UNIVERSITETET I AGDER

Determinants of Human Behavioral Change:

Environmental Attitudes and Values Among Norwegian High School Students in Light of the Fridays for Future Movement.

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Abstract

There is wide scientific consensus that climate change is greatly impacted by anthropogenic factors. This has been the origin for studies on human attitudes in a range of disciplines; if humans are responsible for the current climate crisis, we must surely also want to alter behaviors which significantly affects the prospects of safe living conditions for our own species? This question lays the foundation for my thesis which focuses on attitudes and values of Norwegian high school students in wake of the Fridays for Future movement. By drawing on wider contextual forces of ideology and world order this research investigates how Norwegian youth reflect upon their Western lifestyle, and particularly its carbon footprints impacting global climate change. It further explores to what extent their environmental attitudes have changed in light of the global school strikes. The results indicate that self-enhancement and achievement is prioritized over universal values amongst the students interviewed. While the majority´s environmental attitudes seemingly were unaffected by the strikes, some report on lowered interest as a direct consequence of Fridays for Future. Even more so, climate sceptics and the more positively engaged appears to meet in common understanding when speaking condescendingly about their peers´ strike participation. They argue that strikers are not true to their core values by altering private-sphere behaviors accordingly. This gives further validation to the precedence of value orientation over attitudes, norms and behavior as suggested by the Value-Belief-Norm theoretical framework. Where global impact is discussed, the students reflect low awareness on consequence related to their actions combined with low efficacy-belief. With strong faith in technocentrism and Norwegian oil-dependency, conducting lifestyle changes are deemed less important as climate change is considered both spatially and temporally distant. By conclusion, it is argued that the students inhibit a predominantly hierarchic worldview shaped by their elitist global positioning. It is suggested that these perceptions are taken for granted due to cultural inheritance. Contextual forces are considered vital in shaping the value orientation and cultural patterns of the students, with direct consequences for attitudes and further actions.

Preface and Acknowledgements

The world we currently live in is full of contrasts. On one end we want a life in luxury and convenience, while on the other we are faced with planetary boundaries. This ought to lead to value polarizations. Having worked with environmental disaster responses, I have witnessed the frightening consequences of extreme weather events. What stands out to me is how impact from high CO_2 emitting lifestyles in the Global North disproportionately lead to environmental degradation in the Global South, further exacerbating existing disparities. My motivation for exploring this topic is a sincere interest in the human mind and the possibilities shifting mindsets bring. Only by researching human-environment relations is it possible to gain deeper knowledge about determinants of attitudes, which drives our motivations to conserve and restore nature. Or indeed, the opposite. Throughout the writing of this thesis I have also received guidance from people I would like to thank. My deepest gratitude goes to my supervisor and Head of Department of Global Development and Planning, Hanne Haaland, whose attention to details has provided me with a great deal of support and encouragement throughout this writing process. Her inspiration and patience allowed me to go the extra mile. I would like to extend my warmest appreciation to Associate Professor Vito Laterza who provided invaluable feedback at the end of my writing process. Further, lecturer Sven Åke Bjørke should be given a sincere thanks, his enthusiastic engagement in the topic steered me in the right direction early on in this programme. I am likewise grateful for fruitful discussions had with certain peers, which helped me broaden my perspectives. Last, I would also like to recognize the assistance I received from the administration at the high school selected for this thesis. The completion of research was made possible by flexible teachers who found time in their busy schedules. I very much appreciated the dialogues with all anonymous students who participated in both focus group interviews and the survey.

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"The biggest problem for the climate change fight isn't technology – it's human psychology"

(University of California, 2017)

1. INTRODUCTION

On November 5th 2019, a declaration of climate emergency signed by 11.000 scientists was published. The essay warns of untold suffering unless we change our wealthy lifestyles, linking growing global concern for climatic change to excessive consumption and human behavior (Ripple et al., 2020). Recommendations of similar style was provided by The European Environmental Bureau just months earlier: "Policymakers have to acknowledge the fact that addressing the climate and biodiversity crises (which are only two of several environmental crises) may require a direct downscaling of economic production and consumption in the wealthiest countries" (Parrique et al., 2019). Addressing eco-citizenship and consumer responsibility is crucial in a time where the world's population use natural resources equal to 1,6 planets, 50% more than 30 years ago (Andrews-Speed et al., 2015; Global Footprint Network, n.d.). Numbers are peaking in high-income nations with 10 times higher resource utilization than developing countries, and up to 30 times more than traditional hunter-gatherer societies (Slater & Warhurst, 2009, p.7).

Based on an assumption that political policy change starts with personal change where society in turn follows (Danter, 2016), several researchers now focus on individual behavior as the driving transformational force towards a more sustainable planet (Fornara et al., 2020; Dubois et al., 2019). Although governments and industries can direct personal actions through public regulations and market availability, household footprint made visual through consumption of goods, mobility or dietary habits following in the path of an affluent global middle class, also receives growing attention as individual choice is recognized as a source of serious environmental degradation. Recent research suggests household consumption is responsible for up to 50-80% of global resource usage, and 60% of global GHG emissions (Ivanova et al., 2015), while yet another study says the household GHG contributions could be as high as 72% (Dubois et al., 2019). Hardin pointed out already in 1968 that "Behavior that makes sense from the individual point of view, when repeated by enough individuals, ultimately proves disastrous to society" (in Gardner & Stern, 1996, p.23). The argument given is that private consumption is not just a problem which can be solved by natural science alone. Tightly connected to the current economic growth paradigm, the issue lies in the human mind where self-centering consumption patterns lead to overuse of common resources. As such, we need to make individual behavior a public concern. Understanding climate attitudes, and the values driving these, is essential in changing this path.

But are people themselves aware of their personal CO_2 footprints? And if yes; does the distance between the top-consumers in the North, to the worst environmental degradations in the South, lead to dissonance and denial? Previous research concludes that climate change is often regarded spatial, temporal and social distant from citizens in wealthier nations, which again alters personal believes and behaviors accordingly (Pidgeon, 2012; Steentjes et al., 2017). With this questions in mind, it becomes relevant to explore environmental intentional behavior and related attitudes in high-consumptions societies further.

1.1. Research Scope and Geographical Area

In light of the global Fridays for Future movement (FFF), the youngest generation has been portrayed as particularly pro-active and willing to change. Millions of youth have supported and participated in strikes globally uniting under a common cause; it is them who will inherit a much less habitable earth. The large striking numbers suggest teenagers are highly aware of the seriousness connected to climate change and environmental degradation, which provides support for the assumption that most young people are positively engaged in better future prospects for themselves. Still, what caught my interest in this subject was the contradiction between the core values of FFF,[1] emphasizing self-transcendence and respect for planetary boundaries, and our current economic growth paradigm where neoliberal citizenships are prioritized over ecological citizenships. In Norway, the school strike for climate has seen much support with over 40.000 students demonstrating in March 2019 (Naturvernforbundet, 2019). At the same time, Norwegian personal consumption levels rank at the top internationally, and have doubled in the last 30 years (Thoring, 2019). As the global school strike is a relatively new phenomenon, limited research exists on youth´s environmental attitudes in light of the strike, and what yet remains to be seen are positive outcomes in terms of lowered personal footprints and expenditures. It is this gap in the field I will explore further.

1.2. Relevance and Importance

The importance of youth environmental attitudes connects to future prospects for climate action among the wider public. Generation Z do not only inherit a planet dominated by weather

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[1] Not all youth school strikes use the Fridays for Future banner, but since the protests have the same agenda- with the school strike in common, de Moor et al. (2020) suggest using the conceptually unifying term "Fridays for Future" for all global protests in the same timeframe and genre.

extremes and ecosystems failures. They also inherit wider social behaviors, norms and cultural consumption patterns which makes it vital to gain an in-depth understanding of the driving forces behind environmental awareness and actions. Based on the importance of values, attitudes and intentions, it is the aim of this thesis to bring insight about the environmental perspectives of a small group of Norwegian youth and the motivations that drive their actions. While some research does exist on environmental attitudes among Norwegian youth (Aasen et al., 2019; Dalen et al., 2014; Fløttum et al., 2016; Selboe & Sæther, 2018), I find that it is of relevance to see if the strikes have worked as an accumulator of increased awareness and intent to change. The high participation turn-over and publicity the movement has generated makes it relevant to explore youth environmental engagement further. Informants where selected from one high school in Oslo. By using FFF as an important event potentially altering the informants' perspectives, I have tried to explore if there is a change in their attitudes towards climate change before and after the period of strikes. Interviews and questionnaires where completed between December 2019 and February 2020.

Further, this thesis also builds on existing research in the field of environmental behavior where several authors suggest that eco-citizenship derives from value orientation, worldview and ideologies in society (Austgulen & Stø, 2013; Helliesen, 2015; Norgaard, 2006). Through this focus, I will explore connections between personal values and contextual forces in the later part of the analysis.

1.3. Research Objective and Research Questions

To analyze environmental behavioral change, Steg & Vlek (2009, p.315) classify four systematic key actions to follow:

> (1) identification of the behavior to be changed, (2) examination of the main factors underlying this behavior, (3) application of interventions to change the relevant behaviors and their determinants, and (4) evaluation of intervention effects on the behavior itself, its main determinants, environmental quality, and human quality of life

As this thesis focuses on attitudes and intent rather than measuring actual behaviors, an overall focus will be provided towards step 2, with attention to values, beliefs and attitudes. This lays the foundation for the following research objective:

To explore how Norwegian high school students talk about and discuss a Western lifestyle and particularly its carbon footprint impacting global climate change.

Where this research question emerged:

a) To what extent do Norwegian high school students find that their environmental awareness and attitudes have changed after the school strike for climate started in 2019?

Through this focus it was further important to understand *why* the students hold the attitudes they do, with high influence on behavior. Thus, underlying factors are essential to investigate to better grasp what shapes and shifts these attitudes and opinions in the first place. This lead to the following research questions:

b) How do Norwegian high school students reflect upon the relationship between their lifestyles, carbon footprints and impacts of global climate change in the Global South?

c) What underlying factors shape the students´ environmental attitudes, and how can these help explain why the students hold the attitudes they do?

1.3.1.   Research Delimitations

It is important to note that this thesis does not center on activist behavior or the youth climate strike itself. If this was the case, I would have selected my informants differently. Rather, the purpose of this research is to grasp what may be the general view of the median teenager, and see if FFF as an *accumulator for change* may or may not drive private-sphere or public-sphere environmentalist behavior. It is useful for this purpose because the size and scale of the movement means everyone knows about it, and as it turns out: have an opinion about it. As such, FFF also works as a door opener to wider subjects on climate awareness, self-efficacy and prevailing values and beliefs.

1.4. Overview and Structure

The thesis is composed of seven themed chapters. In the next section I present the current state of climate extremes and its relations to economic growth. This is further narrowed down to perspectives on environmental beliefs and attitudes in Norway, introducing relevant literature. The chapter ends with a brief summary of the Fridays for Future strike and an introduction to the research area. The third chapter outlines the theoretical framework chosen for this research, mainly the value-belief-norm theory, but other relevant theories are also introduced. Next the methods used in described in chapter four. Quantitative survey results and qualitative interview findings are presented in chapter five. Finally, chapter six brings together data collected from the interviews and relevant research from the document analysis. The discussion is divided in two; while the first part analyses the results in light of the theoretical framework, the last section suggest the importance of wider contextual forces in determining the students´ attitudes and worldviews.

2. LITERATURE REVIEW

This section is divided in three parts. First, I present the current status of what is described as an ecological and climatic crisis, linking this to our current economic growth paradigm and its emergence. It is essential to understand present-day worldviews in light of inherited global power balances as this will be discussed further in connection to ideology and values in the analysis. Secondly, I present general data on environmental attitudes and beliefs in Norway. First among the general public, followed by a section focusing on the opinions of the youth. This provides context to the empirical findings from my research. In the last part I present a brief overview of the recent school strike for climate. Although the strike itself is not at center stage in this thesis, it has already become an historical event of importance - and which all the informants knew about and could relate to. As such, FFF provided a context as well as a broader understanding of the subject that I was interested in exploring.

2.1. Climate Change and Consumer Behavior

A newly published report from the World Meteorological Organization concludes that CO_2 levels is at its highest in 3 million years. Despite countries and industries setting environmental targets, there is no sign of decline or slowdown in greenhouse gas emissions, in contrary, over the past decade CO_2 record growth rates have steadily increased (World Meteorological Organization, 2019a). Compared with pre-industrial levels, CO_2 is currently at 147%, methane at 259% and Nitrous oxide at 123%. The United Science report underlies the "glaring and growing" gap between targets and reality, followed up by UNEP Executive Director Inger Andersen who points out that "we face a stark choice: set in motion the radical transformations we need now, or face the consequences of a planet radically altered by climate change" (World Meteorological Organization, 2019b). UNEP now estimates a 66% chance of 3.2% global temperature rise by the end of this century if countries do not drastically increase their nationally determined contributions (NDCs): "Countries must increase their NDC ambitions threefold to achieve the well below 2°C goal and more than fivefold to achieve the 1.5°C goal" (UN Environment Programme, 2019). At the same time, the EU parliament declares a climate emergency targeting that all EU proposals must be aligned with the 1.5°C target, cutting emissions by 55% by 2030 (The European Parliament, 2019).

Most scientists agree global warming is caused by human activities, most prominently greenhouse gas emissions (NASA, n.d.; Santer et al., 2019). Still, human knowledge of the consequences following increased industrialisation is nothing new. The various drivers of GHG emissions have been discussed for centuries; the greenhouse effect was discovered already back in 1859, while the Swedish scientist Arrhenius proved that human CO_2 emissions would increase the global temperatures in 1896 (Aas, 2018). In the 20th century, various theories conjugating human activities to environmental degradation emerged; Malthusianism linked human population growth to potential shortcomings in resource availability, while the IPAT framework related three factors of human expenditure (population, affluence and technology) to declining bio capacity (Chertow, 2001). What these historical theories, and others after them, have shown is the complexity of the human-nature relationship, and yet how plentiful discussions over the years have not showcased any significant results through actions. No matter the evolution in history of science or increase in human knowledge, theories are interweaved with political ideologies and economical frameworks. I will provide some examples of this in the following section.

2.1.1. Capitalism and Consumption

Scientists conclude that our current lifestyle have devastating consequences for life on earth, linking overconsumption with capitalism and maximization of welfare (Desai, 2016; Ripple et al., 2020; Varian, 2010). Planetary boundaries are exceeded while our current economic growth paradigm, based on continuous expansion and increasing returns, requires never-ending supplies of natural resources (Klein, 2019; Kovel, 2007; Reinert, 2019). With it comes the need to create demands for personal consumption of manufactured goods, retail or transportation vehicles. I reflect on the core idea of capitalistic growth and its relation to consumerism since it is based on the assumption that a free market has the ability to self-regulate:

> Human economy is an integral part of materially closed evolutionary system (…) for over a hundred years the dominant metaphor of economic activity has been a trophic one in which economic agents are conceived as "feeding off" the resources of a quiescent and independently functioning natural environment in order to satisfy an exogenously determined set of desires up to the limits permitted by an exogenously determined set of endowments. (Common & Perrings, 1992, p.15)

Such optimistic exploitation does not measure the balance between resource availability and ecological sustainability. Rather, it gives indefinite trust to consumers and their own consumption awareness. Boulding (1966) raised criticism towards the role of consumption for

human prosperity already back in the 1960s. Through his famous essay *The Economics of the Coming Spaceship Earth* he speaks of a shift from what he labels the Cowboy-economy, closely linked to imperialistic conquest, to the Spaceman-economy; with associations to the limited resources available on a spaceship which in turn needs to be carefully recycled and maintained. "Man is seen to be in a circular rather than a linear ecological system. Then throughput is considered something to be minimized rather than maximized; it is the *cost* of maintaining the capital stock, rather than a measure of economic success" (1974, p.33). What seems to be written for a distant future, could not have fitted better in today´s world.

Kovel (2007) goes as far as calling capitalism the uncontrollable force driving our ecological crisis. Further actions are only taken when resource scarcity leads to a halt in productivity, threating the fragile demand-supply algorithm. Some put their faith in green technology, which for a period can stretch the maximum carrying capacity of nature (Portney, 2015). However, we are still faced with planetary resource limitations, and new technological solutions are also bound to exacerbate existing environmental problems, or create entirely new ones (Parrique et al., 2019). Even more important; alternative options seem to be a diversion from the real problem of overconsumption and the dominant economical model this derives from. According to Global Footprint Network (n.d.2), Norway alone use 3,38 times what our planetary boundaries can tolerate. To change this destructive pattern of increasing extractivism, a wide scale change in resource management, policy agreements and human consumption patterns are needed. As Naomi Klein puts it:

> …The bottom line is what matters here: our economic system and our planetary system are now at war. Or, more accurately, our economy is at war with many forms of life on earth, including human life. What the climate needs to avoid collapse is a contraction in humanity's use of resources; what our economic model demands to avoid collapse is unfettered expansion. Only one of these sets of rules can be changed, it it's not the laws of nature. (2014, p.233)

2.1.2. Cultural Acceptance of Status Quo - why Values and Beliefs Matter

Although capitalistic growth may be a central driving forces behind the current speed of resource extraction, it would not have taken place without a cultural recognition of status quo. What determines successful change is not just regulations and policy agreements, but rather values and beliefs; "Earth's carrying capacity is largely a function of the social and political values that define and prescribe human behavior. Achieving sustainability then, apparently requires some types of sociopolitical characteristics and values rather than others" (Portney,

2015, p.13). There is for example an evident contrast between how mass consumption is culturally addressed in Boulding´s Space Cowboy essay from the 1960s, and the American national pride found through scrap collection and lower consumption of goods some 20 years earlier. During World War II self-sufficiency became a strong sociopolitical value, considered "unquestionable patriotic" (Porter, 2018), where collective action and modesty was needed due to military resource allocation. This civil mobilization for a cause beyond the individual selves tapped into deeper feelings of unity and pride, according to Porter this is essential as most people "want to be part of a group that shares our values and rewards our efforts" (ibid, 00:53). However, once the war was won, financial and political motives rapidly changed to target home markets; 20 years later Boulding lived in a time where consumer-optimism had reached its peak. His critical thinking, connecting environmental degradation with social and economic systems, suddenly represented the minority (Spash, 2013). This contrasting historical example clearly shows how shifting cultural influences shape our environmental values and beliefs. Although the ecological crisis is widely acknowledged, the financial discourse is prioritized over environmental considerations.

2.1.3. How We Value Nature: Our Cultural Roots

Since *how* we value natural resources, and our self-defined right to dominate nature, is so central in understanding consumerism and global patterns of power, a short historical pretext to our cultural connection with planet earth is of importance. The birth of industrial capitalism as a world-dominant economic system has its roots in the first era of modern globalization, tightly connected to escalating resource extraction and colonialism dating from the 16th century onwards. With the colonial discourse, the world did not only see the emergence of a new financial system[2] but also a new social, moral and political order (Amin, 2018; Blewitt, 2015; Deckard, 2009; Reinert, 2007). Drayton (2000) calls the management of nature imposed by European settlers under the imperialism one of the most enduring legacies from our colonial past. Resource grab and alienation of indigenous populations from their own living environment is well documented in much development history (Grove, 1995; Singh & van Houtum, 2002), but beyond that, the cultural encounters between settlers and indigenous people was also "an encounter between alternative epistemologies of nature" (Murphey, 2009, p.17). According to the Western epistemology, nature was something wild that needed to be

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[2] This is not to say human alteration of nature started with the industrial revolution. Earth´s surface has been drastically adapted by humans since the agricultural revolution (Stenøien & Andersen, 2018). It is the *speed of change*; the "take off" of resource extraction, with its alarming eradication of other species and habitats which is the essential point for this writing.

tamed (Neumann, 2002). In a time where modernization was associated with development, indigenous preservationist methods was quickly seen as unmodern and backwards, what Deckard (2009) further recalls as a loss of sustainable ecological traditions as the original relationship between human, animals and the environment was fractured.

2.1.4. From Local to Planetary Focus

A new shift in the conceptualization of nature can be found last mid-century, partly as a need in building post-war international systems, while also inspired by contemporary thinkers like Vogt and his book *Road to Survival* and later Rachel Carson and her book *Silent Spring* (Warde et al., 2018). *Road to survival* led to a generational change in how humans viewed the environment, from conservation being a local issue to a planetary holistic view where all ecosystems and human societies are interconnected. "There had been a shift from a world where man was molded by the environment, to him being able to alter the nature of his world" ((Warde et al., 2018, 16:48). When the concept re-emerged it was tied to management and regulations of newly established global environmental institutions, like the International Union for the Protection of Nature (IUPN). Their role in large-scale nature conservation and information processing meant further broadening of what the inclusive idea of *environment* was to become. Still persisting today, at the core of modern Western individualism lies the "concept of nature as a type of environment, something surrounding us that is distinct and distanced from us" (Stoknes, 2015, p.195). Stoknes expands this further, linking our understanding of nature to the basis of capitalistic growth: "Our current economic system itself embodies values that fall into the self-enhancing or egoistic categories, with its focus on wealth, personal status, or success" (p.199). At the other side of the scale is eco-centrism where nature is given its own intrinsic value (Adams, 2009). This conservationist line of thought reflects the non-monetary value of nature; a moral obligation to preserve non-renewable resources and fragile ecosystems. With this, usage of natural resources also becomes a question of ethics.

2.2. Norwegian Environmental Attitudes and Generation Z

Public opinions on climate change vary greatly both within and between different nations (Kvaløy et al., 2012; Mildenberger & Tingley, 2017). Several studies find that high economic development correlates with decreasing environmental concern. In Europe, climate change is regarded a phenomenon mostly affecting other parts of the world with less impact on local personal level (Deisenrieder et al., 2020; Gifford, 2011; Spence et al., 2012). Further research among 10 European countries indicates that only Estonians care less about climate change

than Norwegian citizens (Ficko & Bončina, 2019). Half of all Norwegians acknowledge very limited interest in the subject. Scientist Aasen at Cicero speculate on different reasons; media coverage, trust in the welfare state, and a growing number of climate skeptics (Buckley, 2017; Kvittingen, 2017).

2.2.1. Environmental Footprint in Norway

Norwegian citizens have experienced growing prosperity and wealth since the 1970s (Regjeringen, 2013), and with it environmental awareness and consumer habits has changed towards more consumption and an increasing sense of powerlessness for environmental action (Lavik & Borgeraas, 2015; Mork 2008; Strand, 2014). Private household consumption represents higher CO_2 footprints than public consumption (Hille, 2012), with food products, energy and transportation having the greatest environmental impact. Holmes (2016) argue that GHG emissions from private households have increased with 26% from 1999 to 2012, while a new report from the NGO Framtiden i våre hender [Norway´s largest environmental non-governmental organization] operates with higher numbers. This report estimate that Norwegian household consumption has stabilized, but on a level way higher than what is considered sustainable. Consumption has generally doubled since 1990, while multiplying in certain categories. We replace televisions 30 times more often than 30 years ago and furniture import has quadrupled (Thoring, 2019). Even more, CO_2 footprint associated with production of goods in other countries, as well as global transport is not included in this carbon budget.

Norway´s total emissions has increased by 3% since 1990, with an 23% increase in CO_2 alone. While representing only 0.07% of the world´s population, Norway still have higher per capita emissions than Denmark, UK, Sweden and EU combined (Kartha et al., 2018). These alarming numbers were addressed in the report *Norway´s fair share,* which concludes that for Norway to meet fair effort-sharing of global climate mitigations, the country needs to reduce emissions by at least 53% relative to 1990 levels by 2030, compared to its current pledge of a 40% reduction (Gjerde & Sørenes, 2019; Ministry of Climate and Environment, 2020). Thus, our responsibility is almost 10 times larger than our population (Aas, 2018).

Figure 1. European countries cut emissions, but Norway lags behind

Kilde: UNFCCC, Time Series
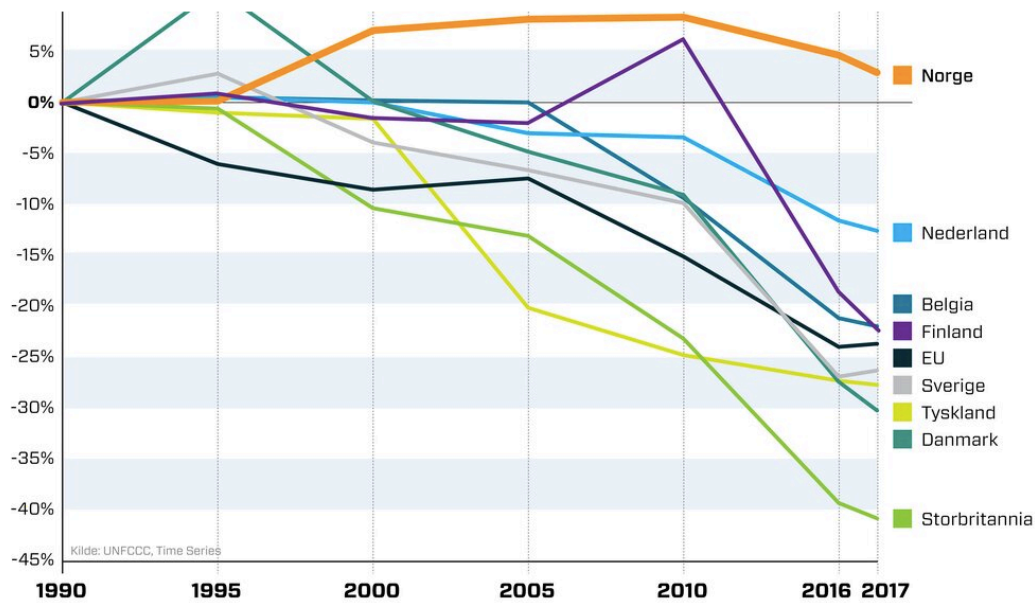
(Martiniussen, 2019).

2.2.2. Environmental Attitudes and Awareness Among the Public

People's awareness of this enormous environmental footprint, and readiness to take their share of responsibility shows clear contradictions. In a large scale survey among 38.000 Norwegians 80% say they believe climate change is happening, although most respondents where only slightly worried about it (Aasen et al., 2019). In turn, research on personal responsibility for climate actions shows divided results. When asked if cuts in GHG emissions were primarily the responsibility of governments, consumers or industries, an international comparative study found that only three other nations (of 28 in total) placed *less* responsibility on personal consumers than Norwegians (Smith, 2019). 54% of Norwegians say individuals have little or no power to combat climate change. Similar results were found by Tangeland & Vittersø (2014) where consumers place outmost responsibility for sustainable solutions on governments and industries. Aasen and colleagues´ (2019) research uncovered evident gaps between attitudes and behaviors. While the majority replied positively when asked if they had a personal responsibility to cut GHG emissions, the larger percentage were reluctant to commit to concrete actions like reducing transportation footprint (car and air) or red meat intake. Over the past 20 years there has been a declining trend in self-perceived consumer responsibility among Norwegians (Lavik & Borgeraas, 2015). The blue squares in the graph below indicates how individuals perceive their own ability to influence climate change. Green triangles indicate willingness to conduct pro-environmental behavior. Both indicators are declining, while faith in technological solutions (red squares) is on the rise.

Figure 2. Norwegians perceived ability to influence climate change
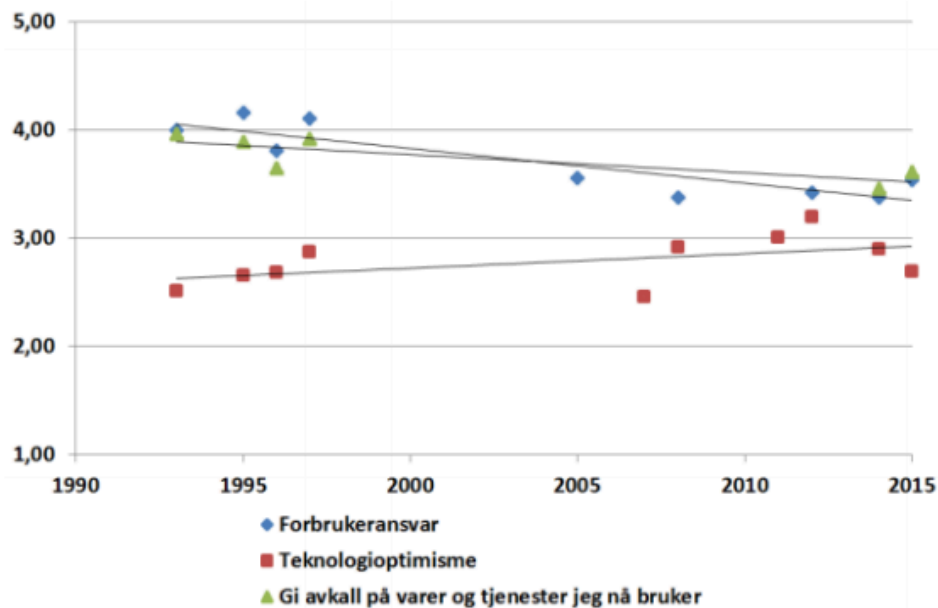
(Lavik & Borgeraas, 2015, p.22).

This may indicate "an increasing sense of powerlessness towards environmental problems among the population" (ibid). However, the mechanisms driving such indifference should be examined further. Similar results were found in a case study where the author determines Norwegian´s collective inaction a socially organized denial of global warming:

"Because Norwegian economic prosperity is tied to oil production, collectively ignoring climate change maintains Norwegian economic interests" (Norgaard, 2006, p.347; 2011). This powerful statement has been reinforced by recent research; in the mentioned study of 28 countries, Norwegians and Saudi Arabians where least likely to think human activity is the main reason behind climate change (Smith, 2019). The link between two of the world's top ten oil producing nations and their lower tendencies towards human responsibility seems obvious in this context. Within the population, both Helliesen (2015) and Brobakk (2017) find political orientation to be more important than trust in science, where left-wing voters are more open to believe in anthropogenic climate change and vice versa. Climate skepticism shows clear social divisions with male, elders and low educated leaning towards the denying side of the scale (Mullis, 2019). The European Perceptions of Climate Change Project concludes that Norwegians are informed, but not alarmed:

> The economic importance of fossil fuels blends with social identity and conceptions of nature to form powerful narratives around how Norway found and exploited its offshore oil and gas resources…Cognitive dissonance emerges because the country

seeks a climate-friendly image at home and abroad, while being unable to curb its domestic emissions and maintaining fossil fuel exports at relatively high levels.

(Steentjes et al., 2017, p.10)

In their survey, comparing environmental attitudes in four European countries, Norwegians had the lowest affect scores when asked about their emotions connected to climate change. These results suggest that Norwegians feel less impacted by climate change in their everyday life than others. Rather contradictory, *knowledge* on environmental change is highest in Norway: 93% recognize climate change is happening, and the belief in a unified scientific consensus is high. Given the majority of Norwegians´ seemingly declining efforts to combat climate change on personal level while being strong supporters of the petroleum industry boosting their wealth, it is also worth including a word on social limits to economic growth. According to Hirsch extension of welfare is only exclusive to smaller elites, and these benefits disappear if welfare is socially expanded and equally shared. "The affluent society is the frustrated society, seemingly incapable of improving the quality of life through greater material quantity" (Hirsch, 1978). In a global perspective, Norwegians are among such a social elite with privileges the larger world population does not have. NTNU professor Nyeng, with previous research on consumer psychology, does not think the average Norwegian will be able to change environmental habits on his own; "I believe the link between consumption, lifestyle, status and identity has become so well-established in all of us that we need help by virtue of prohibitions and behavior-altering boundaries implemented from above" (Holmes, 2016).

2.2.3. Youth - the Hope for the Future?

According to Fuse marketing, a company specializing in the teen segment, generation Z is far more likely to accelerate social change and care for environmental issues than Millennials. Zers is the first "wired" generation, and being connected globally through technology also makes them engaged in civil causes (Fuse, 2015). Data which also aligns with Norway; several studies conclude that younger Norwegians are ready to commit to ecological citizenship. In Cicero´s climate survey from 2019 respondents in the 18-30 age cohort stand out as more concerned about, and willing to act, on climate change. They are more likely to change their consumer habits; 82% in this cohort say it is their own responsibility to lower personal emissions, while 59% are willing to reduce meat consumption (Aasen et al., 2019). The optimism is shared by Wahlström and colleagues (2019) who conclude that we may now see the emergence of a new generation of climate activists; generation Z is likely to be the best informed age group in history (Perera & Hewege, 2013). They also want stricter environmental legislations from the

government (Borge & Moldrheim, 2017; Selboe & Sæther, 2018) and are strong supporters of technocentric solutions to the environmental crisis (Fløttum et al., 2016). With time, and as we find new solutions, things will change for the better (Dalen et al., 2014). Still, like the rest of the population – worries about climate change is on a declining trend. The graph below shows the percentage of youth in the group of 15-20 years' old who are "very concerned" with climate change (yellow graph).

Figure 3. Environmental concern from 1989-2013 in the 15-20 age cohort.

"Hvor bekymret er du for følgende miljøproblemer?" Andel som er "meget bekymret". Alder 15-20 år.
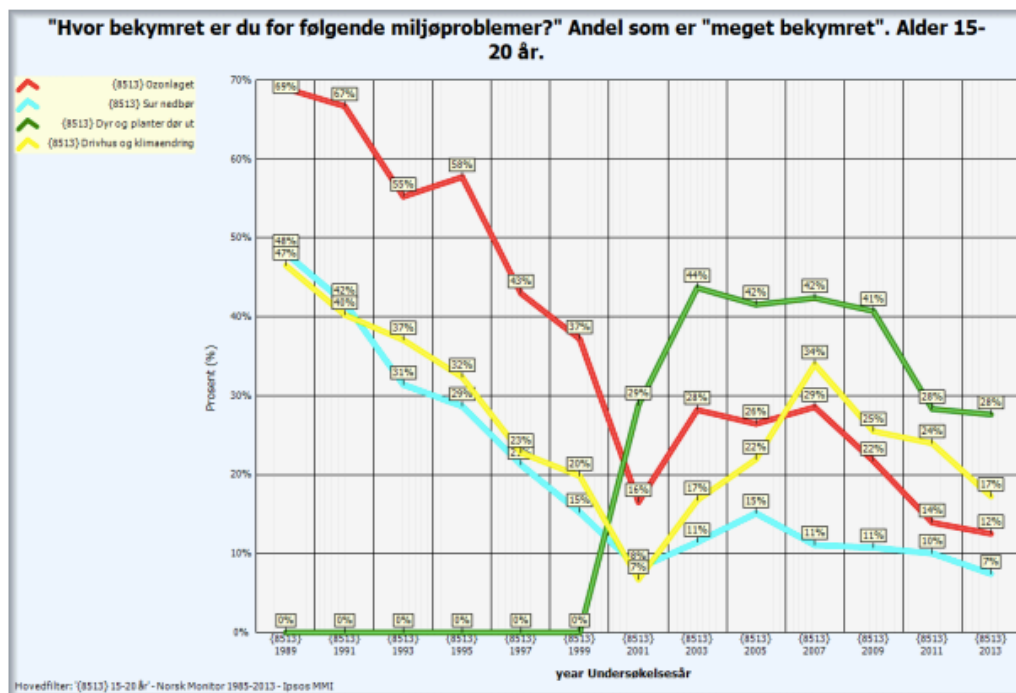
(Dalen et al., 2014).

Yet another report indicates a strong attitude-behavior gap among this age-group; while youth were most concerned with sustainable food choices and meat-reduction, *in reality* this generation consumed more meat than older generations (Bugge & Alfnes, 2018). Those under 30 also represent the age group with the largest increase in positivism towards oil extraction. 27% are positive to Norwegian petroleum activities, this is above the average compared to other age groups (Livgard, 2019; Solberg, 2020). Previous research on environmental attitudes among Norwegian high-school students indicates that an overall economic discourse structured the students´ faith in self-perceived ability to influence sustainable change. Economics was institutionalized and deemed inseparable from the welfare state in such a way that society hardly could be organized differently (Pedersen, 2018). Their ecological view was understood through this narrative, which implies that neoliberal citizenship predominates the importance

of an ecological citizenship (Dimick, 2015). Given the resemblance to the adult generation results, this may come as no surprise as adolescents' worldview is often a product of family inheritance among other social factors (Duarte et al., 2017). In total, this presents us with a mixed picture about the values and attitudes of the younger generation.

At the same time, more youth report on eco-anxiety (Leirfall, 2019; Majeed & Lee, 2017), a well-established phenomenon in the world of psychology (Grose, 2019; Ojala, 2012; Reser & Swim, 2011). Climate change and destruction of nature ranks at the top of what young people worry about globally (World Economic Forum, 2017). Both psychologists and youth recognize that too much responsibility for cheering on environmental solutions are currently addressed to the youth; psychologist Montgomery warns against politicizing childhoods by making children and youth prophets and leaders (Eriksen, 2019). When Greta Thunberg spoke at the UN Climate action summit in 2019 she addressed this responsibility; "This is all wrong. I should not be up here; I should be back in school on the other side of the ocean. Yet, you all come to us young people for hope..." (PBS News, 2019). Still, United Nations Secretary-General António Guterres did exactly this when he addressed young climate leaders from around the world at COP15 just two months later. In his COY key speech Guterres say: "The climate crisis will demand action and change from all of us. And you can lead it. And we count on you to lead today, so we may all enjoy a better tomorrow" (UN Framework Convention on Climate Change, 2019). Empowering young people and recognizing their actions, is not the same as trusting them to lead. As one must assume the secretary-general choice his wording carefully, his message is a scaring one; where one of the world's most influential leaders counts on a generation so young they can´t even vote in elections, instead of addressing peers with the real executing power to act. The same youth engagement has also been reinforced by media´s discourse. Headlines like "Greta´s words are scorched firmly - a display of intelligent life" (Ytterstad, 2020); "- An evident generation gap: a majority of Norwegians under 24 years old say no to oil drilling. Youth all over the world are more engaged in climate than the elder" (Skjeseth, 2019); "The youth wants even stricter climatic rules" (Jære, 2018), show how attitudes of an entire generation are generalized quite optimistically in media.

2.3. Climate Action Among Youth

2.3.1. Breaking with the Reigning Social Values and Beliefs

In the context of this thesis, social movements are of high relevance as they historically tend to represent a protest against the set norms and values in society. Professor Knut Kjelstadli

explains that Norwegian social movements historically have been "a counter-power against the over class´ capitalistic power" (Broen til framtiden, 2020, 30:56). Since the end of the 19th century they represented a practice arena for the working class and democratic politicians. As such, the historical foundation of today´s youth movement is important for two reasons: it represents the grassroots of society which have limited influential power in a formal political system - and may not even be of voting age, while at the same time challenging the exact capitalistic model which is linked to over-consumption and resource depletion. Although the use of social activism as an influential political tool is nothing new in the history of environmental awareness, what has changed over the past two years is the size and scale of today´s uproar lead by the youngest generation.

2.3.2. Fridays for Future: Framework and Demands

The Fridays for Future school strikes are historical events of proportions; it is the largest youth strike in history where young people make a statement through public disobedience by taking to the streets instead of attending school (Rosane, 2019; 350, 2019). A global concept which has spread to sub-units in more than 160 countries (Fridays for Future, n.d.1). The global threat of climate change calls for collective action aligning cross-bordering interests and FFF represents one of the most "easily accessible political platforms" young people can engage in, enabled by technology and social media (Deisenrieder et al., 2020). de Moor et al. (2020) further suggest that the novelty of the strikes holds several dimensions including: "The large involvement of school students as initiators, organizers and participants, the use of the school strike as a tactic, and sustained weekly pressure on authorities and the fossil fuel industry" (p.7). In summary the strikers unite behind three global demands: To keep the global temperature rise below 1.5 °C compared to pre-industrial levels; ensure climate justice and equity; listen to the best united science currently available (Fridays for Future, n.d.2). The climate justice framework pressed forward by strikers turn the focus from nature as a detached, nonhuman realm, to a wider concept of ecological attachment; we are not separable from nature (Maier, 2019). However, as part of a wider collective climate justice movement,[3] the strikers also question the unsynchronized power balance between the Global North and Global South in climate politics, "why those already exposed to other forms of disadvantage are also subject to environmental bads" (Schlosberg, 2014). Since people are disproportionately impacted, the protesters also strike for humans, animal species and nature threated in other places on earth.

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[3] It is acknowledged that FFF is only part of the global "Environmental justice movement" originating from the 1970s. Still an inclusive approach is relevant as the movement provide a "global infrastructure and template to coordinate a new international organization to confront neoliberal forms of globalization" (Almeida, 2019).

This concept has been labeled "just sustainability" by Agyeman (2012) who incorporates "Interests in quality of life, present and future generations, justice and equity in resource allocation, and living within ecological limits" in the same term. The rhetoric of climate justice is important for the strike because it switch the focus from pure environmentalism to political action, while at the same time questioning the balance between sustainability and the current global financial paradigm. It further confronts Western cultural values and beliefs by challenging how human detachment from nature is taken for granted; indigenous environmental conceptions have been central to the framework from the start.

2.3.3. Motivation and Influence

Motivational factors driving people to participate in social movements are highly individual. Scholars in the field have documented various variables such as strengthened group identity linked to social and political motives, access to new opportunities, or participation as an opposition to sociopolitical injustice (Dutt & Grabe, 2014; Hammack, 2012; Marquart-Pyatt, 2018; Vindhyua, 2012). Framtiden I våre hender says the driving force behind the current youth movement is "a feeling of being let down by an entire generation of adult people in power in politics, business and industries" (Storrønningen, 2019a, p.4). Social movement participation is often theoretically divided between instrumental motivations; with specific political goals at stake, and expressive motivations; where the outcome of the protest have less importance than bringing about an ideological or value-driven message (Klandermans, 2004; Wahlström et al, 2019). The FFF strike falls into both categories. While many participants say they strike because they want to influence governments and decisions makers to adapt climate friendly policies (Waale, 2019; NRK, n.d.), others say they demonstrate to foster social change. One of Norway´s front runners in the strike, 15-year-old Penelope Lea, explains this to BBC: "Some say we have to wait for people to get ready for change. But we need to make people ready. These are some of the things the youth movement is trying to do" (BBC, 2019). The movement is important because it puts young people on a specific political course which they may stay on their entire life (Wahlström et al., 2019). As such, the strike does not only function as a political protest but also works as an awareness campaign. The later could positively influence consumer habits and individual pro-environmental behavior, given people become aware of their own attitude-behavior gap. In their study, Wahlström and colleagues placed personal behavioral change under the banner "lifestyle politics". Their research conducted at 13 different European locations found that 59.3 % of school students asked support the claim: "stopping climate change must primarily be accomplished through voluntary lifestyle changes

by individuals" (2019, p.17). In a second survey from September 2019, protesters in Oslo were among the respondents. Compared to the 18 other geographical locations, Norwegian strikers were the most reluctant to agree that climate change could be accomplished with voluntary individual lifestyle changes.

Figure 4. Stopping climate change must primarily be accomplished through lifestyle changes by individuals

Youths

	Very much	Quite	Somewhat	Not very much	Not at all
Brussels	13	13	23	38	15
Vienna	10	21	43	17	9
Bern	25	18	43	10	3
Berlin	12	38	38	8	4
Chemnitz	23	25	43	7	2
Florence	33	37	10	14	6
Warsaw	26	38	15	17	5
Malmö	3	14	34	26	23
Stockholm	5	32	32	32	
Gothenburg	12	18	24	41	6
Copenhagen	13	21	21	32	13
Helsinki	5	20	19	41	16
Oslo		20	40	40	
Budapest	11	24	47	13	6
Bucharest	46		34	4 12 4	
Prague	27	36	17	15	4
Sydney	13	20	20	47	
New York	14	38	19	24	5
Mexico City	25	38	13	25	

Adults

	Very much	Quite	Somewhat	Not very much	Not at all
Brussels	14	22	19	29	15
Vienna	10	17	43	19	11
Bern	20	19	31	21	9
Berlin	13	20	37	24	7
Chemnitz	11	23	45	19	1
Florence	21	18	14	39	7
Warsaw	8	32	8	36	16
Malmö	8	14	39	23	16
Stockholm	6	24	47	13	11
Gothenburg	2	12	35	33	19
Copenhagen	17	25	28	31	
Helsinki	10	15	45	29	
Oslo	5	9	9	27	50
Budapest	5	23	35	26	11
Bucharest	24	30	17	24	4
Prague	9	31	17	33	9
Sydney	4	20	15	44	17
New York	7	19	17	26	30
Mexico City	18	32	18	18	14

percent

Legend: Very much | Quite | Somewhat | Not very much | Not at all

(de Moor et al., 2020, p.29).

Still, protesters in general are driven by the "ideal" of an alternative climate future (Hanna et al., 2016). Connecting this to the previously mentioned consensus on institutionalization of nature and universalism last century (Warde et al., 2018), it is argued that the ongoing movement contributes with a re-politicization of climate politics "by reviving antagonism and a dispute over competing ideas of a liveable society" (Marquardt, 2020, p.4). Although the larger movement reflects a moderate approach in support of green economy, smaller sub-groups within the movement itself have criticized the main objectives for being technocentric and not radical enough in challenging the prevailing capitalistic system (Konicz, 2019 in Marquardt, 2020).

2.4. Environmental Attitudes of Youth in Oslo - the Geographical Setting of This Research

Given the mixed data on climate attitudes among Norwegian youth, it is of interest to see if and how opinions have changed in light of the FFF movement. Here it is important with some further elaboration on the specific geographical area my data is collected from. The informants

were picked from a high school centrally located in Oslo. Research indicates that residents of the capital are generally more concerned with climate change and willing to commit to ecological citizenship than people in other regions of the country (Aasen et al., 2019). However, it is also crucial to be aware of socioeconomic differences existing within the capital, often seen in a divide between residents in the "East" and "West". Residents in the western parts of town statistically have higher educational level and income. The lowest literacy rates and highest number of social assistance recipient is found in the eastern parts of town (Sandvik & Kvien, 2015) reflecting how social segregation is on the rise in Oslo (Ljunggren, 2017). Prior to the research, this specific school was chosen because of its central location in Oslo city center, which potentially could mean representations of students from various economic backgrounds. Still, the school holds a reputation for being preferred by "Westside youth" and further examination show that all 56 respondents except three are from Oslo´s top five districts in terms of household net worth (Statistics Norway, n.d.). In total, 87.5% of the students reside in the three wealthiest districts; Vestre Aker, Ullern and Frogner. The results from this research must be understood in this context. Both Jarness & Hansen (2018) and Austgulen and Stø (2013) identify stronger environmentalism among the upper classes of Norwegian society, connected to high levels of education and income. However, it is important to note that political party affiliation may dominate over knowledge in the environmental discourse, as Helliesen (2015) found in her research. In my study, political party affiliation as a sociodemographic variable was not investigated in detail. Nonetheless, the high number of conservative political supporters of this geographic area needs to be taken into consideration, and there is a fair chance that this specific study has recruited among the more conservative parts of the younger generation. Still, a newly published Swedish research paper suggests that support of either the environmental frame *or* economic growth-oriented frame is "related to the individual's wider ideological orientation rather than just their identification with particular political parties" (Emilsson et al., 2020). Looking beyond the apparent political beliefs we will turn to ideologies and value orientation next.

3. THEORETICAL FRAMEWORK

3.1. Theoretical Support: The Importance of Values, Ideologies and Worldviews

As I have outlined in the literature review, there is a vast set of scientific documentations looking for answers to the disconnection between climate facts and citizens´ environmental inaction or even climate-denial. Being an interdisciplinary field, explanations towards climate attitudes have been found in personal weather experiences (Howe & Leiserowitz, 2013), interpretation of social media (Fuse, 2015), political identity (Borick & Rabe, 2010) or climate psychology (Manjana, 2013; Stoknes, 2015). Since humans are social being's, determinants can hardly be separated into specific scientific categories. Most of these determinants focus on individual preferences, and the need for individual climate change mitigation is widely agreed upon. However, the road to get there may not be straight forward. Since data from Norway suggest attribution acceptance and belief in climate change is present (Aasen et al., 2019), while on collision course with actual behavior (Steentjes et al., 2017) it becomes relevant to interpret my data in light of broader societal beliefs and values. Further research suggest the challenge derives from cognitive dissonance or ideology (Carvalho, 2007; Helliesen, 2015; Stoknes, 2015) which is based on "mental and/or cultural models of public knowledge of climate change science" (Zia & Todd, 2010). This wider societal focus is supported by Austgulen and Stø (2013), who conclude their research on political orientation by highlighting the importance of underlying *values, ideologies and worldviews* in society. Similar results were found in an extensive World Bank report on society and behavior which points to social networks and worldviews on how people interpret environmental facts (World Bank, 2015).

Based on these reflections, the theoretical components will support the analysis of my thesis in the following way: the discussion starts with identifying if the *attitude-behavior gap* is present among the students. This is done to evaluate level of environmental interest, attitudes and intent to act, and relates to the main objective which aims to identify how the students discuss their own environmental footprints. Building on this information, it becomes of importance to investigate prevailing beliefs and ideas which potentially halts actions from taking place. Here, the main theoretical framework; the *value-belief-norm theory* (VBN) takes center stage. This theory is also significant when identifying *egoistic, altruistic and biospheric value orientations* which is key for the research questions; first discussing environmental attitudes in light of FFF, and next bringing the analysis to wider ideologies and worldviews.

Since the research objective connects Western lifestyles to a global context, it becomes relevant to interpret the student results with broader societal values in mind. In this latter part of the analysis *cultural value orientation* is introduced. Thus, the linear direction of my research moves from attitudes - worldviews - values - ideologies and last social position in this larger global context. It should be noted that the following theoretical chapter aims at presenting relevant *concepts* as well as the analytical frameworks of VBN and cultural value orientation. The attitude-behavior gap is not treated as a framework in itself, but is an important notion to define early on as the presence or absence of such gap gives an indication of intent, which again links to the VBN framework.

3.1.1. Explanation of Key Concepts: Differentiating Value Orientations, Ideologies and Worldviews

Deepened knowledge of climate change also challenges our modern life and how we perceive the world around us. As such, our notion of sustainability is really a "dialogue of values" (Ratner, 2004; Ryghaug et al., 2011). As a central component in both VBN and cultural value orientation *values* are key to my framework. Although VBN consists of both values, beliefs and norms, as a predecessor of all other components values are weighted in the final analysis. Schwartz (1992) defines values as "a desirable transsituational goal varying in importance, which serves as a guiding principle in the life of a person or other social entity" (p.21). This divides values between the individual level and societal level, both of which are relevant for this research. Societal values represent the ideas of institutions and structures in society, guiding how people shall adapt to their living environment; "the expectations, primes, affordances, and constraints that encourage actions consistent with the orientations" (Schwartz, 2008, p.14). Even if values adjust as a vital mechanism to cope with indisputable changes in our living world, it must still "retain some coherence in its appreciative system (based on some minimal consensus) or the social order will break down" (Williams (1979) quoted in O´Brien, 2009, p.169). Thus personal values are considered to remain fairly stable over time. This stability is important for my analysis where values are compared with more fluctuant social trends and beliefs. It is further important to establish what cultural values which dominates my specific research area, since the analysis connects the research data to macro level orientations. Here Norwegian national values are associated with tradition; honesty and humility while being strongly connected to nature (Eriksen, 1993). Still, these values are challenged by post-modern pluralistic values (equity and justice), as well as a growing number of modern values such as individualism, pursue of wealth and affective autonomy (O´Brien, 2009). Higher levels of individualistic values and hierarchical worldviews are found to dictate an ideology-based

polarization whereas eco-skepticism on the opposite end decrease among those who hold egalitarian values (Corner et al., 2015; Stevenson et al., 2014. In Norway; Aasen, 2015; Austgulen & Stø, 2013). This is relevant as supporters of egalitarian values further tend to consider environmental factors more important than economic prosperity, and a necessary decrease in consumerism is an important step towards committed eco-citizenships. The importance of value orientation has been confirmed by previous research (Aasen, 2015; Kahan et al., 2011; Pidgeon, 2012). Value judgments and social norms constitute ideological preferences that influence individual actions in response to the social and political order (Zia & Todd, 2010). This also makes it relevant to look into ideologies and worldviews of the selected informants to better understand what makes up the foundation of their attitudes.

O´Brien (2009) notes that worldviews are often wrongly labelled as values. Worldviews describe assumptions and beliefs that influence perception of the world, which in turn alters behavior. However, to further investigate worldviews, value systems such as the one presented in this thesis, is useful. The word ideology has a double meaning where it both translates into a system of ideas with particular reference to the basis of political theory and policy, but also the set of principles shared by a social group or characterizing a particular culture (Lexico, n.d.; van Dijk, 2006). The latter definition is of specific interest for this thesis related to the main objective where the students are asked to discuss their own environmental footprints in connection to the world around them. Ideologies represent both social and cognitive properties, where cognitively "ideologies are a special kind of social belief systems, stored in long-term memory" (ibid, p.729). Evidently, these abstract ideas are shared by the larger community and does not operate on the individual level alone. The first politicized characteristic is also of relevance when discussing hegemonic structures, Carvalho (2007) address: political ideology also encompasses preferred forms of governance of the world. Therefore, ideologies are "axiological, normative and political" (p.225). Thus, values, worldviews and ideologies can hardly be separated completely.

3.2. The Attitude-Behavior Gap

In the analysis, the attitude-behavior gap is briefly used as an instrument to evaluate *if* climate attitudes of the students in question translate into actions, before moving onto *why* this is so using the VBN framework. Thus, the attitude-behavior gap does not represent the theoretical framework of my work but is merely used as a tool to steer the research in a reverse linear direction from behavior to intent to attitudes to values (VBN). The attitude-behavior gap, also

known as the value-action gap, is a recognized phenomenon in the field of environmental science describing how people´s concern for ecological harm are often distanced from their real actions. Ajzen & Fishbein (1977) where among the first to critically examine the relation between attitude and behavior, defining personal attitude as an "evaluation of the entity in question" while behavior describes observable actions (p.889). It was originally assumed that any increase in environmental knowledge automatically would translate into more ecologically conscious behavior, although this idea soon turned out to be wrong (Kollmuss & Agyeman, 2002; Roberts & Bacon,1997). Instead, the existence of such gaps has become well-known as a barrier to climate change adaption (Babutsidze, & Chai, 2019; Farjam et al., 2019). Several theoretical frameworks derive from the knowledge about this gap, among them the VBN model which is the main theoretical framework explored in this thesis. Although it was presumed findings from my analysis would be consistent with previous research which document the presence of such a gap, it is still useful as it can provide some indications on wither or not the respondents hold any pro-environmental attitudes and their intent to act on these impulses. As no data on actual behavior has been collected in this research, my thesis will address the "predisposition to act with pro-environmental intent" (Stern, 2000, p.416). This division deserves some further clarification.

3.2.1. Intent- and Impact-Oriented Measurements

In terms of environmental action, it is important to distinguish between intent- and impact-oriented measures. The intent-oriented approach is self-explanatory as intentions to commit pro-environmental actions, while the impact-oriented approach takes into account objective outcomes of human living such as energy usage or waste production (Bamberg et al., 2015). Intent-orientation differs from impact on two important levels: "It highlights environmental intent as an independent cause of behavior, and it highlights the possibility that environmental intent may fail to result in environmental impact" (Stern, 2000, p.408). This distinction makes it clear how the two measures are important for different research purposes; while impact-orientation is vital in identifying behavior which can have direct or tangible environmental consequences, intent-orientation is important in understanding *cultural norms, values and motives which in turn influence behavior,* and thus relevant for my research. Detecting potential errors between cognition and performance is a vital first step in mapping why behavior could be downgraded for other competing actions (Manstead, 2001), where Ajzen (1985) names intention as the immediate antecedent of behavior.

3.2.2. Theorizing Environmental Behavior

Although this thesis will focus on attitudes and intentions over actions, it is still important to understand different *forms of behaviors* as it represents separate intentions and mindsets. Stern (2000) identify three kinds of environmental behavior: *pro-environmental activism; nonactivist behaviors in the public sphere* and *private-sphere environmentalism*. Private-sphere behavior ranges from actions that require little involvement, like recycling or buying ecological produce, to those with larger impact; purchase of major household goods, cars etc. (Bamberg et al., 2015). The three types of public behavior (consumer behavior, environmental citizenship and policy support), are all distinguished from both each other and activism by differing socio-psychological behavioral patterns: different norms, believes and values (Stern, 2000). Public-sphere behavior is of importance because it, by visual form, helps build awareness which in turn can influence official processes, either within the state or globally. For my research private-sphere- and consumer behaviors are particularly important since it illustrates real life scenarios with noticeable impact in which the respondents are in control.

3.3. The Value-Belief-Norm Theory

The goal of this research is to investigate environmental attitudes while analyzing *why* these attitudes prevail. The VBN model is useful for this purpose as it presents a linear process which clearly define key antecedents to attitudes. It is this model which form the main theoretical framework of my thesis. Based on public- and private-sphere environmentalism, Stern (2000) developed VBN which links various existing behavioral indicators; Value theory, Norm-activation theory, and the New Environmental Paradigm (NEP). All components in the framework are presented here although this thesis will mainly focus on the value component of the theory. This choice is done with the main objective in mind; by focusing on antecedents of attitudes, the later component is considered less relevant.

Figure 5. The Value-Belief-Norm theoretical framework
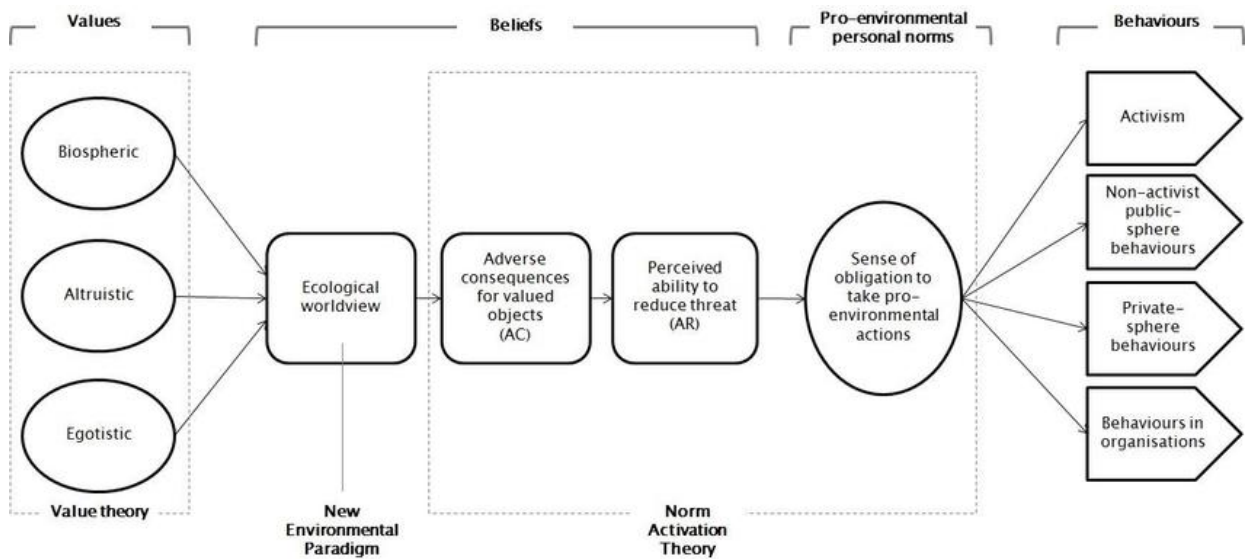
(Creamer 2015, adapted from Stern, 2000).

In the VBN-theoretical framework we find the element of *personal values*, which antecedes *beliefs*. Subjective experiences related to climate change is not only based on facts (knowledge about external climate conditions), existing personal perceptions is a predetermination of these beliefs (Howe & Leiserowitz, 2013). Behavior is basically a function of *social norms* (sense of obligation to take pro-environmental actions) which builds on two specific *beliefs*; a) *awareness of consequences* (AC) the specific behavior has for valued objects, and b) *ascription of responsibility* (AR) which indicates the individual's perceived ability to reduce threat or protect what they value. Further, the theory postulates that "Individuals' worldviews precede their attitudes, that their personal values precede their worldviews, and that their position within the social structure precedes their values" (Oreg & Katz-Gero, 2006, p.465). This leads to the following structure:

position → values → worldviews → attitudes → intentions → behavior

The VBN framework finds empirical support in a wide set of research within the field of environmental psychology and conjecturing scientific disciplines. Previous research show that targeting specific believes can impact pro-environmental behaviors positively (Juvan & Dolnicar, 2014; Stern et al., 1999). it has proven useful in explaining behavioral intentions on choice of travel mode in Norwegian urban areas (Brende Lind et al., 2015); acceptability of energy support in Netherlands (Steg et al., 2005); or research on committed action for nature

among European environmentalists, where high levels of biospheric values and moral norm were predecessors for pro-environmental behavior (Fornara et al., 2020).

The first component in VBN builds on Schwartz´s **theory of basic values.** In his value theory, Schwartz identify six features central to all values: "(1) Values are beliefs linked inextricably to affect. (2) Values refer to desirable goals that motivate action. (3) Values transcend specific actions and situations. (4) Values serve as standards or criteria. Values guide the selection or evaluation of actions, policies, people, and events. (5) Values are ordered by importance relative to one another. (6) The relative importance of multiple values guides action" (Schwartz, 2012). This is further divided into three categories which reflects motivations; altruistic values, biospheric values and egoistic values (Ghazali et al., 2019; Schwartz, 2012). Altruistic and biospheric values are based on human awareness of connectedness to the world around us, while egoistic values represent self-interest. Of the three, egoistic orientation is deemed strongest, followed by altruistic and last biospheric orientation (Stern et al., 1999). The egoistic orientation can only be found to favor pro-environmental actions as long as this aligns with the person´s desires and needs at the time (Kollmuss & Agyeman, 2002). On the other side of the scale, biospheric values are associated with beliefs of limits to growth and the need of balancing economic growth with environmental considerations (Brende Lind et al, 2015).

Several authors posit a narrower two-dimensional structure since activation of both altruistic and biospheric values are based upon equally high levels of "ethical considerations for nonhuman species and other people" (van Riper & Kyle, 2014, p.290; Schultz et al., 2005).

This two dimensional structure is relevant for my thesis. While at times it is natural to speak of only one orientation I will largely be merging biospheric-altruistic values. Schwartz further identify ten broad universal values, distinguished from one another by "the type of goal or motivation that it expresses" (2012, p.4). The values are presented in the following figure:

Figure 6. Schwartz´s theory of basic values
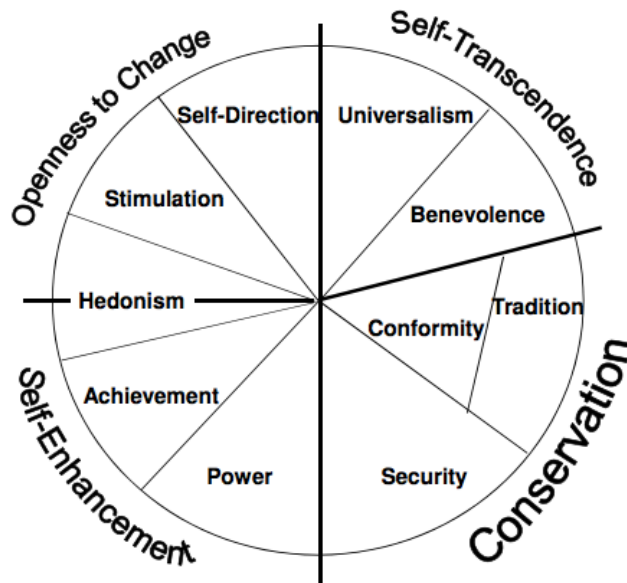
(Schwartz, 2012).

The circle represents similar or contrasting motivations; the closer any two values are in the diagram, the stronger their connectedness and underlying motivations. Contrasting values represents antagonistic motivations (Schwartz, 2012). Although all ten variables are recognized as important, de Groot & Steg (2008) suggest only relating to self-transcendence versus self-enhancement values in studies on environmental beliefs and intentions, since people usually only consider a few values when making behavioral choices. Self-transcendence (i.e., altruistic and biospheric) values were found positively associated with pro-environmental behaviors, whereas the opposite result emerged for self-enhancement (i.e., egoistic) values (Steg et al., 2005). I will mainly use these characteristics when talking about contrasting values in my analysis.

The second component in VBN builds on **The New ecological paradigm** (NEP). The NEP scale is widely used as a measuring tool of environmental world views, evaluating how human values interconnect with beliefs about nature (Anderson, 2012). It is used multidisciplinary rising questions about human exemptionalism, excessive resource usage connected to limits of economic growth, and anti-anthropocentrism through 15 standardized statements (Pienaar et al., 2012; 2015). As a separate component, the scale has met mixed responses where some argue against the accuracy of the tool (Anderson, 2012), while yet others attribute it as one of the most accepted and reliable instrument in studies on environmental attitudes (Ogunbode, 2013). Some of the standardized NEP questions were integrated and modified to fit the open-ended focus group questions, while the overall NEP-component of VBN was not given a large priority in the analysis.

The third component in VBN, **Norm-activation theory** is a model developed to anticipate pro-social intentions. In the NAT model, personal norm takes center stage, merging with two other concepts: problem awareness and ascribed responsibility. The theory derives from a notion that personal norm is precedent of intention (Han & Hyun, 2017). In the linear model this component comes last before behavior, and as such it was not ascribed much attention since the research focuses on antecedents of environmental attitudes. Summarized, the connections between the different theoretical inputs of the VBN are as follows:

> The causal chain moves from relatively stable, central elements of personality and belief structure to more focused beliefs about human-environment relations (NEP), their consequences, and the individual's responsibility for taking corrective action. (…) Personal norms to take pro-environmental action are activated by beliefs that environmental conditions threaten things the individual values (AC) and that the individual can act to reduce the threat (AR). (Stern, 2000)

For my thesis the VBN-framework will be applied to determine value orientation among the respondents, which in turn is used to analyze their attitudes in light of broader societal patterns and the leading hegemonic discourse. Given that previous research from the Norwegian context attributes values and ideologies as predecessor for over both political orientation (Austgulen & Stø, 2013; Helliesen, 2015) and scientific knowledge (Norgaard, 2006; 2011) it is vital to not only determine the existence of any attitude-behavior gap, but also reflect on what shapes the informants´ attitudes and values in the first place.[4] This derives from the additional component to the framework where Oreg & Katz-Gero (2006) posit that social positions predecess values.

Although widely used as an independent framework, it should also be noted that Stern (2000) originally presented the *attitudinal factors* of the VBN model as one out of four distinct causal variables, which together defines the personal-contextual relationship between humans and their environment. The three other elements include *contextual forces, personal capabilities* and *habit/routine*. Contextual forces explain community expectations; legal or institutional regulations; monetary incentives; capabilities and constraints provided by technology and the built environment. Personal capabilities include knowledge and skills required for particular actions; general capabilities and resources such as money, social status and power. It is important to acknowledged that these variables all influence each other. While

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[4] In a conversation with Helliesen she highlights that her ongoing PhD research finds environmental attitudes among respondents stable over long time periods, suggesting that attitudes are not bound to change because of fluctuant media coverage or social trends, but are rather embedded in the individual´s ideological predisposition (Helliesen M.S., personal communication, February 2020).

this thesis will largely base itself on attitudinal factors as a theoretical framework, attention will be drawn to contextual forces and personal capabilities in the end of the analysis. This makes it relevant to present a theory on wider cultural orientations next.

3.4. Cultural Dynamics - Schwartz Theory of Cultural Value Orientations

Since VBN operates on the individual level, it needs to be complimented with additional theory when analysing the results on macro-level. Schwartz theory of cultural value orientations is relevant as it further distinguishes values as the main feature of cultural ideals in society, in turn shaping our worldview. According to Schwartz (2006), each culture is built on beliefs, practices, symbols, norms, and values prevalent among people in the society. It is proven that identity of the larger social group, for example the importance connecting with nature has for national pride, shapes the individual´s willingness to support pro-environmental policies (Steentjes et al., 2017). Such *moral tribalism* (Markowitz & Shariff, 2012) gives new substance to the importance of underlying values and norms beyond the individual level. It is important to stress that Schwartz *theory of basic values* found in the VBN-framework, and *cultural-value theory* is not the same. The two theories complement each other with reference to basic human values on the personal level and wider societal level respectively (Schwartz, 2011). The later deals with "normative value orientations on which cultures differ" (ibid), which in turn justifies the function of societal institutions. The value orientation theory is presented with six primary cultural values: autonomy (divided between intellectual autonomy and affective autonomy), embeddedness, hierarchy, egalitarian commitment, self-mastery, and harmony.

Figure 7. The six primary cultural values
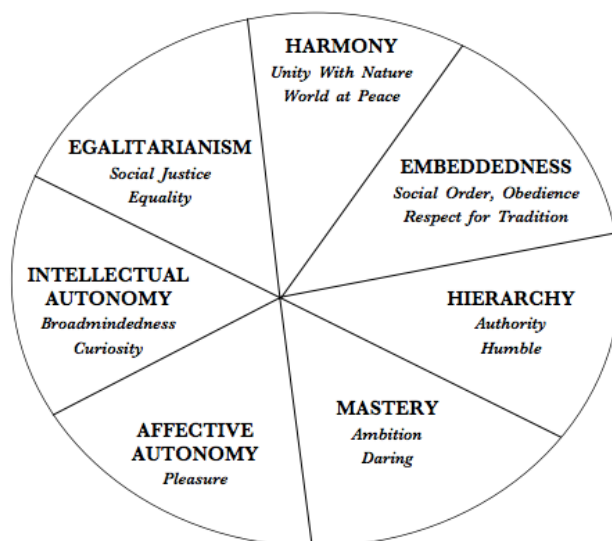
Similar to the individual-level value theory, the dimensions in the cultural-level theory are placed on contrasting sides of the circle. Each of these cultural values define the ideals of the common, thus it represents a national median (Oreg & Katz-Gerro, 2006). The higher one country ranks on any of these values – the stronger the value is embedded in that particular society. Schwartz presents the following national scores for Norway, dating back to 2008:

Table 1. Schwartz national scores for Norway

Harmony	Embedded	Hierarchy	Mastery	Aff.autono	Intel.autono	Egalitarian
4.4	3.45	1.49	3.85	3.69	4.68	5.12

In turn, these values result in three bipolar dimensions which all society must relate to: embeddedness versus autonomy, hierarchy versus egalitarianism, and mastery versus harmony (Schwartz, 2013).

Autonomy versus Embeddedness; in *autonomous* societies people are encouraged to express their own ideas, preferences and abilities either intellectually (broadmindedness, curiosity or creativity) or affectively (including values such as pleasure, and living exciting, varied lives). In *embedded* societies the focus lies on the collective good; identifying with the group, participating in meaningful relationships and setting the same goals. Norway is recognized by several accounts as being a highly individualistic society (Adger et al., 2009; Eriksen, 1993). Although Schwartz national scores date 12 years back in time, other scholars identify individualism/autonomy as one of the strongest traits of the Norwegian national culture (Jian et al., 2010). According to Hofstede's cultural dimensions, individualism ranks above the other 6 variables for Norway: power distance, masculinity/femininity, uncertainty avoidance, long term orientation and indulgence (Hofstede Insights, n.d.).

Egalitarianism versus Hierarchy: Schwartz identify the second societal challenge as one where people must behave responsibly and productively in order to preserve the social fabric. Cultural *egalitarianism* expresses the need for a morally equal society through cultural values of social justice, responsibility, help and honesty. In contrast, cultural *hierarchies* legitimate uneven power balances, people are "socialized" to accept and "comply with the obligations and rules attached to their roles" (Schwartz, 2013). In the Norwegian context, a strong value-driven identity which combine egalitarian moral values with autonomy, has been described as *egalitarian individualism* by Eriksen (1993). He further defines this specific Norwegian virtue by the involvement of "pluralistic rejection of social hierarchies and the promotion of equity across gender and classes, and between rural and urban areas" (O´Brien, 2009, p.171).

<u>Harmony versus Mastery:</u> the last societal challenge is the ability to regulate people´s "treatment of human and natural resources" (Schwartz, 2013). This is defined by contrasting values of harmony versus mastery. *Harmony* relates to fitting into the world as it is, where understanding is a more important value than changing, directing or exploiting. In contrast, *mastery* is defined by self-assertion to achieve personal goals through directing or changing our natural or social surroundings. Values in this category are ambition, success and daring. This set of contrasting values is relevant for my thesis since it deals with the human-nature relationship directly.

3.5. Barriers to climate change action

In addition to the factors mentioned so far in this presentation of relevant theoretical frameworks, several researchers also highlight the importance of psychological *barriers* to climate change adaption. Barriers are essential to understand what affects people´s beliefs and intentions, which can be related directly to the VBN model. While there exist many different barriers to climate change, this thesis will focus on five proposed by climate psychologist Stoknes´ (2015) According to Stoknes, pro-environmental behavioral change is influenced by five factors; 1. Spatial and temporal distance; 2. Climate communication framed wrongly; 3. Dissonance; 4. Denial and 5. Consumer identity and values. In the Norwegian context, dissonance has already been mentioned by Steentjes and colleagues (2017) with reference to high domestic emissions competing with environmental values and a climate friendly image. Spatial and temporal distance highlights to what degree the informants' attitudes are influenced by the space between themselves and a growing number of extreme climatic events in other parts of the world. The assumption is that spatial and temporal distance to environmental degradation is a relevant factor of avoidance and denial, which has been observed in other studies from the northern hemisphere. How does this distance affect the students? And do they deny their contributing role as mass-consumers? By acknowledging these barriers, it is easier for me as a researcher to discover their underlying determinants and origin.

4. METHODOLOGY

As the aim of this thesis is to understand deeper sociocultural patterns, a mixed methods approach was prioritized. Further, when asking *why* someone holds certain attitudes or behaviors, the researcher is also trying to explain personal characteristics of the informants in question. For this purpose, explanatory research fits well. I chose a mixed methods explanatory sequential design with qualitative priority (Bryman, 2016). By choosing a sequential design, it was possible to perform quality assurance through wider collection of data among a larger group of survey-informants, succeeded by focus group interviews which gave room for free explanation and observation. The choice of adding the survey design was made to increase reliability, replicating questions from previous larger national and international studies on similar topics. Although the sampling size ended up smaller than anticipated, it provides a foundation to understand certain tendencies of the students´ opinions. The design was particularly useful in dividing between local and global environmental causes, where a distinct pattern of greater engagement was indicated at the local level. It also uncovered certain dominating worldviews, which enabled in-depth questions in the open interview setting. As such, the dual categorization was useful in first determining certain tendencies which was later explored further.

4.1. Research Setting and Selection of Respondents

For my research, it is interesting to note that FFF recruitment methods among youth protesters was predominated particularly by interpersonal mobilization among schoolmates: "Since FFF originally started as a school strike, the young front-runners of the movement predominantly focused on inviting their peers in school rather than inviting non-school-related contacts" (Wahlström et al., 2019, p.11). Although I was not intentionally seeking out FFF-supporters, it nonetheless made it particularly relevant to center this thesis on peers in a school setting since the movement has put many discussions on climate change in motion among the younger generation. For ethical considerations, youth under the age of 18 was excluded as they would need pre-approval from their guardians. This made it natural to select senior high school students as informants. Choosing school students instead of clusters of youth was made consciously to keep an objective focus on the subject; it increases the validity of informers representing the average citizen. Thus, I have purposefully not pursued arenas where

environmentally minded students could be found such as climate action Facebook groups or environmental youth organizations, as those teenagers would represent social groups with existing pro-environmental attitudes. Still, as it was noted in the context-chapter, this school is known for being preferred by "Westside youth", which means a strong representation of wealthier districts in town came as no surprise. Even more so, choosing any school within Oslo would mean data is collected in an urban setting whereas other opinions may prevail in the various districts.

Details about family income was not specified in this research given some of the students may not know their family's net budget. For further research, it could be of interest to run a comparative analysis between students with differing socioeconomic backgrounds in Oslo. In this case, the lead was not followed up on as numerous school administrations' declined the invitation to participate in the study referring to the large number of research-request schools in Oslo receive. On a second note, this gave an opportunity to do more in-depth interviews at the school which willingly participated. Focusing on several classes in one school also serves another purpose; as the guiding theme was "school strike", it was of interest to see if there were any patterns of similar environmental attitudes among the students. While not comparing the results between the respondents, they are still part of the same social setting in some aspects of life which could result in similar values from the microsystem they belong. However, gaining access to the age group proved a greater challenge than first anticipated. Due to a low interest in the subject among students, research activities could not take place after school, and participation dependent upon teachers who voluntarily permitted students to attend interviews during class hours. As such, I first met the barrier of low interest-rates among teachers with busy schedules, and then among students. In total 56 respondents from four different classes participated either through focus group interviews or survey.

4.1.1. Ethical Considerations and Reflexivity

In accordance with my supervisor I did an ethical examination of the project prior to any investigations. Since teenagers were in focus it was important to establish guidelines early on. It was chosen to only interview students over the age of majority in Norway. Likewise, the school and students were all anonymized for ethical considerations. Since my research was considered subject to notification due to processing of personal data, an application was sent to the Norwegian centre for DATA research (NSD) and approved in November 2019. All guidelines have been followed during the handling of this data material. Through these measures I concluded that my project followed the necessary ethical standards needed to follow

through. A note should also be given on reflexivity. When researching a popular science topic most people have an opinion about, preconceptions of the researcher should be minimized (Bryman, 2012). As a student in the field of environmental- and development studies, it is acknowledged that my orientations are shaped by this discipline. Still, the concept of reflexivity further points out that social research can hardly be carried out "insulated from the wider society" (Hammersley & Atkinson, 2007, p.15). As a researcher I have done what I can to reflect the opinions of the students as neutrally as possible. Similarly, any labeling of pre-existing characteristics or expectations of one focus to be dominant has been handled with self-consciousness to avoid a close-ended approach.

4.2. Research Method

A sequential explanatory design with qualitative priority was chosen for this thesis. As Wu (2011) notes, the purpose of choosing a mixed two phase approach is either "to examine the same phenomenon through a different lens with each method, bringing out distinctive insights, or to use one method to develop and validate the constructs used in another method." As the second purpose was considered appropriate for my research, the goal of the quantitative phase was to help define the direction of the subsequent qualitative phase (Creswell & Plano Clark, 2011). This choice was made to get a notion of completeness, drawing on the strength of both research designs (Bryman, 2016; Cresswell, 2005).

Figure 8. Mixed methods sequential design with qualitative priority
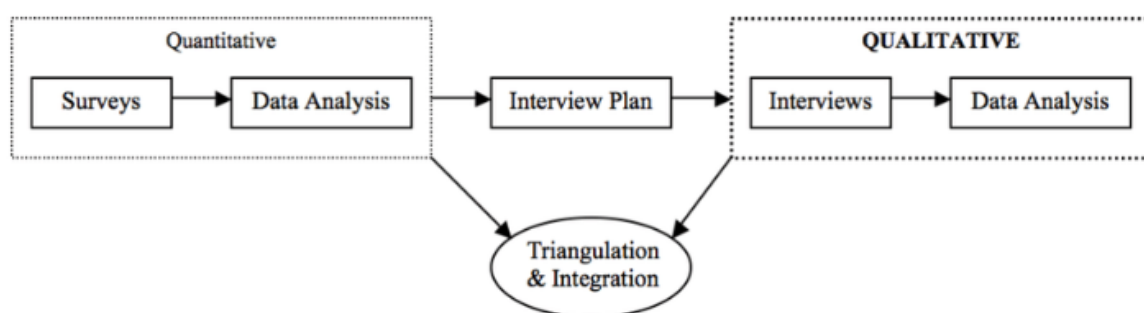
Sequential Explanatory Mixed Methods Design (Emphasis on the Qualitative Phase)

(Wu, 2011).

By analyzing the quantitative data on environmental beliefs, attitudes and intention, it was possible to detect patterns, mismatches and contradictions between responses to various statements. This proved useful in narrowing the scope further for the focus group interviews in terms of understanding the importance of local versus global climate impact, interest in climate

strike and emotions connected to climate change, among other subjects. The quantitative approach is often given *priority* in sequential mixed-methods designs since it reflects the larger collection of data (Ivankova et al., 2006), still for my research the opposite was considered more fruitful. As the research objective required elaborations on thought patterns and attitudes found through qualitative exploration, the focus on individual interpretation was necessary. This allowed for closer interaction with a smaller group of informants where personal opinions where shared in a group setting (Bryman, 2016). The two components were *integrated* sequentially during the data collection, and connected again briefly in the analysis where the quantitative sequence complements certain findings of the qualitative approach. However, it should be noted that the analysis mainly centers on the in-depth qualitative reflections as fundamental attitudinal factors of values, worldviews and moral are hard to fully grasp in a survey format. Thus, the results were not *combined*. The final qualitative data was *triangulated;* comparing between-group results while drawing on relevant literature.

4.3. Research Design

A case study design was prioritized allowing for closer in-depth study of a single community. At times I draw wider cultural parallels to categorizations of Norwegian youth in the discussion, still it is acknowledged that as a case study this research only represents samples from one specific school centrally located in Oslo. The case has certain longitudinal elements, comparing the students´ attitudes before and after the school strikes took place. However, as this is based on self-reported measures the research design does not resemble a comparative design. Some other eliminations should also be highlighted: as Bryman (2016) implies, it is near impossible to investigate one group´s community formation without considering context; the replies from the students seemingly hold clear elements of their background from well-established homes. Still, it was chosen not to dive deep into socioeconomic class-division in Oslo as this would take direction of a different research objective. Further, it is not a case-study of the school situation where the youth are interviewed, although I do acknowledge the influence such a school setting has on the focus group scenario. In one of the interviews observations were made of dominant and introvert personalities, where it was more difficult to get some students involved in the dialogue than others - possibly because of power-structures between the students the researcher was not aware off.

4.4. Data Collection Tools

The following data collection tools have been used throughout this thesis:

- Document analysis of existing research and surveys
- Self-administrated online questionnaire using SurveyXact (42 respondents)
- Semi-structured focus group interviews (14 Respondents)

4.4.1. Document Analysis

The focus of secondary data collection through document analysis was on environmental attitudes among the Norwegian population, youth specifically. Existing literature were analysed using content exploration where credible sources could strengthen the validity of my research. Thus I have mainly leaned on journal articles or reports from acknowledged scholarly sources. This literature covers both qualitative and quantitative research; peer-reviewed references were examined along with national and international surveys. I used the documents to triangulate information with data from my own research. Further, contextual forces were essential in understanding values connected to a wider global analysis. As such, local and global sociopolitical patterns were analyzed based on the reports already highlighted in the background and theoretical section. Using these secondary sources enabled the analysis to take direction of integrating larger societal patterns, while comparing them to my data results.

4.4.2. Data Collection via Online Questionnaires

Document analysis lay the basis for a quantitative questionnaire, measuring social variables among a larger research group with questions relating to both attitudes and intentional behavior. The later acted as control-questions to identify any correspondence between attitudes and the actions these potentially would lead to; leaning on the explanatory design it was important to first re-confirm the existence of any attitude-behavior gap. However, as the collection tool proved useful for this purpose, it was less so in relation to values. In the initial phase, it was not certain if the research would take direction of an intent-centered approach, or value-centered approach. As an afterthought, it is acknowledged that more questions on value orientation should have been included at this stage of research. Nonetheless, it is difficult to determine complex attitudes based on quantitative measures (Anable et al., 2006), and as argued the qualitative tool was targeted towards the main part of the analysis.

The online multiple choice questionnaire made with SurveyXact was distributed to the students via link. The questions where first tested in a pilot with two persons, both contributing with valuable information such as to simplify the terminology. The survey was distributed to 55 students in December 2019 and early January 2020. The final sample size consisted of 42

students; 60% male and 40% female. two students started on the survey but never completed it, the last 11 never participated in the study. All students answered during class under supervision of their teachers, the questionnaire took 15 minutes to complete. To increase reliability, the survey formulations were largely based on existing questions from the following four national and international questionnaires:

- *The Climate Change Attitude Survey* targets US middle school students, with questions already suited for peers in similar age group. This provided the basis for many Likert scale questions in this survey, focusing on attitudes and belief but also intention to enact positive change. (Christensen & Knezek, 2015).

- Some localized questions were adapted from Cicero´s climate survey *Klimaundersøkelse; et dypdykk I folket, vol.2 2019* concerning the newly extended road toll system in Oslo and travel habits (Aasen et al., 2019).

- Questions mainly concerning emotions and values were borrowed from the *European Perceptions of Climate Change (EPCC)*. This cross-national research aims to identify sociopolitical values and the role of contextual forces (Steentjes et al., 2017).

- One question based on Stern´s value orientation with components representing egoistic, altrusitic and biospheric values was borrowed from another thesis with similar topic (Sotkajarvi, 2015). The question was modified further by asking the students to rank the components in order of their own preference. (Page 59).

- Questions on school strike and consumption was developed by the researcher. Level of concern was also measured by questions relating to climate change awareness and the feelings this potentially would cause.

Since this was the first time I distributed a survey I later on concluded that several questions were unnecessary - like household size, data I never followed up on. This specific data collection tool was used to gain access to the opinions of a broader sample size. The tool was useful in the aspects of simple multiple-choice answers. However, where the students were asked to elaborate, this was often ignored. The feedback from the survey naturally led to follow-up questions, which was presented in the semi-structured focus groups afterwards. For reasons of teachers´ availability, it was not possible to conduct both the survey *and* focus group interviews among the same student groups. It has already been mentioned that access to informants proved difficult. Ideally, it was hoped to collect quantitative data from all senior classes, but I was not allowed to send the survey to the entire grade level by e-mail. As pointed out by one of the teachers; the students were unlikely to fill out the survey outside of class

hours anyhow. A point which was proven correct as the absentees on the day of data collection never filled in the form. Nine teachers were contacted through one specific department manager at the school. Out of these, three teacher granted access to four of their classes. Response rates from teachers where relatively low, and the last class only participated thanks to assistance from a gatekeeper which enabled access to the school in the first place. For these reasons the database ended up smaller than first predicted.

4.4.3. Semi-Structured Focus Group Interviews

As the purpose of this research was to better understand attitudes and values, in detail questions were necessary in hope of revealing more personal information. A semi structured focus group interview guide was developed based on the quantitative data, specifically building on contradicting or unclear results which needed further elaborations. Three rounds of focus group interviews with both male and female informants took place in January and February 2020, election of informants was done by the teacher whom asked for volunteers to the project. Each interview lasted one hour, all interviews were then transcribed in full to better compare all results. For anonymity reasons the students were numbered from 1-14, the lowercase letter indicating gender (12f and 2m). Some value related questions were borrowed from the NEP-scale, like when I brought up the statement "Humans have the right to modify the natural environment to suit their needs" and asked what they thought about this remark. Since the research was explanatory it became important to ask questions of "why" in the interviews, it was likewise important with open-ended interview questions to make sure I was not steering the informants in any direction. Thus, the goal with the group interviews was to investigate similar patterns between the informants, and for them to compare opinions (Bryman, 2016). However, I am aware of the potential challenges by interpreting and separating collective thought from individual opinions in a group-setting. This was targeted with follow up questions to make sure information was understood correctly. Similarly, social norms are bound to affect focus group interviews as we are morally biased towards what we regard as cultural codes and expectations (Cohen et al., 2011). As it turned out, the interviews took quite different turns depending on the composition of people. In one setting the flow of conversation went well, while another interview was characterized by the fact that the students had not reflected much on topics related to climate change in advance. The challenge with group dynamics among students who all know each other is an important matter to address. It was observed that one or two student seemed reluctant to respond to questions in plenary. Geiger & Swim (2016) concludes that "Pluralistic ignorance leads to self-silencing because perceptions that others do

not share one's opinion are associated with expecting to be perceived as less competent in a conversation about climate change." However, with no further knowledge of their relationship-patterns there is also a plausible explanation that these students simply represented *Indifferents* (see segmentations explained below). For them, one-to-one open ended interviews may have been preferable, but was not possible in this given setting. It should also be highlighted that group-dynamics led to some very interesting and fruitful dialogues between the students which would not have taken place in solitary. Although several students expressed little interest in the subject itself, most got engaged in the discussion and freely shared strong opinions. As such, the tool was very useful in understanding depth of knowledge and engagement in environmentally related matters.

The weakness with prioritizing the qualitative component was limitations to sampling size. Combined with informants which did not have a particular interest in the subject means fewer students have been interviewed in the semi-structured interviews than originally planned. However, mixed methods proved interesting for this specific case as it enabled a control of *reliability*. By using the different data collection tools, the level of reliability from the answers was expected to differ: in the individual surveys the students could answer honestly without concern of their fellow students' opinions, while the already discussed interviews represented a group-setting. In reality, the students were quite out-spoken in the group-setting as well, and there were relatively high levels of correspondence between the two collection tools which strengthen the reliability of this research.

4.5. Data Analysis

While the replies from SurveyExact provided a structured set of data, the group-interviews had to be analyzed based on categorization of topic. First, all the interviews where transcribed before the data was stringently arranged after topic; starting with a narrow approach centering on the school strike, before broadening the perspective to global connections.

4.5.1. Dimensional Segmentations and Labelling

I further categorized the students according to their environmental beliefs and attitudes by using dimensional segmentation. This method is useful in identifying groups with similar responses to climate change. Previous categorization systems range from "hierarchical-individualist" to "egalitarian-communitarian" (Kahan et al., 2011) or "dismissive" to "alarmed" (Morrison et al., 2013). Basing myself on previous segmentation research with elements borrowed from Hine et al. (2013), Lorenzoni & Hulme (2009) and DEFRA (2008), I

created five groups with the following structure: *Deniers - Doubters - Indifferent - Concerned - Alarmed*. See Appendix 1 for detailed overview of these characteristics. The segments´ purpose is to better understand similar patterns between individuals, minimizing "within-group differences" and maximizing "between-group differences" (Hine et al., 2014). However, it is acknowledged that this can only be regarded a rough estimate since personality types are complex matters where this research only represents a glimpse of the students´ thought patterns. In their analysis evaluating the efficiency of various categorizations, Hine et al. (2014) conclude that one must be careful in implementing too strict segmentation systems as it can increase non-existent communal polarizations. They suggest the usefulness of identifying individuals with common values and attitudes, while caution should be made against classifying specific beliefs. The dimensional segmentations were applied briefly to identify common beliefs and attitudes among the informants.

4.5.2. Value Scale

The focus group data was then analyzed based on a free translation of de Groot & Steeg´s value scale (2008, p.337), again adapted from Schwartz's (1992) value scale. This version encompasses a total of 12 values. **Four biospheric values:** preventing pollution, protecting the environment, respecting the earth, unity with nature. **Four altruistic values:** social justice, equality, a world at peace, helpful; working for the welfare of others. **Five egoistic values:** authority, wealth, social power, influential, ambitious. Admittedly, this research has not systematically followed the lead by for example Steg et al. (2005) whom test the full VBN-framework by attaching measurements to all variables in the theory (including the revised NEP scale or measurements of personal norms). As the focus of this thesis lies in understanding the students' own interpretation of values and worldviews, thus not evaluating the VBN theory itself, this was considered a divergence from the subject. Reflecting on the students´ set of values requires the researcher to construe the data through a process of abstracting the concrete statements, as noted by O´Brien (2009) values represent an "interior and subjective dimension" which is both hard to observe and measure (p.174). This interpretation is necessary as individuals may not be aware of their own set of values/attitudes, and able to express these.

4.5.3. Methodological Triangulation and Internal Validity

Triangulation was used to study the same subject (environmental attitudes) using different methods to further assess the validation of the results. As pointed out by Hammersley & Atkinson (2007) "In social research, if we rely on a single piece of data there is the danger that undetected error in our inferences may render our analysis incorrect" (p.183). The data which

emerged from the qualitative interviews was explored and cross verified through triangulation of complementary literature in the field. By drawing on methodological triangulation from different instruments it was possible to connect the perspectives of the students to a wider macro level in the later part of the discussion, using existing research from the Norwegian national context to compare and argue that the views and attitudes of the students are part of a larger cultural construction. Specifically relating to national values addressed by O´Brien (2009); hierarchical world views (Aasen, 2015) or oil support (Warner-Søderholm, 2012) among others. It is worth pointing out that although I have followed a sequential model where quantitative data is not given priority in the analysis, certain insights from the surveys were triangulated to increase the validity of the research. As an example, shared opinions on environmental engagement in light of the school strike verifies the existence of the same opinions among a larger group than those who took part in my relatively small focus group sample. Although the goal of triangulation is not to confirm if a statement is true or false (Hammersley & Atkinson, 2007), this increase the importance of looking into prevailing environmental values and beliefs which are not subject to fluctuant social influence.

4.5.4. External Validity

The research data has important transfer value as the youth interviewed comes from resourceful neighborhoods in terms of both income and influence- and give some relevant indicators on the future of consumer behaviors. Still, the question arises as to what level the findings would represent external validity in other research contexts, or if it could be generalized to represent larger masses. It is recognized that my collection only represents one socio-geographic area in Oslo which could replicate homogenous results. Still, the data need to be understood in light of larger sociocultural patterns, like nationwide oil-support, which indicates that at least parts of the results could be representative for opinions of the wider public. All things considered, this research is only trying to draw tentative conclusions where further research on the topic is recommended. These results can act as indicators for wider trends in society which a larger study can confirm or decline. In such case, one should take note of the peer effect of FFF-recruitment in itself (Wahlström et al., 2019), as external validity could be weakened if similar research is conducted outside the age group.

4.6. Research Limitations

Although several research limitations such as sampling size, accessibility and geography have been mentioned throughout this chapter, a final note should be given other variables which has

been excluded from my analysis. One such focus is gender; the focus groups where male-dominated with only three female participants, 40% of survey-respondents where female. Still, it was chosen not to give gender-divisions specific focus in the analysis along with other important components such as investigating political orientation or influence by family; all factors which ought to affect the students´ point of view. Exclusions were made with limitations to time and scale of the thesis in mind, and to make sure I did not grasp too broadly.

4.6.1. Self-Reported Measures and Timeframe

A few challenges with self-assessment and timeframe also needs to be addressed. As already mentioned, this study measures self-reported attitudes and intent-orientation. Given the countless targets needed to determine actual environmental household patterns (Stern, 2000), I do not attempt to perform quantification of any associated impact-oriented measures. Further, assessing attitudes or intentional behavior is not done without some difficulty as intentions, similarly to actions, is not a prefixed setting. According to Ajzen (1985) certain criteria needs to be in place to measure predicted behavior; "…first, the measure of intention available to the investigator must reflect respondents' intentions as they exist just prior to performance of the behavior; and, second, the behavior must be under volitional control" (p.18). This study gives a glimpse into a small time-lapse, where evaluation of provident behaviors is not obtainable. An example from one focus group illustrates this well; several students agreed they would act different if they were faced with larger climatic events. In a time where more and more global regions declare climate emergency, changing attitudes could happen fast due to trickle-down effects. The data is also collected over a relatively short time period, which only captures the respondents' attitudes towards the subject on one occasion. Similar to other social trends, FFF is expected to reach a peak where this sampling happened after the climax of the 2019 striking-period had passed. Although it is documented that values remain consistent over longer periods of time, it must be assumed that attitudes towards the strike could have been different at an earlier stage. Analyzing collected data on attitudes was also a difficult subject. As the questions dealt with thought patterns, it likely required the students to reflect back in time on conceptualizations they hypothetically where not that aware of beforehand. Given their age, I was unsure of what thematic knowledge-level one could expect from the focus groups, and it was discovered that few reflections had preceded the interviews on many of the topics presented. It sometimes proved a challenge to make the informants aware of what the research was targeting; drifting off to talk about political actions, provoking anger, instead of their own opinions on climate was a repeated element in the group-setting.

5. RESULTS

This chapter introduce the empirical findings and data collection which will later be evaluated in the analysis and conclusion. First, data from the online questionnaire is presented, followed by results from focus group interviews.

5.1. Results from Student Survey

The survey was completed by 42 students. Since one goal of this research was to use the school strike as a parameter to determine if level of environmental engagement had changed before and after the chain of events, the first questions concerned strike participation. Only two respondents had participated in FFF. Asking these students to give reason for their strike participation, one informant replied it was a good excuse to avoid school. The other person answered: "We need to avoid an atomic crisis." As a limitation with online questionnaires, no further elaborations were made. 39 informants answered the survey on why they had not participated in the strike. Half of this group gave unauthorized absence from school as their main reason. One respondent added: "I do not want to participate on an arrangement that I find hypocritically. For example, youth which are picked up in car by their parents after they are finished striking." Another student wrote: "I think it is more important with education. I know that climate is important, but many of those who went on strike did it only because they did not want to attend school, and then it loses its effect."

There were also some technical issues with the survey: as a default validation setting the students were supposed to choose an alternative on all subjects before they could continue to the next question. Even when pre-tested this function did not work, which means certain questions were passed unanswered by some. One example where only 18 students replied, still gave interesting results. When asked if their environmental interest had changed in the aftermath of the global striking events, *even if they had not participated*, 67% reported on unchanged interest, while another 11% where less interested in the topic, 22% had gained more interest.

The next questions deal with impact of climate change. The response distribution over climate concern shows some similarities comparing my research with national level data. While 48% of respondents from this school survey are slightly worried and 35% are relatively worried about climate change, Aasen and colleagues (2019) find that 44% are slightly worried and 26% are relatively worried nationwide. However, in the same age-cohort the students

showcase lower concern over climate change than their nationwide peers. This could indicate a higher level of climate doubters or lukewarmers, and made it relevant to examine environmental attitudes of the focus groups further.

Table 2. Concern over climate change on national level and among survey respondents

	Not worried	Slightly worried	Relatively worried	Deeply worried	Don't know
Survey data	8%	48%	34%	10%	-
National data (CICERO)	17%	44%	26%	10%	2%
Youth data (CICERO)	5%	No data	56.9%		No data

Most informants think climate change is either happening now or approaching within short time, correlating with the view that impact would mostly be negative for Norway as a country.

Figure 9. The effect of Climate Change in Norway

The students were also asked what feelings climate change generated in them.

Figure 10. Feelings generated by climate change. From the top: hope, fear, anger, guilt.
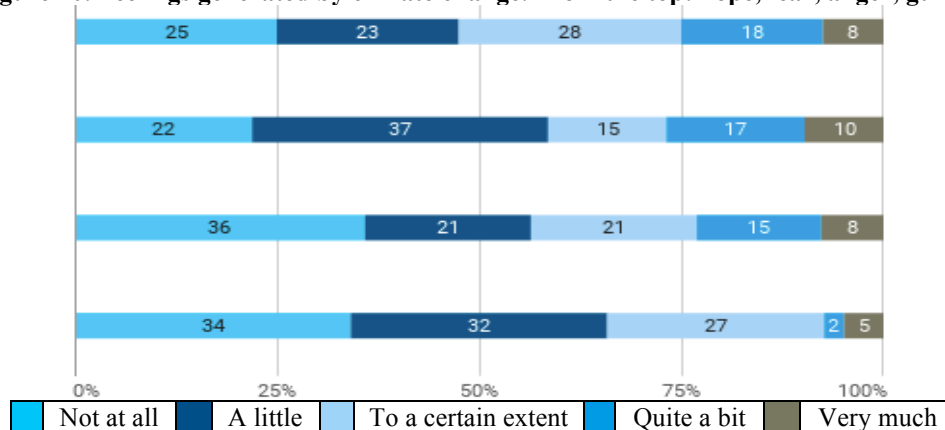
Half of the respondents felt little or no hope when thinking about climate change, while 59% felt little or no fear. The numbers were equally low for anger (57%), and guilt (66%). Summed up, very few of the students reflected strong feelings in any of the four categories. Next the students were asked to consider some statements, following a Likert scale from *strongly agree* to *strongly disagree*.

Figure 11. Likert Scale statements on climate change
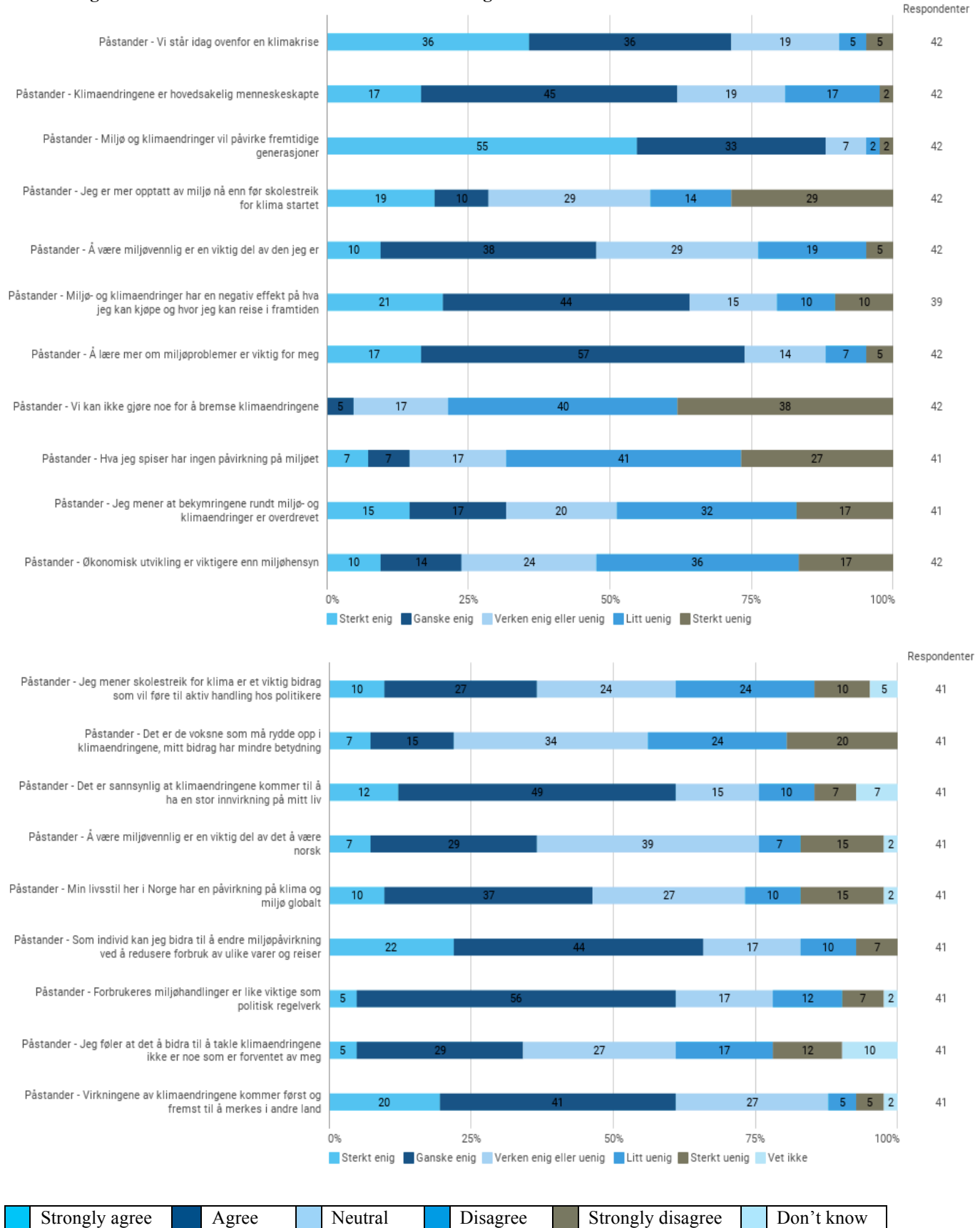
Most of the students agree that (a) we are facing a climate crisis which (b) will have consequences for future generations. It should be noticed that while 76% refer to scientific sources of information, a high 38% either remain neutral or disagree that climate change is an anthropogenic phenomenon. 74% further report that it is important or very important for them to learn more about environmental problems. These contradictions made it crucial to questions what sources the students referred to in the first place, a topic which was explored in the focus group interviews. Despite this, the data indicates a relatively high level of climate *awareness* among this group of students. As an example, 65% strongly agree or agree that climate change will have negative consequences for their future consumption- and travel patterns. Here, limitations to the survey-format arise with respect to follow-up questions. It is unknown if these answers form the basis for the respondents' *beliefs* in these statements (the assumption and conviction that the statement is true based on level of knowledge or admittance) or if their replies form the basis of their *attitudes* (reflecting if they favor or disfavor the entity in question). One example from the survey showcase a positively high number of students who think we can do something to alter climate change. In the follow-up focus groups however, some students explained their *knowledge* about these climate mitigation options, but added it was not an important topic for them or something they necessarily supported. Thus, their *attitudes* remained unchanged. This is not to suggest a lower environmental engagement among the group of survey-respondents or undermine the data available, indeed at first sight a large percentage of these students classify as climate *Concerned* in the dimensional segmentation

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1. We are currently facing a climate crisis.
2. Climate change is mainly caused by human activities.
3. Environmental and climatic change will affect future generations
4. I am more interested in the environment now than before the school strike for climate.
5. Being environmentally friendly is an important part of who I am.
6. Environmental/ climate change has negative consequences for what I can buy and where I can travel in the future.
7. To learn about environmental problems is important to me.
8. We cannot do anything to halt climate change.
9. What I eat has no influence on the environment.
10. I think the climate change risk is exaggerated.
11. Economic development is more important than environmental considerations.
12. I think school strike for climate is an important contribution which will lead to action among politicians.
13. The adults need to face the climate crisis, my contribution has less impact.
14. Climate change is likely to have a great impact on my life.
15. Being environmentally friendly is an important part of being Norwegian.
16. My lifestyle in Norway impacts the global climate and environmental change.
17. As an individual I can contribute to lower environmental impacts by reducing my consumption of goods and travels.
18. Consumers´ environmental actions are just as important as political regulations.
19. I feel that participating in combating climate change is not something that is expected from me.
20. The impact from climate change will mostly be noticed in other countries.
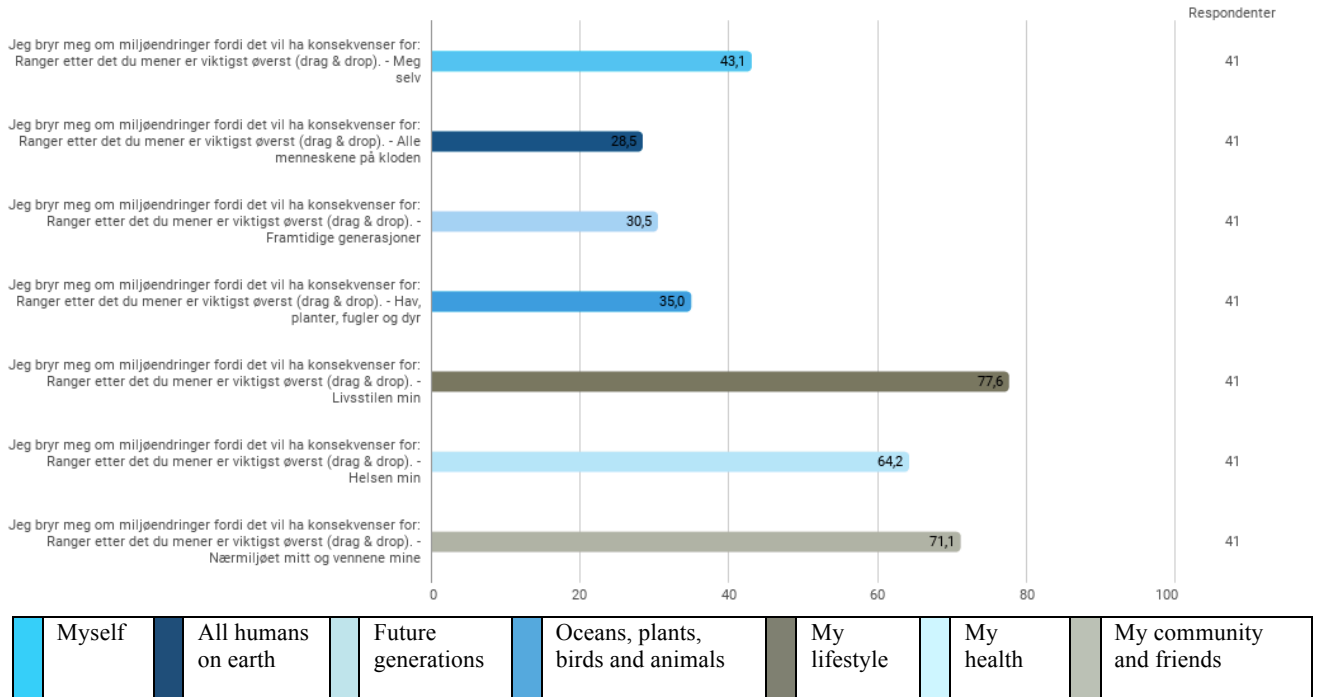
and many also self-identify with being "environmentally friendly."[6] Still, the data showcase conflicting results where yet again 61% find that climate change is mainly the matter of other nations, and 32% either strongly agree and agree that environmental concern is exaggerated. Since the purpose of following a sequential theoretical design is to get a better understanding of the research problems (Creswell, 2005), the survey data should be understood as creating the foundation for narrowing the research further in the follow-up interviews. Other statements also exemplify mismatches: a higher percentage acknowledge the role of consumer responsibility, 66% consider personal actions influential for the overall CO_2 footprint, and 56% agree these contributions are equally important to political regulations. Still, under half of the respondents think their lifestyle footprints makes a global impact. This could reflect a generally low awareness of consequence related to personal behavior, again connected to low ascription of responsibility where only 29% express that personal action in dealing with climate change is expected of them. Given the inconsistency of these answers there was an apparent need for further elaborations on the topic in the focus groups.

It should also be noted that a larger group stayed neutral on many questions, possibly qualifying as *Indifferents* according to the dimensional segmentation. On the value related questions concerning self-associating with pro-environmentalism and expectations towards private sphere climate action, 29% and 27% respectively remained uninterested, indicating that a substantial part of the respondents belong to this category. This is further backed up by the fact that a larger percentage report on a total absence of emotions connected to climate change; 34% feel no guilt, 36% no anger, 22% no fear and 25% no hope regarding changing weathers.

The survey also asked the students to rank various reasons why they cared for climate change from most to least important: "I care about climate change because it will have consequences for..." The below index showcases the results.

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[6] The meaning of *environmentally friendly* also needed further elaboration. In the interviews it was later found that students who supported Norwegian oil-extraction and questioned the seriousness of climate change, thought of themselves as environmentally friendly because they recycle garbage at home.

Figure 12. Ranking climate change variables

	Myself	All humans on earth	Future generations	Oceans, plants, birds and animals	My lifestyle	My health	My community and friends

At the top comes lifestyle and community/friends. At the bottom; all humans on earth followed by future generations and other species/nature. The results indicate strong favoring of egoistic values affected by spatial/temporal distance, which made it important to investigate this further in the following focus group interviews.

Although it is not the purpose of this thesis to measure actual behavior, certain questions dealing with consumption patterns where asked to map intentions, attitudes and values. First, the students where asked about transportation habits. 30% agree or strongly agree; 27% remain neutral while 43% disagree or strongly disagree that the comfort of driving a car is more important than reducing climate gas emissions. Still, 66% favor car as mode of transportation and 61% strongly disagree or disagree that the new toll plaza system is beneficial from an environmental perspective. 81% are not willing to reduce air travels to cut aviation emissions. 46% fly more than 3 times each year (return), 41% 2-3 times each year. 92% of the informants eat meat. When asked if there is a difference in the amount of red meat they eat now and before the climate strike started, 13% say they eat less meat for environmental reasons. 33% do not eat less meat, but have become more aware of the connection between environment and meat consumption.

Last, the students were asked to rank actions/lifestyle according to what they assumed made greatest environmental impact. Secondary they were asked to rank the same figures

according to what they hypothetically would carry out in real life themselves.[7] The options were created specifically for this age group based on Porter Novelli & Cone´s research on Generation Z´s involvement in climate change issues. The nine questions were divided between three sections which fits into Stern´s (2000) three identities of environmental behavior. *Pro-environmental activism*: climate strike, participate in an environmental organization, participate on environmental events; *Non-activist behavior in the Public Sphere:* sign an online environmental campaign (active environmental citizenship), share environment related information on social media (active environmental citizenship), Support the new toll plaza system (policy support); *Private-sphere environmentalism:* recycling waste, choose transportation options with lower carbon emissions, eat more plant-based food.

Figure 13. Rank actions from highest to lowest environmental impact / The probability of carrying it out

Left chart (Rank – environmental impact): 12,5; 52,5; 59,7; 65,3; 60,3; 56,3; 31,9; 59,1; 52,5

Right chart (Probability of carrying it out): 40,9; 29,4; 59,4; 61,6; 34,7; 71,3; 55,9; 24,4; 72,5
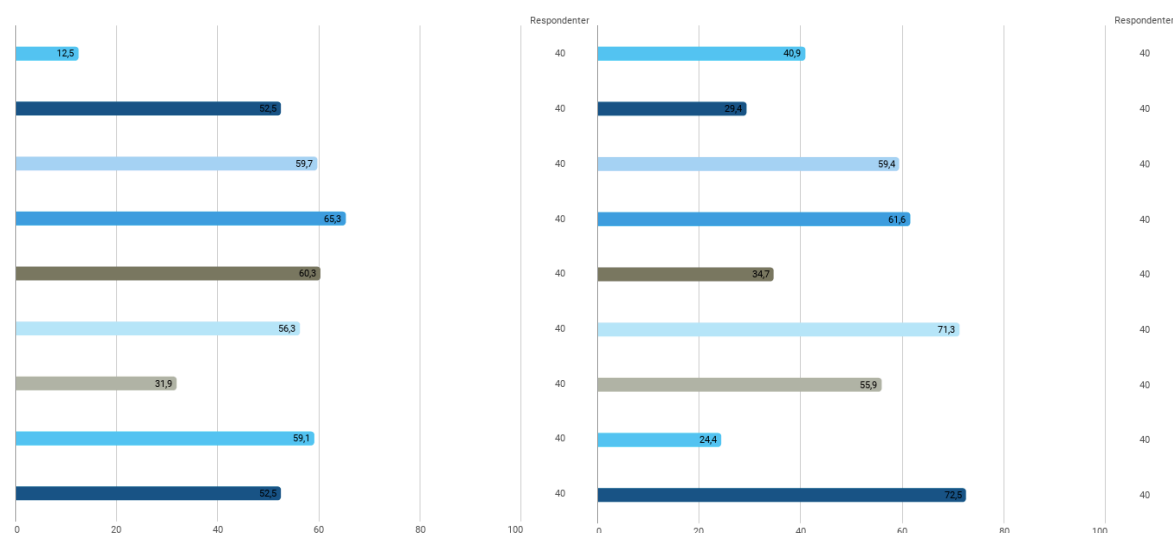
1. Recycling waste	
2. Share environment related information on social media	
3. Climate strike	
4. Support the new toll plaza system	
5. Sign an online environmental campaign	
6. Participate on an environmental event (e.g. a breakfast seminar) with politicians/corporations	
7. Choose transportation options with lower carbon emissions	
8. Participate actively in an environmental organization	
9. Eat more plant-based food	

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[7] As this is not a study measuring impact, the first question asked the participants to rank behaviors according to *assumptions* of environmental savings. There is no comparative data on the actual impact of the alternatives presented. However, based on Bamberg & Rees (2015) interpretation of private-sphere situations with low behavioral costs (recycling) to high behavioral cost (mobility), it is possible to measure the three private-sphere factors against each other. We know red meat and transportation is among the top contributors to CO_2 emissions in Norway, while recycling has a minimum level of impact (Hille, 2012). The second question focus on intent.

The students thought supporting the new toll plaza system followed by signing an online environmental campaign and climate strike made the greatest impact.[8] At the end of the list rank climate-friendly transportation modes and recycling. Interestingly, the results show a prioritized order from non-activist behavior in public sphere, followed by pro-environmental activism to private-sphere environmentalism at the end

As for behavioral intent, the general assumption was that people would choose low behavioral costs over high behavioral costs. This assumption fell short in my results, which somewhat contradicts earlier answers in the survey. Support of the toll-plaza system (again) and lowered meat-intake comes high up despite the earlier more negative feedback on these topics. Participating in the school strike ended quite high up on the list despite the students earlier replies to the low effect of striking. This must be seen in light of the other options presented, and the fact that none of these answers indicate whether or not the students would actually carry out any of the activities in real life. Related to Stern´s identities of environmental behavior, the results become more mixed: public sphere environmental citizenship moves down on the list while both private-sphere activities and activism comes higher up. However, level of individual sacrifice involved in each activity probably plays an important part for the results: participating in a breakfast seminar has a relatively low behavioral cost compared to active participation in environmental organizations. Still, turning to plant-based food tops the list, a choice which impact lifestyle greatly.

5.1.1. Summary Quantitative Data

Summarized, the quantitative data provided valuable feedback when narrowing the research for the focus group interviews. The generalized picture exemplifies certain contradictions between variables in the Likert scale as well as attitudes/intent to act. Although several attitudinal factors lean towards environmental support, other questions uncover tendencies favoring egoistic- over biospheric-altruistic values including the value-ranking of climate change concern or willingness to change transportation modes. As a multiple level strategy (Creswell & Plano Clark, 2011), a deeper qualitative elaboration is needed, specifically in respect to personal versus public sector environmental responsibility. Out of the three identities of environmental behavior the students consider private-sphere environmentalism least

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[8] Again we see clear contradicting tendencies. The toll plaza system, previously deemed low on environmental impact is here given priority. Although the topic [toll plaza] was not central for this thesis, it directed the research towards the importance of visible, local consequences of climate change with further reference to Schwartz (2012) social values of mastery versus harmony and exemptionalism. This is discussed more in the analysis.

important. Combined with only 15% which strongly agree that their Norwegian lifestyle makes an impact on the global environment, the topic of consumer identity (consciousness, beliefs and values) needed more clarification. Some confusing data also emerged on the Climate strike. While considered to have a relatively high environmental impact in the ranking, 34% disagree or strongly disagree that the strike makes an important contribution on the political arena in the Likert scale, and a larger percentage concludes their attitudes remain unaffected by the strike. Both points reflect low efficacy-beliefs on citizen level.

5.2. Results from Focus Group Interviews

Phase two of research was the semi-structured group interviews. A total of 14 students participated, ten male and four female. The first focus group took place with five male and two female students. Some informants were more talkative, student 6m, 7m, and 5f engaged more actively than others. In the second interview there where two males and one female. This group demonstrated less interest in the subject, which was expressed through body-language (looking away, yawning) while also replying "I don´t know" to many of the questions, with an observable careless attitude. The entire group held clear characteristics from the *Indifferent* segmentation profile (see Appendix 1). The third group consisted of three males and one female. In this focus group interview I noticed an easier flow of discussion where everyone got engaged. The reason for this seemed to be contrasting opinions; this was the only group with a student expressing pro-environmental attitudes in contrast to the *Deniers* and *Doubters*. Level of environmental knowledge varied within the group, and it was interesting to see how different opinions were challenged and new arguments made in consequence. Each interview started with an introduction where the students were asked to elaborate on their environmental attitudes, followed by questions related to school strike for climate. Last, it was important to get a deeper understanding of the students' attitudes towards personal consumption and environmental degradations, putting this into a larger global context.

The discussions took somewhat different directions; some students seemingly had higher levels of environmental knowledge than others, which also enabled better flow of conversation and discussion between those students. Thus, the focus groups also provided insight into remarkably varying levels of climate change knowledge among youth today. The focus group informants were roughly categorized based on dimensional segmentation with the following distribution:

Alarmed: 1	*Concerned: 1*	*Indifferent: 5*	*Doubters: 5*	*Deniers: 2*

It is worth noting that many of the *Indifferents* in the focus groups are close to *Doubters* by ways of not acknowledging the seriousness of climate change. Still, their predominant characteristic is one of disengagement. The indifferent focus will nonetheless result in negative actions towards the environment because they place egoistic values before biospheric-altruistic values.

5.2.1. School Strike for Climate

Based on low strike participation rates among the survey respondents it was natural to explore the involvement of the focus group students, and if the number corresponded, to get a deeper understanding of why the students had chosen not to join the strike. As it appeared, none of the 14 students had participated in the climate strike. Together with the survey feedback, this meant 54 students, or 96.4%, of all the respondents, had never participated.[9] When asked for a reason I got two sets of arguments. First, the youth in question argued that they were not engaged in the topic and did not believe the strike made any real impact. The second argument related to unauthorized absence from school.[10] In the first interview the entire group leaned on this first argument followed by registered absence. An excerpt from the taped discussions illustrates this well: "I did not really feel that I was engaged enough to be there" (5f). She is supported by 4m who say: "Yes, the same. And then we get absence [from school] (...) So if one does not care enough to begin with..." 5f finishes the sentence: "…yes, then you need to be passionate about it to have a full days leave." 6m elaborates: "I think it is angled the wrong way [7m agrees], I will not walk there and wave my flag [sarcastic] if it is not something I can stand for. I do not see the purpose in what they shout and scream about then." 7m adds that he thinks the strikers are a little extreme, and how they focus on all that is wrong [negative environmental impacts]. But he concludes that perhaps the strike is connected to a larger picture that neither he nor the strikers understand. In a different group 14m said: "To be honest I do not think that children can do anything with the climate crisis politically. So I do not feel that there is any point for me to strike." 5f express something similar: "I do not see the point in it sort of. Or that it leads to any solutions [three other students nod]. It just creates more hysteria around the environment." Here it should be noted that striking is considered an extreme action, which may even represent negative consequences for the cause itself. Throughout the interviews several

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[9] The low strike participation was purely coincidental. As the focus of this thesis is to generate feedback from the average Norwegian teenager, strike participation was not an inclusion criterion for my research.
[10] The Norwegian school-system did not approve absence related to climate demonstrations.

different students remark that their "status" as youth limits their influential abilities - these thoughts are bound to create self-disempowerment which affect both intention and behavior.

On the other side are the students who respond that the strike is relevant, but still have chosen not to participate; 3m thinks it is positive with focus on climate change, while 12f define it as an important cause where attention to the topic is great. Still, she does not think it matters if two extra people participate or not. She finds support in 9m whom concludes that the topic is relevant but nothing he is personally passionate about. 11f is the only student who wanted to participate but did not because of unauthorized absence. Compared with the more critical voices above, a similarly low faith in positive impact of their own active citizenships is observed among these students. Conclusively among all groups, there seems to be strong incredulity in the ability for FFF-mobilizations to change larger systemic structures.

5.2.1.1. Opinions on Peers´ Strike Engagement

Some of the students express relatively strong negative feelings about other teenagers' choice to participate in the strike. As mentioned above, the informants use the tag hysteria to describe FFF-strikers where 7m and 5f think the protest has almost become comical, linking it to societal trends rather than sincere interest, and 6m label strike engagement as screaming and shouting which lead to very few solutions. The harsh language and condescending remarks about peers´ strike participation was largely expressed by all informants in the first group. This was one of the topics which allover caused the greatest engagement, and strong feelings were visibly set in motion among certain students; especially the *Deniers* and *Doubters*. Several informants personified the cause by speaking disparagingly about Greta Thunberg, claiming she is narrow-minded due to her Asperger diagnosis which –according to them, result in extreme opinions. In all groups, absence of environmental actions among striking peers was discussed. It was thoroughly expressed that strike participation was condemned wrong if one did not follow up with private-sphere commitments. 12f says:

> I very much agree that if one shall strike against the adults and that they do not do anything, then you should be pretty environmentally conscious yourself. (…) If you stand there [striking] and say that it is wrong then one should not do all those things you say is wrong yourself.

14m was annoyed with "the front who strikes" and say it does not seem like they know *why* they demonstrate. He concludes: "It shows that there is engagement, but it is hard to tell how many of those who participate in the strike who are there to strike, or just to avoid school. And how environmentally conscious they really are." He later reflects that it is good when young

people gather for a cause [although he does not necessarily support *this* cause] since it is probably easier to confront politicians when you are backed by a larger group. The strong opinions on other youth´s engagement was not anticipated, and is one of the more interesting findings of this research. In turn it gave way for new questions in the analysis; how did this connect with value orientation? And was this opinion shared by various segmentation categories? The importance of FFF for environmental attitudes was followed up next.

5.2.1.2. Has the School Strike Impacted Environmental Interest or Behavior?

In the group discussions, this question caused different reactions. Some people reported on becoming more *observant* of their own environmental footprints after the strike, while their low *interest* remained unchanged from before the strike. In one group, a participant puts it the following way "After Greta Thunberg became famous I have learnt more about the environment. But at the same time I have not done so much differently really." This knowledge-action gap[11] is confirmed by others, like 14m whom explain how he *notice* littering in the aftermath of the strike; "I have become more attentive. And notice more, at least littering or if I see someone throw something in the street- then I think a little more about it. It will have consequences if everyone does it." Littering and recycling is the common classic example those few whom report on altered behavior refer to. As we know, recycling is one of the private-sphere actions with lowest behavioral cost (Bamberg & Rees, 2015) while also leaving a minimal positive environmental impact (Hille, 2012). Yet, the simplicity of these measures is highlighted by 11f as positive since it represents alterations with low barriers towards action. As the only student which classify as *Alarmed* in the dimensional segmentation system she thinks the school strike has made people more aware of what they can do which are not very demanding. A few say they are more observant of climate related issues but accredit media for this. Both 10m and 1m say the school strike has not influenced them. 1m elaborates:

> I will not say that my interest in the climate crisis and such has… well I do not really care about, I do not pay much attention to politics at all. But one becomes more enlightened… when there is a lot about climate and such in media and such. So I will not say I have gained more or less interest in the cause, but perhaps one… learns a little.

In conclusion, these students have the same level of environmental interest before and after the strike, but report on somewhat higher levels of environmental knowledge where sources of

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[11] It is important to distinguish a knowledge-action gap from the attitude-behaviour gap since knowledge does not necessarily result in changed attitudes. In this case, the reference is made to division between knowledge which is not acted upon.

information are divided between FFF and media. None of the students had a strong environmental engagement before the climate strike started. On the other side are those who express being tired of hearing about the strike, where the massive attention it has received has generated more critical opinions. One student express:

> I have almost become more tired of it. I think there is too much talk [several nod] and that this Greta Thunberg sort of becomes news articles on how she travels from Europe over to the US and back again, and a lot of stuff on how they must delay meetings and such. Eh no, I think it is sort of the wrong focus.

Another student, (2m) agree with his fellow student and add "I am actually pretty tired of all the fuss around Greta Thunberg and all that". When he calls her actions "bullshit", many laugh and nod in agreement. They are supported by yet another male student (6m): "Yes, for my part I have perhaps become even more certain that the way I have distanced myself from this [the climate topic] is the right thing to do, the more I have read about really the whole thing." 7m: "I have become sort of less interested, and a little like 6m said: one may just as well take distance from it, unless you have very strong opinions." 8m has become more critical to the subject linking it to "an agenda for removing everyone who works in the oil sector which contributes to financial stability." 12f recognize its relevance but is tired of hearing about it.

Here we see a tendency for the male informants to express stronger feelings than their female counterparts. This may seem natural since male respondents outnumber female in my research, but it also reflects that three out of the four female respondents showed little interested in the subject. As it turns out, those categorizing as *Indifferent* are slightly more open to new environmental information and the strike than their peers which mostly identify as *Doubters* and *Deniers*. This makes an interesting observation since *Doubters* per definition do not entirely deny climate change, but exhibit low risk-perception. It further validates the placement of these informants into the specific category since they may not be interested in obtaining any new information on the subject.

Austgulen and Stø (2013) define that even high levels of climate change awareness can categorize people as climate sceptics if they express lacking understanding of the seriousness and consequences related to the topic. This corresponds with my results, where the majority of the students did not think of this as something that would affect their own lives. While not unique for my research, it follows the overall trend picture for wealthier, developed countries which have the luxury of feeling some physical (and emotional) distance to the worst global catastrophes happening elsewhere. It is also interesting to note that so many students express

an open awareness of the attitude-behavior gap while seemingly remaining unaffected by their own lacking commitment towards action.

5.2.2. Environmental Concerns and Global Impact

Next in the focus groups, the informants were asked if they were concerned about climate change. In general, few students had any reflections on the subject or thought much about it on an everyday basis. For those who did think about climate change, the feedback was divided between concern and those who did not care. One example of such a discussion is seen in the following text: I [Interviewer]: "Are you worried about climate change?" a female student (5f) responded: "It is not something I think about in my everyday life, but when one talks about it, it is worrisome." Few expressed concern over climate change impacting their own lives. The following statements illustrates this well: "I honestly do not think that much about it. Perhaps I should think more about it." (12f). A male student (10m) says he does not think it will make a great impact on his life: "I think we will notice changes, but not thaaat great that it will… that I must change. Or that we must totally change our lifestyle and such." In this second group most students agreed with this statement, the male respondents were also strong supporters of technocentric solutions which they were confident would solve our current climatic concerns.

5.2.2.1. Temporal Distance: Is There a Serious Climate Crisis Happening Now?

As the dialogue continued, it became clear that all groups had someone who thought severe climate change was not really happening *now*. 14m explains:

> If we look at the weather lately, it has only been raining [Feb 2020]. And I do not know if that is a coincidence or because of climate. A few years ago we had a lot of snow, like a snow record, and now we have nothing. But that could be a coincidence too.

His reference to temporal distance was mentioned in all groups, with climate change stretching out over longer periods several people found it hard to grasp actual change. Another student points out that more and more climatic crisis take place where he thinks it will be difficult to get the average global temperatures down. But when asked if he thinks it is extreme to call it a *climatic crisis* he responds "perhaps it is since we do not notice anything of what is being mentioned." This was also discussed in relevance to the students´ own actions. 1m:

> … If we physically had noticed that the climate had been changing, then at least I would have done something about it [refer to pro-environmental actions]. (…) If it *actually* became a crisis sort of, then I would have thought more about it than I do now for example. I do not know if there is a crisis now, I have not heard anything about it so...

This relates to 8m who says that for him to be truly engaged in something it has to be serious, and he doubts that human activities really affect climate change as much as public information indicates. He concludes that "there has been climate change the last hundred million years."[12] A female student (5f) reflects on the reasons for missing actions:

> I think perhaps it has something to do with the fact that we are well off. So there are few who are willing to sacrifice it for something which is also a little distant. Even though it is probably too late if we wait until we actually notice it [climate change], but I really think that if it actually is a serious crisis now…

7m ends the sentence: "…then it is too late already." This led the conversation to impacts of climate change in other places, and who the losers of environmental extremes really are.

5.2.2.2. Spatial Distance: Far from Home?

The students were asked about how we would notice the effects of climate change in Norway compared to other parts of the world. Everyone agreed that climatological and metrological events would impact other countries more. One student (13m) puts it like this:

> In Norway there has not happened that much. But in other countries there is more like natural disasters. Which is a result of the weather being changed the last years. And that with sea levels rising. So someone is affected worse by this then we are.

Several students reason their lacking engagement with this spatial distance, one informant conclude: "it is easy to forget it sort of." In the third group everyone agreed they would react differently if they were personally affected. Here, distance was connected to climate refugees which could bring the subject closer to home. One student (14m) says it is very easy to "just avoid it when one only sees it [refugees] through a screen." 13m agrees:

> Yes, when people have to emigrate from countries, and don´t come to Norway then I really only think of it as a number. Like all those people is part of the statistics (...). But if they come to Norway, then you will have to see how it affects society.

The issue of climate refugees seeking residence in Norway was mentioned by one or more students in all groups when asked about "global impact". Thus it should be noted how people in different conversations turn how *someone else* is affected to instead answer how global affairs could potentially affect *themselves,* indicating an egoistic value orientation. Based on previous research, it was expected to find temporal and spatial distance affecting the

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[12] Arguments against anthropogenic climate change with reference to historical variations in global temperatures were made in all groups. Questioning wither or not climatic alterations is a consequence of human activities is not the focus of this research, and was not discussed further.

respondents' worldview. Still, the indifference towards climate change struck as strong in all groups with few worries about extreme weather. The students where asked if they had any moral concerns or thoughts regarding personal carbon footprints contributing to global weather change, and in turn what this meant for people in less fortunate locations. In the survey, the informants were asked to rank various factors which represent why they should care for the environment. "All humans on earth" was ranked as least important by 41 students. Based on this, it was natural to examine the focus groups´ worldviews further.

5.2.3. Connection Between Local Footprint and Global Climate Change: Shifting Responsibilities

The focus groups were asked if they think we have any personal responsibility for emitting activities which adds to the total amount of global emissions. Here many students shifted the focus from personal level to corporate- and political responsibilities. Or highlighted that other countries (with explicit focus on China and India) had higher CO_2 emissions then Norway, with the excuse "we are not the worst country." *Doubters* and *Deniers* in all groups specifically made use of whataboutism on regular basis. In the two last groups the youth agreed that responsibility for climate actions should be with politicians which in turn would have to make regulations for ordinary citizens, personal contributions made less of an impact. 10m says:

> It is the federal state which needs to take responsibility. Because…every, even if you make every person observant of ehm, what the consequences of their emissions actually are, I do not think that will change that much. Because one does not want to be the only one. And one does not want to be ONE of the only ones' sort of.

This statement was followed up by the interviewer: "Because you do not want to stand out in the crowd, or because you do not want to let go of the advantages you have?" 10m: "Yes, because then you let go of the advantages you have, while everyone around you have them." 8m and 9m agreed. In another interview 12f also refers to group mentality:

> Okay, if there had been rules which made everyone do this and that, then it would have been more like, okay now we do something good. But when it is like… It is so demotivating to sort of... now I have to stop flying. That airplane runs anyway sort of.

Informants in all groups suggested to switch focus to technological solutions instead of telling people to change their behavior since "the later will not work". 10m constantly turns to technocentrism for all his replies: "I think the most important is to do research on new technology. Because I believe that with new technology we will find new solutions which does not necessarily have to influence our economy."

Several students were concerned that the Norwegian welfare state would collapse if we were to scale down what they refer to as our oil-dependency, 8m acknowledge much of our income derives from environmentally degrading processes, and if we should phase out these jobs he is afraid the consequences would mean a weakened welfare state. This was his, and others, argument for not changing their personal lifestyles. It was noted that disclaimer of personal responsibility was consistent in all groups, while the strong faith in state regulations resembles the findings of Selboe & Sæther (2018). The disconnection from individual obligations could be tied to distance; in their 2016 study Fløttum and colleagues note that climate change as a topic is not discussed at home, suggesting it is considered too distant to be taken into the private sphere. It seems relevant for the students of this research which also confirm this absence of environmental discussions; environmental responsibility is mainly considered the issue of public – or private sector, while consumer responsibility is neglected.

5.2.4. Belief Structures: Proclaiming Opinions as Facts

As seen repeatedly, disclaimer of responsibility is closely tied to belief structures, where the students did not understand the connection between various climatic events and human impact. This is important for two reasons: first, it describes the informants´ knowledge level. Second, it may indicate their ability to grasp causes and consequences related to their own actions. One of the students (6m) express confusion when he does not understand how changing global temperatures followed by local desertification leads to shortages in water supply:

> Like for me, the problem is that I sort of do not completely believe in what is being said [referring to information on climate change]. Take temperature measurements for example. Most places in the world can live with a temperature that is one or two degrees higher. Uh, what is more important to look at, which almost no one talk about, is for example drinking water. The Nile for example, has dropped. And that is a desert area where they do not have other sources of drinking water. If they lose the drinking water, then we will have climate refugees in millions (…).

Throughout the interviews, he and other students show strong assertive attitudes when proclaiming fake facts through statements like "changing temperatures is not the most important factor in avoiding a climate crisis." As the conversation continued, the same student underlines that drinking water is much more important than rising temperatures. When asked if he thinks desertification could perhaps expand *because of* changing temperatures he replies:

> That may well be so, but the sources of drinking water... you know, at the start of the 21st century one talked about the Alps melting… and it was sort of all one talked

about. That the large glaciers melted and such. All that has been drastically moderated by new science. So I do not believe in that doomsday talk then.

What is demonstrated here is not only difficulties in relating climatic events, his statement also reflects how inaccurate sourcing are widely used and turned to scientific truths. With it follows the choice to believe in the most convenient option- the other being "doomsday talk." Another student (8m) mix in confusing referencing to facts when explaining his line of thought around the California and Australian bushfires. He concluded it was not caused by anthropogenic climate change but was mainly human-started fires. This made him annoyed with all those who promote the fires as a "climate problem caused by our own actions." Two other students argue the case against him referring to climatological phenomena like heat waves and drought, 9m explain: The anthropogenic climate change there is, makes these periods last longer then. Periods of drought and rain last longer." Where 8m replies: "But! There is still lacking evidence…that the reason there was no rain was because of anthropogenic climate change." By conclusion he refers to the others´ statements as "examples", saying he still hold his opinion. This holds clear similarities to the results of Horton & Doron (2011) where respondents figurate climate change through larger events or disasters, while struggling to relate underlying processes. It is not uncommon for climate deniers to attribute opinions as facts, which indicates that ideology and value systems are precursors of knowledge and beliefs.

5.2.5. Awareness of Consequence – Why Should We Care?

Closely related to what information one choose to believe is awareness of causes and consequences. In the causal chain of the VBN theory, Riper & Kyle (2014) defines its originality to "assume that awareness is necessary for an individual to recognize the importance of their contributions to avert negative consequences for non-human species and other human beings, which in turn are expressed by feelings of moral obligation" (p.289). Thus, personal norms can be activated by two relevant belief structures; awareness of consequence (AC) and ascription of responsibility (AR). As it appeared, many of the informants had a hard time grasping questions concerning awareness of consequence and context driven morals such as "should we care about the global impact from our CO_2 contributions?", or "*why* should we care?" Even when showcasing simplified cause-effect chains of personal consumption impact → leading to rising CO_2 emissions → affecting environmental hazards, they found it difficult to see connections between the variables, and even harder to associate conscience with actions. For many it was the first time reflecting on this subject. 12f expressed that the extensive proportions of these questions made them difficult: "… It is sort of so large that it is not

something one can solve. Or perhaps one can solve it one way or another, but like...” I: “It becomes a little distant?” 12f: “Yes, it is.” Other informants also referred to spatial distance in connection to AC, like one male student (10m) who say “We have no relation to it [what is happening in other countries].” He is supported by yet another (11f) whom explain it this way:

> I think it is about, first of all yes, distance. And it does not affect us closely. It is like… when we for example buy clothes which are made by a four-year-old then, it is not something one thinks about all the time. To put it this way, it is not *my* four-year-old little brother who has made it sort of.

Again, many students returned to other solutions which would not involve their own change in actions. When asked if we have a global responsibility for environmental consequences elsewhere, or if this is something we “don't have to care about”, one informant replied:

> I think there should be more focus on trying to find better technology to solve those problems than to say sort of; one should not fly, one should not do this, one should not do that. I don´t really think it will work.

The answer is representative for most of the students interviewed, illustrating how easy it is to turn to practicalities instead of connecting a moral sense of obligation. It is also interesting to note that the *Doubters* and *Deniers* predominate in expressing low levels of AC/AR and ethical morals connected to far-away places, which aligns with previous studies by Markowitz & Shariff (2012) among others. The contrast is apparent when 8m and 11f both reply to the fairness behind global trade.[13] While 11f (*Alarmed*) says “It is not ok,” 8m (Denier) answers “Financial win- it is the only way to explain it. We want to earn as much as possible.” He does not really take a stance on the moral value factors asked about, which happens repeatedly during the interview. 11f is the only student in all groups who actually address values and morals, she thinks individuals should take personal responsibility for global consequences. With a perceived ability to reduce threat (AR) She is also the only one who express commitment to environmental related lifestyle changes like switching to a plant-based diet and initiate swap clothing: “…I think it is very selfish to continue living in the exact same way because it afflicts other people then. And perhaps we do not see the consequences of it.” She later agreed with the rest of her group that initiatives should likely come from the government, and that many citizens are not ready for such change.

What struck as most important from this part of the discussion was the lack of emotional display, or sense of disconnection to degradations elsewhere, expressed by most students. The

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[13] With reference to resources extraction and uneven wealth distribution between the Global North/South.

majority voiced low interest, or did not seem to understand how moral or personal values should have anything to do with mass consumption or product origination - even less so how the environment in turn is affected. It further reflects how both AC and AR beliefs-structures are weak among the students in question. This was more or less consistent even when exploring concrete scenarios like a burning Amazon rainforest. The later match the results of Lorenzoni & Hulme (2009), who found that attitudes and beliefs were not significantly affected by the presentation of climate change scenarios; it did not change their informants´ opinions as trust was mainly given already existing worldviews and value orientations. In the same way, the students of my research addressed the information received in a distant manner, expressing it was not their personal obligation to interfere with such large subjects. Or the dialogue shifted directly to country policies or trade agreements with several students defending world trade. This further correlates with a low biospheric-altruistic focus.

5.2.6. The Western Epistemology – Human Domination over Nature

Moral obligations and belief structures are again preceded by worldviews. In understanding worldviews, broader questions of harmony versus mastery over nature were asked. This further enabled a dialogue on value orientations. As mentioned in the theoretical section, value systems guide "principles in life and define people's relationships with the physical world" (Stern et al., 1999). Here it is possible to draw lines between self-enhancement versus self-transcendence, reflected through levels of environmentalism. By investigating the students´ environmental worldviews and value judgement, questions were linked to the value-component of VBN. The third group specifically expressed few previous reflections on the subject of environmental worldviews, and found questions of humanity's right to artificialize nature hard to grasp. This is exemplified by a taped excerpt following the statement "Humans have the right to modify the natural environment to suit their needs":[14] 12f: "It is a little like… I have not thought that much about this." 14m: "It is difficult to come up with a concrete answer... It is a good question; it is difficult to answer it." Further, one informant focused solely on the usability of nature, and not preservation for its own sake. "There is a lot of resources, like oil. Who else should have used it? There is no one [other species] who use it for nutrition or something." He does not express an understanding of the environmental consequences related to crude oil reserves explorations. In relevance of harmony versus mastery this student also made an interesting observation stating that no one can stop human exploitation but other humans, "So then it is easy to become greedy sort of… and take more than one really needs."

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[14] The question is borrowed from the NEP scale based on anti-anthropocentrism, Q: NEP2.

In the first group, resource usability for humans was also valued over preservation. The groups solved the same task as the survey-informants, ranking various variables according to who was affected by environmental change. Only this time it was presented as a group task where they students had to debate over the value of different categories. When ranking the importance of "oceans, plants, birds and animals" the group reasoned: 5f: "This I do not really care about." 4f: "I think it is more important than…," interrupted by 7m: "…because it is them it is most critical for. Because one speaks about more and more animals ending up on that red…blacklist." 6m: "For *us* there is… it is plants that produce oxygen." 7m: "Yes." 6m: "So that we have plants and forests and such is thus essential." 5m: "Then we place this before the other." In all groups, students agreed humans had higher value than animals. One informant puts it this way: "That human have higher value? It is the value we have for society… sort of, and I don´t know, but I value someone who actually have much, much greater capacities than something that does not have it [laughs]." In relevance to climate change, one express that he thinks more about the consequences this has for humans then animals. Following the question if nature is there to be exploited as we wish, several said it should be done sustainably, but there was nothing they personally could do about it if it was not.

The strong human-centered focus is consistent with previous national research where Norwegians rank high on modern individualistic values connected to hierarchical worldviews (Aasen, 2015; Austgulen & Stø, 2013; O`Brien, 2009). The fact that nature and animals needs to be useful for humans without their own distinct value, is an interesting observation. This line of thought, with similarities to moral equality theory, degrades the moral standing of animals due to an absence of what is considered human traits such as rationality or self-consciousness (Wilson, 2001). Similar ideas are found in another group where three male students strongly argue that animals are *created* for human consumption purposes, rationalizing with Darwinism; it is simply part of the ecological food chain. Such justification of natural selection and hierarchical status has strong similarities to the Western epistemology dating back to the colonial period, whereas eco-centrism is found on the opposite side of the scale.

5.2.7. Behavioral Intent to Change

When asked if the students are willing to change personal behaviors for environmental considerations, almost everyone responds negatively. One of them (13m) expresses it in the following way: "No one will stop eating meat because of the environment sort of. And no one will change everyday things [habits]." Another respondent (8m) says:

Personally, I mean that my spot on the plane will just go to someone else anyways. I know that if everyone thinks like that it will not get any better, but it is sort of nothing... if EVERYONE did something about it, then there would be changes. But the thing is that this will never happen. Everyone will not be able to influence it, and then those with power in society needs to do something about it.

This expression of low self-efficacy is dominated by a perception of reduced ability to influence environmental change. Such personal assumptions may also strengthen barriers towards actions. And in turn; behavior that is perceived hard to perform may lead to lower intent to act. The importance of group-behavior is backed up by students in all interviews who say private-sphere behavior may be deemed ineffective if not embraced by the larger community. According to one informant (10m), many people are not aware of problems associated with over-consumption, he thinks promoting examples publically could help build awareness. In his group the students discussed *how much* they would have to sacrifice for it to make a substantial difference, which makes an interesting question. Would 20% reduction in personal CO_2 emissions (transportation, meat intake, consumer-habits) be sufficient? In terms of everyday consumption, none of the students regarded their own expenditures to be problematic, answering "I do not think that I have that problem" (7m), "For me it has never been important to buy a lot of clothes and such" (9m), or "It is important to have a mobile phone and such. But I do not change mobile phones that often" (10m). This was followed up by the question: "If you were told that everyday consumption made a huge environmental impact, would you be willing to make reductions?" Most students consequently answered they would not, while yet others jointly disregarded it saying their buying patterns are based on financial savings and not environmental factors. 2m answered: "I don't feel guilty when I buy something, or if I take the car instead of public transport. I don´t even recycle so… [everyone laughs], but I do not think most of my world do either."

The topic of raised awareness was brought up by some, like one student who say he does not want environmental concern to restrict his life. "[I have] An awareness, but I do not want it to affect my life in a negative way. Or hinder me any way." The students also reported on few reflections connected to travel modes, everyone would choose driving over public transport and no one are willing to give up holidays abroad for environmental reasons. Here, personal convenience was also rated more important than mitigation strategies. When asked what hinders they were faced with in making environmental choices one student explained that he used to take the bus to school, but due to newly constructed bicycle lanes (reducing the road

to a single carriageway) the bus trip took twice as long. He now chose to drive car to school. The ease and comfort of his daily transportation mode was more important than long-term CO_2 reductions. He used this example to speak despairingly of ironic counter-effects of public measures, which initially was supposed to promote climate friendly travel options. In the theoretical background it is suggested that a strong support of self-enhancing values dominated by financial gain, correspond with an equally increasing eco-skepticism (Hiratsuka et al., 2018). In this part of the discussion it seemed like several students searched for examples to use which would strengthen their negative positioning towards the environment. Still, despite the students' reluctance to change, some do understand the seriousness of the current global situation. Like 14m who concludes his group discussion:

> I do not think the earth can withstand the way we do it today. With all these emissions. One does notice it on glaciers that has disappeared. If one travels and sees those large glaciers, they have become much smaller. Yes, so… it does not handle it.

5.3. Concluding Remarks on the Quantitative and Qualitative Data Collection

At the end of the results from both quantitative and qualitative measures, a few notes should be made before moving on to the analysis. By first appearance, there seems to be a larger climate positive audience among the first group of survey informants than the focus group informants. These data are difficult to compare for several reason; as already stated it is hard to determine environmental attitudes and values solely based on singular survey questions alone. Second, it is also worth noting that the profile of each student is not identified in the survey-format, meaning one student can appear indifferent to one questions while having stronger positive or negative opinions to the next question. Following a sequential theoretical method, the survey-data should be understood as providing valuable reflections when developing subsequent questions for the focus group interviews. Since values and attitudes are best analyzed through qualitative measures, the qualitative approach is weighted in the final discussion.

6. DISCUSSION

The goal of this thesis is to bring some insight to environmental attitudes among teenagers in wake of the FFF campaign. Although current research exists on environmental attribution acceptance and behavioral intent among Norwegian citizens, limited data covers related attitudes and their underlying determinants. In this chapter I will discuss the findings presented in previous chapters through the lens of theoretical frameworks. The discussion is divided in two. In the first part, I present a brief analysis of the attitude-behavior gap found among the survey respondents which formed the basis for my reason to investigate attitudes further. Next, I move on to the body of the discussion which centers on focus group data. Value orientation and beliefs are explored through the VBN framework, before this is connected to FFF through the first research question. In the second part of the discussion, the two last research questions are explored in light of cultural value theory, while drawing on contextual forces and social constructions. As argued in the methodology chapter, the results need to be understood with certain limitations to sampling size, time frame and exclusions of social factors in mind. Deisenrieder and colleagues, who conducted similar research among students in Austria and Germany, point out: "Environmental attitudes of adolescents result from a complex interplay of additional social factors, such as family background and interactions with peers" (2020). Still, the evidence presented proves highly interesting as the case enables deeper qualitative insight to the specific age groups´ thinking patterns.

6.1. The Importance of Value Orientations and Belief Structures

6.1.1.   The Attitude-Behavior Gap: Correlations and Deviations

Consistent with previous research, my results indicate the presence of an attitude-behavior gap among the survey respondents. The group is seemingly dominated by moderately climate concerned students, which also represent those inhibiting attitudes furthest away from their actions. They are closely followed by the *Indifferents* whom acknowledge climate change but do not care further about it, and *Doubters* with low risk-perceptions but who also acknowledge that climate change is happening. 72% of my respondents either strongly agree or agree that we are currently facing a climate crisis, which correspond with widespread belief in climate change among the Norwegian population. Still, these informants are reluctant to change their

negative environmental footprints. 66% prefer car travel over other day-to-day modes of transportation, and 81% are unwilling to reduced air travel to lower CO_2 emissions (based on intent). There is a great disparity between this inaction and the fact that 59% think we already experience climate change in Norway, or will within the next ten years. 79% further express that consequences of local weather changes will be more negative than positive, or only negative. 68% acknowledge the climatic consequences associated with meat consumption, still 92% eat meat. Perhaps more interesting, a third of those who eat meat say they have not lowered their meat-consumption but have become *more aware* of the connection between meat consumption and climate change- illustrating how awareness does not automatically transform into actions.

There were differentiating results between the survey respondents and focus group respondents. While a larger part of the survey respondents display an acknowledging position towards attribution acceptance, negative beliefs and attitudes were more pronounced among the focus group students, or something they were not opinionated on. The focus groups mainly consisted of *Doubters* and *Indifferents.* As explained in the methodology section it was chosen to follow an explanatory sequential design because it is difficult to comprehend deeper reflections through the survey setting alone. The focus group setting enabled free dialogue and answers to open ended questions, which means stronger opinions were expected. Thus, one explanation for this division between the quantitative and qualitative results could be the superficiality of the questions asked in the survey, where no deep elaboration is possible. Although the majority of the survey informants say we should do something to tackle climate change, it is not clear if "we" means them as individuals, the wider community through legal structural frameworks, or industrial responsibilities. This argument is strengthened by inconsistency in replies to the statement "participating in combating climate change is not something that is expected from me" where one third agreed, one third stayed neutral and the last third disagreed. When approaching a more local, rather potent cause which most capital residents are strongly opinionated about; the road toll extension in Oslo, only 2% strongly agree and 17% partly agree the system is for the better from an environmental perspective. This could indicate higher environmental skepticism among the survey group than what first appears.

Based on recent optimistic coverage of pro-environmental youth in media in combination with established research (like Aasen et al., 2019 and Fløttum et al., 2016), the expectations before starting on my thesis were results which would comply with existing discoveries in the field. I assumed most students would express strong attitude-scores which

do not always materialize in actions (high attitude-score = low action-score). However, the main finding following this theoretical line of thought shows only a modest correlation between attitudes and self-reported behaviors among the focus group students, indicating the gap was smaller than anticipated (low = low). The only true exception is 11f (*Alarmed*). She represents a classic example of the gap expressing how things *should be* while still not always following through in actions. This section concludes with a division between the classic attitude-behavior gap observed among some students, while the structure cannot be applied to those who demonstrate low environmental interest. This is not to say these results present a deviation from the theory itself, it simply demonstrates the respondents lower environmental concern. This makes it important to further inspect value orientations and beliefs. In support of the Value-Belief-Norm theory, Liobikien & Juknys (2016) find that measuring levels of environmental knowledge and access to information among respondents is key in defining beliefs, which mostly builds on environmental literacy. Data from focus group interviews is weighted in the remaining analysis.

6.1.2. Beliefs and Environmental Literacy

One of the main challenges presenting itself early during the face-to-face interviews was what I consider to be a low level of environmental literacy. Not only related to attitudes and concerns but namely environmental *knowledge,* thus understanding the complexity of causes and consequences associated with global biodiversity loss, rising temperatures and other cascading effects. The majority of the focus group students simply seemed incapable of comprehending the connection between personal CO_2 footprints and global impact. Or when the connection was understood, turned to dissonance and denial, further referring to unchanged attitudes through comments like "I do not think I have that problem" or "We don't have any relation to it." With reference to psychological barriers to climate change adaption (Stoknes, 2015), dissonance is observed when the students confirm their knowledge of ongoing devastations without connecting this to conscience; I: "Are you worried about climate change?" 7m: "There are numbers that prove it is a problem." I: "But it is not something you think about?" 7m: "No. Not at all." Denial is declared by several students. When 6m is asked if he does not think desertification could escalate because of changing temperatures he shifts to say scarcity of drinking water is more important, labelling environmental information as "doomsday talk". When this belief is challenged there is little openness to change, but rather change in direction of focus.

In their study, Teksoz et al. (2012) found high levels of environmental knowledge to stimulate students´ "concern, attitudes, and personal responsibility toward environmental protection." As such, cognitive components are an explanatory factor to certain affective components. With sociodemographic variables for my respondents indicating resourceful neighborhood affiliation[15], while the school they attend range close to the median school admission in Oslo (Oslo Kommune, 2019), it is alarming to see how little these teenagers seemed to know about environmental aspects. Or even more, how they lean on misinformation and fake facts, presenting these as unquestionable truths with no critical examination. This is interesting with the survey data in mind, where 97% of the students' report on consulting scientific evidence for climate related information.

6.1.3. Low Awareness of Consequence

As a key finding in my research, the students express low awareness of consequence resulting from low environmental literacy. Building on previous studies, this came as no surprise since it aligns with the segmentation profiles of *Indifferents* and *Doubters* which may not feel the need to pursue such knowledge. Still, it is somewhat puzzling given the extensive amount of information available to the public, especially since Gen Z stay more informed than all other generations. It is observed that constant flow of information can have contradicting effects which was acknowledge by one student himself:

> One does find everything about environment on social media. And… it is also very easy to come across something where you think, oh yes fuck, this is actually something I can support. (…) It sort of becomes easier to change [attitude] with regard to the environment in relation to this. If it is something you think is good sort of (8m).

The difficulty in separating fake news from facts can further escalate the problem of low environmental concern as one chooses what source of information to trust. By for examples following climate sceptic sources, the students may reinforce their belief that climate action is not necessary, as they find evidence for their ideological views among opinionators of choice- thus confirming this to be the social norm. In one group everyone say they primarily find climate change information on social media.

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[15] Jarness & Hansen (2018) find attitudes to be guided by class-division where pro-environmentalism is associated with higher education. Although I do not have data on parental educational level, it is worth remembering existing statistics on class divisions in Oslo where these neighbourhoods are represented by higher educational levels (Sandvik & Kvien, 2015).

However, there are factors which could contradict the plausible assumption of sociodemographic importance for environmental knowledge level. Instead of treating this specific group of informants in isolation, it may be a national phenomenon. While Norwegians are among the ten most educated of all citizens in the world (OECD, 2019) we still rank highest in questioning anthropogenic climate change. This challenge the results of Teksoz et al. (2012) as well as Helliesen (2015) whom explains that "Having higher education has significant positive effects on all climate change attitude variables except from trend and efficacy" (pp.86-87). Although their research considers with-in country variables, it still raises the important question: if high educational levels leads to pro-environmental attitudes, why does the overall population acknowledge some facts, while avoiding other inconvenient truths such as human-impact? It gives further weight to the VBN theory where worldviews, values and ideologies antecedes knowledge.

6.1.4.   Applying the Value-Belief-Norm Theory: Egoistic Value Orientations

In relation to environmental questions it has been suggested to mainly focus on self-transcending versus self-enhancing values which are at contrasting sides of Schwartz value circle, thus representing antagonistic motivations. Schwartz (2012) presents two self-transcending values; universalism and benevolence, while power, achievement and partially hedonism explains self-enhancement. In my study the youth are strong supporters of personal gain and pleasure which translate into self-enhancing values: they want no restrictions on future possibilities, leisure activities, consumption patterns or choice of transportation modes. This is spoken clearly in all groups where the students in unified agreement say they do not want to let go of the privileges they have. It is further confirmed by control questions on worldviews, where the students again express preference for personal gain over environmental considerations. The respondents´ replies where analyzed based on a free translation of de Groot & Steg´s (2008) value scale. Although personal differentiations occurred, the overall pattern was representative for the students. **Important egoistic values:** wealth and influence. **Indirect important egoistic values** through world events: social power; dominance; authority. **Important altruistic values** within society: social justice; equality. These were not regarded important in a global context/outside society (i.e. overall low score). **Biospheric values:** low score on preventing pollution; protecting natural resources; harmony with other species; unity with nature. The replies from the focus groups indicate a strong inclination towards egoistic over biospheric-altruistic value orientations: "The more respondents subscribe to egoistic values, the lower their environmental concern" (de Groot & Steg, 2008). For example, the main

concern over climate change consistent between all groups was the prospects of high numbers of climatic refugees arriving in Norway. This can be interpreted as the climate change factor which is most likely to affect them locally (threatening their own welfare), in contrast to concern for global citizens. Thus confirming the egoistic value orientation.

Following the linear direction of the VBN framework, the respondents general lack of interest indicates low levels of risk perception. This will negatively affect their awareness of consequence and perceived ability to reduce threats (Beliefs); obvious predecessors to altering any sense of obligation to act (Norm), and again changed behavior. As such, their judgements seem mainly based on values determining their worldview, which are direct predecessors of behavior. These results are confirmatory to previous research in the field, like that of Hine and colleagues (2013). In my study it was observed that most of the respondents spoke in general terms in future tens, which could add to the personal dissociation from the subject. Spatial and temporal distance were factors strengthening this disconnection. Marx et al. (2007) explain how a person can only have a "finite pool of worry", where other topics can raise more concern. In the group setting it was clear that for some, worries over national/global economy out ruled the importance of climate change mitigations as the students chose to compare these against each other. 9m explains that we cannot reduce oil extractions as it would "collapse the world economy", giving priority to financial progress over climate change reduction. And since climate change is regarded both spatially and temporally distant it does not have to be addressed here and now.

6.1.5. Attitudes and Fridays for Future

Part of the main objective in this research is to understand if climate awareness and concern among the high school students have changed in light of FFF, using the strike as a parameter and reference point. Now that I have established that most of the students remain relatively indifferent towards environmental topics, it is possible to compare this with self-reported measures before the strike.

As we have seen, strike participation rates are low among these students with only two out of 56 informants participating in FFF. Still, it is of more interest to document if their attitudes have changed following the strike, as a plausible assumption was that the size and scale of FFF would also influence the mindset of average citizen who do not categorize into activist behavior. Combining data from survey informants and focus groups the majority do not consider themselves more environmentally engaged. In fact, 43% of survey respondents either disagree or strongly disagree with the statement "I am more interested in the environment

now than before the school strike for climate,"[16] while 29% stay neutral. Perhaps more interestingly are those 11% out of 18 survey informants and 28.5% of focus group informants who surprisingly report on declining climate change interest as a result of FFF. In the focus groups this was explained with feeling mentally drained because of all the attention the topic has received. "Creates more hysteria around the environment," "bullshit" and "comical" are some of the designations on the strike from these youths.

Table 3. Environmental engagement after school strike for climate

	Survey informants	Focus groups	Total in %
More interested in climate change	4	3	22%
Less interested in climate change	2	4	19%
Unchanged interest	12	7*	59%

*In the "unchanged" category four say they have become more *observant* of environmental change as an effect of FFF, however their *interest* remains the same.

One of the most surprising findings of this research was the high level of resentment several students expressed towards the strike. And not just the strike itself, but also their fellow peers who stood up for a cause by striking, where labels such as "hypocritical" and "extreme" were used. It raised the important question: why would several non-participatory informants inhabit negative feelings towards positive actions conducted by their peers? Although they do not support the cause, would it not be natural to assume they would support *any* kind of empowerment of the younger generation?

6.1.6. Too Much Responsibility on the Youth?

In the theoretical background it was indicated that media seems to put a lot of hope and faith in youth through FFF. So does various powerful leaders in the international community, making psychologists warn against placing too much responsibility on the youngest. In sum, this could cause anger and a feeling of pressure among Gen Zers. Stoknes (2019) is one of those who puts unlimited faith in the strikers. Greta's generation is too young to have adapted barriers to climate change and "approach the situation with a fresh view" according to him.[17] Does this mean scientists put unrealistic and generalized hopes on a whole generation based on those activists in the spotlight? Maybe. The number of respondents in this research is not

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[16] If the research objective was to measure *effect* of the strike, the results would have been different. FFF has brought about many opinions and emotions, clearly demonstrating its ability to cause attention.

[17] There is little correspondence between his statement and the data collection of this research. Although it is refreshing with scientists who express faith in the generation to come, it is a robust claim that constantly wired youth have not developed barriers such as distance, denial or identity. This research identified profound influence from social media and news among most respondents; barriers of the adults trickle down and influence youth on their many screened devises daily.

large enough to produce generalizable insights about the average young citizen, but it offers an insight into the mind of some young people, whom seemingly show limited interest in climate change. They represent the better-off teenagers, unwilling to change his or her lifestyle to save the climate crisis elsewhere. Which provides another hypothetical explanation as to why the respondents express this resentment against FFF; the cause represents a threat to the informants´ lifestyle, like 8m who calls the strike an "agenda for removing everyone who works in the oil sector which contributes to financial stability." Both Kjøs (Broen til framtiden, 2020) and Stoknes (2019) indicate that lifestyle sacrifice connected to climate policy support is so huge it makes us resent change. In my research this is confirmed by the students themselves. The consequences of strike participation which potentially can result in stricter regulations and in turn alter our way of life, is just all too clear. Still, a more possible explanation can be found in the social norms and values these teenagers possess.

6.1.7. Stay True to One's Values

As it turns out, both students who support the strike (mostly *Indifferents*), and those who resent it (*Doubters* and *Deniers*) unify in criticizing the larger parts of strike participants, claiming there should be correspondence between values and actions. Even more so, it unifies both climate deniers and certain pro-environmentalists outside the school-setting. Marius, an environmentally concerned 20-year-old has written a chronical in Aftenposten where he critically addresses this exact topic. He reflects on youth who go straight from strike participation outside of the parliament, to shopping when they are already in town. Teenagers who do not change their everyday behavior despite of an increased awareness; "Thus, we strike for something we do not take seriously ourselves, and something we are not willing to sacrifice anything for, except a Friday now and then" (Norbye, 2019).[18] The same elaboration was given by one of the survey respondents: "I do not want to attend an event that I think is hypocritical. For example, youth who are picked up by their parents by car when they finish striking." What youth in my research criticize is confirmatory of the results found by de Moor and colleagues (2020), where Norwegian protesters where *least likely* to support climate action through lifestyle changes by youth asked at 19 different locations worldwide.[19] FFF fight for stricter environmental regulations, fairer distribution of resources and natural preservation – all

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[18] It is worth noting that Norbye is from the same socio-economic area as the respondents in this research.
[19] The withdrawn attitudes found among Norwegian youth in de Moor and colleagues´ survey should not go unnoticed. With lowest scores on trust in science; ascription of consumer responsibility; and lowest "Greta effect" scores of all participants at 19 global locations, could this indicate lacking faith in climate solutions?

important and acknowledged causes. But with the movement´s main target being a rather broad demand (radical action to decrease CO_2 emissions), the opponent also becomes blurred. Here, the students of this research makes a relevant counterpoint; if private household consumerism contributes with more than half of all global CO_2 emissions, then the climate change fight is theoretically also a responsibility of the strikers themselves through their role as consumers. The idea that change must start within makes the whole scenario even more troublesome. If Kjelstadli is right that a rebellion cannot exist without an opposition (Broen til Framtiden, 2020), they may all of a sudden find this opposition in themselves. Although the responsibility of private and public sector by no means should be neglected, neither should supporting actions of citizens. It could be argued this aligns more with expressive motivations than instrumental motivations of social movements, it needs to be kept in mind that at the core of expressive motivations lies ideological or value-driven change which in turn means the individual needs to adapt. Further, what some of these youth describe are stale fronts between participants and non-participants were conflicting values are addressed; it is the capitalist-focused against the eco-oriented and science-driven rationale. The fact that youth criticize activism among other youth is interesting because it is *themselves* who address the attitude-behavior gap. Since the rhetoric of climate justice challenge exactly Western capitalistic values, it is understandable that these students question those who expose themselves to a disproportionately wide attitude-behavior gap. The focus group informants with this view are prouder of *not* participating, because they feel like this is more earnest than the strikers who go from demonstrating to continuing their high- CO_2 emitting lives. From a theoretical perspective, these ideas shape the normative belief which for this scenario tend to steer the students in the opposite direction of striking; the student´s own perceptions of social expectations show that strike participation among non-environmentalists is seen as fake and frowned upon. Combined with low personal motivation, the subjective norm swings towards low social pressure and a tendency to self-reflect on non-strikers as more earnest and sincere to their lifestyle. Since the informants have no wish to change their lifestyle due to the barriers previously presented, they likewise have little need to question their own beliefs. In a left-oriented publication, Sæther & Borchgrevink (2019) make the point that those who are aware of these serious facts, and support the climate cause, while staying indifferent to actions are perhaps the scariest kind:

> For the majority in the population, climate deniers may represent a convenient function. The few extremes can give many of us good conscious since we accept

climatic science and cheer on Greta Thunberg. If we do not do so much for the environment, then at least we are not climate deniers.

This would surprisingly give some support to the critical voices in this research, pinpointing that all the others are not behaving that much differently, they just do not talk about it.

6.2. Ideological Predispositions, Worldviews and Cultural Values

The discussion has so far centered on the individual level. To reflect on the later part of the main objective, which focus on underlying determinants of individual attitudes, it is important to broaden the analysis to include wider social values and worldviews which dominates the Western and Norwegian cultural discourse. Several scientists including Oreg & Katz-Gero (2006) and Stern et al. (1995) stress the importance of these social structures within which "intra-individual processes" occur, since it is this context which ultimately shape individuals´ experiences and values. It has already been suggested that the challenge of relating to climate change derives from cognitive dissonance or ideological predispositions, and a vital step involves examining these "cultural models of public knowledge" (Zia & Todd, 2010). In her studies on climate change attitudes in Norway Helliesen (2015) concludes the two dimensions of *political orientation* and *trust in science* are not sufficient in describing climate change attitudes alone. She specifically highlights ideology. "It seems as ideological predispositions run so deep that they even interfere in receiving information and accepting science" (p.86). Based on these notions the following section draws contributions from my thesis into a wider perspective beyond the individual level, where inherited political, economic and cultural ideology plays an import role in shaping contemporary worldviews.

6.2.1. The Importance of Conceptualization: The Abstracted Worldview

The environment is an idea shaped by the human mind, a phenomenon which influence not only how we think about nature, but also our position in relation to it. As noted by Warde et al. (2018), in the middle of the 20th century the environment went from being "the background to the human world, to being an idea shaped by planetary consciousness" (04:03). This generational turn made conservation an ethical issue, while at the same time abstracting the theoretical and political components related to it. I would argue that such abstraction can partly be to blame for the informants' difficulties[20] in relating to the topic and the concept of the

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[20] Or even present generations when looking at the wide array of research documenting inaction in light of high levels of knowledge.

environment. Since this newly created concept of the environment is about "the processing of information gathered from multiple places" (ibid, 36:20), there is no wonder detachment from such a wide scope can occur. Remembering what one student said: "It [environmental problems] is sort of so large that it is not something one can solve." From this point of view, it seems as if the students refer to international bodies for environmental protectionism, as opposed to personal obligations. In fact, one could argue that it is the same institutions who has shaped this larger imaginary of "nature" so distanced from personal level. Warde and colleagues reason that this also dictate who is in place to govern it: "...over time, it became the advocate of techniques and institutions that shaped the idea, more than individuals. This also affected who could speak up for the environment with political effect, and who had power over it" (39:55). Obviously, lack of personal responsibility cannot be blamed entirely on historical context alone, but the argument given is that it plays a part in how nature is perceived by the wider public and how the concept of "environment" has been framed by the hegemonic Western culture as something large and incomprehensible – an idea of nature that fits so well in with globalization. By contrast, many indigenous populations understand the environment in a very local and intimate perspective (Ding et al., 2016). One example is the Whanganui Maori tribe who recently won a 140-year-long battle in recognizing their river as an ancestor (UN Environment Programme, 2017). Their interpretation of nature as interconnected with their living environment, with an inevitable impact on everyday lives, seems to provide them with a reason to adapt a more conservationist line of thought. By institutionalizing nature, we alienate us from responsibility. One example is student 8m who acknowledge that natural resources are not used sustainably, while adding: "We cannot do anything about it." In this context the importance of culturally inherited worldview is important to be aware of.

6.2.2. Exemptionalism

The cultural traits discussed above, combined with spatial distance to areas in which we find more severe environmental degradations, seems to lead a larger part of the students towards human exemptionalism.[21] It is supported by many of the informants´ faith in technocentric solutions and those who believe their lives will continue unaffectedly by natural events, relating to examples of how humanity has overcome previous natural challenges. Take for example informant 10m with what seems to be an undeniable faith in human technology. When he was challenged as to how humans would handle resource scarcity in light of green tech solutions,

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[21] The belief that the relationship between humans and the natural environment is unimportant because humans are "exempt" from environmental forces and capable of adapting via cultural change (Your Dictionary, n.d.).

he turned to space technology saying it would "largely have a positive impact on the environment." As Cairns (1999) crucially addresses, this view is extremely dangerous as it neglects the importance of risk assessment and further ecological negotiations, while showing a total disregard of devastations following in the path of the current economic paradigm. Since my informants are what may be referred to as global winners in terms of financial distribution and well-being (something which will be discussed more later), there is no obvious reason for them to challenge the dominating worldview. This leads me to discuss the values of self-enhancement and power; as Cairns further points out, although there are many variations of exemptionalist and environmentalist positions, there is little middle ground for the two. As such, it seems very unlikely that a person can acquire strong biospheric values while maintaining his egoistic values at the same time. Universalism does not go well in hand with achievement and power where other beings, species and nature is dominated over. By tying concepts of the natural world, *the environment,* to political ideology and financial frameworks it is possible to further legitimize resource extraction and oppression of other humans and species without relating personal guilt.

6.2.3. Cultural Hegemony: A Historical Legacy

As the environment is a concept created by Western institutions, it is also closely tied to Western worldviews and value systems. The expressions of these youths is rhetoric in line with the ideology of their time; the mainstream values of capitalism and materialism, which again is in stark contrast to conservationists and ecological lines of thought. Indeed, the history of the environment is just as much a history of politics (Hulme, 2009), a notion that became obvious during my interviews with the informants. When I tried to discuss global dimensions of climate change and biodiversity loss, most students did not think Western countries held much responsibility for environmental degradation elsewhere. As it was expressed, conservation and protection ought to be carried out by local agents of authority where extractivism takes place. As such, this also expressed a belief in strong interconnections of laws, regulations and implementation.

O´Brien (2009) states that in the Norwegian context, values that encompass "diverse human needs and multiple perspectives and worldviews" are not culturally prioritized. It is her hope that climate change will drive adaptation in direction of more "pluralistic, integral and holistic worldviews," especially among the younger generation. Although this notification is a decade old, the absence of such inclusive worldviews is still obvious among the respondents ten years later. This became apparent already in the survey where the students were asked to

rank several value-based categories through the question: "I care about climate change because it will have consequences for…" [results from respondents in prioritized order]: 1.Lifestyle, 2.Community and friends, 3.My health, 4.Myself , 5.Ocean, plants, birds and animals, 6.Future generations, 7.All humans on earth. The results not only confirm that egoistic values are dominant among both survey students and focus groups, by placing the rest of humanity at the bottom it also reflects ideas about world hierarchy. Living in a society where high levels of prosperity is the norm, it may come as no surprise that youth interviewed for this thesis mainly hold individualistic values where self-enhancement and achievement is appreciated over universal values. Their inclination to support technocentric solutions thus makes sense as it requires limited personal sacrifice and action, focusing on instrumental solution to environmental problems which ought to be implemented by governments and industries. It further corresponds with results from the overall population where faith in technology is on the rise (Lavik & Borgeraas, 2015). Several students expressed strong support for oil-politics, which is seen intertwined with Norwegian moral values (Steentjes et al., 2017). Given the complex relationship between the welfare system providing social security, and oil politics which in turn funds the welfare state, this dynamic is given high pluralistic values among the population (Warner-Søderholm, 2012). As an indirect source of prosperity, oil-support is also understood as linked to the future opportunities of the youth in question, and plays an important part when supporting their self-enhancing values. These reflections were made by the students themselves in the following taped excerpt: I: "So you are afraid that we sort of would disturb the oil dependency Norway has?" 8m: "Yes, or much of our income comes from things that perhaps are not so…so "clean and tidy" for the environment." 9m concludes: "That is what sustains the welfare state." 8m: "Yes, it is exactly that. And are we willing to sacrifice all the wonderful we how now?" From this view, it could be claimed that *moral tribalism* (Markowitz & Shariff, 2012) outclass the importance of far-away places since it is understood as collective actions to morally support the common resources of future prosperity. It is worth remembering that these results unify with the national median where Norway ranks especially high on individualistic plural value orientations (Adger et al., 2009; Hofstede Insights, n.d.; Jian et al., 2010). In turn, individualistic values and hierarchical worldviews correspond with higher levels of eco-skepticism (Corner et al., 2015). The values of the commons are something I will look further into.

6.2.4. Mastery Versus Harmony: Globally Distanced Resource Depilation

As explained by Parsons; "The basic social function of values is to motivate and control the behavior of group members" (1951, in Schwartz, 2012). Thus, a collective goal of personal self-enhancement works as long as the values of power and achievement do not interfere with the same values of the neighbor. In the Norwegian context this is connected to egalitarian individualism where a strong community and personal autonomy are both given high appreciation (Eriksen, 1993). But building on such uniform equity while at the same time living in a country where individualism and affective autonomy is encouraged among an increasingly wealthier population, there is bound to be conflicting values. Relying on a capitalistic economic model where financial expansion and resource extraction is an essential baseline, I propose that the only way to promote this ideal of egalitarian individualism is to depend on such activities to take place outside of society- hence avoid to challenge the leading value orientation by taking away opportunities for some people at the cost of the wealth of others. This idea relates to one societal challenge all cultures must relate to: harmony versus mastery (Schwartz, 2013). As explained in the theoretical framework, harmony encompass the traditional idea of our connectedness with nature. On the contrary, mastery relies on the mentioned expansion, encouraging "active self-assertion in order to master, direct, and change the natural and social environment to attain group or personal goals" (ibid). Observing the scores of Schwartz´ cultural value orientation for the Norwegian society, harmony with surrounding nature is ranked high; third after egalitarianism and autonomy. However, since the values of harmony and mastery are conflicting, it is not possible to expands one's own interest within the same society without harming others. One convenient solution for continuous growth, inherited from the days of imperialism and enabled by trade unions and complex multinational supply-chains, is moving resource extraction and ecological degradations elsewhere. When biodiversity loss happens in other parts of the world due to high environmental footprints in Norway it is not something we need to culturally relate to within our own society. An observation in connection to mastery is one student whom defends this skewed global order by claiming that countries which provide raw materials and commodities do not have the financial structures to utilize their own resources. His justification is backed by two other students with indirect support of this ethnocentric worldview and examples from African nations. Since none of the students in question are prepared to change their lifestyle or consumption patterns, mastery abroad appears to be a viable option to support unconsciously. Here it is also worth remembering the vast

number of research which links hierarchical worldviews to individualistic value orientations (Aasen, 2015; Corner et al., 2015 among others).

The bipolar dimension of mastery versus harmony can be a plausible explanation to the collective cognitive dissonance among the Norwegian population presented by Norgaard (2006 & 2011) and Steentjes et al. (2017). Although the problem is temporarily resolved by moving the issue elsewhere, validation of such moral choice as to keep up mass consumption or oil-support still lingers. Further, it is a well-known fact that people who are perceptive of risk while holding low self-efficacy may experience conflicting feelings which in turn can result in paralyzation of action (Mead et al., 2012).[22] One student explains that "When the goods first are in Norway and everyone use them. Then it is difficult to not do it sort of." With this in mind, dissociation or denial may represent the favorable option to personal anguish. It was for example noted that the only person which held pro-environmental attitudes in the focus groups was also the only one who proclaimed divided morals; feeling responsibility on one side, while admitting she was unwilling to change her actions on the other.

6.2.5. Cultural "Extractivism Rights"

Interestingly, the respondents also connect such cultural "extractivism rights" to the moral value of fairness. For them to give up on privileges without others having to do the same within their cultural context seems unthinkable. This is strongly proclaimed especially when asked about refraining from comforts such as flying or eating meat. References are either made to legislations which should first be enhanced by the government - which in turn would make everyone follow the same laws - or the unfairness if they had to act differently from their peers. As such, it seems legitimate to conclude that *fairness* and *moral* were also important determinants for the students when thinking in terms of environmental behavior. it fits well with the VBN framework where moral norm is the last relevant factor in activating environmentally friendly behavior. Ironically, this would only stretch as far as fairness towards themselves. When values and ethics were extended to include the consequences of their actions for humans or nature in other parts of the world, my informants had a hard time grasping this mind-bridge, or quickly turned to the usability of nature instead of conservation: "no other species will use it [oil] for nutrition or something."

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[22] This gap between conscience and action can even *strengthen* climate denial, where inaction is legitimized by maintaining a strong opposition to the climatic cause (Brox 2011, in Austgulen & Stø, 2013). This way, the unease of cognitive dissonance is reduced while it is still possible to continue status quo of high CO_2 emitting activities.

This represents yet another example of cultural hegemonic patterns where people in Western cultures are only willing to adapt when confronted by equal rights for all within the same society, while ignoring it as long as only far-away places are affected. Perhaps pinpointed best by 11f when discussing why we do not care about child labor in southern countries; "It is not *my* four-year-old little brother who has made it sort of." It is important to note that hegemonic structures were not addressed directly by the students themselves in racist manners, rather the importance of other humans, animals and nature was devaluated indirectly through an anthropocentric focus, rewarding their own culture (or species) with dominant status. The following statement is given by 11f:

> Here in Norway there are extremely many with high education. Uhm and therefor... most have a solid economy. And thinking of such things, as a Norwegian one can feel as being more valuable – than one completely without education who must… who does not have money for feed every day then, in for example India. And then one can feel more valuable.

Although this student generally displays the more altruistic worldviews in her group, she here reflects on how finance and status influence her value orientation. In another dialogue one student say humans have higher value than other species because "we are useful for society." In the first group, nature is only given value because plants and forests produce oxygen. Compassion for other humans are secondary concerns not even elaborated on with reference to climate migration in all interviews. In sum, these respondents display low levels of ethical considerations and ecological awareness which reflects the absence of biospheric-altruistic values.

In a deepened cultural context, exploitation is now part of the dominant global discourse in such a way that it is no longer questioned: right from the age of imperialism nature was seen as something wild that needed to be tamed (Neumann, 2002). This concept can be interpreted through the same ethnocentric value-hierarchy presented by Said in *Orientalism* (1978). Western societies have proposed a set of ideas which defines and creates the "others", not just by giving them identity, but by constructing the idea of their existence: "It is that disciplinary discourse which judges, confirms, corrects, and codifies the boundaries of the Orient" (ibid, p.67). In the same way, naturalization of uneven development and exploitation of resources and human capital other places on earth is no longer questioned or debated. What Said really examine is how a mindset of domination or hegemonic control is no longer seen as a controversy, but has rather become an implicit part of our cultural traits. It has become *our right* to explore and conquer. Deckard (2009) elaborates that "discourses of plenitude and

scarcity continues under the contemporary forms of global capitalism and neo-imperialism." The idea that nature has its own value proposed by Adams (2009) seems bleak from such a perspective. It further brings support to the VBN model which propose that individual´s position within the social structure antecedes their values (Oreg & Katz-Gero, 2006). As such, Western domination which translates into a social position dispensing all others would not be challenged; nor will the values it dictates. If this push for a worldview where modernization is at center core, the opposite would indeed be indigenous values of conservation.

6.3. School Strike: A Protest Against the Leading Hegemonic Discourse

This latter part of the analysis has moved from the abstracted worldview created by Western institutions, to how the students themselves indirectly describe dominance over nature through exemptionalism, distanced mastery (to protect harmony) which again is defended through the value of fairness (cultural extractivism rights). Finally, it is proposed that such hegemonic values and perceptions are taken for granted due to an inherited mindset - which again ties back to the conceptualization of the environment. I propose that these deeper cultural patterns in themselves are answers as to why very few informants reflect changed environmental perceptions before and after the FFF strikes. The value system runs deeper than shifting winds of activism-support, confirming previous research by Norgaard (2006; 2011), Austgulen & Stø (2013) and Helliesen (2015) which from different perspectives recognize that knowledge and beliefs alone are insufficient in describing an overall pattern of Norwegian eco-skepticism.

As it is clearly suggested that change needs to happen in cultural value orientations and ideologies first, this challenge humanity with a utopian distance to the current consumer paradigm. Daly & Farley (2011) and Bûchs & Koch (2017) takes a bold step when they call for changed economic institutions, while at the same time admitting that social change has always happened extremely slow throughout human history. Here, recent environmental movements have played a vital role in addressing the need for fast social- and cultural transformations. As such it is important to note that what the students in this research distance themselves from in terms of FFF is not just a set of actions - the strike itself and any new legislations this potentially could lead to - but rather a different set of values other than those proposed by the Western culture they belong to. The environmental justice movement propose ideas on how we shall relate to nature based on indigenous believes: "The relationship between cultural practices, sovereignty rights, and lives immersed in diverse and threatened ecosystems has been at the heart of indigenous environmental justice organizing - and indigenous

movements have been central to the environmental justice movement" (Schlosberg, 2014). As part of the climate justice movement, FFF address the north-south divide in support of such indigenous conservational values.[23] Thus, history can be said to repeat itself. The clash of epistemologies the imperialists and indigenous populations experienced in the colonial period has reemerged, only to be fronted by a movement with a far larger outreach. Even more, what the movement has done is pinpointing a global problem not just associated with various cultures, but the entire human kind.[24] The promotion of these indigenous values is not just shared by protesters and activists, but also a wide array of scientists, like the Great Transition initiative, an international network of scholars which highlights egalitarian social and ecological values (Tellus institute, n.d), and the World Scientists' Warning of a Climate Emergency (Ripple et al., 2020). Along the same lines, Dryzek (2013), Dobson (2004) and Christoff (1996) all promote planetary ecological citizenships as a way forward. Dobson stresses the obligation of the wealthy, who have already imposed excessive demands upon ecological space, to the poor who have little ecological space. In the Norwegian context, similar has been described by Senior researcher at Cicero, Bjørn Hallvar Samset, whom suggest that the most important virtue going forward in reaching environmental goals as a nation is humility (UNICEF, 2020). At the core of these initiatives both within research, activism and protectionism lies the role of collective efforts of the wider society, it implies the need for a total turnover in the dominant value-regime from self-enhancing to self-transcending values.

6.4. A Final Note on the VBN Framework: Interaction with Contextual Forces

In Stern and colleagues' interpretation of the VBN theory, they posit that pro-environmental behaviors stem from acceptance of particular personal values, from beliefs that things important to those values are under threat, and from beliefs that actions initiated by the individual can help alleviate the threat and restore the values (1999). But here the framework itself must endure some critique, as from this perspective the values themselves are never questioned. What the VBN framework then identify is how status quo can be maintained through constantly alleviating threats to protect the current value systems. It leads to the important question: how can underlying values be challenged? Although it is not considered

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[23] Protecting these ideas are vital; indigenous populations are stewards for up to 80% of the planet´s biodiversity, while only making up 5% of the global population (World Economic Forum, 2020).
[24] It is an outdated assumption that wealth is the privilege of Western nations. With middle-class consumption accounting for over one-third of the global economy, the Western middle class is estimated to shrink to a global 22% while a new larger one will emerge in Asia: mostly belonging to EDCs like India and China (Kharas, 2017).

the task of this thesis to embark on such a wide topic, it is useful to reflect on what the students themselves address. From the collected data it seems like framing the issue based on social moral (giving more weight to the norm-activation part of VBN) would win positive feedback from the informants, if at the same time activated by changing public legislations.[25] The later refers to contextual forces. For this research, *public legislations* relate to the value of fairness for all within the same social context. Fairness was the one basic value the students emphasized the most themselves. According to Steg and colleagues (2005), values can only be challenged "in terms of their desirability or appropriateness." Moral norm plays an important mediating role in social settings since this leads to higher acceptability (Hayward et al., 2015; Nordlund & Garvill, 2003) which would challenge what the students consider appropriate. Both Fornara et al. (2020), Markowitz & Shariff (2012) and Godin et al. (2006) give moral norm a predominant role in the framework addressing that high moral obligations are more likely to lead to action. Still, this would mainly challenge in-society values, while accumulating positive global outcomes would only be a side effect, thus not challenge the prevailing worldview of the society in question.

At this point it seems appropriate to reflect on the fact that although much research, including this one, base itself on the VBN model - it was originally created as one out of four instrumental causal variables which together enables the recognition of a human-nature relationship (Stern, 2000). In a holistic perspective the other variables; *contextual forces, personal capabilities* and *habit/routine*, should not be neglected. It is vital for me to underline that although privatization of environmental responsibility has been the main target for this research, the importance of a wider context has been emphasized throughout the entire discussion. As we have seen, contextual forces which includes the need for public legislations (enhanced by the students themselves), institutional regulations (framing of the environment) and political ideology may be just as much, or even more important, in shaping values than the VBN framework itself. A notion that is supported by the creator of the VBN framework himself (Stern, 2000). At the same time, these contextual forces are interfering with personal obligations. According to Dimick (2015), neoliberalism has brought with it a shift in environmental responsibility from the state to the individual, as the ideology actively "seeks to disavow the state from responsibility for the common good." What she further address as a vacuum of responsibility for the environmental commons. From this perspective, there is no

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[25] Steg and colleagues (2005) identify a straight connection between biospheric values which directly activate moral norm. Thus it is a plausible assumption that a reverse order can win positive feedback if connected to other causal variables.

wonder why there seems to be an apparent confusion among the respondents on exactly whom are to solve these rather voluminous issues of environmental responsibilities; citizens, nation states or international bodies? And even more so, that the task at hand appears somewhat overwhelming and confusing. If the conceptualization of the environment has been distanced from the individual level, while at the same time the reigning political and financial order brings with it increased personal responsibility - it look as if the system itself appears to be schizophrenic.

7. CONCLUSION

The aim of this research was to get a deeper understanding of environmental attitudes among senior high school students in light of the global FFF strikes, while drawing on a wider context of sociopolitical ideology and world order. Based on the informants self-reported environmental concern before and after the period of FFF strikes, it is concluded that the majority's attitudes remain unaffected by the campaigns, while some actually report on lowered interest as a direct result of the climate movement. However, the strong feelings (and resentment) the topic of FFF brought about for some, clearly reflects how the strike creates engagement – although not necessarily in support of the cause. Further, by challenging the Western lifestyle and carbon footprint of the students, the data that emerged from this research is linked to wider contextual forces; it is argued that the students inhibit a predominantly hierarchic worldview shaped by their elitist global positioning. Building on previous research, this thesis has confirmed the significance of these underlying determinants in shaping prevailing environmental values and beliefs. Through this focus, my research moves in direction of a much larger debate which addresses how our culture thrives on economic systems of consumption, which in turn guides our values and behavior. The overall argument is that mechanisms driving value orientations are never homogenous; a complex matter this thesis has tried to shed light on.

Although generalizability is limited by sampling size, the results still provide insights into egoistic value orientations which dominates among the informants of my research, where neoliberal citizenships is favored over ecological citizenships. The majority are increasingly *aware* of climate change but deny its seriousness based on spatial and temporal distance combined with preceding values and ideologies, where several refer to human exemptionalism. In contrast, the students express low awareness of consequence related to their own high CO_2 emitting lifestyles. The contradicting results are confirmatory of collective cognitive dissonance found in studies among the larger population. These advocates for technocentrism do not think consumption or capitalism needs to be scaled down, as green technology can unify with the current growth paradigm. Combined with wide support of oil-extractions and the Norwegian welfare state, the students consequently seem to avoid inconvenient facts; any future responsibility for climate change action is directed back at the state-level while individual responsibility is dismissed. By doing so, they rely on information from favored

social media channels which aligns with their pre-existing worldviews and values. The qualitative results point towards a larger number of *Indifferents* and *Doubters* in my research, still limitations to sample should be kept in mind. Indeed, the quantitative data indicates a somewhat higher number of climate conscious youth despite their low emotional display towards the subject. Since the purpose of this study was in-depth explanation of attitudes and values, the qualitative approach was given priority in the final analysis. Still, it is worth noting that low faith in private-sphere environmentalism and efficacy-belief was found among both groups of informants.

While this research clearly illustrates the importance of value orientation, it also raises awareness of what may seem to be an overly positive picture of climate-engaged youth presented by Norwegian media in wake of the FFF movement. Although the movement in itself has received both positive and negative news publicity depending on the ideological disposition of the press in question, the youth are often displayed quite generalized as climate aware and ready for action. The dangers of framing climate attitudes of an entire generation may provide false promises of physical action and change. As with all media coverage, it is important to understand the differentiating views among the youth themselves, which makes both quantitative and qualitative research on teenagers´ climate attitudes relevant. As such, the significance of this research lies in exploring opinions of teenagers which clearly feels detached from the overall climate-debate presented by FFF. While it would be much easier to gain information from engaged eco-citizens, my research is based on the understanding that it is the average consumer which promote change through every day habits and behaviors, which is why it is important to explore the perspectives of a larger group.

This research also contributes with new information towards how youth from Oslo view their strike-participating peers. *Deniers, Indifferents* and pro-environmentalists unite in claiming the majority of strikers abandon their core values, pointing at low correspondence between private sphere behavior and activism values. Here the students make a relevant point; although they are not committed eco-citizens, neither are the larger parts of the Norwegian population. Willingness to conduct pro-environmental actions is on a declining trend according to existing research. There is an evident paradox that while Norwegian youth are among the highest educated in Europe with unlimited access to scientific information, they are also part of a culture which remain the strongest climate sceptics. Only by identifying these challenges can we influence positive change needed to achieve more robust climate engagement.

In a time where disinformation and propaganda is discussed as origin of growing political destabilization in the world, further research is needed to understand the connection between sources of data and environmental knowledge among Norwegian youth. Many students interviewed for this research inform on few in-person debates in their everyday life, where most interactions and information gathering happens online. Although they allegedly only rely on credible sources, the discussions reveal this is not always the case. Clear examples on non-reliable information alienated from the unified scientific consensus on climate change emerge throughout the debates. These results indicate a lacking understanding of what knowledge to trust. Referenced sources and the fact-based knowledge level of this wired generation is of outmost interest when attitudes and ascription of responsibility is measured. This may be relevant for practitioners in the field as well as media analytics.

Another approach to consider is a wider comparative analysis to the questions raised in this thesis which further explores socio-demographic differences between Gen Zers. Where this research is only trying to draw tentative conclusions, broader research on the topic could enrich more generalized conclusions. As such, it would be of great interest to incorporate elements from Jarness & Hansen´s (2018) study which indicates the existence of *horizontal divisions* within resource-rich neighborhoods of Oslo. This division distinguishes between those who consider themselves protectors of cultural capital and intellect, versus those who value financial capital.

Although the focus of my thesis has been on the individual´s environmental engagement, the importance of major structural change in environmental governance is by no means neglected. Still, to achieve more robust climate mitigations, the issue needs to be addressed by actors on all societal levels. The students in this thesis only represent one demographic area of an urban center in Norway, but they take part in a culture which ranks high among a global hierarchal elite in terms of wealth, living standards and environmental safety. Linked to political history, it is argued that these patterns have become an integral part of our culture in such a way that global disproportions are no longer questioned. If overseas ecosystem failures, or exploitation of natural resources and other cultures is ignored by entire nations who refuse to alter their lifestyles for the global common good, the root to the problem is not only one of personal denial among a small group of citizens, but one of our entire sociocultural structure. Despite the emergence of a de-growth movement, it still seems as if growth equals success in the current world paradigm. Ever since the enlightenment period, intellect has been associated with modernization; a historical evolution of social change characterized by progressive

development in science, industry and finance. In contrast, indigenous "traditional values" correlating with environmentalism have been considered backwards, naive and outdated. And this makes a relevant point. If values of self-transcendence are identified with the later vocabulary, there is perhaps no wonder people resist change, since remaining in an elitist position is associated with modernization, naturalizing industrialization and technocentrism? And as such, the alternative would not only be sacrificing "global benefits" of wealth, but can also be culturally connected to negative terms of devolutionary moving backwards. Still, the vulnerability and survival of other species and ecosystems cannot depend on trending epistemologies, or which cultural elite dominates the world scene. Such volatile engagement is unpredictable. The value of nature needs to be considered an integral part of the foundation of human living, a unified cause.

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APPENDICES

Appendix 1: Dimensional segmentation – clusters

Profile 1 - *Deniers*	• Strong disbelief in climate change, very low levels of distress and perceived risks, low levels of concern and self-efficacy regarding climate change. Do not think individual behavior is important to eliminate impact. • Consider its effects remote in space and time. • Less knowledgeable about climate, and engage in few behavioral responses. • Deniers are negatively predisposed to clean energy and possess anti-green values and attitudes. Tend to be strong supporters of oil-politics. • With growing acceptance of climate change as a phenomenon among the wider public, they may acknowledge that changed weather patterns occur, but deny its seriousness or connection to human activity.
Profile 2 - *Doubters*	• Doubting individuals exhibit low risk-perceptions, concern, and distress about climate change, and do not expect effects to be experienced locally, thus it is no threat to their existence. Unwilling to change their lifestyles. • They experience spatial and temporal distance to the problem. "I am not sure if there is a problem, but someone should do something about it anyways". • They also exhibit lower than average levels of knowledge and self-efficacy, but accept that climate change is occurring (support for anthropogenic climate change theory may be divided).
Profile 3 - *Indifferent*	• This group's ecological world view is predominantly shaped by a lack of interest and concern. They acknowledge the existence of a pressing crisis and limits to growth, but have no desire to engage with it (unimportant, or not my battle). • They may admit their behavioral contributions to climate change, but are more likely than most to think the problem will be solved without people needing to alter their lifestyles. Instead they focus on government responsibilities or technocentric solutions. • The relatively low levels of perceived risk while at the same time believing in climate change could lead to cognitive dissonance arising from possessing conflicting attitudes (Festinger, 1956).
Profile 4 - *Concerned*	• Concerned individuals have a similar profile to the *Alarmed* group, but with more tempered views. Moderately strong belief that global climate change is occurring and that its effects are imminent. • In general, members of this group score above the sample average on perceived risk and concern about climate change and self-efficacy. They also tend to believe climate change effects are imminent or already occurring. • However conversely, this group is not characterized by strong environmental values, green self-identity or environmental knowledge. They are separated from the *Alarmed* by not necessarily committing to behavior which correspond with the acknowledged facts. This may lead to a widened attitude-behavior gap.
Profile 5 - *Alarmed*	• Individuals who exhibit strong environmental values and attitudes, believe that climate change is occurring, and anticipate the effects to be imminent and experienced locally. • They exhibit moderately high levels of concern, perceived risk, distress, and positive attitudes toward clean energy. • They also report moderately high levels of self-efficacy, are already engaging in a range of pro-environmental behaviors, and/ or are the most likely group to seek out environmentally friendly lifestyle changes.

Segmentation elements borrowed from: Hine et al. (2013); Lorenzoni & Hulme (2009); DEFRA (2008).