representation mechanisms has the potential to evoke altruistic reflections among young people. The articles are able to both increase the awareness of consequences and lead to an ascription of responsibility.

Referring more specifically to the first research question: **How do young people acquire information about climate change, and what do they perceive as the most covered climate change topics in 2019?**, the findings from this thesis suggest that the fragmented media landscape is reflected in the way young people engage in information about climate change. They acquire knowledge on the topic through online news media, in addition to videos on social media channels such as Instagram and YouTube.

When asked about what news or events they recall from 2019, there are three recurring examples mentioned: forest fires, school strikes, and Greta Thunberg. Still, the majority had a difficult time remembering specific examples, which might indicate that the impact of the media might be weakened. Rather, the participants describe their acquired knowledge on climate change as a flow of information. It comes from various sources, where they are unable to pin out exactly where the information has its origin.

Moving forward, to answer **to what extent does young people's perception matches the actual news coverage* of climate change topics in Norway in 2019?**, the analysis shows that what they perceive as frequently covered topics, actually are exactly that. First, there is a steady increase in the number of mentions of both 'klimaendringer' (climate change) and 'global oppvarming' (global warming) in Norwegian news media in 2019. The three recurring topics that were listed by the participants were all frequently covered in 2019.

These were forest fires, school strikes, and Greta Thunberg. The mentions of these topics were clustered around certain months, which differed from topic to topic.

Lastly, to answer **How might different ways of anchoring and objectifying climate change in journalism affect young people's rationality and self-reflection regarding the responsibility of reducing their own emissions?**, the effect differed from mechanism to mechanism. A total of six articles were chosen for the quasi-experimental study, with various approaches to climate change. Each of the 18 respondents was asked to read two of these materials, in which they shared their reactions and reflections through in-depth semi-structured interviews afterward.

Article A1, focusing on the antinomies local/global through emission targets, was not able to evoke a sense of individual responsibility among the respondents. Rather they felt that the article was fact-heavy and lacked an individual aspect. The participants expressed a low sense of self-efficacy, and the article was not able to increase their awareness. Although they did not ascribe individual responsibility, the majority expressed that Norway has a responsibility at a global level, even though as a country, it will not suffer the most severe consequences. This reflection indicated that the local/global focus evokes a 'they' rationality among the respondents, where the participants are able to consider what is best for others.

The responses changed when respondents read article A2, which represents emotional anchoring through a set of future scenarios of global warming. The findings confirmed what previous research has shown: that emotional anchoring helps people attach unfamiliar phenomena to feelings we know. The participants mentioned comparisons of 'dooms day' and some even mentioned apocalyptic movies. Hence, the article did seem to evoke and increase an awareness of consequences. With that said, many also expressed feelings of apathy and helplessness, indicating that they felt a low sense of self-efficacy. In that way, the article was not able to evoke reflections about altruistic acts. But some did express that despite older generations' inability to act, young people must still strive to have environmentally friendly habits, which indicated that some ascribe a degree of individual responsibility.

The findings indicate that anchoring climate change in metaphors, article A3, helps make the issue more comprehensible. The article presented the state of the planet from a human perspective, which seemed to activate an increased awareness among all respondents. It was described as concise and simple, evoking a feeling of empathy. When reflecting upon responsibility, many emphasize the need for efficient policies. Yet, the majority felt that the article served as a reminder to keep pursuing climate-friendly habits at an individual level. Thus, the mechanisms of anchoring through metaphors seem – at least in this case – to evoke reflections about altruistic acts among young people.

The last social representation mechanism, B1, was objectification through personification, an article about Greta Thunberg. All of the respondents had a positive view of Greta in general. Many stated that her age and engagement for the cause make her message more relatable, leading to higher sense of self-efficacy and empowerment. Thus, this objectification seems to increase awareness among young people. With that being said, none of the respondents felt that her actions had motivated specific actions. A few respondents stated that it is not their generation who needs to be convinced, but the older ones. So, these findings indicate that objectifying climate change through personification, in this case, Greta Thunberg, can help raise awareness.

Moving on to C1, this article focus on habits and how you can reduce your individual food waste. All of the participants found it appealing, describing it as simple and informative. The individual focus seemed to give the respondents a high sense of self-efficacy. All respondents stated that wasting less food is an easy change to make. This suggests that the article seemed to increase the participants' awareness of consequences, in addition to ascribing individual responsibility. Thus, the article about food waste seems to evoke reflection about altruistic acts among the respondents.

Article C2 regards air travel, and the respondents feel that Norwegians fly too much and that this habit is bad for the environment. This suggests that the articles give an increased awareness of consequences. When reflection upon individual responsibility related to the topics, a few state that they do not travel that much anyway, while one respondent feels that it is not their responsibility to reduce their number of air travels at all. Yet, the majority of the

respondents state that they have an individual responsibility, which indicated that the articles to some extent are able to evoke feelings of altruism.

Finally, an add-on to the research concerned how young people reflect upon the role of the media, and the crisis of the coronavirus compared to that of climate change. When comparing the coronavirus to climate change, they felt that the former is seen as more urgent, hence our ability to mobilize more quickly. They view the massive media attention as part of the reason why the coronavirus is perceived as more urgent. At the same time, all except one respondent considered the media to have a responsibility in motivating individuals to pursue climate-friendly behavior, which suggests that they expect the media to produce and present information that can accelerate this behavior shift.

To sum up, the research of this thesis suggests that certain mechanisms such as emotional anchoring and anchoring through metaphors have the potential to evoke altruistic reflections among young people. This is so as the articles are able to both increase the awareness of consequences and lead to the ascription of responsibility. The same goes for the articles linked to habits, which once again indicates that young people prefer information about everyday action and behavior related to climate change. The remaining articles seem to only increase awareness but are not able to evoke an ascription of responsibility.

Yet, it is important to keep in mind the various limitations of the study. First, because the sample size is small, these findings cannot be generalized. Secondly, although it is an experimental study, it is only quasi-experimental, meaning that not all combinations of the articles are tested. Also, if the content of the articles focused on other topics, this might have provided different results. Therefore, there are uncertainties tied to whether it is the social representation mechanism, the content of the article, or even the norms of the respondent that affects the stated reflections and ultimately the findings in this thesis. Hence, it is useful to think of the reflections of the participants as emergent properties, where the sum consists of several parts, where each of these affects each other.

To be able to generalize the effect of certain mechanisms, future research should aim for a higher number of participants that are chosen through a random sample. This would allow an experiment where one could test several materials within each social representation mechanism, which is a limitation to the findings of this study. Future research should also

focus on how conversations about climate change are created, and what role climate change journalism and the news media have in this. As presented in this thesis, the theoretical approach of social representations can reveal hidden levels of how these conversations come about and develop, which can be a crucial step to help the transformation towards pro-environmental behavior happen faster. More accurate results could be provided through focus groups, which would give better indications of how these dialogs happen.

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9. Appendices

9.1. Appendix A: The materials

Article A1, anchoring in antinomies:

Klimakutt på minst 50%

Norge har meldt inn et skjerpet klimamål til FN. Det nye løftet er at utslippene av klimagasser skal kuttes med 50 til 55 prosent fra 1990-nivå innen 2030.

Publisert i Finansavisen 8/2-2020.

Skrevet av NTB

– Vi mener dette er et rettferdig nivå i et globalt perspektiv, sier klima- og miljøminister Sveinung Rotevatn (V) til NTB. Han hadde med seg finansminister Jan Tore Sanner (H) og barne- og familieminister Kjell Ingolf Ropstad (KrF) da han presenterte det nye klimamålet. Budskapet er at norske utslipp av klimagasser skal reduseres med minst 50 prosent fra 1990-nivå innen 2030, med mulighet for en ytterligere skjerping opp mot 55 prosent.

Ifølge Rotevatn er utslippskutt i en slik størrelsesorden simpelthen det som må til i land som Norge hvis verden skal ha sjans til å nå målet om å begrense den globale oppvarmingen til mellom 1,5 og 2 grader.

– Det er omtrent der Norge bør ligge gitt vårt historiske ansvar, vårt utslippsnivå og vår rikdom, sier han.

FN-frist

Bakteppet er at FN har satt søndag 9. februar som frist for innmelding av oppdaterte nasjonale klimamål under Parisavtalen fra 2015. Norge har fram til i dag hatt som mål at utslippene av klimagasser skal reduseres med 40 prosent fra 1990-nivå innen 2030, i samarbeid med EU. Norge meldte dette målet inn til FN i juni 2016 og lovfestet det året etter. Også det skjerpede målet har som premiss at det skal oppfylles i samarbeid med EU.

Tar forbehold

I dokumentet som er sendt inn til FN, har regjeringen tatt forbehold om at Stortinget må gi samtykke til det nye målet. Nøyaktig hvordan saken vil bli framlagt for Stortinget, er ennå ikke avgjort.

– Men vi har godt håp om at andre partier også vil slutte seg til de ambisiøse målene vi nå har satt oss, sier finansminister Jan Tore Sanner til NTB.

Et annet uavklart spørsmål er hvilket nivå EU vil legge seg på. EU-kommisjonen har foreslått en tilsvarende skjerping av EUs mål som det Norge nå har meldt inn, men spørsmålet vil trolig ikke bli

avgjort i EUs organer før tidligst i høst. Hva skjerpingen vil koste, har regjeringen ikke noe presist svar på. Men å la være å handle har også en pris, påpeker Sanner.
Article A2, emotional anchoring:

Varmegradene som vil endre alt

Verden blir varmere. Men er det så farlig, da?

*Publisert på NRK.no
Av Kaja Kristin Næss*

Mer eller mindre realistiske dommedagsscenarioer har kommet og gått. Vi har jo alltid vært redde.

Er det derfor vi kanskje tenker at en økning på en halv grad her, og en hel grad der, ikke er så farlig? Stoler vi på at det kommer til å løse seg, sånn som det alltid har gjort?

Klimavitenskap er en vanskelig øvelse. Det er ikke alt vi kan slå fast med sikkerhet. Men vi vet ganske mye likevel. Alt henger sammen. Når du ser ut kjøkkenvinduet ditt, er det været du ser. Klimaet kan vi ikke se. Det må måles, gjerne over flere tiår.

Verden er nå 1 grad varmere enn den var på 1850-tallet. Før vi begynte å bruke olje, kull og gass. Årsaken er at vi slipper ut mer karbondioksid, CO₂, enn jorda klarer å svelge unna. Det blir liggende som et slags tynt teppe rundt jorda, og det gjør at varmen slippes ut litt saktere. Dermed blir kloden varmere enn den ville ha vært uten gassen, og klimaet endrer seg.

Vi vet at klimaet vårt er i ubalanse. Og vi vet at hvis vi ikke tar drastiske grep, kommer det etter hvert til å bli utrivelig. Hvis vi fortsetter med utslippstempoet vi har i dag, er det stor sannsynlighet for at den globale temperaturen vil øke til både 2 og 3 grader. Hva skjer da?

1,5 grad: Somrene blir mer intense, og det vil bli flere hetebølger. Mange dyrearter må kjempe en tapper kamp for å tilpasse seg varmen i et klima som endrer seg raskere enn noen gang.

1,5 grad kan bli virkelighet om ikke lenge. Men hvis vi ikke kutter utslippene, og bare fortsetter med «business as usual», så vil temperaturen øke til 2 grader. Hvordan blir det da? Og hvordan vil det påvirke oss?

2 grader: Havet kan nå ha steget én meter. Mange millioner mennesker vil bli klimaflyktninger fordi havet har slukt øystater og tatt over millionbyer.

FNs Klimapanel beskriver 2 grader slik: Livskvaliteten går hovedsakelig nedover, og fattigdom har økt i stort omfang. Men oppvarminga stopper ikke nødvendigvis her, selv om det er det politikerne ble enige om i Parisavtalen fra 2015. Så, hva med én grad til?

3 grader: FN skriver at den forventa levealderen synker, og livskvaliteten har gått ned. Tørke og vannmangel gjør at jordbruk ikke blir lønnsomt. Matmangelen øker.

Fortsetter vi i samme utslippstempo som i dag, styrer vi mot en temperaturøkning på over 3 grader i 2100. Klimaforskerne er enige om at vi må gjøre alt i vår makt for å ikke komme hit. Dette scenarioet er ikke studert grundig, og man vet ikke helt sikkert hva som har skjedd før vi er kommet til tre grader.

Ingen vet om Norge blir det nye Spania, eller om vi blir et ubeboelig isøde – eller et sted imellom. Det er det Golfstrømmen som avgjør, og vi aner ikke hva som vil skje med den når isbreene smelter.

Havet kan stige enda mer, og store deler av kystlinjene, verdifulle jordbruksområder og bydeler kan forsvinne. Store havområder kan bli tømt for all fisk på grunn av det varme vannet.

Nesten halvparten av alle plante- og dyrearter kan være truet. Hvis verden er 3 grader varmere i 2100, er den nærmest ugjenkjennelig sammenlignet med verden slik vi kjenner den i dag, skriver FNs klimapanel.

Summen av alt dette kan føre en verden i krise.

Men det er ikke er for seint å stoppe utviklinga. Det er fortsatt håp.

Hvilke valg verdens ledere gjør nå, og i årene framover, vil få enorme konsekvenser i århundrene som kommer. Klimaproblemet er fortsatt løsbart. Denne krisen gjelder ikke bare enkelte fabrikker eller næringer. Dette gjelder hele vårt levesett. Alt vi gjør, spiser og handler.

Klimastreik. Klimamarsj. Klimabrøl. Det er ord og handlinger som har dukket opp det siste året.

Kanskje er verden i ferd med å våkne?

Article A3, anchoring by metaphors:

Jeg er kloden din, og jeg føler meg ikke bra

Jeg har sagt fra noen ganger at jeg begynner å bli syk. Da kan jeg miste kontroll og bli farlig.

*Kronikk av Sigmund Hågvar, professor emeritus i natur- og miljøvern, NMBU.
Publisert på Dagbladet.no 28/1-2020.*

Jeg er kloden som du bor på. Jeg er den som gir deg alt du trenger. Jeg tåler mye, men ikke alt. Så lenge vi samarbeider, går det bra, både for deg og meg.

Men jeg er i ferd med å bli syk. Er liksom ute av balanse. Litt feber, som øker på. Jeg ser at mennesker samles av og til i fine bygninger og snakker om det. Og jeg hører at det ropes i gatene. Ønsker noen å hjelpe meg?

Selv om jeg er stor, er jeg sårbar. Jeg kjenner endringer i atmosfæren, og at det virker inn på både hav og skog. Inntil nå har disse tre holdt hverandre i balanse, med passe temperatur, passe fuktighet og passe med vind. Forresten er jeg mindre enn du tror. Har du kjørt bilen din 40.000 km siste år, så har du kjørt like langt som jeg er rundt ekvator.

Jeg har sagt fra noen ganger at jeg begynner å bli syk. Da kan jeg miste kontroll og bli farlig. Bli en uvenn som sender flommer inn over storbyer ved kystene. Lage svære branner som truer skoger, dyreliv, mennesker og byer. Bli en fiende som danner fryktelige orkansystemer over varmt hav. Flytte skyenes gang og skaper tørke der hvor dere dyrker.

Livsformer med lang fartstid på min kropp dør ut. Jeg vil ikke alt dette. Jeg er ikke ondsinnet. Men når dere som bor på meg, bruker luft og vann som søppelkasse, og hogger skogene vekk, ødelegges den balansen som styrer vær og vind.

Mitt språk heter økologi. Mine tjenester er økologi: Pollinering, karbonlagring, flomdemping og nedbrytning. Hvordan jeg lager rent vann, er økologi. Hvordan mat dyrkes, er økologi. Hvordan alt på kloden griper inn i hverandre, er økologi. Det er også økologi når jeg straffer. Hele menneskenes framtid er økologi. Vet de som har det store ansvaret, det?

Som klode vil jeg fortsette å snurre omkring sola. Uansett. Men det kan bli en annerledes klode. Helt annerledes.

Skal jeg bli frisk, må to problemer løses. Det ene er klimaet. Men det hjelper ikke å redde klimaet dersom økosystemene kollapser. Dere må oppfylle både klimakonvensjonen og biomangfoldkonvensjonen.

Ikke ødelegg naturen unødig i iveren på nye energikilder. Vern om klodens sårbare økosystemer. Vær smart og ha to tanker i hodet samtidig. Vær smarte økologer.

Article B1, objectification through personification:

– Hun er beintøff, et unikum

Greta Thunberg (16) hylles av klimaforskere.

Publisert på Dagbladet.no

Av Nicolai Eriksen og Ralf Lofstad

16-årige Greta Thunberg får enorm oppmerksomhet for sin kamp mot klimaendringer. For et år siden satt hun alene og demonstrerte utenfor Riksdagen i Stockholm; i år har hundretusener aksjonert over hele verden på hennes initiativ, og mandag holdt hun tale til FNs hovedforsamling i New York.

– Dere har stjålet mine drømmer og min barndom med deres tomme ord. Likevel er jeg en av de heldige. Folk lider. Folk dør. Hele økosystem kollapser, sa en svært følelsesladd Thunberg til verdenslederne.

Tweet fra Trump

Like fullt er kritikken mot henne sterk. Flere påpeker hennes unge alder, og at hun umulig kan besitte tilstrekkelig kunnskap om klimaforskning til å uttale seg som hun gjør. Andre mener hun er et nyttig redskap for voksnes interesser.

«Den 16-årige jentungen blir nå lyttet til som en fremragende klimaforsker!» skrev Frp-mentor Carl I. Hagen i helga.

Etter Thunbergs FN-opptreden tvitret president Trump tirsdag morgen følgende kommentar, som kan oppfattes som sarkastisk, og som har utløst både støtteerklæringer og avsky: «Hun virker som ei veldig lykkelig ung jente, som ser fram til ei lys og vidunderlig framtid. Så fint å se!»

– Ingen faktafeil

Men norske anerkjente klimaforskere hyller jenta, for så vel engasjementet og gjennomslagskraften, som for sin korrekte omgang med forskningen.

– Greta Thunbergs uttalelser baserer seg på fakta. Hun har åpenbart lest rapportene fra FNs klimapanel, og bedriver faktabasert formidling. Så man kan ikke ta henne på faktafeil, sier Tore Furevik, direktør ved Bjerknessenteret for klimaforskning, til Dagbladet.

– Det at en ungdom står fram slik og taler til FN på den måten, i en utrolig sterk tale med mye følelser, vekker oppsikt. Det er ungdommen som nå snakker til de eldre som styrer. Det var ett innlegg på bare ett minutt, men det var utrolig sterkt, sier han.

– Mange mener hun drar det for langt, og at hun krisemaksimerer. Er du enig?

– Nei, det er jeg ikke. Hun drar det ikke for langt. Det hun sier er faktabasert, og hun har en sterk formidlingsevne.

– **Et unikum**

– Hun er beintøff, et unikum. En slik som det vil bli skrevet bøker om i lang tid framover, sier Bjørn Samset, seniorforsker ved Cicero Senter for klimaforskning, til Dagbladet.

Samset er imponert over hva 16-årige Thunberg har oppnådd, hvor langt hun er kommet.

– Hun møtte Donald Trump og satte øynene i ham. Verden har behov for noen som tar på seg den rollen, sier han.

Forskeren synes Thunberg er «en utmerket ambassadør for klimasaken».

– Grå forskere i dressjakker har i lang tid snakket om «global warming» uten å få mye gjennomslag.

Greta Thunberg er veldig klar og tydelig, og tar på seg en rolle forskerne ikke har tatt på seg, sier han.

Article C1, reducing food waste:

Vi flyr fire ganger mer enn svenskene

– Det at vi flyr er et gode og ikke et problem. Det må være et mål at flere får den muligheten og ikke færre, sa Trygve Slagsvold Vedum (Sp).

Publisert på NRK.no 7/5-2019.

Skrevet av journalist Aud Darrud, Fredrik Solvang og Elin Røstad.

I Debatten tirsdag kveld sa leder av Senterpartiet, Trygve Slagsvold Vedum og forfatter Gunnar Garfors nei til «flyskam». Mens Arild Hermstad fra MDG og Anja Bakken Riise fra Fremtiden i våre hender ja til «flyskam».

Begrepet «flyskam» er direkte importert fra Sverige der ordet ble et nytt begrep i fjor. Svenskene flyr mindre nå mens vi i Norge flyr fire ganger mer enn svenskene. En påstand som faktisk.no fant helt sant i oktober i fjor.

– Det viktigste er at vi er i ferd med å ødelegge klimaet på jordkloden. Hvis vi ikke endrer på det, kommer vil til å gjennomføre det største generasjonssviket noensinne, sa Arild Hermstad fra MDG.

Hermstad mener at flyskam-debatten i Sverige er en medvirkende årsak til at svenske flyr mindre nå. Noe han håper også vil skje i Norge.

– **Trenger fly som ikke slipper ut CO₂**

– Skam har aldri løst noen samfunnsproblemer, sa leder av Senterpartiet, Trygve Slagsvold Vedum.

Han tror skam er klimaets verste fiende dersom det skal brukes som moralisme i klimadebatten. Vedum pekte på at vi trenger å få fly som ikke slipper ut CO₂, som er hovedproblemet med å fly.

– Det at vi flyr er et gode og ikke et problem. Det må være et mål at flere får den muligheten og ikke færre, sa Vedum.

– **Bukkene bruse-mentalitet**

Blant annet så satser verdens nest største flyprodusent Airbus på å produsere 30 elektriske fly mellom 2020 og 2030 som skal romme 19 til 30 personer.

Riise mente at den store utfordringen er de lange forurensende internasjonale flyturene.

– Det er ikke noe vi skal gjøre i tide eller utide. Om alle i verden hadde flydd slik vi gjør i Norge er vi ikke nærheten av nå klimamålet.

Hun mener det er en form for bukkene bruse-mentalitet:

– Ikke ta meg, ta den som kommer etter, sa Anja Bakken Riise, leder av Fremtiden i våre hender.

Article C2, air travel:

Unngå all kastingen: Slik bør du ikke oppbevare maten

Det er viktig å tenke på hvor du plasserer mat som lett blir dårlig.

Publisert på Aftenposten.no 5/2-2020.

Skrevet av journalist Synne Hellum Marschhäuser.

Bakgrunn: Gjennom en serie artikler gir vi forbrukere tips og triks for å kunne leve grønnere liv. Ingen pekefinger, kun opplysning.

Vi kaster 390.000 tonn mat i Norge hvert år. Det er vanlige forbrukere som kaster mest: Hver åttende handlepose eller 42,6 kilo per person hvert eneste år. Matbransjen står for en tredjedel.

Matsvinnet bør reduseres av hensyn til økonomi, klima og ressursutnyttelse, mener Matvett.

Eksperten: Anne Marie Schrøder

Jobber som: Kommunikasjonssjef i Matvett, som er mat- og serveringsbransjens selskap for å forebygge og redusere matsvinn.

Mindre kasting begynner i kjøleskapet

Hvis vi bruker det riktig, er kjøleskapet vårt beste verktøy mot matsvinn, mener Schrøder. Når Matvett undersøker hvorfor maten kastes, er svaret oftest at maten blir glemt.

– Vi har ikke oversikt over innholdet, og folk har altfor mye i kjøleskapet. Det kastes mest måltidsrester, frukt og grønt. Av mat som ikke oppbevares i kjøleskap, er det brød som kastes mest, sier Schrøder.

Mange har feil temperatur i kjøleskapet. Da blir maten fortere dårlig. Ideell temperatur er mellom to og fire grader.

Innred riktig: Egg og brus øverst, kjøtt og fisk nederst

Varmen stiger i høyden i kjøleskapet, forklarer Schrøder. Med mindre man har et nyere, mer fancy kjøleskap der sirkulasjonen er god, og det er egne soner til ulike matvarer. Slik bør du innrede:

Kjøtt og fisk: Bør ligge nederst der det er kaldest.

Egg og brus og varer som tåler litt mer: Øverst i kjøleskapet.

Grønnsaker og frukt: Ha dem gjerne i egen skuff i kjøleskapet. Disse skuffene er i mange tilfeller fuktbevarende. Pass på at varene ikke presses sammen, da råtner de fortere. Nordiske grønnsaker skal som hovedregel ligge i kjøleskapet. Løk og poteter kan ligge tørt og mørkt.

Pålegg: Ha en egen skuff eller et brett til pålegg. Det gir oversikt og gjør det lettere å ta pålegget raskt ut og inn.

Mat som snart går ut på dato: Plasser varen som går ut først foran i hyllen. En boks merket med «spis meg først» eller «spis meg nå», kan være lur. Prioriter disse varene.

Måltidsrester: Bør oppbevares kaldt, gjerne nederst i kjøleskapet. Ha restene i lufttette bokser og merk dem med formål. For eksempel «lunsj i morgen» eller «til spagettisausen».

På kjøkkenbenken: Sydlandsk frukt, som mango, kan oppbevares på kjøkkenbenken til den er moden. Tomat mister ofte smaken i kjøleskap, men kan bli bløte eller skrukkete utenfor. Dette er en smakssak. Frukt og grønt inneholder ofte mye væske. Væsketapet går raskere utenfor kjøleskapet og særlig når råvarene ikke er emballert.

9.2 Appendix B: Interview guide

Info:

- Navn
- Jobb/student
- Bosted
- Alder

Introduksjon:

- Hvordan tilegner du deg informasjon om klimaendringer?
- Når du leser nyheter om klimaendringer på norsk, hvilke kilder bruker du oftest?
- Hvis du ser tilbake på den norske pressedeckningen av klimaendringer i 2019, hvilke tre saker/hendelser husker du som mest omtalt?
- Har du noen gang endret dine vaner som følge av ny informasjon du har tilegnet deg om konsekvensene av klimaendringer? Hvis ja, fortell hvorfor.

1. Reaksjoner

- Hva tenker du umiddelbart etter du har lest artikkelen?

2. Budskap:

- Appellerer artikkelen til deg? (hvorfor/hvorfor ikke)
- Er det noen aspekter ved artikkelen som appellerer mindre? Hvorfor?

3. Handling:

- Etter du har lest artikkelen, hvilket ansvar føler du selv at du har for å nå målet om reduserte utslipp?
- Lærte du noe som kan motivere deg til å endre egne vaner? Hvorfor/hvorfor ikke?
- Hvis nei, hva er eventuelt barrierene? Gi gjerne eksempler.

4. Spørsmål knyttet spesifikt til materialet:

A1, anchoring in antinomies:

- I en global kontekst, hvilket ansvar har Norge for å redusere utslipp?
- Synes du at de foreslåtte kuttene er rettferdige? Hvorfor/hvorfor ikke?

A2, emotional anchoring:

- Hvilke følelser vekket denne artikkelen?
- Ifølge artikkelen er det fortsatt håp. Hva tenker du om det? Hvilken rolle har eventuelt du?

A3, anchoring in metaphors:

- Hva synes du om denne fortellermåten?
- Ifølge artikkelen er jorden syk. Hvilken rolle har du som individ i dette?

B1, objectification through personification:

- Har Greta Thunbergs handlinger påvirket hvordan du tenker på klimaendringer?
- Have Greta Thunbergs handlinger motivert deg til å endre egne handlinger?
- Hvis denne artikkelen handlet om andre miljøprofiler som Al Gore eller Leonardi DiCaprio, ville den appellert til deg da?

C1, reducing food waste:

- Hva føler du om mengden mat som blir kastet i Norge?
- Som en del av tiltakene for å redusere globale utslipp, hvor viktig mener du at det er å redusere matavfall?
- Får du noen fordeler ved å redusere matavfall? Hvorfor/hvorfor ikke?

C2, air travel:

- Er du villig til å fly mindre selv? Hvorfor/hvorfor ikke?
- Hva mener du om begrepet 'flyskam'?

5. Oppsummering

- Av de to artiklene du har lest, hva husker du best?
- Disse to artiklene dekker to ulike temaer, og er presentert på to ulike måter. Hvis du skulle sammenlignet dem, hvilke tanker har du?
- Av de to artiklene, var det noe som motiverte deg? Hvorfor/hvorfor ikke?
- Hvilket ansvar føler du at mediene har for å motivere handlinger som bidrar til å redusere utslipp?

6. Avslutning: Coronaviruset.

Nå har du lest to ulike saker om klimaendringer, og vi har snakket litt om hvordan ulike vinklinger har appellert til deg.

- Nå er vi i en nasjonal og internasjonal krise på grunn av coronaviruset. Dette har ført til umiddelbar handling, der folk flest følger myndighetenes pålegg. Hva tenker du skal til for at klimakrisen skal mobilisere på samme måte?
- Hva synes du om måten norsk presse har dekket coronaviruset på, sammenlignet med deknningen av klimaendringer?



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