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Understanding Attitudes Towards Restrictive Car Policies Among Residents of the City of Oslo

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Declaration

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

Signature……

Date: June 15th, 2020

Abstract

As a means to e.g. reduce GHG emissions, air pollution, and noise, The City Council of Oslo, in line with national-level climate goals, has introduced restrictive car policies through their Climate and Energy Strategy. Those reviewed here are the car-free city center and environmentally- and time differentiated tolls. The aim is to understand attitudes towards these restrictive policies (with an emphasis on tolls); more specifically to explore factors considered to influence attitudes. Tolls have received much attention in the national media, with a particular focus on families with children as being those who would suffer greatly. Given this, the paper is foremost aimed at understanding attitudes amongst residents of Oslo who have (young) children. Secondly, considering the climate and environmental rationales behind the policies, there is a focus on related institutions (conventions and norms). Being a part of the research project ACT at CICERO Center for International Climate Research, an adapted theoretical framework from this project is employed. This framework is built mainly on theories from social psychology and institutional theory. Through 24 semi-structured interviews, this framework is used to identify themes of analysis, while seeking to maintain openness to interviewees' perspectives.

Findings suggest that several factors may have an influence on attitudes and that the picture is complex. However, some key areas arose: the place of residence, commuting behavior and affectedness of tolls, concern about outcome equity and climate change, environmental norms (or lack thereof), and attitudes in social circle regarding tolls and climate change. Further, those who are positive have younger and more children than do those negative and do not recognize themselves as victims, unlike what one would expect from media coverage on the topic. Overall, the field of action embedding everyday travel behavior does not appear to be institutionalized regarding its environmental impact. This suggests that clear communication concerning the environmental implications of fossil-fueled vehicles is necessary and that norms involving this type of behavior must be further developed in order to achieve emission reduction goals. The influence of lifestyles and cultures revolving these, and the distributional effects of the policies are recognized as important areas of further research and dissemination.

Keywords: Road pricing, tolls, toll rings, bompenger, car-free city center, car-free zones, bilfritt sentrum, bilfritt byliv, attitudes, holdninger, policy, travel behavior, norms, environment, ACT, CICERO.

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1 Introduction

Climate change as a global problem is now well-accepted by several countries and as a response to this, the governments set goals to reduce their climate footprint through the Paris Agreement and so-called NDC's (Nationally Determined Contributions) (European Commission, n.d.; United Nations Climate Change, n.d.). If the goals involve an operationalization at a local level, they must be transformed into local climate policy efforts. In democratic countries such as Norway (Hovde et al., 2019), this suggests that those policies would need to gather a certain level of public acceptance in order to be implemented. Research attempts to understand more about how this can be achieved, and one project in Norway which endeavors to contribute to this field of knowledge is called ACT. Funded by the Norwegian Research Council, it seeks to understand Norwegians' attitudes regarding climate-relevant issues, in a physical and social context (CICERO Senter for klimaforskning, n.d.). The aim is to inform relevant actors and to equip decision-makers with tools for developing publicly acceptable policy instruments that may contribute to reduced greenhouse gas emissions. This thesis intends to provide qualitative data for the ACT project.

Norway has, as of 2016, ratified the Paris Agreement (Parisavtalen, 2016) and as of 2018, established a law called "Klimaloven" (the climate law) which aims to "promote the implementation of Norway's climate targets as part of the transition to a low-emission society in Norway in 2050" (Klimaloven, 2018). At a local level, the Oslo City government "has developed and adopted the Oslo Climate and Energy Strategy, which is in accordance with the Paris Agreement. The target is to reduce the city's CO_2 emissions by 50 percent by 2020 and by 95 percent by 2030, compared to the 1990 level." (The City of Oslo, 2016, p. 4). An important national goal implemented under Norway's climate policies is 'nullvekstmålet' (zero growth target), which aims to "handle growth in passenger transport in the urban areas by public transport, bicycle and walking [not by the use of car]." (Meld. St. 33 (2016–2017), p. 145). This is partly a goal to reduce greenhouse gas (GHG) emissions, local air pollution, and noise (ibid., pp. 146-47).

In the City of Oslo, 61% of GHG emissions derived from the transportation sector, where private cars are responsible for the highest share of those (39%) (The City of Oslo, 2016, pp. 10-11). The Climate and Energy Strategy was developed as a roadmap to operationalize the above-mentioned local targets (The City of Oslo, 2016). The strategy has a clear focus in the transport sector, namely a substantial reduction of car traffic (20 and 33% by respectively

2020 and 2030, compared to 2015 levels) and priority of pedestrians, cyclists, and users of public transportation (ibid., p. 8). It contains policies meant to phase out fossil-fueled cars and reduce the use of cars within the municipality and the city center, such as environmentally and time-differentiated tolls and developing a car-free city center (ibid., p. 16). Policies to restrict the use of passenger cars have a direct influence on people's everyday lives. This makes understanding public responses to transportation policies particularly interesting and crucial for emission cuts.

This thesis seeks to understand attitudes towards the above-mentioned restrictive car policies among residents of Oslo; more specifically to explore factors considered to influence such attitudes. Particularly interesting are people with children, due to a national public outrage regarding tolls the last few years where families with children have been portrayed as some of the most vulnerable to this cost (Teigen, 2019; Andersen et al., 2019; Ertesvåg et al., 2018; Bechensten, 2018; Hove et al., 2019; Jakobsen, 2019). Respondents were therefore recruited based on an age group (35-50 years) with the likelihood of having children who may require assisted transportation in everyday life. The main focus is on tolls because in 2019 this has been a debated topic at a national level (see e.g. NRK (n.d.-b, 2019)), while car-free city center has received attention on a local level (NRK, n.d.-a). The restrictive car policies are in part a strategy to reduce GHG emissions, hence the thesis focus on climate-relevant social- and personal norms.

Main objective: To understand attitudes towards restrictive car policies (environmentally and time-differentiated tolls and car-free city center) among residents of the City of Oslo who have (young) children. More specifically it aims at investigating factors considered to influence attitudes, with particular attention to travel behavior and pro-environmental conventions, social- and personal norms.

Sub-objectives to answer the main objective:

1. To explore attitudes towards the policies, with particular attention to factors such as individual characteristics (socio-economic factors, policy knowledge, political/personal values), physical context and behavior, beliefs, and institutional context.
2. To map differences between those who display a positive and negative attitude towards the restrictive car policies and to identify differences and similarities between the groups.
3. To understand what role these factors (as mentioned in sub-objective 1) play for attitudes towards the restrictive car policies.

2 Background

2.1 The restrictive car policies

Tolls have a long history in Norway: publicly adopted tolls existed as early as in 1930 (Anchin, 2018, p. 26). At that time tolls were mainly a revenue-raising tool to finance specific road and bridge projects and collected at the same place as they were being spent. From this time tolls have developed from being mainly a means to finance roads and the like, into a complex policy instrument with several motivational antecedents. Examples are to collect funding for infrastructure projects (road, public transportation, and bike lane investments), regulating traffic in urban areas through congestion pricing/rush hour fees, environmental considerations such as exempting electric cars or differentiating rates based on the emissions of the vehicle [where the two latter examples are now known as time- and environmentally differentiated tolls] (Anchin, 2018). In the biggest cities in Norway, this has been managed through a mutual agreement ('bypakker' and 'belønningsordninger') between the state and the local government to contribute funds for different local infrastructure projects (ibid.; Samferdselsdepartementet, 2020). Today, these are known as 'bymiljøavtale', 'byutviklingsavtale', and 'byvekstavtale' depending on the city in question (Samferdselsdepartementet, 2020). In Oslo, the two former agreements ('bymiljøavtale', 'byutviklingsavtale') are in place, running from 2017-2023 (Amundsen et al., 2019).

These agreements are the national government's main tool to fulfill 'nullvekstmålet' (zero growth target), stating that the growth in passenger traffic in the largest cities should be handled by the use of public transportation, biking, and walking (ibid., p. 5). As mentioned, this is in part a goal to reduce greenhouse gas (GHG) emissions, local air pollution, and noise. In these agreements, the state, Oslo and Akershus County Council has committed to contribute with funding for different infrastructure projects, whereby Oslo and Akershus "(…) increased tolls and expanded [the] number of roads covered by toll collection through the establishment of more toll rings (…)" (ibid., p. 6) as their part. 'Oslopakke 3' (running from 2017-2036) is the overarching tool to coordinate development and financing of infrastructure projects in Oslo and Akershus, where funding is mainly to be achieved by tolls and contributions from Oslo, Akershus and the state (Statens vegvesen, n.d.).

In Oslo, the toll system was updated on October 1st, 2017 with increased, rush hour, and environmentally differentiated fees (Norges Automobil-Forbund, 2019). The most recent

change was on June 1st, 2019, where it was updated again with numerous additional toll stations and regulation of fees (Statens vegvesen, 2019). At this time electric vehicles had to start paying a fee, although at a much lower rate than others (Norges Automobil-Forbund, 2019). According to Statens vegvesen (2019), the function of the toll system is to "reduce passenger car traffic, increase accessibility for all road user groups, reduce greenhouse gas emissions, improve the urban environment, finance road- and public transportation development". It is also designed to give a more even spread of costs by having additional people pay tolls (ibid.). The major share of revenues are meant to finance public transportation developments and bike/walk-lane projects, and only 7% are to be spent on roads (Anchin, 2018, p. 51). The system (after June 1st) is presented in the following section.

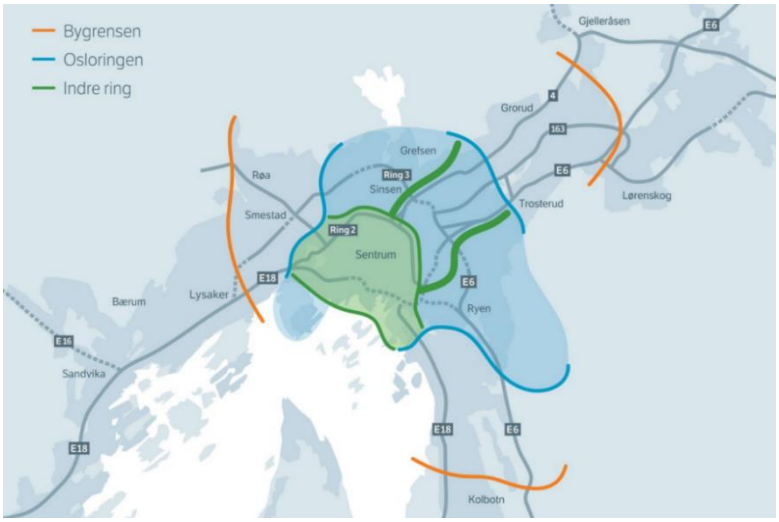

Figure 1: The toll system in Oslo after June 1st, 2019. It is made up of 83 toll stations, often referred to as 'toll rings'.
Source: Screenshot from Statens vegvesen (2019)

Prisene fra 1. juni 2019 (uten brikkerabatt):

	Takstgruppe 1 (kjøretøy med tillatt totalvekt t.o.m. 3500 kg og personbiler i kjøretøykategori M1)			Takstgruppe 2 (kjøretøy med tillatt totalvekt f.o.m. 3501 kg, unntatt personbiler i kjøretøykategori M1)		
Osloringen	**Normaltakst**	**Diesel**	**Null-utslipp**	**Euro V og eldre**	**Euro VI**	**Null-utslipp**
Passering utenom rush	Kr 21	Kr 25	Kr 5	Kr 86	Kr 53	Kr 0
Passering i rush mellom 06.30 – 09.00 og 15.00 – 17.00	Kr 28	Kr 31	Kr 10	Kr 101	Kr 69	Kr 0
Indre ring						
Passering utenom rush	Kr 17	Kr 19	Kr 4	Kr 86	Kr 53	Kr 0
Passering i rush mellom 06.30 – 09.00 og 15.00 – 17.00	Kr 21	Kr 23	Kr 8	Kr 101	Kr 69	Kr 0
Bygrensen						
Passering utenom rush	Kr 21	Kr 25	Kr 5	Kr 86	Kr 53	Kr 0
Passering i rush mellom 06.30 – 09.00 og 15.00 – 17.00	Kr 28	Kr 31	Kr 10	Kr 101	Kr 69	Kr 0

Figure 2: The environmentally and time-differentiated fees in the toll rings.
Source: Screenshot from https://www.klimaoslo.no/2017/11/21/takst-ny-bomring/ (accessed 28.04.20)

The orange line (Figure 1) represents 'Bygrensen'[1]: partly new on June 1st, has payment one way (towards Oslo), 23 stations. The blue line, 'Osloringen': preexisting, payment both ways, has a one-hour rule[2], 22 stations. The green line, 'Indre ring': all new stations on June 1st, payment both ways, one-hour rule, 38 stations (Statens vegvesen, 2019). Rush hour fees apply outside weekends, public holidays, and the month of July. If 'AutoPASS' chip is installed in the vehicle, 20% discount applies to prices in fee group 1 (left column, Figure 2) (ibid.).

[1] Placed on the municipal border. Additional features apply, for more information see Statens vegvesen (2019).
[2] If you have AutoPASS, you only pay the most expensive passing within an hour in 'Osloringen' or 'Indre ring'. These toll rings have a common limit, maximum payment of 120 passings per month (Statens vegvesen, 2019)

Environmental differentiation (Figure 2) pertains to all the toll rings (ibid.), and is an important policy to achieve the City of Oslo's aim to "gradually phase out fossil fuel-based vehicles by 2030 and replace these with zero-emissions vehicles." (The City of Oslo, 2016, p. 16). Vehicles such as "[m]otorcycles, bus in route, emergency vehicles, and people with disabilities with a valid parking card" are exempted from the tolls (Statens vegvesen, 2019). The system is intricate and for the average person to determine the cost to him/her, he would need to use an online toll calculator provided by the toll service company (see Fjellinjen, n.d.). Toll rings around the big cities have a variety of rationales compared to how single toll stations is used outside urban areas, and not always clear in the debate on tolls (Handeland, 2019). Anchin (2018) makes the argument that 'nytteprinsippet'[3] has been important in the acceptance of tolls. However, this principle was changed in October 2017, where urban toll rings were granted the possibility to "(…) regulate traffic and vehicle composition[,] [e.g.] by increasing the price of diesel cars or during rush hour." (Handeland, 2019). The director of TØI (Institute of Transport Economics Norwegian Centre for Transport Research), Kjell Werner Johansen claims that this has raised acceptance towards tolls (or toll rings) in Norway (ibid.). Anchin (2018, p. 84) says these additional functions obscured the benefits for drivers, making tolls less acceptable over time, leading to the upraise of national protest movements.

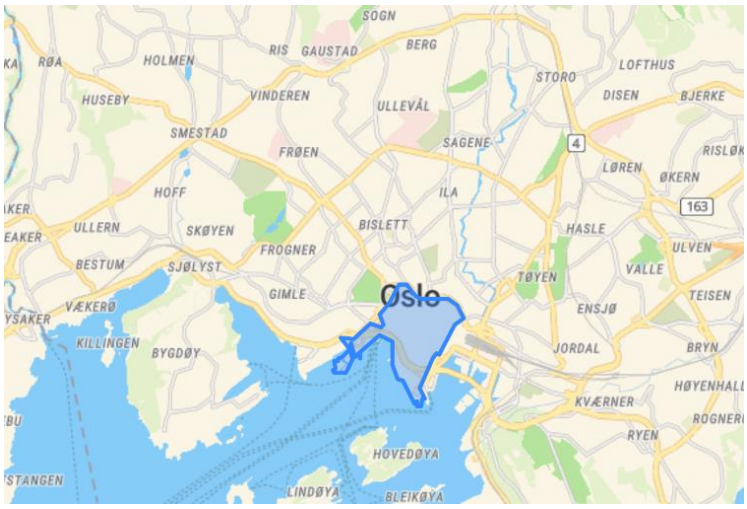

Figure 3: Blue area represents the limits of the project "Bilfritt byliv", mainly located within 'Ring 1' (see also overview map in section 5.1.1). Source: Screenshot from Oslo kommune (n.d.-a)

The 'car-free city center' policy is part of a project called "Program Bilfritt byliv" (Figure 3), where the City of Oslo wants "to make the city more environmentally and human-friendly, and will stimulate more areas in the city and contribute to increased urban life in the city center." (Oslo kommune, 2019b, p. 17). Some of the measures are "(…) to free up places that have served as car-parking along the streets and reducing throughput traffic." (Oslo kommune, n.d.-a). In the past few years, the City of Oslo has tried to make the city

[3] 'Nytteprinsippet' (the utility principle) "[has] been applicable to toll projects in Norway. In short, those who pay tolls should benefit directly from what the money is used for. This is still the case for the freestanding toll [stations] that will finance certain road projects, but not for the toll rings in the ['bypakke'] projects." (Handeland, 2019).

center safer and more accessible for ‘soft road users’ through reducing the number of public parking spaces, using them for areas to sit, making greenspaces and dedicating space for those who need to use the car, e.g. businesses, craftsmen and people with disabilities (Oslo kommune, 2019a). Per 2019, “[p]rivate-driving has been scaled down by a gradual restriction on where it is possible to drive and park (…)” (ibid., pp. 11-12) and citizen involvement is being implemented through miscellaneous public events.

The City of Oslo’s Climate and Energy Strategy states that “[t]he Climate Policy will not just reduce greenhouse gas emissions, it will also invigorate the city, improve air quality and public transport, and create more bicycle paths and car-free streets.” (The City of Oslo, 2016, p. 26). To sum up, the rationales of the restrictive car policies appear to be mainly the reduction of greenhouse gases, the reduction of local air pollution and noise, a substantial reduction of car traffic and priority of pedestrians, cyclists, and users of public transportation, and the creation of a more vibrant and human- and environmentally friendly city (center). The function of the restrictive policies is understood to be restricting and regulating car-traffic, a revenue-raising tool for mainly public transportation and biking/walking infrastructure, phasing out and replacing fossil fuel-based with zero-emissions vehicles and spread costs more evenly on inhabitants. Additionally, it is assumed that these policies will in part “(…) actively facilitate more environmentally friendly transport.” (ibid., p. 16). In Norwegian, what is here referred to as policies are often called ‘measures’ when translated to English (see The City of Oslo, p. 16). According to Berg (2019) ‘policy’ refers to the “(…) state's attempt to influence society.”. As defined by Lexico (n.d.) a policy is “[a] course or principle of action adopted or proposed by a government, party, business, or individual.”. Hence, I will use the term restrictive car policies when referring to the environmentally and time-differentiated tolls and car-free city center.

2.2 Literature on attitudes towards road pricing schemes

Congestion charging schemes have limited prevalence due to suffering low public support (Gu et al., 2018), hence research has sought to understand public attitudes towards road pricing schemes. Jakobsson et al. (2000) and Fujii et al. (2004) finds that perceptions of infringement of freedom and unfairness have a negative impact. Schmöcker et al. (2012) establish a similar finding while ascertaining trust in government as an important influence. Schade and Schlag (2003) identify the factors ‘social norm’, ‘personal outcome expectations’, and ‘perceived effectiveness’ as positively associated with acceptability,

whereby the first held the most explanatory power. Cain (2005) finds that acceptability is lower amongst car-users and that having access to good public transport may raise support amongst them. Hårsman and Quigley (2010) point to a relationship between right-wing, conservative party association, and disfavor of pricing scheme. In Sweden, acceptability/support has been found to be positively influenced by environmental concern (Eliasson & Jonsson, 2011; Börjesson et al., 2016), (not) having a car/paying rarely (Eliasson, 2014), frequent use of public transportation and bike, support for public interventions and pricing policies (Börjesson et al., 2016), biospheric values and subjective positive environmental outcomes (Nilsson et al., 2016). Similarly, having a car and paying often (Eliasson, 2014), being negative towards taxes or not acknowledging traffic as an environmental issue (Börjesson et al., 2016), value expressive beliefs such as "The congestion tax violates my sense of freedom" and subjective negative individual outcomes (Nilsson et al., 2016, pp. 5-6) was associated with negativity/less support. Overall, there is a lack of qualitative studies of public attitudes towards said schemes, further; I have been unsuccessful in uncovering any qualitative studies of Oslo citizens' attitudes towards the toll rings and/or car-free zones in Oslo.

3 Theory

The focus of this thesis is to investigate factors that influence attitudes towards policies that restrict car driving within the municipality of Oslo. ACT attempts to study attitudes relevant for developing these types of policies and views the acting individual both from a physical and social context. The ACT project is organized around a framework aimed at integrating several theories of human action originating from institutional theory and social psychology, which makes up the premise of this thesis. However, merely a few areas within the framework are researched in this thesis, meaning that only some of the theories will be outlined here. First, I will present a modified ACT framework which has been slightly adapted to study the case at hand. Second, I elaborate on the relevant theories and concepts used to build the framework, before I define the dependent variable, attitudes. Operationalizations of key theoretical concepts and those used to investigate the framework will be further addressed in methods, section 4.4. Because this is qualitative research based on semi-structured interviews following mainly an inductive reasoning, propositions in the theories have not been subjected to strict testing. Rather, they have been used as a basis for open-ended case-study research.

3.1 The theoretical framework

The adapted ACT framework is presented in Figure 4:

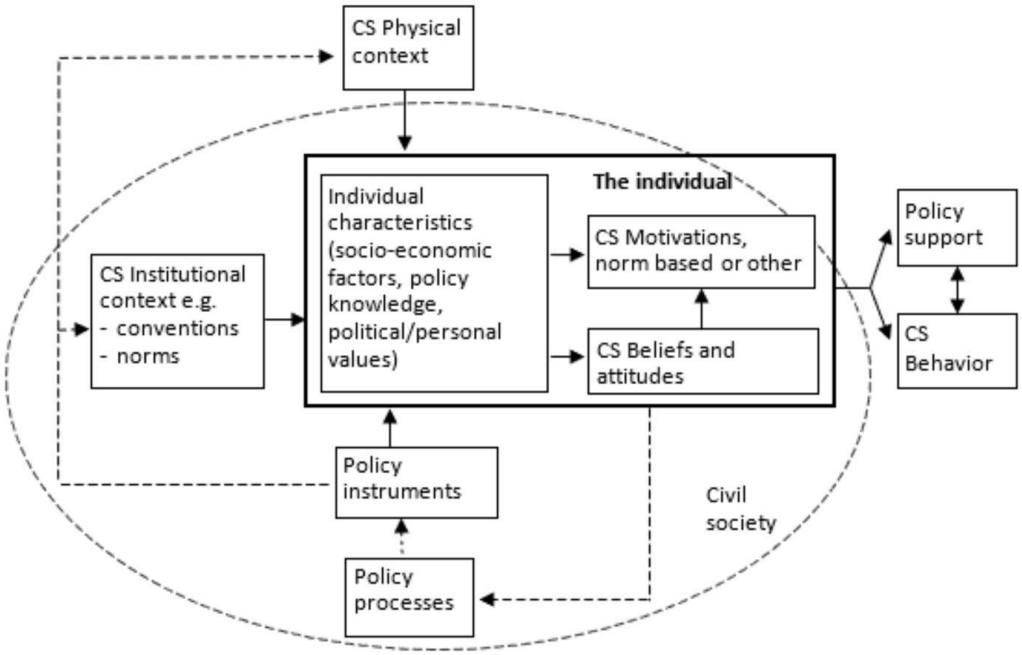

Figure 4: Framework for studying climate-related behavior and policy support (Solid arrows: Relations and interactions that have been researched in this thesis, Dotted arrows: Relationships that are acknowledged, but not studied, CS: Context-specific).
Source: Adapted from Vatn and Aasen (2017, p. 16)

Explaining the boxes and arrows in the figure, I will start with the dotted arrows. These relate to variables that are only observed, not investigated. A premise for ACT is that the individual is situated within, influencing, and influenced by society, hence this is at the basis of the framework. Here we find the influence of e.g. research, media, community deliberations, and general institutions in society. Further, the individual (with its characteristics, motivations, beliefs, and attitudes) will be affecting the policy processes that lead to policy instruments. These instruments will again affect the individual, the institutional context, and the physical context in which the individual operates. To investigate those complex interactions, one would need a great amount of time and capacity, hence I chose to limit the study to the individual (the emphasized box in the framework). The variables of this study marked CS (context-specific) refer to what is relevant for the context, namely the restrictive car policies and related behavior/issue (driving less/climate change). I use this term 'context-specific' to signify that it does not refer to the general institutional/physical context, nor the general motivations, beliefs, attitudes, and behaviors of the individual, but what is seen as relevant for the policy instruments in question. For example, CS motivations refer to reasons for traveling in a certain way or for (non)support of restrictive car policies.

The individual holds characteristics that will influence their CS motivations a) directly or b) mediated through CS beliefs and attitudes, which again will affect CS behavior and policy support. If b), we assume that there is an internalized/personal norm at play, triggered by awareness of consequences and ascription of responsibility through CS beliefs and attitudes. If a) there can either be a non-internalized/social norm stemming from the CS institutional context or there can be other factors such as e.g. timesaving, cost, etc. In both cases, the institutional theory assumes that the CS institutional context is nonetheless an antecedent, while social psychology regards b) as dependent on the individual more than the institutional context (norms are explained further in section 3.2, awareness of consequences/ascription of responsibility in section 4.4). This differing view of antecedents is a challenge that persists in the ACT framework but is somewhat bridged by social psychologist Cialdini et al. (1991), which I will come back to later. Nevertheless, here we will investigate both 'sides', looking at both the CS individual characteristics and CS institutional context. The CS physical context in terms of available infrastructure that enables environmentally relevant behavior directly influences the individual's possibility to perform such actions and is of key importance in the framework. In the following section, I will elaborate on the relevant theories, beginning with those that originate in social psychology.

3.2 The relevant theories and concepts

3.2.1 Social psychology

When trying to explain environmentally relevant behavior and attitudes, Schwartz (1977) theory of normative influences on altruism (or "norm activation theory") has often been employed. Performing environmentally relevant actions can imply a higher cost or sacrifice for the individual (e.g. spending more time and perhaps money on taking a train rather than flying) to protect the greater good (not contributing to climate change). The norm activation theory (ibid.) was initially developed to understand antecedents of altruistic and pro-social behavior. Schwartz writes especially about two types of processes when performing such behavior: a) activation of social expectations and b) activation of self-expectations (personal norm), where b) is regarded as the truly altruistic motivation. If b), it is assumed that when one is aware of a person in need (awareness of consequences), and one recognizes that there are actions one can perform to alleviate the need, an ascription of responsibility may follow. Then, through a strong feeling of moral obligation, a situational- or preexisting personal norm is activated and leads to behavior. Action or inaction is taken based on (re)assessment of

involved cost and likely outcome (ibid.).

Stern et al. (1999) link the norm activation theory[4] with value theory and the 'New Ecological Paradigm'[5] (NEP) framework to develop the Value-Belief-Norm (VBN) theory. This theory was developed building on theoretical work from the above-mentioned theories, and by comparing it to different prevalent theories of environmentalism where the VBN theory was found to provide the best explanatory power. VBN assumes that five steps of different activations will lead to environmental activism, environmental citizenship, policy support, or private-sphere behaviors (Figure 5). The theory contends that an individual ascribes to certain value sets that may lead to different beliefs (altruistic positive, egoistic, traditional, and openness to change negative beliefs) about human dependencies on nature and nature's malleability for human needs as specified by the NEP. Following the same reasoning as elaborated above in Schwartz norm activation theory, these values and beliefs possibly lead to a consequence awareness followed by a sense of responsibility that activates a pro-environmental personal norm favoring environmental action. This then manifests through environmental activism, environmental citizenship, policy support, or private-sphere behaviors.

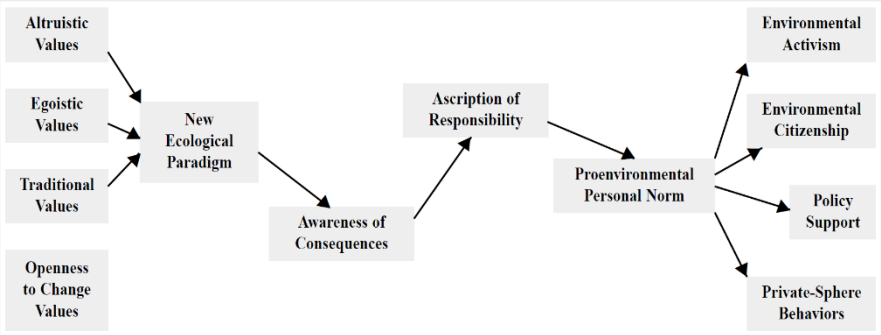

Figure 5: The VBN theory. Source: Screenshot from Stern et al. (1999, p. 84)

In the theoretical framework employed in this thesis, awareness of consequence and ascription of responsibility arises from CS beliefs and attitudes, while the pro-environmental personal norm is included under CS motivations. The relevant outcome area for this thesis is policy support and private-sphere behaviors (labeled CS behavior in the framework used here). Altruistic, egoistic, traditional and openness to change values are found under individual characteristics (personal values).

In the context of commuting choices and acceptance/attitudes towards restrictive car policies, the physical context in which people act is important. In this thesis, this means stated access

[4] "The theory holds that proenvironmental actions occur in response to personal moral norms about such actions and that these are activated in individuals who believe that environmental conditions pose threats to other people, other species, or the biosphere (awareness of consequences, or AC) and that actions they initiate could avert those consequences (ascription of responsibility to self, or AR)." (Stern et al., 1999, p. 85)

[5] "…a view that human actions have substantial adverse effects on a fragile biosphere" (Stern et al., 1999, p. 85)

to/possibility to use environmentally friendly means of transportation (e.g. public transportation, biking, walking, and/or use of an electric car). Building on the VBN-theory, Stern (2000) adds the importance of complexities and contextual factors that influence environmentally significant behavior. He refers to the ABC-theory, the idea that "(…) behavior (B) is an interactive product of personal-sphere attitudinal variables (A) and contextual factors (C)." (Guagano et al., 1995, in Stern, 2000, p. 415). He states that the link between behavior and attitudes "(…) is strongest when contextual factors are neutral and approaches zero when contextual forces are strongly positive or negative, effectively compelling or prohibiting the behavior in question (an inverted U-shaped function)." (Stern, 2000, p. 415). In other words, when a certain behavior is not required or motivated by reward, when it takes time, has increased levels of difficulty or cost, the attitudinal factor will have less impact on the given behavior (ibid., p. 416).

Stern (2000) further group these causal variables (of the ABC-theory) into four major types; attitudinal factors, contextual factors, personal capabilities, and habit or routine. Attitudinal factors can include "norms, beliefs, and values (…)", beliefs about specific behaviors, "(…) personal commitment and the perceived personal costs and benefits of particular actions (…)" (ibid., p. 416). Contextual (or external) forces include "interpersonal influences", expectations from the community, media, legal rules and governmental regulations, housing situation, monetary attributes, the built environment (and possibilities or restraints provided by it to perform environmentally friendly behaviors) in terms of technology or other relevant and important infrastructure. The general features of the "broad social, economic, and political context" is also mentioned here (ibid., p. 417). Personal capabilities such as skill or knowledge levels that may be important in performing specific actions, having the time, money, basic education, and adequate social status may also be important and socio-demographic variables can be indicators of these. Lastly, habit or routine is noted as an important factor (l.c.). These four areas of causal factors are covered in the thesis framework (under CS physical/institutional context, individual characteristics, CS motivations, and CS beliefs and attitudes).

3.2.2 'Middle ground' between social psychology and institutional theory

Having reviewed some of the relevant theories within social psychology; in the following, I will turn to some 'middle ground' between this field and institutional theory. Cialdini et al. (1991) created the "Focus theory of normative conduct" based on several experiments with

littering, whereby it was investigated how different types of norms and their salience influence behavior. They found that three types of norms were influential antecedents: descriptive norms (what most people do), injunctive norms (what one ought to do), and personal norms (following Schwartz (1977), a strong personal/moral obligation). The descriptive norms regard what we perceive others doing, the injunctive inform us of what others approve or disapprove (implying social rewards or informal sanctions). With the personal norm, this approval or disapproval of behavior is situated within oneself. Furthermore, Cialdini et al. also find that there is a difference in what norm is currently in focus (level of salience) when conducting a certain behavior. They conclude that in using norms as a way of influencing behavior, the injunctive norm (if activated) will have stronger influence across different situations and people than descriptive norms (unless everyone is already performing the desired behavior). However, they note that individual dispositions might influence which type of norm one tends to emphasize.

3.2.3 Institutional perspective

Moving on to the institutional perspective calls for a clarification of the institutional context by defining what institutions are: "the conventions, norms and formally sanctioned rules of a society." (Vatn, 2015, p. 78). To tie these concepts with Cialdini et al. (1991) norm definitions, descriptive norms correspond to Vatn's conventions, the injunctive norm with non-internalized norms, and personal norms with internalized norms (Vatn & Aasen, 2017). Following Vatn (2015) institutions are socially constructed and make up the 'rules' by which we live our lives. They form us and are formed by us, and "(…) provide expectations, stability and meaning essential to human existence and coordination. Institutions support certain values, and produce and protect specific interests." (ibid., p. 78). Conventions simplify coordination and behavior by providing certain situations with a certain act or solution (e.g. types of greeting), whereas norms inform us about what is the required thing to do and is typically supported by an underlying value (e.g. you should greet). Institutions can also be habituated behavior on a personal or social level, but often these habits emerge from a social context as 'something one used to do'. Hence the act is continued without questioning why. For reasons of simplicity, norms will in the following be referred as 'social' (injunctive/non-internalized norm) and 'personal' (internalized norm) norms.

Some researchers argue that in order to understand the behavior of an individual, we must first understand their "habitus" or "disposition" originating, and more or less fixed, from our

"class habitus" (Bourdieu, 1995). Similarly, although less of a fixed view, Giddens (1991) agrees that upbringing is influential, but adds that under modernity there is a stronger on-going reflexive relationship between society and the self. It seems one must settle on the idea "(…) that human action 'cycles' between being reasoned and automated." (Vatn, 2015, p. 116). Institutions might also provide rationales for action "(…) by signaling whether the choice situation is foremost about individual [individual rationality] as opposed to common concerns [social rationality]." (Vatn, 2015, p. 120). This happens through institutions forming collectively in society, defining what is the 'right' or expected rationality in an action situation. Tenbrunsel and Messick (1999) provide an example in a study of cooperation and decision frames; when evoking an ethical frame rather than a business frame amongst participants, cooperation was higher in the former context. The social process of forming institutions is not researched here, but respondents' perceptions of their contexts' are covered under CS institutional context.

3.2.4 Outcome equity

In the literature on road pricing schemes, equity, or fairness of the system put in place is many times raised as a concern (Teubel, 1998). Equity can be defined in many ways, in this thesis it is investigated as outcome equity; "(…) the extent to which consequences of a decision are considered just (…)" (Levinson, 2010, p. 37). In the Norwegian media debate, the road pricing schemes are often portrayed as unjust because the fees are flat, meaning that it does not consider the income of the users (see e.g. Halse, 2018; Andersen et al., 2019; Hodne, 2019; Jenssen, n.d.). Studies of road pricing systems looking at equity effects, "(…) reach mixed conclusions depending on the travel patterns in the specific city under study." (Hamilton et al., 2014, p. 10). Hamilton et al. states that one can expect road pricing schemes to be progressive if it is mostly high-income drivers who use the road at hours of high demand, whilst considered regressive (low-income groups use a higher share of their income) if drivers are a mix of both income groups (l.c.).

In Oslo, it has been found that there is a 55% chance that drivers passing the tolls are from medium/high-income as compared to lower-income groups (Ellis, 2019). Considering that the revenues in question here are mainly used for investments in improving public transport (and this is the commonly used mode of transportation for low-income groups) this should be a good way of alleviating equity concerns (Indregard et al., 2019). But as Levinson put it, "[t]he perception of equity is highly subjective. A project that may appear equitable to an

analyst across one set of dimensions may not to individuals affected by the project." (2010, p. 51). There does not seem to exist any 'one' theory of the perception of outcome equity as being the single most influential factor of acceptability; it is usually found to be one of many explanatory variables (Börjesson et al., 2016; Fujii et al., 2004; Gu et al., 2018; Jakobsson et al., 2000; Schade & Schlag, 2003). In the framework of this thesis, outcome equity is included in context-specific beliefs and attitudes.

3.2.5 Political value

Research on climate policies has found a connection between a left-side political orientation and support (Smith & Leiserowitz, 2014; Drews & van den Bergh, 2016). An opposite relationship has been identified regarding referendum voting behavior on a road pricing scheme in Sweden (Hårsman & Quigley, 2010). The political value is included in the framework as an indicator of views on the organization of society. Core political values can be understood as "(…) overarching normative principles and belief assumptions about government, citizenship, and (…) society." (McCann, 1997, p. 565). In Norway, the political parties are usually placed along a left-center-right axis, identified by simplified, but overarching ideological differences in how society should be organized (Barstad, 2018). The left side is mainly linked with the idea that high taxes are necessary for the state to provide general welfare services. They are also pro-tax-differentiation by income level (the higher the income, the higher taxes) to combat inequality (ibid.). The parties usually found here are The Red Party (R), The Socialist Left Party (SV), The Labour Party (AP). Center is usually where we find the religious, farmers, and liberal parties such as The Christian Democratic Party (KRF), The Centre Party (SP), and The Liberal Party (V) (ibid.; Evjen, 2019). On the right side of the axis, the general notion is that the government should be less involved in providing welfare, this could be done more effectively if privatized. This side is also less concerned with inequality, supports lower taxes, and is prone to accept higher income gaps between people than the left-side (Barstad, 2018). Parties identified here is The Conservative Party (H) and The Progress Party (FRP) (ibid.).

The Green Party (MDG) calls themselves 'block-independent' (Barstad, 2018), but as an environmental party, they are often classified as a left-side party (see Evjen, 2019). Relevant here is also the party People's Action No to More Road Tolls (FNB) who are not a member of the Norwegian Parliament and not yet identified on the axis but played a role in the 2019 municipal elections (Garvik, 2020). Figure 6 shows an overview of the political parties

represented in the municipal elections of Oslo in 2019 and the parties attitudes on two cases relevant for this thesis: 'Less tolls in Oslo, regardless of the impact on infrastructure projects' and 'Norway must halve their greenhouse gas (GHG) emissions by 2030'. The left side parties generally agree to tolls (excluding R) and to cuts in GHG-emissions. Center and right either agree fully (V on both claims, KRF on tolls), disagree fully (FRP to both claims, FNB to tolls), or have more moderate opinions than the left side.

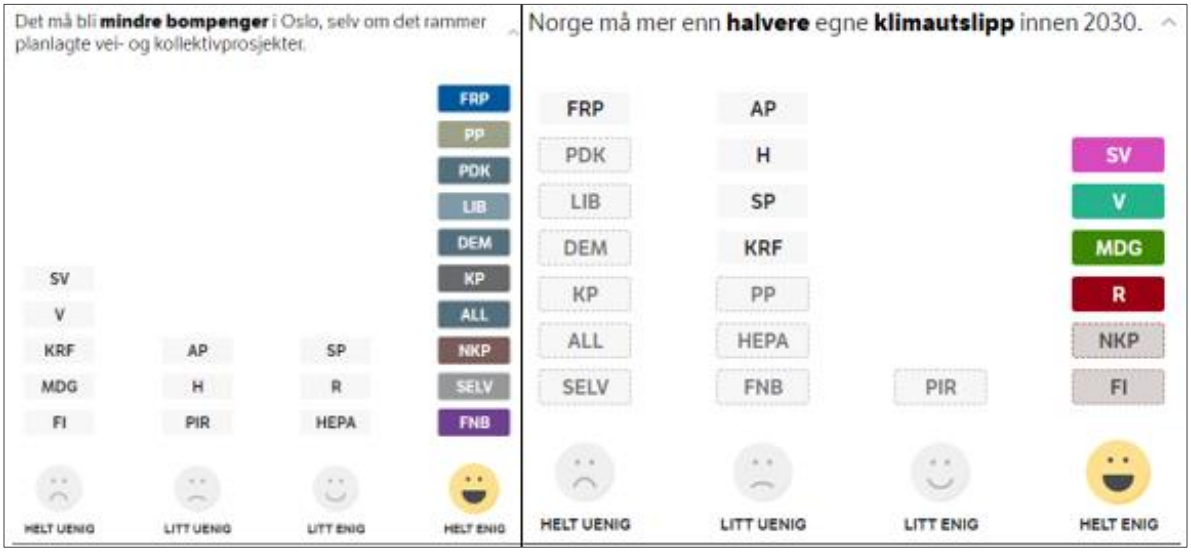

Figure 6: Overview of the political parties represented in the municipal elections of Oslo in 2019 and their attitudes on the cases: "There must be less tolls in Oslo, regardless of impact on planned infrastructure projects" (left claim) and "Norway must halve their GHG-emissions by 2030"(right claim).
Faces (from left) mean: "completely- slightly disagree, somewhat- fully agree".
Source: Screenshot from https://www.nrk.no/valg/2019/valgomat/resultat (accessed: 16.04.2020)

3.2.6 Attitudes and behavior

The dependent variable in this study is attitudes towards policies. The ACT framework uses the term "policy support". I will measure "policy support" as attitudes for and against policies, using Eagly and Chaiken (1993, p. 1) definition of attitudes as "psychological tendencies that are expressed by evaluating a particular entity with some degree of favor or disfavor.". I further include an arrow between (travel) behavior and attitudes in the framework (p. 8). In this study, both driving habits and perceived alternatives to commuting by car, are relevant factors for attitudes towards car-restrictive policies (see for instance Cain, 2005, or Eliasson, 2014). The arrow illustrates that travel behavior may influence attitudes towards policies, via e.g. self-interest in avoiding extra cost on own behavior. I explore the role of self-interest for attitudes towards restrictive car policies.

4 Methods

4.1 Research design

The research design chosen is case study. This is often used when deeply examining e.g. a single community, school, family, organization, person, or event and is often location-specific (Bryman, 2012, pp. 66-67). Sometimes it can be hard to separate case study and cross-sectional design, and it is up to the researcher to be clear about it (ibid, p. 68). Cross-sectional design involves more than one case, is done at a specific point in time to analyze several quantifiable variables in order to identify patterns (ibid, p. 58) This thesis is mainly a case study because it is specific to Oslo, meaning that the unit of analysis is not independent of the location of which it takes place. A study of the same topic in a different city in Norway would most likely yield different results because some of the data concerns the specific infrastructure of the city. Simultaneously, it holds elements of cross-sectional design because it involves the study of several people in different age groups and life situations, with a common feature in that they have children. Data was also collected more or less at a single point in time and analyzed to find recurring arguments.

4.2 The respondents and the data collection process

I wanted to investigate peoples' attitudes towards climate policies that restrict car driving within the municipality of Oslo, especially for those who have children. In order to gain an in-depth understanding of the thesis-topic, the appropriate research method would be qualitative-, and data collection strategy semi-structured interviews (Bryman, 2012). Following the logic of purposive, hereby stratified purposive sampling (Bryman, 2012, pp. 418-19), only residents of the City of Oslo within a specific age range (35-50 years) were included. This age group was selected due to the likeliness of having children in the age range of 1-18 years[6] which possibly requires assisted transportation in everyday life. Families with children are often used as an example in the media debate as those who will suffer the most from especially the toll charges (see e.g. Teigen, 2019; Andersen et al., 2019; Ertesvåg et al., 2018; Bechensten, 2018; Hove et al., 2019; Jakobsen, 2019), hence defined as stratified purposive sampling.

[6] Based on average birth rates in Norway and Oslo: Statistics Norway (n.d.), Aftenposten (2015).

To make contact with people who had already demonstrated an opinion on the restrictive car policies in Oslo, and to make the sampling process easier, we contacted the municipality of Oslo to ask permission to use their sample from a survey called "Klimaundersøkelsen 2018" (the climate survey) (Kantar TNS, 2018). More specifically, the ones who had answered a question regarding toll charges in Oslo[7]. When permission was granted, we contacted Kantar, the company responsible for recruiting respondents to the above-mentioned survey. During this process applications and interview guide to commence the planned research was sent to the Norwegian Centre for Research Data for approval. When this was in order, an agreement was made with Kantar that they would send an email to everyone who had answered the above-mentioned question in Klimaundersøkelsen, stratified by the age group 35-50 years. In the email from Kantar, they were asked if they were willing to be invited to participate in an approximately 60-minute in-depth interview on the topic of restrictive car policies in Oslo, and if so, their contact information would be shared with CICERO. They were also informed that they would receive a gift card of 350 NOK (from Universal Presentkort AS) upon participation.

This email was sent out to 500 respondents, where 90 agreed to be contacted and invited to participate in an interview. This group was further stratified to those with children, in all 34 of the 90 respondents. I sent out an email to all the 34 potential candidates confirming their agreement to receive an invitation to participate in an in-depth interview, with a notice that I would contact them per phone during the next few days. A 'samtykkeerklæring' (informed consent form, see Bryman, 2012, pp. 140-41) with further information about the master's project was attached, and it was specified that we would go through this form upon meeting. The aim was to conduct approximately 30 interviews, but after many failed attempts to contact the remaining respondents, it was not possible to reach that goal. The aim was also to interview people with young children (under 18), but due to the sampling being organized by age of respondents and not by children (and their age) it was not easy to control/select the outcome of the final sample. Ultimately, only 24 people had the opportunity to participate, whereby 20 of them had at least one child under the age of 18 years.

[7] The question was *"How much do you agree or disagree with the following statements regarding car use in Oslo? Environmental and time-differentiated tolls are an important instrument for reducing pollution and car traffic in(to) Oslo"* (Kantar TNS, 2018, p. 57, own translation)

Interviews were commenced where most suitable for respondents, e.g. I would travel to their home or workplace or they would come to the offices of CICERO. What was most important was that there would be little disturbance so that it was possible to record them, and all 24 respondents agreed to be recorded. In one interview the recorder ran out of battery, but this was discovered shortly after so that it was possible for the respondent to remember and repeat what he/she had talked about. All interview recordings, (contact)information about respondents and transcribed material was safely stored on a password protected cloud storage provided by CICERO. Upon commencing the interview, respondents were given (with the opportunity to read through it if they had not done so already) and signed the informed consent form. I presented myself, briefly explained my study, and gave them a chance to ask any questions. A few commented and was a bit worried that they had not prepared or 'read up' on the restrictive car policies beforehand, where I said this was not a problem considering I was looking for a 'real-life' representation of their knowledge.

The timing of the interviews was somewhat unfortunate. Kantar finished the recruitment-process on the 20th of June 2019. The public primary and high school summer vacation in Oslo was from the 24th of June until the 16th of August (Oslo kommune, n.d.-b) and the public holiday in Norway is the three last weeks of July (Fellesforbundet, 2018). This resulted in potential candidates not being able to participate, and some interviews had to be commenced after the holiday. At the same time, this meant that the changes in the toll systems enforced from June 1st (see section 2.1) had just taken place, enabling the possibility to capture some of the immediate reactions. Another issue was that as a student, it is normal to have a full-time job during the summer, so this meant I had to combine interviewing and work every day (from late June until late July) up until my own summer vacation began in late July. This resulted in the inability to take notes and reflect upon all the interviews as is advised by Bryman (2012, p. 476), nor transcribe them until after the summer (August/September). Therefore, I decided to transcribe almost every interview to its full extent, in order to regain memory of the respondents and impressions in the interview.

4.3 The interviews

Given that this thesis is a part of the research project ACT, it seemed logical to use a similar theory framework as the overarching project. This implies that some of the areas interesting to investigate in the interviews were predetermined to a certain extent. The main research method of ACT is an annual, quantitative survey building on the theoretical framework. This survey and the themes of the framework was used as the basis for questions in the interview guide. The advantage of the semi-structured interview is that it enables the possibility to keep a certain structure while simultaneously being open enough to follow up on emerging themes in the interview (Bryman, 2012). The structure was important because I wanted to investigate two specific 'groups' of attitudes and keeping a certain structure allows the analysis and comparability of recurring arguments among respondents (Thagaard, 1998). Bryman (2012, p. 472) states: "If the researcher is beginning the investigation with a fairly clear focus, rather than a very general notion of wanting to do research on a topic, it is likely that the interviews will be semi-structured ones so that the more specific issues can be addressed.".

A logical strength of using a qualitative method when seeking to understand motivations for choices (especially if environmental ones), is the ability to ask open-ended questions such as: "tell me about your everyday life: what does a normal day look like for you?" or "can you tell me about the reasons why you travel this way?" (see appendix 9.1). If the interview setting is not value-laden one may expect respondents to tell you their honest thoughts. In surveys used in quantitative research, it is typical to use "multiple-indicator measures" which may lead to response bias such as "acquiescence" or "social desirability bias" (Bryman, 2012, pp. 166, 227-28). The latter is to some extent a risk in interviewing as well, in the sense that the respondent may tell you what they think they should say (Thagaard, 1998), but the salience of options in responses is not as explicitly present as in surveys (although this was a problem with the last part of the interview, addressed in discussion). This was also why I tried to not make my background too significant before and during the interview, as both NMBU and CICERO are important research facilities within environmental sciences in Norway.

Questions were asked in Norwegian (presented here in translated form, original interview guide in appendix 9.1) and the language of the interview guide was adopted by the gender of the interviewee. It was divided into five overarching parts/themes: 1) Mapping of physical context, 2) Barriers and facilitators for using public transportation, biking, or walking, 3) Influence by conventions and norms, 4) Knowledge and beliefs, and 5) Values. Three pilot

interviews were completed to practice and to exam whether questions were comprehendible and had a good flow (Bryman, 2012). I began the interviews by presenting myself, the project, and why they had been invited to the interview. They were offered time to read through the informed consent form, but usually, they asked to just have a summary of the most important information while looking through it, they would then sign and I asked whether they had any questions before beginning.

As recommended by Thagaard (1998, p. 86), the interview guide started with simple questions concerning socio-economic factors such as their age, level of education, the approximate area of residence, civil status, daily occupation (in terms of job, study, etc.) and location of the activity, household income (was asked with sensitivity), if children – number and age, if car – number and fuel-type. Next, I moved to theme one, asking open and broad questions about their everyday life: "What does a normal day in your life look like?", "Keeping methods of transportation in mind – what do they look like?". Starting with simple questions before moving towards more complex and perhaps difficult questions is a way to establish trust between respondent and researcher (ibid.). Moving to part two; "Can you say something about why you travel this way [emphasized what means of travel they appeared to use the most] in everyday life?", "If you could choose means of transportation independently of other factors, how would you prefer to travel?", "What is the reason you use/don't use public transportation?". The latter question was adapted to fit answers from the first question and was primarily an attempt to understand whether barriers were grounded in the physical context or in attitudes towards that means of transportation.

In part three, there was an attempt to understand conventions in the social circle and perceived norms regarding everyday travel: "Now I would like to ask you some questions about your social circle: may it be friends, family or colleagues – just think about those closest to you – how do they travel in everyday life, e.g. when it comes to working and delivering children in kindergarten/school?", "Do you think your social circle has any opinions or expectations about your [everyday] means of travel?", "If you think about society as a whole – perhaps particularly in Oslo – how do you think most people think one ought to travel in everyday life?". Theme four was in many ways the main part and with the most dedicated time because of the importance of understanding respondents' own beliefs and attitudes connected to the topic. Questions were: "Are you familiar with the transportation policies led on tolls and car-free city center in Oslo? Can you elaborate on what you know?", "What do you think about the policies led on tolls (e.g. time and environmentally

differentiated, increase in numbers, the subsidy of electric vehicles) [examples were adapted to their level of knowledge; if they had no knowledge about the tolls there was no use in asking about the specific instruments]. Further, they were asked: "Do you experience that there is a debate [on tolls], and if so, how do you experience this debate?".

In relation to tolls, 'outcome equity' has been a topic in the national public debate, so respondents were asked: "Many people talk about tolls affecting people equally regardless of income, hence being unfairly distributed. How important is this to you? Why?". Next, they were asked about the other restrictive car policy: "What about the car-free city center, what do you think about this? Why?" and about climate change: "Can you say something about your beliefs and opinions regarding climate change?", "Do you talk about climate change in your family or social circle? How?". Conclusively, they were asked to give an indication of their political values: "Can you say something about where you would place yourself on the political axis if you consider the left-center-right division?". If there was time, respondents were asked if they had any input to the City of Oslo. Due to space considerations, this has not been included in results. In some cases, respondents had very limited knowledge on either tolls or car-free city center, whereby I would provide some context in order to have them elaborate on their attitudes. I also intentionally chose to ask about beliefs regarding climate change at the end of part four of the interview to make sure they were not focused on this when asking about motivations for travel choices, the institutional context, and reasons for acceptability/attitudes towards the restrictive policies.

Lastly, in part five, I used a traditionally quantitative tool from the ACT survey to reveal values: a 13-item Portrait Values Questionnaire (PVQ) (see part 5, appendix 9.1) based on the European Social Survey (n.d.). The questionnaire has been adapted to fit the survey: it has been shortened, a question about "altruistic environmental values" and (based on de Groot and Steg (2008)) three "biospheric" value items have been added (email-correspondence Marianne Aasen, 21.11.19). The choice to use this questionnaire was made due to time-considerations in the interview, and employed to get an indication of personal values corresponding to those used in the Value-Belief-Norm (VBN) theory (see Stern et al., 1999, p. 85). In VBN, biospheric values are defined under altruistic values (ibid., p. 95). The questionnaire used is based on the PVQ from Schwartz (2012) Theory of Basic Values which have found empirical grounds for ten universally shared human values[8] organized in four

[8] Power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, security (Schwartz, 2012).

value clusters: Openness to Change, Self-Transcendence, Conservation and Self-Enhancement (biospheric values is added as a cluster here). This tool allows the interviewee to compare themselves to descriptions of different people (of the same gender) holding interests that reflect a value that they possess, corresponding to the above-mentioned clusters[9]. They rate the extent to which they think the description reflect themselves on a 6-point scale of "very much like me", "like me", "somewhat like me", "a little like me", "not like me", and "not like me at all" (European Social Survey, n.d.). "Don't know" was added in the questionnaire used here.

4.4 Data analysis and measures in theory

Thematic analysis of data material is one of the most common techniques of analysis in qualitative research and involves the identification and categorization of themes in the data material (Bryman, 2012). There are different approaches to identifying a theme; one is using material from theory, which is done here (ibid.). This thesis pursues a balance between a deductive and inductive approach, as described by Ragin (1994, in Thagaard, 1998, p. 175):

> (…) a deductive approach [implies] that the researcher develops analytical frameworks based on established theory. An analytical framework provides a basis for understanding patterns in the data. The inductive side of the research activity involves the researcher constructing images (…) of the data's meaningful content that provides a basis for summarizing patterns in the data.

Following this, based on the theoretical framework (in section 3.1) I created seven themes: 1) individual characteristics, 2) context-specific beliefs and attitudes, 3) context-specific motivations, 4) context-specific physical context, 5) context-specific institutional context, 6) policy support, and 7) context-specific behavior.

Topic one describes socio-demographic factors, policy knowledge, personal/political values, two regards attitudes towards the restrictive car policies and climate change, awareness of consequences, and ascription of responsibility. Topic three explore reasons for transportation

[9] Indicators used in the PVQ to identify value clusters: Openness to Change: "He looks for adventures and likes to take risks. He wants to have an exciting life."; "Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.". Self-Transcendence: "He thinks it is important that every person in the world should be treated equally. He believes everyone should have equal opportunities in life."; "It is very important to him to help the people around him. He wants to care for their well-being.". Conservation: "It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong."; "Tradition is important to him. He tries to follow the custom handed down by his religion or his family."; "It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.". Self-Enhancement: "It is important to him to be rich. He wants to have a lot of money and expensive things.", "Being successful is important to him. He hopes people will recognize his achievements.", "Having a good time is important to him. He likes to "spoil" himself.". Biospheric: "He is convinced that people should protect the environment. It is important to him to ensure sustainability for future generations."; "He strongly beliefs that people should respect the earth. Humans should live in harmony with other species."; "Preventing pollution is very important to him. He strongly believes that people should protect natural resources."

choices and policy support, four is concerned with stated access to/possibility to use environmentally friendly means of transportation (e.g. public transportation, biking, walking, and/or use of an electric car) for everyday travel purposes. Theme five encompass social circles' everyday travel behavior and attitudes towards/concern with the restrictive car policies and climate change, six deems policy support, and seven depicts everyday travel behavior. The theory basis mainly comprises of quantitative research, meaning that the measures used there are typically strict and rigorous. Here it is meant to provide a foundation for understanding, collecting, analyzing, and assembling data to feed into a study exploring policy support/ attitudes.

Some of the measures in the Value-Belief-Norm (VBN) theory (Stern et al., 1999) have been used as inspiration for the interview guide and for analyzing the data. Regarding personal values, altruistic (includes 'biospheric' values), egoistic, traditional and openness to change values in the VBN theory (Stern et al., 1999, p. 85, 95) correspond respectively to Schwartz' (2012) distinction of Self-Transcendence, Self-Enhancement, Conservation and Openness to change value areas used here. When analyzing the answers, if respondents had a high (3-4)[10] score in 2 of 3 or more indicators in one value cluster, I would put them in that cluster (interpreted as a very important value). If they had a high (3-4) score on 1 of 3 indicators, I would put them 'somewhat' (interpreted as a somewhat important value) in the applicable cluster. Correspondingly, I would give them a high (3-4), medium (2-3), or low (1-2) score on biospheric values. In the VBN theory, these clusters are associated with a positive or negative belief in the 'New Ecological Paradigm' (NEP) (altruistic positive, egoistic, traditional, and openness to change negative). The original NEP scale contains 12 statements of human-nature relationships, rated on a 4-item response scale (Dunlap & Van Liere, 2008), whereby Stern et al. (1999, p. 95) used 5 of these[11]. It is undesirable to keep such measures in a semi-structured interview, as questions should be open-ended rather than agreement/disagreement to claims, hence interpretations of this were mainly entangled within questions of beliefs about- and attitudes towards climate change.

[10] 4=very much like me, 3=like me, 2=somewhat like me, 1=a little like me, 0=not like me, -1=not like me at all

[11] "The so-called "ecological crisis" facing humankind has been greatly exaggerated. (R)", "The earth is like a spaceship with limited room and resources.", "If things continue on their present course, we will soon experience a major ecological catastrophe.", "The balance of nature is strong enough to cope with the impacts of modern industrial nations. (R)", "Humans are severely abusing the environment."

Furthermore, the VBN theory contends that, through an awareness of consequences[12] (AC) and ascription of responsibility (AR), a personal norm is activated, resulting in pro-environmental actions such as e.g. policy support and private-sphere behaviors (Stern et al., 1999). AC is mainly investigated as beliefs about the consequences of climate change, loss of tropical forests, toxic pollution for humans, or the animal/plant world (ibid., pp. 95-96). AR is not measured in the cited study. Personal pro-environmental norms are measured through several 'personal normative beliefs' (ibid., p. 96). Here, AC was explored and interpreted on the basis of (non)expressed knowledge regarding greenhouse gas emissions and/or air pollution caused by fossil-fueled vehicles. This also implies an acknowledgment of climate change as driven by human activities. AR was not explicitly investigated but interpreted as a displayed concern for the environment (especially climate change) and a wish to contribute to making it better.

Pro-environmental personal norm (PEPN) was explored on the topic of CS behavior and policy support, through their reasoning for commuting choices and interpretation from answers to what they thought about the restrictive car policies. Following the concepts of norms as depicted in theory (section 3.2), PEPN was assumed as strong, average or weak on the basis of importance put on the environment as motivation for CS behavior or policy support (strong: environment mentioned first/main reason for support, average: mentioned as a 'second-order' motivation, weak: mentioned lastly or as a side-note). Policy support in the VBN theory is measured by willingness to sacrifice, e.g. willingness "to pay much higher taxes in order to protect the environment", "to accept cuts in my standard of living to protect the environment" and "to pay much higher prices in order to protect the environment"(Stern et al., 1999, p. 96). Private-sphere behaviors were measured as to how frequent one would make an effort to purchase more environmentally friendly products (ibid.). Here, policy support has been interpreted as support for/positive attitudes towards policies regarding tolls on driving in Oslo and restricted car driving in the city center of Oslo (car-free city center). Private-sphere behaviors (referred here as CS behavior) was indicated by the choice to use environmentally friendly means of transportation in everyday life (mainly public transportation, biking, and walking).

[12] The notions of AC and AR is defined as "(…) individuals who believe that environmental conditions pose threats to other people, other species, or the biosphere (awareness of consequences, or AC) and that actions they initiate could avert those consequences (ascription of responsibility to self, or AR)." (Stern et al., 1999, p. 85)

Policy knowledge was assessed by the knowledge about policy rationales and functions of the restrictive car policies (see background, section 2.1). The concern for outcome equity was interpreted based on their thoughts on the topic raised as an issue in the public debate, and whether the concern was directed at themselves or others. General attitudes towards the restrictive car policies were based on recurring arguments and points of interest that appeared important to the respondent. Under institutional context conventions, social/societal norms and attitudes in the social circle (SC) were interpreted respectively on the basis of respondents subjective perceptions about SC's everyday travel behavior[13], the extent to which respondents felt their CS behavior was punished/rewarded by their SC, their beliefs about how others in society as a whole (mainly in Oslo) thought one ought to travel in everyday life and the tolls/climate change being a debated topic in SC or not. Those labeled as highly concerned regarding climate change (CC), were those that displayed a certain sense of urgency and assurance that CC was man-made and/or that took some responsibility: either through personal choices (beyond recycling) and/or belief that CC should be combatted at a higher level such as economic, political or societal.

4.5 Trustworthiness

In qualitative research, instead of using the concepts of reliability and validity, one may use the idea of trustworthiness (Bryman, 2012, p. 390). Trustworthiness is divided into credibility, transferability, dependability, and confirmability as four criteria that resemble those of quantitative research. Where credibility is often assessed by respondent validation or triangulation, this is difficult to do within the timeframe of writing up a masters' thesis. I sought to fulfill this criterion by asking follow-up questions if the respondent's answers were unclear. Seeking clarification without leading questions may be achieved by asking the respondent what they mean or bypassing high salience by referring to published material on the issue (Bryman, 2012, p. 474, 476). When asking about respondents' attitudes towards climate change, if they did not answer clearly about whether or not they thought it was man-made or not, I would refer to a public debate on the topic and ask what they thought about it. I have furthermore sought, to the best of my capacity, to ensure that linguistic nuances have not been lost or contorted in the translation from Norwegian to English.

[13] This was further divided into environmentally friendly means of transportation (such as public transportation, bike, walking or electric car) and fossil fueled vehicles (such as diesel/gasoline/hybrid car and motorbike).

Transferability resembles that of 'external validity', the notion of generalizability. This does not apply in the same way as with quantitative research due to the nature of interest in small groups and in-depth, rather than breadth of material (Bryman, 2012, pp. 390-92). Dependability may be tested through the notion of auditing, where peers would have access to and assess the whole research process and data material. I recorded all the interviews, transcribing almost all of them to their full extent (leaving out some parts seen as excessive). As is often noted, this required a great amount of time and resulted in almost two hundred pages of data material (Bryman, 2012). However, the constructive aspect of recording and transcribing is that it enables a thorough and repeated inspection of respondents' answers (ibid., p. 482) which meant that I could go back and forth in the data-material if I was unsure about a topic of interest. In addition, supervisors had access to all information about respondents and transcribed material of the interviews on a safe cloud storage space.

Confirmability implies that researcher has, to their full capacity, sought to maintain a level of 'objectivity' through the research process and may also be verified through auditing (Bryman, 2012, p. 392). One may be affected by cultural bias[14] regarding how you think about another person when they live in a specific place, are in a certain income bracket, or has a certain level of education. As a person with high education and a five-year student of environmental issues, no car, no children, good physical health, and good access to public transportation, this of course equips one with a certain lens of viewing the world. However, being aware that one carries certain perspectives and being clear about them, enables the possibility to remain open-minded. In the interview setting, I tried my best to build trust through a balance of supporting and critical feedback, and this trust was essential so that respondents would be honest about their opinions. This attempt appeared successful considering that respondents revealed thoughts about climate change as if it was a governmental scam, or that nature was responsible for fixing problems caused by human pollution (which was actually due to an agreement between several countries to avert the use of those substances, see Leahy (2017)). Moreover, having perspectives of theory in mind when doing analysis, can easily affect the 'weight' and meaning you put on different answers. This was why I often would go back to the transcriptions and re-read segments to try to ensure that my interpretations were holistic and representative.

[14] "Cultural bias highlights differences among persons and groups. (…) They may include differences in levels of socio-economic status, language, race, ethnicity, religion (…)" (Yingst, 2011, description).

5 Results and analysis

The results presented here are based on the semi-structured interviews and analyses of these. The sections are structured mainly following the theoretical framework. As noted in methods, the sample was based on the responses to the question on attitude towards time- and environmentally differentiated tolls on vehicles in Oslo in "Klimaundersøkelsen 2018" (the climate survey).

This chapter starts with section 5.1 responding to sub-objective 1) and 2). To be able to map the differences between the two attitude groups (sub-objective 2), I had to explore the factors among the respondents (sub-objective 1). Respondents are presented and grouped by their attitude (positive or negative) towards the overall policies of tolls ('bompenger') in Oslo, as expressed in the interview. Next, I outline the findings regarding the factors' role for attitudes towards the policies (sub-objective 3) in section 5.2. Here, I follow the structure of the main groups of factors as presented in the theory framework illustration (page 8).

5.1 Mapping the attitude groups

In total there were 24 respondents, with some spread throughout the municipality. There was a somewhat low representation on the outskirts of Oslo as compared to within the city (see map overview in section 5.1.1). Most of the respondents (15) expressed a positive attitude towards the toll policies, whereas 9 respondents conveyed a negative attitude. All of those positive towards the former-mentioned policy were also positive towards the car-free city center policy, whilst about 4 of those negative, were also negative towards the latter mentioned policy. The objects in the two attitude groups have been anonymized with labels[15]. In the following, these labels will often be referred to in footnotes. This provides the possibility to identify respondents in a more detailed overview of their features and arguments in a thematic table presentation in appendix 9.2. The subsequent table summarizes key differences between the groups as identified in section 5.1.1-2.

[15] Positive group: D, E, G, H, I, K, L, M, P, R, T, U, V, W, X
Negative group: A, B, C, F, J, N, O, Q, S (whereby B, C, J, Q were negative towards both policies)

	Positive group (15 respondents)	Negative group (9 respondents)
Number and age of children	More and younger children	Less and older children
Place of residence	Mainly within the city ('Ring 3')	Mainly on the outside or outskirts of the city
Everyday travel behavior and car usage	14 out of 15 commutes by public transportation, walking, or biking. Car is mostly used for driving children to sports-activities/leisure activities on weekends	5 commutes by public transportation, walking, or biking, and 4 commutes by car. Car is mainly used for commuting/in relation to work
Pro-environmental personal norms (strong – average – weak)	Travel behavior: 8/15 Policy support: 14/15	Travel behavior: 1/9 Policy support: 0/9
Outcome equity concern	3 out of 15 (somewhat) concerned	5 out of 9 (highly) concerned
Beliefs and concern about climate change (CC)	All respondents believed in mainly or fully human causation of CC. Generally, higher concern	1 does not believe-, 6 believe in partly-, and 2 believe in mainly man-made CC. Generally, less concern
Social circle concern regarding climate change	Social circle often concerned	Social circle generally not concerned
Social circle concern regarding tolls	Social circle generally not concerned	Social circle often concerned

5.1.1 Positive group

The positive group consists of 15 respondents. Regarding their individual characteristics, 13 out of 15 have a degree from higher education, whereby about half of them have a master's degree. Over 66% are in the highest household income bracket (> 850 000) and most live in a household with a spouse or cohabiter. On average, they have younger and more children than the negative, there are fewer car-owners (about 66%) and a higher number of electric cars. Most had somewhat knowledge on both policies (1 out of 15 had only knowledge on the policy of tolls, 10 out of 15 had somewhat knowledge of both policies, 1 of 15 good knowledge and 3 of 15 limited knowledge on either) and two respondents pointed out the reduction of greenhouse gases (GHG) as a rationale behind it. Regarding political values, there was a clear overweight of respondents on the left side of axis[16], some on center/left[17] and center[18]. One respondent[19] placed him/herself on the center/right side of the axis, and one was undecided[20] but would most likely vote on the left side in the upcoming municipal elections of 2019. Looking at personal values (Figure 7) there is a high overall score in the value cluster 'biospheric' and 'self-transcendence' in both groups. In the positive group, many identified 'self-transcendence'(13/15[21]) and biospheric values (13/15[22]) as very important to them, while few/none identified 'conservation'[23], 'self-enhancement' or 'openness to change' as highly important value clusters.

	BIOSPHERIC			SELF-TRANSCENDENCE		SELF-ENHANCEMENT			OPENNESS TO CHANGE		CONSERVATION		
	Verne om i	Folk skal re	Forebyggin	Hjelpe menn	Likebehandl	Ha det moi	Være vellyl	Være rik, h	Være kreativ,	Nye eventyr, s	Oppføre se	Tradisjonei	Bo i trygge
	BV: Protec	BV: Respec	BV: Preven	Benevolence	Universalism	Hedonism	Achivemen	Power: We	Self-direction	Stimulation	Conformity	Tradition	Security
24 observations	-1 ; 0	-1 ; 1	-1 ; 0	-1 ; 0	-1 ; 0	-1 ; 1	-1 ; 3	-1 ; 7	-1 ; 1	-1 ; 4	-1 ; 1	-1 ; 3	-1 ; 2
	0 ; 0	0 ; 0	0 ; 0	0 ; 0	0 ; 0	0 ; 2	0 ; 6	0 ; 10	0 ; 2	0 ; 4	0 ; 3	0 ; 8	0 ; 3
	1 ; 1	1 ; 2	1 ; 1	1 ; 1	1 ; 0	1 ; 10	1 ; 2	1 ; 6	1 ; 2	1 ; 7	1 ; 6	1 ; 6	1 ; 6
	2 ; 4	2 ; 8	2 ; 2	2 ; 2	2 ; 1	2 ; 5	2 ; 8	2 ; 1	2 ; 4	2 ; 8	2 ; 6	2 ; 5	2 ; 8
	3 ; 8	3 ; 5	3 ; 9	3 ; 13	3 ; 12	3 ; 4	3 ; 5	3 ; 0	3 ; 9	3 ; 0	3 ; 8	3 ; 1	3 ; 3
	4 ; 11	4 ; 8	4 ; 12	4 ; 8	4 ; 11	4 ; 2	4 ; 0	4 ; 0	4 ; 6	4 ; 1	4 ; 0	4 ; 1	4 ; 2

Figure 7: Overview of overall score in the different value clusters (see section 4.3 for full description of value indicators)
Left number: score, right number: respondents. Red number: highest scores, yellow highlight: most observations.
4: very much like me, 3: like me, 2: somewhat like me, 1: a little like me, 0: not like me, -1: not like me at all
Source: Screenshot from data material

Moving to the CS physical context, Figure 8 shows the approximate residence of all respondents and their proximity to the toll stations and the car-free city center. If we look at the ring roads, everything within 'Ring 3' is often referred to as the city, while outside and

[16] D, E, G, I, K, M, R, V, W, X
[17] P, T, U
[18] L
[19] H
[20] D
[21] D, E, G, H, K, L, M, P, R, T, U, V
[22] D, E, G, K, L, M, P, R, T, U, V, W, X
[23] W

further towards the municipal border are referred to as outskirts or outside of the city. 10 out of 15 respondents in the positive group, live on the inside of 'Ring 3' (as shown in Figure 8). 14 out of the 15 commutes to work by public transportation, walking, or biking, and the car is mostly used for driving children to sports-activities/leisure activities on weekends. Eight respondents in the positive group displayed a strong, average, or weak pro-environmental personal norm (PEPN) regarding CS behavior (everyday travel behavior). For the rest in the positive group (who traveled by public transportation, by bike or walking), the oft-mentioned motivations for travel mode choice were (following a high to low frequency): practical, cheaper than car, efficient, exercise, easy and habit. Of those who currently owned/had owned a car, 9 of 12 also either said they did not like driving or driving in the city.

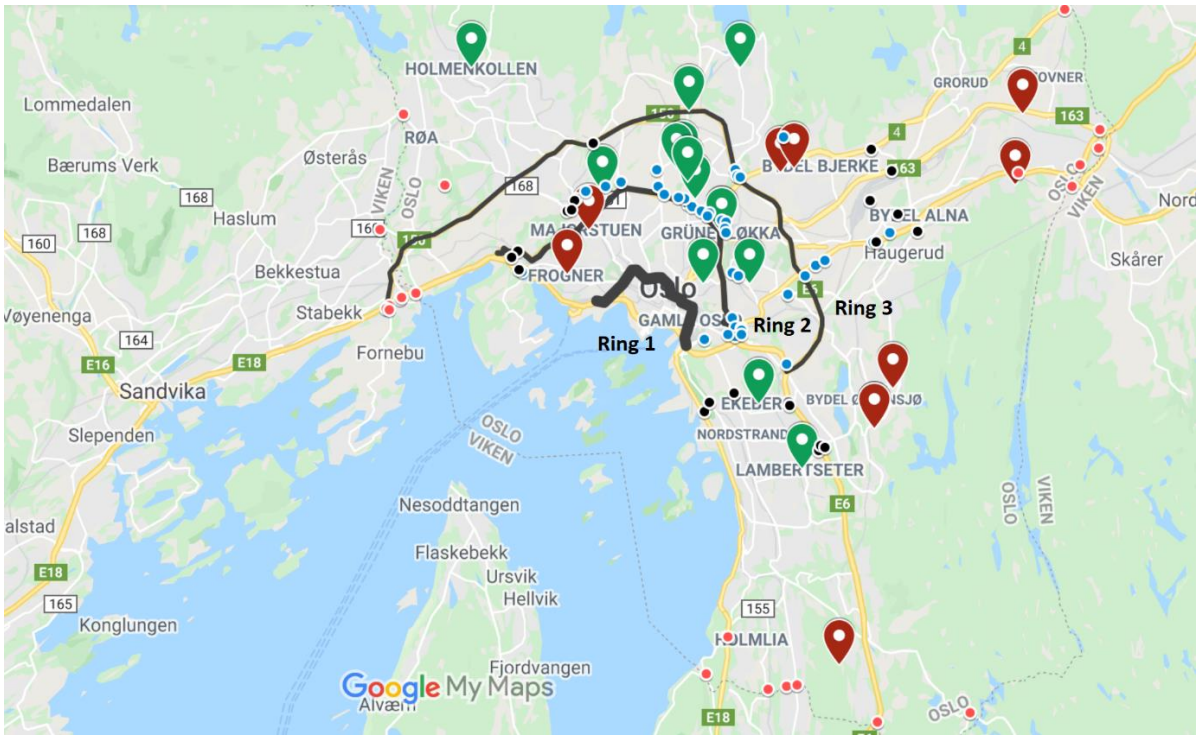

Figure 8: Map showing the approximate location of respondents, the ring roads, and the toll stations. Car-free city center is planned within Ring 1
Red pins: Respondents in the negative group Green pins: Respondents in the positive group
Toll stations: Pink dots;'Bygrensen' Black dots;'Osloringen' Blue dots; 'Indre ring' (see section 2.1 for more information)
Source: Own data material processed in Google My Maps

Regarding CS beliefs and attitudes, 3 of 15[24] were concerned or somewhat concerned with outcome equity, these were concerned on behalf of others rather than themselves and not greatly affected by the tolls. All respondents thought climate change (CC) was mainly or fully caused by humans where they either had a general knowledge about and recognition of CC as a human-made phenomenon or expressed trust in the scientists and a precautionary attitude towards CC. Compared to the negative group, the positive group expressed a higher

[24] K, R, X

level of concern regarding CC, a clearer connection around which human actions are significant drivers of CC and a more strong sense of responsibility needed to be taken on a personal and/or on higher societal, political and economic levels. Almost all the positive respondents (13 of 15) made a connection between car-driving, climate change, and/or air pollution, and 2 did not demonstrate these connections. 14 out of 15 demonstrated a strong, average, or weak pro-environmental personal norm (PEPN) regarding policy support.

Regarding the CS institutional context, the notion of everyday travel behavior did not appear to be a 'hot' topic in either group and for some, this was hard to answer because it was not something they had reflected upon or discussed with their social circle, while others were more aware and informed about their behavior. 10 out of 15[25] in the positive group depicted similar everyday travel behavior as their social circle (SC), 4[26] traveled differently, while 1 respondent[27] did not answer the question properly. Those who traveled similarly, the convention in the social circle was mainly described as the use of environmentally friendly means of transportation (except object M, where it was a mix of fossil-fueled vehicle and public transportation). Interestingly, for those who traveled differently, they themselves traveled by environmentally friendly means of transportation while in the social circle it was more normal to use a fossil-fueled vehicle (car). One person[28] said he/she experienced some kind of reward in their SC when traveling in an environmentally friendly manner, while most had not experienced any explicit expectations on how to travel from their SC. A few had received comments or negative/positive feedback. About half[29] described societal norms (in Oslo) that reflected their own behavior or attitude on how to behave while four[30] did not, but many had difficulty answering this question properly because it was too generalized. Those who displayed a relatively high level of concern regarding CC[31] all had either or both, friends and close family (spouse and/or children) who were also concerned, and it was a topic of discussion. In this group, for most,[32] tolls were generally not a discussed topic in their SC. For a few, it was more discussed[33] where two experienced some negativity in their SC and three positivity.

[25] E, G, H, K, M, P, R, U, W, X
[26] D, L, T, V
[27] I
[28] X
[29] H, L, P, R, T, U, V, X
[30] D, G, K, M
[31] D, E, G, K, L, P, R, T, U, V, W, X
[32] D, G, I, K, M, T, U, V, X
[33] E, H, L, P, W

5.1.2 Negative group

The negative group consists of 9 respondents. Looking at their individual characteristics, a bachelor's degree is the highest level of education, but only 3 of 9 have completed a degree. About 55% are in the highest household income bracket (> 850 000) and there are more single households in this group than in the positive group. They have less and older children: this group had 6 children between the ages of 20-30 where those positive had 1, and 4 of the negative respondents had no children under the age of 18. There is a higher share of car-owners (about 88%) and fossil-fueled cars, albeit some have a hybrid car. This means they pay a higher price per passing in the toll stations than those in the positive group who use an electric car. In this group, 4 out of 9 had somewhat knowledge on the policy of tolls, only 3 of 9 on both policies and 2 of 9 limited/very limited knowledge on either. Fewer had knowledge of both policies and more had limited/very limited knowledge on either than in the positive group. Regarding political values, only two[34] placed themselves on the left side of the axis, one in center[35] and two on the right side[36]. The rest was undecided[37] and found it difficult to navigate the political landscape. Some had traditionally been oriented towards the left-side but now wanted to make a change. Another[38] had no clear place on the political axis but placed him/herself somewhere in the middle and wanted to vote for the party against tolls (People's Action No to More Road Tolls). Similar to the positive group, a high number of respondents ascribed biospheric (8/9[39]) and 'self-transcendence' (7/9[40]) values as important to them. However, more[41] in this group ascribed the other value clusters as highly important.

When it comes to the CS physical context, only 2 of 9 lives inside the city, and 5 out of 9 live outside/on the outskirts of the city (see figure 8 in section 5.1.1). When commuting to work, five used public transportation, walked or biked, and four commuted by car. Three of the latter mentioned had also had an increase in toll stations on their commute after June 1st. The car is mainly used for commuting/in relation to work in this group, only one person uses the car also for delivering children in kindergarten or school, another uses it for delivering children to leisure/sports activities. One respondent displayed an average pro-environmental

[34] A, C
[35] S
[36] B, F
[37] J, N, Q
[38] O
[39] A, B, C, F, J, N, Q, S
[40] B, C, F, J, N, O, S
[41] 'Conservation' (B, S), 'Self-enhancement' (A, F) and 'Openness to change' (F)

personal norm (PEPN) regarding CS behavior (everyday travel behavior). In general, for those who traveled by public transportation, by bike or walking, these were the oft-mentioned motivations for travel mode choice (following a high to low frequency): practical, easy, cheaper than car, efficient, exercise and habit. For those using a car: convenience, speed/efficiency, comfort, reliability, flexibility, and illness. Of all those who currently owned/had owned a car, 5 of 9 also either said they enjoyed driving or found it comfortable.

Concerning CS beliefs and attitudes, more than half (five respondents[42]) were concerned/ highly concerned with outcome equity and the concern was mainly directed at others rather than themselves. These also live on the outskirts of the city but are not highly affected by the tolls. Six respondents[43] in the negative group believed in only partly man-made climate change (CC), one[44] did not believe in CC at all, and two[45] believed in man-made CC. Generally, compared to the positive group, there was a lower level of concern and seriousness of measures needed to be taken in order to combat CC. 4 out of 9[46] respondents makes a somewhat vague connection between car-driving and the problem of CC, while 5[47] have only linked car-driving to air-quality/pollution. None ascribed a pro-environmental personal norm (PEPN) regarding policy support.

Regarding the negative group and their CS institutional context, 6 out of 9[48] displayed a similar everyday travel behavior as their social circle (SC) and 3[49] traveled differently, where the convention in the SC mainly was a mix of both using environmentally friendly transportation and fossil-fueled vehicle (mainly car). For the 4 respondents[50] who used a fossil-fueled vehicle for commuting to work, the convention described in the social circle was also the use of fossil-fueled vehicle. For those who traveled differently, they themselves traveled by environmentally friendly transportation while social circle used fossil-fueled vehicle (car)[51]. One person[52] said he/she experienced a kind of sanction from some in the SC if not traveling in an environmentally friendly manner, but most had not/not at all

[42] A, N, S, Q, O
[43] J, Q, B, S, N, F
[44] O
[45] A, C
[46] A, J, N, Q
[47] B, C, F, O, S
[48] B, C, F, J, N, Q
[49] A, O, S
[50] F, J, N, Q
[51] Except object A, where SC mainly used public transportation and electric car and A used public transportation and fossil-fueled car
[52] Q

experienced any explicit expectations on how to travel from their SC. Four[53] described societal norms (in Oslo) that reflected their own behavior or attitude on how to behave while four[54] others did not, but this question was challenging for many to answer. Most of the respondents in the negative group reported that CC was not a big topic of discussion in SC[55]. For most respondents,[56] the tolls were a topic of concern that was discussed in mainly a negative manner in their family and/or SC, regardless of respondent's car ownership or driving on a regular basis (but in those cases, it seemed as though their SC was relatively car-dependent).

5.1.3 General attitudes towards the restrictive policies

Of the two policies in question, opinions appeared more 'developed' regarding tolls in both groups. Two main arguments emerged in the groups: disagreement with revenue spending and the feeling of being controlled/infringement of freedom (negative), reducing car traffic, paying for, and achieving less pollution in the city (positive). In the negative group, many[57] expressed disagreement with the design of the toll. They said that the revenues should be spent mainly on road infrastructure, that it should be a tax for everyone[58] , or that tolls should not be a way to finance public infrastructure at all. Some[59] said they experienced the tolls as an infringement of freedom to move, whilst O, J, and Q feels controlled and forced into 'green' notions of thinking without enough time to adapt. Some[60] of them also mentioned that there should be less use of 'sticks' and more 'carrots' in this type of policy incentives, such as e.g. reduced/free public transportation fares. Many of those who have a car[61] say that they are more affected in everyday life after the new toll rings. The price of the tolls being too high was also mentioned by some[62].

In the group positive towards toll charges, several respondents[63] were in general also positive towards reducing car traffic in the city. Many[64] said that they were positive towards paying

[53] A, B, C, N
[54] J, O, Q, S
[55] A, C, S, J, F, N
[56] C, F, N, O, Q, S
[57] A, F, J, O, Q, N
[58] It was not specified/difficult to interpret whether this included both or either or, drivers and non-drivers
[59] B, C
[60] B, J, O, Q
[61] C, F, J, N, O
[62] C, F, S
[63] P, R, L, U, I, K, G, H
[64] X, T, D, W, H, I, K

for polluting or achieving less pollution in the city. Seven respondents[65] mention that they are positive about the revenues being used mainly for infrastructure investments. Object V and E think that the new toll rings will provide a more equal distribution of costs of tolls. Some of the respondents agreed and disagreed with different aspects of the tolls. In the positive group, object X and K generally agreed but was concerned with outcome equity. Respondent E also agreed but thought the tolls should be directed at work travels instead of leisure trips with children. Object I was unsure whether such a solution would be beneficial for the contractors and object T was concerned that geographically people are affected too randomly. In the negative group, two[66] agreed to the need for financing infrastructure, one[67] understood the need for reducing car use and work travels and another[68] agreed mostly with the time- and environmental differentiation and with having tolls if used for road investments.

Looking at the attitudes towards the car-free city center, in the positive group, there seemed to be a similar pattern as to why they accept the tolls. They said they think it is nice with fewer cars in the city center, so long as service vehicles, people with disabilities, and emergency vehicles can still access. Many also think that this will give a better atmosphere, less pollution, better navigability for public transportation, and more space for pedestrians and cyclists. Object K, D, L, and W think that both the restrictive car policies also can, in different ways, help change attitudes and behavior towards more environmentally friendly means of travel. Four of those[69] in the negative group were positive towards the car-free city center policy. It seems that having fewer cars in the city is beneficial to them because they spend time there on a regular basis. Respondent F lives within the city with young children and therefore concerned about the air quality, he/she knows it can cause diseases such as asthma and other respiratory problems (this was also an argument for some in the positive group). For O, S, and A it is mainly about their own wellbeing when doing leisure activities in the city. They use public transportation when going to the city, so they do not mind not being able to bring a car. Object N feels both positive and negative because he/she thinks it is beneficial to people living in the city center, but concerned about how it will affect the business community.

[65] D, E, K, U, W, X, M
[66] F, A
[67] S
[68] N
[69] F, O, S, A

Reviewing those who were negative towards both policies[70] they had several different reasons for being negative towards the car-free city center. Respondent B was in general skeptical as to whether there even is a problem with too many cars or if it is just made up by the government in order to keep people's attention away from their own polluting infrastructures. Like N, object C was mainly concerned about the business community and craftsmen's ability to access different areas within the city center. J thinks it is too difficult to access and navigate a car in the city center, it is too closed off and he/she cannot easily get to the doctor's office anymore. Similar to N and C, respondent Q is worried about businesses in the city center and how they will manage because he/she heard that there were much less people in one of the most important shopping streets (Karl Johan) in 2019 as compared to 2018. Q also said that as a person with a handicap who is dependent on a car, he/she feels very excluded because so many of the HC-parking spaces have been removed and made into bicycle parking. This feels alienating in a city he/she has grown up in and has made Q consider moving away from Oslo. It seems that the car-free city center policy holds more positive acclamation and less 'controversy' in the negative group. Those from the negative group who were positive here enjoyed the benefits of having fewer cars in the city on a regular basis. Simultaneously, it looks like many of the respondents have an overall concern that the city center flourishes and that it remains accessible for those who need to use a vehicle.

5.2 The role of the individual, their physical context, behavior, and institutional context for attitudes

In this section I answer to sub-objective 3) To understand the role various factors play for attitudes towards the restrictive car policies. The findings are structured in subsections following the main groups of variables in the framework: characteristics of the individual and their physical and institutional context concerning travel behavior and attitudes.

5.2.1 The individual

5.2.1.1 Young children not a vital issue concerning the acceptance of tolls

As referred earlier, more of the respondents in the positive group have children than do the respondents in the negative group (negative group had correspondingly 2 and 7 children in the age groups 1-9 and 10-19, the positive had 16 and 20 in the same age groups). This

[70] B, C, J, Q

implies that more people in the positive group have the need for a car considering the number and age of children. Following the argumentation reported in the media debate about families with children being those who suffer the most from tolls, one would expect these numbers to be the other way around. Five respondents[71] in the positive group did not own a car while having several children under the age of 18. They had no issues not owning a car and would borrow one from family, use car-sharing services or public transportation if necessary. Object T used a membership on a car-sharing service as a way to solve transport-needs for the children. Few in both groups[72] used their car for delivering children in kindergarten or school. In the positive group, the car was mostly used for driving children to sports-activities or other leisure activities on weekends, etc., while in the negative it was mainly used for everyday commuting/in relation to work.

While being less affected by tolls on an everyday basis (elaborated further later), something interesting that also emerged in the positive group, was a certain skepticism towards arguments conveyed in the public debate by those negative towards tolls. Many[73] felt like these were drawn out of proportions and/or that families with (young) children were somewhat used as a reason why there should not be tolls. One[74] thinks "it is sad that the debate is marked by false facts such as incorrect sums, use of families with young children as the big victims, while it is actually men in their 50s who drive the most car (…)". Respondent W said that arguments about needing the car for delivering children are not recognizable for him/her, because kindergartens are usually close when you live in Oslo, so that is not why or where you need the car. Another[75] says that if you live inside 'Ring 3' [the city] then having a car is a kind of luxury that he does not think an average family with young children needs in everyday life unless there is a job requiring it. He/she also says that this might be different if living outside of Oslo. Two others[76] says it seems like many of those who oppose it do not realize that the prices might even be lower for some trips now. Respondent P and I thinks those who are negative do not understand the complexities of the system and how other factors play a role, whereby object I says:

> [S]ome examples are drawn, but those who are affected by this are not mainly these families with children who by chance get a few toll passes, so there are some distorted examples I think, those who have been in the media, these families with children also get [economic] transfers, e.g. the Aktivitetsskole (Activity School) has become cheaper.

[71] I, K, R, T, U
[72] 2 in positive (H, T), 1 in negative (F)
[73] D, E, H, I, M, P, T, U, W
[74] E
[75] U
[76] H, T

This demonstrates that having young children does not necessarily call for negative attitudes towards tolls. Further, having young children and being less affected by tolls may obscure understanding for others who are negative caused by a different life situation (considering that some in the negative group claimed familiarity with families severely impacted by tolls, see section 5.2.1.4). However, it might also point to a misrepresentation in the media debate.

5.2.1.2 Trivial knowledge regarding restrictive policies and rationale of GHG-reductions

Respondents were asked if they were familiar with the transport policies carried out in Oslo regarding tolls and car-free city center. There was great variation as to how much they knew in both groups: from not being able to name any rationale/functions and just talk about own thoughts or observations, to being exceedingly informed about the policy rationale/functions. The former position is demonstrated by respondent B in the negative group (upon answering what he/she knew) saying: "I don't know that much really, just that there are toll stations set up in different places, yes, that's the only thing I know.". Furthermore, by respondent S (in negative group): "I understand that they want to have a car-free center, and I have seen that toll prices have both increased and there have been more toll stations (…)". On the other hand, respondent K in positive group says that

> the toll rings help reduce car use in the city center, and this has to do with both the environment and getting better air quality. [There have been] [m]easurements in Oslo, especially in the winter, where the air is actually harmful to health, so improving the air quality in the city has been an important point. It is also to prevent a lot of queuing, a little better traffic flow. And then Oslo is a city that is constantly growing and then it goes without saying that there will be pressure on the roads and you have to find collective solutions, it is especially also a point to build bike lanes and then the space for the cars must go away. As I understand it, it will make traffic easier and better for cyclists and pedestrians and improve the air quality.

There was knowledge in both groups, although more articulated in the positive group, who also agreed with several motivations/functions of the policies. Still, only two respondents (in the positive group) pointed out specifically the reduction of greenhouse gas. Two other respondents in this group also indicated that the tolls having different rationales is not always clear in the public communication or debate, K says

> (…) maybe it is a little silly that all the different things [rationales/functions] is collectively referred to as tolls, it is much more clear when you say e.g. rush hour fee. One should be better at explaining why we have it [tolls] and what the money is spent on. It would have been a bit ironic if it was spent on building more roads (…)

U thinks that in the public debate

> (…) you have to distinguish between such a road pricing-like structure that you have to an extent in Oslo and the pure 'funding new projects' tolls, I think that there are two slightly different debates because one can be against tolls in the sense that one does not want to facilitate more infrastructure for passenger car traffic, but the tolls I primarily support, are the ones that are about reducing traffic in and out of Oslo, and that there should be a market price for driving a private car in Oslo city.

Another interesting observation is that four respondents from negative group[77] suggested that the tolls could rather be a general tax for everyone, collected through the 'tax bill' ('skatteseddelen'). This substantiates the observation that these respondents were not aware of or did not weigh the rationales/functions of reducing greenhouse gases, air pollution or having people use more environmentally friendly means of transportation, as important features of the tolls.

5.2.1.3 Pro-environmental norm not focal for travel behavior in the negative group

Respondents were asked about their reasons for traveling the way they did in everyday life (CS behavior), e.g. when commuting to work, delivering/picking up children from kindergarten or school, and other leisure travels (main focus was on the two former mentioned travels). For those traveling with public transportation (PT), by bike or walking, in the positive group, the oft-mentioned motivations were because of the environment, practical reasons, or that it was cheaper than using a car. Some also said that it was more efficient, easy, and provided exercise. In the negative group, there was a similar pattern for those who used PT, biked, or walked: most said it was practical and easy, and two[78] mentioned the environment. The one person[79] in the positive group who used a motorbike said the reason was that it was fast, easy and that the vehicle was exempted from the tolls. Those who used a car in the negative group mainly said it was due to the convenience, speed/efficiency, and comfort. One person[80] said it was due to illness. Another interesting observation was that nine of the twelve in the positive group who currently owned or had owned a car, said they did not like driving or driving in the city. Simultaneously, in the negative group, five out of the eight said they enjoyed driving or found it comfortable.

The environment as a reason for transport choices was mainly expressed as a 'second-order' motivation, meaning that it was usually mentioned only after other motivations. It was voiced by two respondents in the negative group, where one respondent[81] displayed an average (second-order motivation) pro-environmental personal norm (PEPN). With the other,[82] it seemed to be something he/she remembered they should say, rather than the actual motivation. In the positive group, environmental reasons were brought up by eight

[77] A, C, J, O
[78] A, O
[79] M
[80] Q
[81] A
[82] O

respondents, all expressing a PEPN.[83] Caring about the environment to the extent where it contributes to everyday travel choices was mainly a phenomenon in the group with positive attitudes towards tolls, but even amongst these respondents, it did not appear to be of the foremost importance. Everyday travel behavior seems to be mainly determined by reasons of practicality regardless of positive or negative attitudes. The choice of using a car or not appeared to also be based on a level of interest or 'liking', which might make it easier to choose e.g. public transportation if disliking to drive.

5.2.1.4 Outcome equity mainly a concern with the negative group

Concern about outcome equity was found in both groups, however, there was a difference in who the concern was about. In the negative group, amongst four[84] of the five concerned, this concern appeared directed towards families with young children, whereby they all said they knew (about) or had known someone in a situation where they were dependent on a car in everyday life and severely affected by tolls. These respondents lived on the outskirts of the city and I got the impression that those they knew also did, and that they were dependent on a car. In the positive group, their concern was not directed towards families with young children, as one would expect from all the media reports about this concern. Some of those concerned suggested that the tolls could be a sort of tax[85] as a way to alleviate this perceived unfairness, implying they did not/forgot to consider important environmental features of the tolls. Interestingly, these respondents displayed a medium or high score on the biospheric values, and two also held pro-environmental norms regarding policy support. These (who suggested the tax) had also made some connection between car-driving and climate change, suggesting that there could be a value-incommensurability. It seems that concern about outcome equity (and further familiarity with someone perceived as unfairly affected) mainly plays a role in forming negative attitudes towards the tolls. This concern appears to also compete with environmental values for some as well.

5.2.1.5 Knowledge and concern about climate change appear to facilitate positive attitudes

The respondents' reflections on climate change displayed some interesting differences. It seemed as though, in the negative group, the level of knowledge about climate change and actions needed to be taken to potentially avert consequences was less clear than in the

[83] G indicated a strong PEPN (environment main reason for travel choice), V, L, R, W demonstrated an average (second-order motivation), H, P, T revealed a weak PEPN (environment mentioned lastly or as a side-note)
[84] O, Q, N, S
[85] N, Q from negative and X, K from positive

positive. The awareness of activities to combat climate change and at what level (societal and/or personal) it needed to happen was interpreted as displaying a certain level of concern amongst both groups, which appeared higher in the positive group. Starting with the belief about the main cause of climate change (CC), all the respondents in the positive group thought it was mainly or fully caused by humans. In the negative group, one respondent[86] did not believe in CC at all, and six of them[87] believed in only partly man-made CC. Two respondents[88] believed CC to be mostly or fully man-made. Most of those negative recognized climate change as an issue in general, but there were doubts about the human role and about the science behind it. There was also some confusion with the issue of climate change and e.g. plastic- or general pollution in the negative group.

Several respondents in the negative group, found it difficult to navigate sources of information, exemplified by one respondent[89] stating that: "(…) before, only crazy people said it [CC] was just nonsense, (…) gradually there are several such non-crazy people [or whom I trust] who say that it is nonsense.". Another[90] expressed similar thoughts; "(…) it [pollution] has an impact on our planet without a doubt, but whether it has/is to the extent people argue it, I don't know, but scientists say it has, and there are some skeptics out there, so it is not always easy to know what to believe (…)". Other respondents negative to the policy of tolls grounded their beliefs in their own observations:

> You see it around the world.., last year it was a great summer and this year it is [normal] summer, in Mexico it fell 2 meters of hail and in Japan 1 meter of water just like that, all of a sudden, so you see that things are happening, but at the same time it has always happened a lot, if you look at history over a very, very long time, there was a lot of water in the Sahara before, so things have happened, it has, but yes we do affect our planet in a bad way, we do, we are not good at taking care of it, all the garbage and everything that is everywhere so.. (Object N)

> Object S has seen the weather change throughout 44 years of living in the same place:
>
> (…) we have never experienced the strong weather we have today, just the rain we had a few weeks ago, (…) we have never had that kind of weather before, I think anyway, so something has happened with the climate (…), for many, many, years there are many things we have done and used then that we have not been aware have been dangerous to our environment (…)

> Respondent O thinks that climate change is merely a weather phenomenon:
>
> I do not think there are any such climate changes, I think it is just a weather phenomenon, because they said last year [2018] that we should have five such summers as the one we had last year and this year we are back to the old summer, so..

Some questioned the natural science; object J and Q thinks that there is a bit too much emotion and not enough scientific facts in the discourse on climate change. J has seen

[86] O
[87] J, Q, B, S, N, F
[88] A, C
[89] B
[90] F

documentaries about the planet having much higher temperatures and levels of CO_2 in the atmosphere before, which plants and trees absorbed. J does think we have emitted greenhouse gases in the past hundred years but believes these gases are gone from the atmosphere now. Simultaneously, J does not know if we are approaching a threshold where earth cannot absorb any more and says "(…) the scholars will find out, I have no idea about that (…)". Object Q talks about how things are hyped up, and that there are "natural fluctuations" in the system. He/she brings up the hole in the ozone layer in the eighties as an example; "(…) that was all you heard about in the media at the time, 'there was an open hole and it was never going to be fixed', but it has turned out that it sealed up again somehow, it is not the problem it was in the '80s because nature has fixed itself somehow.". Q adds:

> I think sometimes it seems almost.., the way I feel it, it is almost like brainwashing young people and just blame us like that, you have to have a little more nuanced picture here (…), but I agree that one should do everything one can to contribute then of course, but I think maybe it is almost like some kind of 'hallelujah' movement on things that are also caused by other things, so..

Respondents A and C somewhat differ from the rest in the negative group in that they believe that humans have a substantial impact and responsibility for climate change. A has a firm trust in the science behind it: "(…) I look to the UN Climate Panel and CICERO and think that they probably know what they are doing and trust them that the climate is changing and that humans are contributing to it to a great extent (…)". Object C has seen a program where they said that global warming would reach 3°C as soon as in 2050-60, which he/she found alarming. Similar to other negative respondents, C has made some own observations of weather changes:

> [I] notice that the poles are melting, something is happening in the sea and I see it here at home because it is no longer winter. I was in Spain at Easter [2019] where we had amazing weather in Norway whilst in Spain it was pouring rain; I do not think it is a coincidence, but that it is man-made. I believe that in the way we treat our globe, we are influencing it in a negative direction, so we should take climate change seriously.

However, regardless of their belief in man-made climate change and having linked car-driving with negative environmental outcomes (described in section 5.2.1.6), they still display negative attitudes towards tolls. One[91] is highly concerned with outcome equity. The other,[92] while viewing him/herself as "far left on the political axis[,] pro-environment and paying taxes and fees to the community (…)", has now become more negatively affected by the tolls and states that:

> I think it was getting extreme now, I have to say, it was a bit too much because the toll rings that were there from before were perfectly fine for me, no problem with it (...), but the last stunt [the introduction of additional toll rings on June 1st] I don't think much of, it was too much.

[91] A
[92] C

In the positive group, the respondents either had a general knowledge about and recognition of climate change as (mainly) a human-made phenomenon[93] or they expressed trust in the scientists and a precautionary attitude towards climate change.[94] Most of them also displayed a much clearer connection around which human actions are significant drivers of climate change, while this was more ambiguous in the negative group. This is exemplified by object N, who thinks that recycling and not throwing things on the ground is more important than reducing car-use:

> (…) yes, we pollute by driving a car, but in the big picture I think that maybe it is not so much compared to other things we do that affects the environment. If we look at each individual or family, then there is much else we can address that might improve the environment more than just driving a car. (…) [L]ike being good at sorting everything and not just throwing garbage around everywhere, (...) people just drop garbage right on the ground (...), it's very easy to do the little thing and take it home and throw it in the right trash (…) and actually recycle (...). So, I think more so that if people might do a better job there in everyday life, we make a greater effort than not using a car to and from work for example.

The level of concern regarding what one should do to combat climate change (or do something for the environment), was mainly to the extent of recycling for most respondents in the negative group. A few[95] also talked somewhat about reuse or buying products that were made responsibly. In the positive group, some took personal responsibility through commuting choices (more than did those negative). Some[96] also made efforts to conduct responsible consumption[97] to various extents. Several respondents in the positive group[98], to different degrees, also spoke about a general necessity for changes to happen/be addressed on higher societal, political, and economic levels. Respondent X says:

> (…) what needs to happen is that we have to change a lot about how we live, cut consumption, not just buy a Tesla instead of a petrol-car, it is about reducing consumption in all areas. (...) as long as we have the growth ideology of capitalism that is in effect now, I don't think that there is probably so much to do, we must make some major changes there and I think that may be uncomfortable for some people in this perversely rich country (...)

K thinks it is important to be aware of own consumption but says that:

> (…) there is a little too much focus on us being conscious consumers, of course it is good to cut meat consumption and such things, that's fine, but the solutions to the climate problem are not there, as long as big business and capitalism are allowed to operate and prey on nature, it is there on a higher level that the solution lies.

Object I believe actions that influence climate change should be collectively handled:

> (…) it is the enormous frivolous use of a car that is the problem, we could probably drive quite a lot of car, five in the car on holiday from eastern Norway to western Norway, I think that in a better organized world that would have been completely unproblematic, so this is why you have to make some financial incentives that make it rational for people to use the car in a way that is sustainable, then I think you can use a car to a great extent (…)

P argues that the issue needs to be addressed at higher levels as well as the individual:

> (…) the consumer thing [and] growth.., it's not possible with growth and it has consequences, so there are some of those paradigm shifts that are needed that I believe are more important than sorting your garbage or using public

[93] D, E, G, I, K, L, P, R, T, U, V, W, X
[94] H, M
[95] A, J, N
[96] E, K, P, T, W, X
[97] E.g. with food choices, reducing travel, reducing general consumption.
[98] D, E, I, K, M, P, R, T, U, V, W, X

> transportation[.] (...) it is also about the fact that we can do something, but that's not where the whole upheaval lies, we need some proper technological and political leaps to move ahead.

The acknowledgment of- and knowledge about climate change as a mainly human-induced problem, can enable an understanding of the seriousness of actions needed to possibly alleviate consequences. This in turn results in higher levels of concern regarding climate change and an understanding that the issue needs to be handled at different levels of society. These factors seem to provide a basis for positive attitudes towards the tolls.

5.2.1.6 Pro-environmental personal norm for policy support in positive group

Comparing the two groups, it appeared to be a lower action-consequence awareness amongst the negative respondents, only four of the nine[99] makes a vague connection between car-driving (action) and the problem of climate change (CC) (consequence). The rest[100] have only linked car-driving with air-quality/pollution. In the positive group, there was a higher awareness of consequences: thirteen of the fifteen respondents had made a connection between car-driving, climate change, and/or air pollution (mainly both), while two[101] did not demonstrate a clear connection. Almost all of them[102] ascribed some responsibility to themselves through an activation of pro-environmental personal norms (PEPN) in supporting the restrictive policies. As with the CS behavior, the PEPN varied in intensity[103]. In one case, it was hard to distinguish whether policy support was mainly caused by a personal norm or also influenced by a social norm.

5.2.1.7 Distrust towards the government in the negative group

Amongst the negative respondents there also seems to be some distrust towards politicians and information they base their decisions on. Respondent B, C, and O say that they were encouraged through public information to buy a diesel car some time ago because it was claimed to be more environmentally friendly, but today it is the most expensive vehicle to drive through the toll rings. This has led to skepticism. Many[104] also think that the electric vehicles [that drive at a much lower cost through the toll rings] have a substantial impact on the environment, there is skepticism whether they are as environmentally friendly as claimed:

> [N]ow they have found out that from making a diesel car and until it gets chopped, (…) it is more environmentally friendly than an electric car because of the battery, so we get.., because when we bought this diesel car, it was

[99] A, J, N, Q
[100] B, C, F, O, S
[101] I, M
[102] Excluding object I
[103] K displayed a strong PEPN(environmental reasons main motivation for support), X, P, R, T, D, L, U, W, G showed an average PEPN (‘second-order’ motivation, mentioned amongst other things) and E, M, V, H a weak PEPN (mentioned lastly or as a side note)
[104] Object C, J, F, N, O, Q

> dangerous with a gasoline car, and now it's that a gasoline car is better than a diesel car so.., and electric cars are worse because where do you discard all the batteries afterwards, what do you use it for, where do you throw it, so.. I get a little annoyed and they have been cheating many such electric car owners as well, because now they suddenly have to pay tolls (…) (Respondent O)

There is not much trace of these ideas amongst the positive respondents. Respondent J (in the negative group) takes it a bit further and suggest that driving a diesel car has become something shameful:

> [T]hose who were encouraged to buy diesel cars through the same type of environmental policy, that is, it was environmental policy that made diesel cheaper, and they adapted, and so they feel punished today, almost double punished, because they are both denounced in the community, at least parts of the community that call them environmental pigs and because they were actually conscientious in their day and now it's kind of.., it's a bit like these primary producers, everyone is denounced now because of red meat and one shouldn't eat it because the world is burning etc., it becomes a bit of the same with diesel, that it's like "shame on you".

Object F and N have a hard time trusting politicians and their promises, N does not think there is much difference regardless of which party is in power. A point to unnecessary governmental spending around the toll infrastructure and politicians having personal ownership in companies managing the tolls. He/she also says "(…) introducing the new toll rings and encouraging people to leave the car to a much greater extent while blocking three or four of the most important tram links in Oslo for excavation, [the] timing is quite hopeless.". Q says that the politicians brag about including every perspective when forming restrictive policies, but as a person with a handicap he/she does not see any truth to this statement. Object B and J somewhat stand out from the rest (of both groups) in their beliefs and attitudes towards the restrictive car policies and the policy rationales. Neither of them acknowledges the environmental rationales of the tolls and seems to suspect it as a 'cover-up', enabling the possibility of raising taxes under a green motive. B takes it furthest and seems to almost have conspiratorial ideas. On the question of his/her opinion on the policies led on tolls, B somehow confuses it with the car-free city center and says:

> [C]ar-free city center for the environment, it's just something you throw out there because it sounds really good, but really it's about money, that they [the government] should get the most money from us and that consumers should get the least money to spend, everything goes to the state somehow, while at the same time restricting freedom, or so I think (…).

B thinks that the number of toll stations that were set up after June 1st is unfair to the people and that there are many other things that could be done to protect the environment. On the question of his/her opinions on time- and environmentally differentiated tolls (where I must explain the concept because he/she is not familiar with it), B states: "(…) I don't really trust that the environmental pressure will be different during rush hour and stuff, I don't believe it, (…) I don't think the purpose is as honest as it is said to be.". B agrees that one should protect the environment but thinks the government should work on themselves first. J's reasoning is based on a more logical observation:

> (…) they talk about the environment, but it's such a contradiction because when you try to finance something by me driving or the population driving to be able to finance it, then they indirectly say that we want you to drive to pay for the tram, so then they are not very serious about the environment because otherwise they would have said "do not drive!", they would've closed the ring roads, closed the highways, if environment was the core motivation, but it is not, it can't be if we are dependent on the revenue, then they have to have a minimum mass of people driving to be able to implement or to realize the big city projects, so this is just infrastructure funding.

In the positive group on the other hand, there is more trust towards the politicians and the information the restrictive car policies are based on. Some think the policies are important in order to achieve behavior change, P says "(…) you can say it is extreme but I have some belief that you have to do some extreme things to make that pendulum swing, for some changes we have to make (…)". L thinks none of the people he knows will change their behavior unless there are external forces such as economic ones or parking restraints making it more of a hassle to drive. K also thinks economic incentives are sensible "(…) because it is something about that if you want to influence people's behavior, unfortunately it is a bit like that, that you have to use some financial measures to bring about attitude changes.". D has decided to switch to an electric car and thinks that "people need incentives [for electric cars] to make the choices they [the governement] need to get where they want to go.". He says that even he who is a bit idealistic and very sensible, "it is after all the economy that is the primary motivation.". L says his/her choice of having an electric car and commuting choice has to do with the environment and that using a diesel car over longer distances is better for the environment but that driving it over short distances is probably worse than a petrol car.

Trusting the government and that the policies have an effect, appear important for positive attitudes. Those who carried negative attitudes had several different reasons to be skeptical, but regardless of the causes there appeared to be a general distrust towards various aspects of governmental decisions regarding the restrictive policies.

5.2.2 CS Physical context and behavior – experiences with the tolls

Following the observation that many of those positive lives within the city and those negative living outside, one could imagine the attitude difference being influenced by an inferior public transportation service. Hence, it is interesting to see how both groups living outside the city ('Ring 3') travel when commuting to work. Of those five[105] in the positive group, three traveled by bike, one by motorbike (which is exempted from the tolls) and two by the metro. Of the seven[106] in the negative group, two travel by fossil-fueled car, two uses metro, one

[105] D, E, H, L, M
[106] A, C, J, N, O, Q, S

uses a hybrid car, one bike, and one walks. Two of those using a car[107] says that the public transportation service does not meet their needs and takes a much longer time, J says having access to a car is important in relation to work as well. They have also experienced an increase in toll stations on their commute after June 1st. The last person[108] says that the infrastructure is available but cannot use it due to illness and is therefore dependent on the car (which is exempted from tolls).

If we look at those negative living within the city[109], one respondent works outside of the city, commute by hybrid car, and on June 1st a new toll station had been placed on his/her commute to work. He/she says public transportation service is available and has tried it, but it takes a much longer time than driving. There is also a possibility to bicycle but says this is challenging because of delivering children in kindergarten on the way to work in the morning. Additionally, a car is often needed for attending meetings outside of the workplace. The other person living in the city has all daily tasks within walking distance and is not affected by the tolls in everyday life. Amongst those who were not very affected by tolls in the negative group, many were concerned with outcome equity, some thought it restricted freedom of movement, and some simply thought it was too expensive.

A common factor in the positive group is that few are affected by the tolls on an everyday basis, which is also mentioned by several of them. All of those who have a car can easily use more environmentally friendly means of transportation when commuting, such as public transportation (PT), biking or walking, or use/get an electric car. This is not the case for those who have a car in the negative group: all of those who used a car for commuting said it was not feasible to use PT (including object O, where the spouse was dependent on their car) due to reasons of time and some said an electric car was not an alternative due to lack of charging infrastructure. In general, it appears that a car is not the main mode of transportation in everyday life for those who are positive towards the tolls. Further, the ability to diversify everyday travel behavior and adapt to the toll system makes one less affected and may contribute to positive attitudes towards the policy. It appears that living/working in areas with unsatisfying public transportation contributes to negative attitudes towards the tolls.

[107] N, J
[108] Q
[109] C, F

5.2.3 CS Institutional context

5.2.3.1 Conventions regarding travel behavior may influence car-ownership

In the positive group, the convention in the social circle (SC) mainly described the use of environmentally friendly means of transportation. In the negative group, for those who traveled by fossil-fueled vehicles, their SC convention described the same mode of travel. As mentioned earlier, some of those positive had young children and did not own a car. In exploring SC conventions for one of these compared to another in the negative group, some interesting differences emerge. Respondent K from the positive group has two children (7 and 5 years old) and says that most people he/she knows in Oslo do not have a car, [which is viewed as normal] and those who have it do not use it in everyday life, it is more to get to the cabin, get big things, or if they have errands after work and so on. On the other hand, object F from the negative group who has three children (16, 6, and 2 years), tells a different story:

> There are very few really in my circle of friends or people I know at my age who do not have a car and do not use a car like that regardless of whether they need it for work or not. It has just become this.., what should I say, natural thing that when you get up to a certain age you use a car and then maybe you consider at a later point when the kids grow up or move out that okay, we can park that car, we don't need the car anymore and go for public transport and then we just rent a car or go for that collective agreement, so everything is a bit about where you are in life really.

This suggests that the culture of car-ownership might be influenced by what is seen as normal (the convention) in the social circle and this culture may also include some skepticism towards restrictive car policies such as tolls.

5.2.3.2 Social norms regarding travel behavior almost non-existing in either group

To understand whether there were any social norms influencing CS behavior, respondents were asked if they thought their social circle (SC) had any opinions on or expectations about how they should travel in everyday life. This is interpreted as to what extent their behavior is sanctioned or rewarded by SC. From the answers, it was clear that this kind of behavior has not been 'moralized' to a great extent yet: only 2 of the 24 interviewees (object X from positive group, Q from negative) explicitly said that they experienced some kind of sanction or reward from (some in) their SC to travel in an environmentally friendly manner. For a few[110] it was obvious that this was either no topic in their SC at all or they would laugh when answering the question, clearly showing how they would find it strange if anyone cared about it. For the majority,[111] it did not seem as strange of a question, but they still did not experience any explicit sanctions or rewards from their SC. Object D and H also didn't

[110] I from positive, B, N, O, S from negative
[111] P, G, L, M, R, T from positive and C, F from negative

encounter this to a great extent, but both said they would sometimes receive positive feedback from peers when using a bike, whereby D could also experience negative comments if showing up to work with the (fossil-fueled) car rather than the bike.

The remaining[112] from both groups did not receive any sanctions per se but had had some experiences around the topic of travel behavior. For object E, travel behavior was not sanctioned, but he/she felt a weak unspoken social norm in their social circle that one should consider the environment in attitudes and behavior. He/she also cared greatly for the environment, making it somewhat difficult to establish whether his/her PEPN for policy support was only based on personal norms. K had had reactions from acquaintances who do not live in Oslo about not having a car when having children, whilst among social circle in Oslo it was fully accepted. Object U, V, and W had experienced that some would find it strange that they would use the bike for everyday purposes also during winter. Respondent A appeared to experience a weak supportive social norm about getting an electric car. He/she also felt a certain pressure about how to travel, but mainly concerning flying, not so much regarding the choice of using both public transportation and car for everyday travels. Object J thought that there might be a somewhat expectation from the social circle that he/she would use a car because they know he/she values time highly. The finding that social norms are not developed on the topic of everyday travel suggests that this type of behavior has not been subjected to any significant consideration yet.

5.2.3.3 Level of climate concern appears to be reflected in social circle

The interviewees were asked about their beliefs and attitudes regarding climate change (CC), and whether this was a topic of discussion or not in their social circle and family. What is interesting here, is to what extent the respondents' beliefs and awareness on the topic are reflected in their social circle. As noted earlier, the attitudes and awareness of solutions varied greatly among the two groups: from how given 'the fact' that current climate change is caused by humans (or not) to how drastic changes one needs to make in order to combat them. There was variation in how respondents would answer and if they answered about the social circle as friends, family, or both. But a general finding in both groups is that attitudes and levels of concern regarding CC appear to be reflected in some part of their social circle: be it friends, family, spouse, or children. In the positive group, of those who display a relatively high level of concern regarding CC[113] all have either or both, friends and close

[112] E, K, U, V, W from positive and A, J from negative
[113] D, E, G, K, L, P, R, T, U, V, W, X

family (spouse and/or children) who are also concerned, and it is a topic of discussion. Whether CC was human-caused only came up around four respondents in this group,[114] where for L and V it did not appear to be doubted by anyone they viewed as significant in their SC. For H and M on the other hand, it seemed to contribute to insecurity around their own beliefs, hence relating to 'the precautionary principle' as a middle way. Simultaneously, this ostensibly affected their sense of seriousness on the matter.

One of the positive, though, did not display any great concern, which was reflected in it not being a topic in the social circle (SC). There are similar observations in the negative group: a low/not present concern reflected in that it is not a big topic of discussion in SC[115]. For S, F, and N, CC per se is not the topic of discussion, but there is a mutual concern about recycling in SC. For others there is more discussion in SC: object Q seems to share a certain kind of skepticism with SC about what/how much one should do regarding CC and whether it works as it should. Object B displays an uncertainty about which sources of information to trust, reflected in spouse and father believing CC to be a 'governmental scam', whilst children firmly believe the science saying it is man-made. Object O shares disbelief in the existence of CC with SC, and it is a big topic of discussion.

These findings demonstrate how respondents share/are influenced by attitudes and beliefs held by significant others in their SC, and as pointed out earlier, a higher level of concern regarding CC appeared to be an important basis for positive attitudes towards restrictive car policies (especially tolls).

5.2.3.4 Level of concern regarding tolls reflected in social circle

Where the general concern for climate change appeared higher in the positive group and corresponding social circle (SC), there is a similar tendency regarding tolls in the negative group and their SC. The majority of respondents talked about whether or not tolls was a debated topic in their social circle, and some also said something about the attitudes. What appeared to be the main observation in the negative group, was that for most respondents[116] the tolls were a topic of concern that was discussed in mainly a negative way in their family and/or SC. This happened regardless of respondent's car ownership or driving on a regular basis, but it seemed as if their SC was relatively car-dependent then (or based on habit/comfort in some cases), due to place of residence or having children. The opposite is

[114] H, L, M, V
[115] A, C, S, J, F, N
[116] C, F, N, O, Q, S (no information for object A, B, J)

true for most of those in the positive group[117], where tolls are generally not a discussed topic in their SC. For some,[118] it was more discussed where attitudes in their SC were mainly negative around object H (who would just accept the disagreement) and P (who would merely try to avoid the topic). For object E, L, W the attitudes were positive, and for W it appeared to be a weak social norm in SC that one should accept tolls, he/she says: “Many are very positive, and many say nothing and I think it is about not experiencing that there’s any room to say anything or that it is not what 'applies' in our social circle. The dominant 'worldview' is that it is okay.”. Again, we see how the respondents share attitudes or concerns held by significant others in their SC.

6 Discussion

6.1 Research implications regarding the policies

6.1.1 Everyday travel behavior as a field of action is not yet institutionalized

Considering that the restrictive car policies are in part a strategy to reduce climate and environmental externalities and promote environmentally relevant behavior, there was a great focus on this in regard to understanding respondents' attitudes. What became clear throughout the interviewing processes, was that everyday travel behavior did not appear to have received much attention concerning its environmental impact. It seems that this field of action is not institutionalized to a great extent. This was exemplified through the lack of social norms on the topic, the difficulty respondents had in articulating societal norms regarding this, and the low importance put on the environment as a motivation for everyday travel mode choices. More in the positive group displayed personal norms to regard the environment, but it was still not of chief importance for most of them. Motivations stemming from individual rationality dominated travel behavior in both groups. However, some had experienced weak social norms, and one person mentioned that he/she had felt certain pressure on ways of travel but mainly in relation to flying. Air-travel as a field of action in relation to its environmental impacts has been subjected to some level of ‘shaming’ (or moralization) in Sweden and Norway over the past year (Sæther, 2019; Sandberg, 2019). Media has reported that this might already have impacted travels of this sort (Pedersen, 2019; Ripegutu, 2019).

[117] D, G, I, K, M, T, U, V, X (no data for object R)
[118] E, H, L, P, W

This is interesting, considering that emissions from driving passenger cars are much higher than those of air-travels in Norway (Miljøstatus, 2019). One reason air-travels have gained more attention in this respect may be that travels by plane are generally more associated with leisure travels, and that daily travels are considered necessary to all people and not only those who can afford to fly. Institutionalizing everyday travel behavior in this regard assigns responsibility to many more and imposes greater restrictions in everyday life. Research on road pricing schemes has found that social norms have a great influence on acceptability, and some suggest that if these "can be changed in a favorable way, towards road pricing, corresponding alignment of personal attitudes could be expected. (…) [P]ressure towards conformity exercised by relevant others is one of the strongest factors influencing personal opinions (…)" (Schade, 2003, pp. 119-20). This suggests that if this field of action had been moralized to a greater extent, one could imagine this to further create social norms regarding behavior and acceptability of the toll scheme. However, even amongst those who were concerned for the environment, norms were not particularly strong, hence implying that these types of policy instruments are important to achieve behavior change. The policy instruments themselves may also contribute to the formation of social norms.

6.1.2 The media debate may paint a distorted picture of attitudes

This thesis sought to understand attitudes towards tolls amongst people who have young children, due to the immense media focus on this group as particular victims of the policy. Based on this, one could imagine people with negative attitudes to have a car, to have young – and perhaps several children, and that they would be dependent on driving them miscellaneous places in everyday life. Surprisingly, this study finds something of the other: those holding negative attitudes had less and older children, and if they owned a car, it was mainly used for work-related travels. Moreover, several of those who hold a positive attitude make a point of this; they feel wrongfully portrayed as sufferers by those who might oppose the tolls. However, the reflection that many of these live within the city, have a short distance to kindergarten/school, and good access to public transportation is important to keep in mind.

A few of those negative said they were (vaguely) familiar with families severely affected, and it seemed as though these families lived on the outskirts of the city and were car-dependent. This was also commented by one in the positive group; that having a car is an unnecessary luxury if you live within the city, but the same might not be true if you live on the outskirts. The media-debate has also covered this issue in several of the biggest cities in Norway, so it

could be a less prominent matter in Oslo. The city's extensive public transportation system (Yousefi, 2015) may also compose better grounds for acceptability amongst those who have young children. Nevertheless, pictures painted in the media-debate are important because, according to Mildenberger and Tingley (2019), they may influence second-order beliefs[119]. These researchers found that "all classes of political actors have second-order beliefs characterized by egocentric bias and global underestimation of pro-climate positions." (ibid., p. 1).

6.1.3 Policy rationale and functions should be clearly communicated

A level of knowledge about the local government's rationales and intended functions of the restrictive car policies was present in both (negative and positive) groups but was less articulated in the negative group (especially regarding environmental aspects). Insight into the aim of reducing greenhouse gas emissions, however, was virtually non-existing in either group. Yet, it seems that policy knowledge in and of itself might not be a determinator of positive or negative attitudes, but the level of knowledge and clarity about policy rationales/functions is important in forming the basis of understanding. Moreover, this basis enables an informed or uninformed evaluation of whether the rationales/functions align with one's perceptions and ideas of how an issue ought to be handled, hence contributing to attitudes towards the policies. For example, if the level of knowledge is based solely on own thoughts or what you observe, this may lead to uninformed attitudes.

If knowledge regarding the reduction of GHG emissions had been higher, this could have impacted attitudes accordingly, but most likely only yielding positive attitudes for those who view climate change as mainly anthropogenic. These findings point to the communication of the policies, whereby two respondents mentioned the unclarity of rationales/functions behind tolls in the public debate. A study of referendum voting behavior in road pricing schemes in European countries argue that comprehensibility of a scheme may influence voting behavior (simplicity evoke support) (Hensher & Li, 2013). An older (quantitative) study of attitudes towards road pricing in Norway found indications that "(…) the lack of information and the lack of understanding of the intention of tolls increase the probability that a respondent will be negative towards tolls." (Odeck & Kjerkreit, 2010, p. 356). At the same time, if one already hold negative beliefs about the tolls, this could possibly be maintained by the

[119] The idea that individuals hold "(…) beliefs about the beliefs of others (…)" (Mildenberger & Tingley, 2019, p. 1).

intentional or unintentional ramification of confirmation bias[120].

6.1.4 Environmental concern appears to play a veiled role for attitudes

The environment as an articulated motivation for policy support, attitudes, and travel behavior was mainly present in the positive group, but overall weak. Simultaneously, the knowledge and concern regarding climate change (CC) revealed some differences in beliefs between the two attitude groups. Those who held positive attitudes (regarding tolls) did not appear to doubt the human factor instigating climate change and trusted the science behind it (hence also the foundation of the environmentally differentiated tolls). They had a stronger and clearer connection between actions that influence CC, interpreted as displaying a certain level of concern. They also linked this issue with actions necessary at different levels of society (rather than just the individual).

For those in the negative group, there is more insecurity about human causation of CC, and judgments are in many cases based on observable weather changes rather than the science. This 'observability' of issues appear reflected in relation to how many of them suggest combatting CC; recycling, and not polluting one's immediate environment are the dominant actions, if any. Hence, it is interpreted that the concern regarding CC is higher amongst those displaying positive attitudes towards the restrictive car policies. This is in line with the findings of Eliasson and Jonsson (2011) and Börjesson et al. (2016). What is more, there were distinctions between the reasons for accept/attitudes towards the policies, whereby many of those who were positive appeared to hold beliefs that both the tolls and the car-free city center would have positive environmental outcomes, similar to findings of Nilsson et al. (2016).

6.1.5 Lifestyles may be important in shaping attitudes

The findings illustrate that many of those that express positive attitudes are urban dwellers, whereby their physical context involve good access to fundaments of environmentally friendly transport such as public transportation, charging infrastructure for electric car, and car-sharing services. Moreover, it appears easy for many of them to bike or walk because where they live, work, and have children in kindergarten or school, are relatively close. Further, this allows for, and possibly builds less of a 'car-culture' and it appeared that some preferred not to drive. This means that they are less affected by tolls in everyday life. They

[120] "[T]he tendency to process information by looking for, or interpreting, information that is consistent with one's existing beliefs." (Casad, 2019, first section).

have high education and live in shared households with good incomes, something that also enables the urban lifestyle, considering that property prices often are higher in the city (and lower in the eastern outskirts) of Oslo (Lorvik, 2020).

Few are concerned about outcome equity and no one mentioned knowing families that were severely affected, which entails that they are not exposed to any unfairness in their immediate surroundings. Many are concerned about the environment and sees car-driving as a contributor to negative outcomes. Parts of their social circle share their concern and non-concern for respectively climate change and tolls. This context can be assumed to easily enable trust in the knowledge and politicians (also because many were left-side voters) behind the restrictive policies because it aligns with the lifestyle. Trust in government has been found influential regarding road pricing acceptance (Schmöcker et al., 2012), but also in a review study on the topic of factors that foster climate policy support (Drews & van den Bergh, 2016, p. 867) (where also trust in politicians and scientists were mentioned).

The pattern was more complex among those who mainly expressed negative attitudes, especially in terms of everyday travel behavior and the affectedness of toll charges. It appeared to be a certain divide between car-drivers and non-car drivers, but where even one who did not own a car or held a driver's license, expressed a negative attitude (regarding tolls). However, there were still many common qualities entangling these respondents. The majority lived on the outskirts of the city or worked there. Some commuted by car because of a lack of satisfactory public transportation and was affected by tolls on an everyday basis. Several of those who owned a car also favored driving when possible. Those who were not affected then claimed familiarity with someone who (supposedly) was car-dependent and affected. These considerations may favor a stronger 'car-culture'.

Disagreement with policy design and feelings of being controlled and pushed by radical green ideas while suffering lack of e.g. charging infrastructure, was prevalent. Further, environmental concern is less rampant, while distrusts regarding the government and environmental rationales and functions of the policies are. Concern regarding tolls and a lower or non-existing concern regarding climate change is reflected in their social circle. This context pertains to a different reality and lifestyle as that of those positive and perhaps reflecting why attitudes are mainly negative. These observations suggest that an even more open-ended and contextual approach when understanding attitudes towards restrictive car-

policies could have had benefits so as to yield a broader understanding of these, as further discussed in the following section.

6.2 Reflections on the methods

Using the adapted ACT framework as a guiding tool entailed both strengths and weaknesses for the research. In many ways it steered, and to some extent constrained the research, given that the themes of the framework mainly decided what was asked in the interviews. This implied less leeway for addressing potential emerging concepts that could have been explored further, as exemplified in the previous section where remnants of different lifestyles were observed. The meaning of e.g. identity or emotions was difficult to grasp through this approach and the research may have been too dependent on concrete and articulated perceptions or reasonings. A further consequence of this method was that much of the data collection was characterized by being more deductive than inductive. This was counteracted to a certain extent, by using several open-ended questions that touched open areas of interest without too much steerage. On the other hand, the merits of having a guiding tool were that it provided some direction on important factors to look out for and how to understand the influence of different factors. Moreover, considering especially the institutional context with social and societal norms (and the lack thereof), this observation would most likely not have emerged in a more open-ended context given its low salience for respondents.

There were a few issues concerning the Portrait Values Questionnaire in the interviews. After the first two interviews, there appeared to be a mismatch between impressions of respondents values during the interview and those self-reported, where especially one seemed to reflect 'social desirability bias' (Bryman, 2012, pp. 227-28). Following this, an attempt was made to reduce bias by asking respondents to answer as honestly as possible (as this was important for the quality of the research) and to disregard my opinion. This was helpful, but there was still a sense of awkwardness and time-pressure by me being present during their reporting. This bias in the collected material may be reflected in the observation that the majority of respondents in both attitude groups identified what is referred by Stern (2000) as 'altruistic' (biospheric and self-transcendence) values as the most important vale clusters.

As mentioned in theory, (section 3.2.1) it was identified by Stern (2000) that altruistic values are associated with a positive belief in the NEP framework, further enabling pro-environmental norms to perform relevant actions such as policy support or private-sphere behaviors. This does not align with the findings of this study considering that both those who

held pro-environmental norms and not, identified these values as important. An effort was made to try to interpret whether respondents' value-assessments was reflected in the interview, but this was challenging. This task of analyzing answers and impressions from the interviews against the self-reported values to cross-check reliability became too ambiguous, complex, and possibly biased. In addition to these implications, a few commented on the descriptions of those they were to identify themselves with as holding unclear or opposing meanings (especially those regarding Self-Enhancement: wealth, having a good time, spoiling yourself), and the difference between the scales being too vague.

7 Conclusion

In this thesis, the aim was to explore and understand attitudes towards restrictive car policies introduced in Oslo, mainly amongst inhabitants with (young) children. More specifically it sought to explore factors assumed to influence attitudes. A qualitative research method was employed, and data collected through twenty-four semi-structured interviews, whereby twenty respondents had children under the age of 18. The research was based on an adapted framework (with concepts mainly from social psychology and institutional theory) derived from the overarching research project, ACT, led by CICERO Center for International Climate Research.

The research objectives were to 1) explore respondents' attitudes towards the restrictive policies and in relation to factors identified in the framework, 2) to map differences between those who expressed positive and negative attitudes and identify differences and similarities between the groups, and 3) to understand what role these aspects play for the attitudes towards these policies.

The findings suggest that several considerations (e.g. political values, car ownership, policy knowledge, trust in government) may have an influence on attitudes and that it is a complicated picture. Nevertheless, some key areas arose in this research: the place of residence, commuting behavior and affectedness of tolls, concern about outcome equity and climate change, environmental norms (or lack thereof), and attitudes in social circle regarding tolls and climate change. The field of action comprising everyday travel behavior is not found to be institutionalized in relation to its environmental impact. Families with young children are not severely affected and hold positive attitudes – contrary to messages conveyed in the

media debate. Shared lifestyles aligning with these matters also surfaced as a contextual implication that may prompt attitudes.

The findings further indicate some policy implications. Information regarding the restrictive policies needs to be communicated more clearly, and to a greater extent. Few had an abundant understanding of the important environmental rationales underlying them. Additionally, social norms are found to have a great influence on both behavior and attitudes. The lack of these suggests that the field of action encompassing everyday travel behavior needs to be defined on the basis of social rationality in society, so as to create stronger norms. This implies also to further awareness about the environmental impacts of car-driving. However, this information may be of no use if the knowledge-gap regarding climate change, its causation, and the seriousness of actions needed are not addressed first.

This points moreover to the observation that further in-depth research should be commenced in developing a greater understanding of the social and physical context in which people live their lives. For example, this could entail area-specific or social circle influence and culture concerning car-driving/ownership, car-dependability, and the influence of different lifestyles. In addition, knowledge regarding the distributional effects should be increased and disseminated so as to contribute the basis for people's attitudes towards the restrictive policies.

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9 Appendix

9.1 The interview guide

Intervju nr: _____

- Velkommen til dette intervjuet hvor vi skal snakke om restriktiv bilpolitikk i Oslo.
- Introdusere meg selv → masterstudent ved NMBU → introdusere oppgaven.
- Informere om at dette intervjuet vil bli tatt opp og lagret på en sikker plattform frem til prosjektslutt (2019/20). Du har rett til å anonymiseres i publikasjonen og i alle data som lagres om deg. Du vil bli gitt et alias i publikasjonen (f.eks. intervjuobjekt C) for å beskytte din identitet. Opplysninger om dine transportmiddel, reisemåte til og fra ulike aktiviteter i hverdagen, dine oppfatninger og verdier vil bli publisert.
- Intervjuet vil vare i ca. en time.
- Har du noen spørsmål? [Etterpå signere samtykkeerklæringen]

Først vil jeg gjerne få be om noen generelle opplysninger om deg:

Kjønn: Alder: Utdanningsnivå:

Bosted (område/bydel): Sivilstatus:

Arbeidsstatus (hva driver du med til daglig?):

Oppfølging - Hvor ligger arbeids/studiestedet?:

Husholdningens inntekt: <450 000 450-650 000 650-850 000 >850 000

Barn (antall – alder):

Bil (ja/nei – antall/drivstoff):

Del 1: Kartlegging av fysisk kontekst	
Først vil jeg gjerne at du forteller litt om hverdagen din – hvordan ser en vanlig dag i ditt liv ut fra morgen til kveld? Hvis du skulle holdt fokus på transportmetodene du bruker for å komme deg dit du skal fra morgen til kveld – hvordan ser de vanligvis ut? (tilpass hvis barn)	• Hva gjør han i løpet av en typisk hverdag? Hvilke transportbehov har han i løpet av dagen? Hvis han har barn, hvilke transportbehov har barna? • Hvilke transportmetoder bruker han i dag? Tenk over barn. • Andre ting som er viktig? La ham fortelle.
Del 2: Barrierer og tilretteleggende faktorer for å bruke kollektivt, gå eller sykle	
Kan du si litt om hvorfor du reiser på denne måten? Hvis du kunne velge transportmiddel uavhengig av andre faktorer, hvordan ville du foretrekke å reise i hverdagen? Hvorfor det? Hva er grunnen til at du bruker/ikke bruker kollektivtransport? (økonomisk, enkelt, hurtighet, «alle andre gjør det», finnes ikke noe alternativ, vane, miljø) - Hvis barrierer for KT er holdningsbasert →	• Hvorfor/hvorfor ikke, eier eller bruker han bil, og denne type bil på en jevnlig basis? Hva bruker han den til? Hvor avhengig er han av dette transportmiddelet? Er det slik han foretrekker å reise? • Bruker han andre transportmidler? Hvorfor/hvorfor ikke? Hva bruker han den/de til? • Hva er grunnen til at han bruker/ikke bruker kollektivtransport? (økonomisk, enkelt, hurtighet, «alle andre gjør det», finnes ikke noe alternativ, vane, miljø). • (Hvis barrierer for KT er holdningsbasert) Har han forsøkt å bruke kollektiv transport, bildeling eller sykkel til [jobb, skole, barnehage, SFO, andre fritidsaktiviteter]? Hvorfor/hvorfor ikke? Fungerte det? Hvorfor/hvorfor ikke?
Del 3: Påvirkning av konvensjoner og normer	
Så vil jeg gjerne spørre deg litt om omgangskretsen din, om det er venner, familie eller kollegaer – tenk på de som står deg nærmest – hvordan pleier de å reise i hverdagen? Eks: til jobb, levere barn i barnehage/skole o.l.	• Hvilke transportmiddel er mest brukt i hans omgangskrets? Husk å tenke/snakke litt over/om hvem omgangskretsen er: hvis ikke østlending er det ikke sikkert familien bor i nærheten, kanskje venner er de som har mest påvirkning; kanskje det er kollegaer som er viktig.

Hva tror du de mener om dine reisemåter? Forventer de at du reiser på denne måten? Hvis du tenker på samfunnet ellers, kanskje spesielt i Oslo – hvordan tror du folk flest mener man burde reise i hverdagen?	• Hva mener de nærmeste om transportmiddelet? Er det forventet at han skal bruke dette transportmiddelet? • Påvirket av normer i samfunnet? Nevnes noe om klimapåvirkning, bompenger o.l.?
Del 4: Kunnskap og oppfatninger	
Er du kjent med transportpolitikken som føres rundt bompenger og bilfritt sentrum i Oslo? Kan du fortelle litt om det/det du vet? Hva synes du om politikken som føres rundt bompenger i Oslo? (kan nevne tids- og miljødifferensiert, flere, el-bil fritak) Hvorfor? Opplever du at det er en debatt og i så fall, hvordan opplever du denne debatten? Mange snakker om at bompenger rammer folk likt uavhengig av inntekt og at de derfor er usosiale. Hvor viktig er dette for deg? Hvorfor? Hva med bilfritt sentrum, hva synes du om det? Hvorfor? Kan du fortelle litt om dine oppfatninger og meninger rundt klimaendringer? Snakker dere i omgangskretsen eller familien din om klimaendringer? Hvordan? Kan du si noe om hvor du ligger på den politiske aksen (venstre-sentrum-høyre)?	• Undersøke kunnskapsnivå rundt denne politikken. Kjenner han til motivasjonene og funksjonene? • Hvorfor tror han politikerne har valgt å øke bompengene i Oslo? (Er det bra for miljøet?) • Eventuelt: Opplever han at det er en debatt og i så fall, hvordan opplever han denne debatten? • Er han opptatt av fordelingseffekter? I så fall, er det fordi det rammer ham selv eller fordi han er bekymret for konsekvensene det vil ha for andre? • Hva tenker han om bilfritt sentrum? Noen tanker rundt miljø? • Hva er hans oppfatninger rundt klimaendringer? (Skjer de? Er de menneskeskapt?) Tenker han på koblingen mellom hans bilkjøring og klimaendringer? • Er det et tema i familien eller blant venner? Tenk på hvem han så på som de nærmeste. • Avslutningsvis hvis tid: Spørre om han har noe han vil legge til, tips til hvordan ting kunne vært gjort annerledes?
Del 5: Verdier (Portrait Values Questionnaire and Biospheric Values)	

Her følger noen personbeskrivelser. I hvilken grad synes du disse personene ligner på deg selv?

	Veldig lik meg	Lik meg	Noe lik meg	Litt lik meg	Ikke lik meg	Ikke lik meg i det hele tatt	Vet ikke
Han er overbevist om at folk bør verne om miljøet. Det er viktig for ham å sikre bærekraft for fremtidige generasjoner	☐	☐	☐	☐	☐	☐	☐
Det er veldig viktig for ham å hjelpe menneskene rundt seg. Han ønsker å gjøre noe for at de skal ha det bra	☐	☐	☐	☐	☐	☐	☐
Det er viktig for ham å være rik. Han vil ha mye penger og kostbare ting	☐	☐	☐	☐	☐	☐	☐
Det er viktig for ham å være vellykket. Han håper at andre vil anerkjenne det han oppnår	☐	☐	☐	☐	☐	☐	☐
Det er viktig for ham å tenke ut nye idéer og å være kreativ. Han liker å gjøre ting på sin egen måte	☐	☐	☐	☐	☐	☐	☐
Det er viktig for ham å ha det moro. Han liker å "skjemme seg bort"	☐	☐	☐	☐	☐	☐	☐
Han er på utkikk etter eventyr og liker å ta sjanser. Han vil gjerne ha et spennende liv	☐	☐	☐	☐	☐	☐	☐
Det er viktig for ham å alltid oppføre seg ordentlig. Han vil unngå å gjøre noe som folk vil si er galt	☐	☐	☐	☐	☐	☐	☐
Tradisjoner er viktig for ham. Han prøver å følge tradisjoner i religion eller i familien sin	☐	☐	☐	☐	☐	☐	☐
Det er viktig for ham å bo i trygge omgivelser. Han unngår alt som kan utsette ham for fare	☐	☐	☐	☐	☐	☐	☐
Han mener sterkt at folk skal respektere jorden. Mennesker skal leve i harmoni med andre arter	☐	☐	☐	☐	☐	☐	☐
Han synes det er viktig at alle mennesker i verden behandles likt. Han mener at alle bør ha like muligheter i livet	☐	☐	☐	☐	☐	☐	☐
Å forebygge forurensning er viktig for ham. Han mener sterkt at folk skal beskytte naturressursene	☐	☐	☐	☐	☐	☐	☐

9.2 Thematic table presentation of results

In appendix 9.1.1-2, table presentations of the investigated themes are outlined. Interview objects are grouped and presented by the attitude variable expressed in the interview. The attitude variable from the survey "Klimaundersøkelsen 2018" (The climate survey) (Kantar TNS, 2018) on the question "How much do you agree or disagree with the following statements regarding car use in Oslo? Environmental and time-differentiated tolls are an important instrument for reducing pollution and car traffic in(to) Oslo" (ibid., p. 57) is also included. Results are divided into two tables, where the first will outline the respondents who have demonstrated a negative attitude towards the restrictive car policies (mainly on the policies regarding tolls) in the interview. The second follows the same logic, only with the respondents who were positive. The thematic areas of investigation (highlighted in italics) follow the structure of the theoretical framework (see section 3.1), only here they are presented in the same thematic order as they were explored in the interviews. Sociodemographic variables are coded with numbers for space considerations and abbreviations are used for the words "climate change" (CC) and "public transportation" (PT).

9.2.1 Respondents with negative attitude variable

1: Age 2: Highest level of education (U: University, MA: Masters-level, BA, Bachelors-level, ND: No degree, HS: High school, PS: Primary school) 3: Full-time employment? 4: Marital status 5: Household income 6: Number of children and age 7: Car-ownership and fuel type. Abbreviations: Public transportation (PT), Climate change (CC)

Object	*Policy support* (attitude variable climate survey/ in interview)	*Individual characteristics* (socio-demographic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteristics* (personal and political values)
B	**Tolls:** Highly disagree/ Negative **Car-free city center:** Negative	1: 43 2: U/ND 3:Yes 4: Married 5: >850 000 6: Two, 19, 14 years 7:One gasoline	All daily activities within walking distance, children use PT to get around, use car for weekend travels or other errands where PT is unpractical. Parks car away from city due to parking issues.	Walks because it is convenient. Values time and accessibility highly, chooses mode of transport accordingly. Loves driving, ceases opportunities to drive. Thinks the cost of PT is too high as opposed to the value you get from driving (measured in time). Convenience and speed important.	Transport choices for social circle based on practical motivations (e.g. distance to PT, reason for travel). CS behavior not sanctioned at all, no social norms regarding transport. On societal perceived social norms regarding everyday travels (mainly in Oslo), B thinks most people is pro more environmentally friendly means of transportation but must be enabled by reasonable cost and time.	Very limited knowledge of both policy rationales and functions. Suspects tolls as a green tax fraud, taking advantage of it. Infringement of freedom. Not concerned with outcome equity. Doesn't recognize a problem with too many cars in the city. Believes in partly man-made CC, but no personal responsibility. Makes no connection with car driving and CC but recognizes issues with air quality (AC). No pro-environmental personal norm (AR) regarding CS behavior/ CS policy support activated.	Conservation and Self-Transcend-ence, somewhat Self-Enhancement Medium score on biospheric values Right side of political axis
C	**Tolls:** Highly disagree/ Negative **Car-free city center:** Mainly negative	1: 47 2: HS 3:Yes 4: Married 5: >850 000 6: Two, 12, 16 years 7: One diesel	Uses bike for all personal daily activities all year round. Car is used mainly for driving children to sports-activities daily (often driven by grandparents) and on weekends. Children use bikes sometimes in summer or PT when convenient.	Use bike due to easiness, speed, exercise, and habit. Prefers driving but fear laziness, so would prefer a combination. Used to have driving as a reward after long week of biking but stopped after the tolls increased. Driving for sports-activities is both habit, comfort and family tradition.	Both driving and PT use in social circle, but the ones with children mainly walk or bike them to school. CS behavior not sanctioned, no social norms regarding transport, follows family convention on driving to sports-activities. On societal perceived social norms regarding everyday travels (mainly in Oslo), C sees a divide between those who think it should be 'green' and that one shouldn't pollute and those who think they have a right to use their car.	Some knowledge on one policy (tolls) rationale and function. Agrees with general idea of taxes and using revenues for PT-investments, but too expensive, feels 'trapped' by the number of toll stations. Not concerned with outcome equity. Concerned with mobility of craftsmen and the business community in the city. Believes in man-made CC, but no personal responsibility. Makes no connection with car driving and CC but recognizes issues with air quality/pollution (AC). No pro-environmental personal norm (AR) regarding CS behavior/ CS policy support activated.	Self-Tran-scendence and somewhat Conservation High score on biospheric values Left side of political axis

Object	*Policy support* (attitude variable climate survey/ in interview)	*Individual characteristics* (socio-demographic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteristics* (personal and political values)
F	**Tolls:** Highly disagree/ Mainly negative **Car-free city center:** Positive	1: 38 2: BA 3: Yes 4: Cohabitation 5: >850 000 6: Three, 16, 6, 2 years 7: One hybrid	Uses car for delivering children, commuting to work and longer leisure travels. Needs car for work (e.g. attending meetings) outside of office. Uses PT/city bike/electric scooters for travels within the city center. Is aware of the possibility to bike to work (bike-lanes) because some co-workers use it.	Uses car mainly due to practical motivations; fast, convenient, comfortable and reliable. Prioritize time over cost of driving. Says children and work-errands out of office is main reason for owning a car. Has considered electric car but lacks charging infrastructure. Will purchase electric car next time, motivation mainly cost saving.	Mainly car use in social circle, based on habit/practical reasons and comfort, not need per se. CS behavior not sanctioned, no social/non-internalized transport norms, follows convention (habit) on car use in friend group (claims it arises from being in a certain age and having children). Has no perception of social norms on everyday travels in society but thinks it's difficult for people who work outside the city center to use PT for commuting.	Some knowledge on one policy (tolls) rationale and function. Understands the need for financing infrastructure but doesn't fully agree with price or with the revenue spending. Not especially concerned with outcome equity. Wants less cars in the city because of living there and wanting to raise children in clean air. Believes in partly man-made CC, takes some personal responsibility but mainly regarding recycling. Makes no connection with car driving and CC but recognizes issues with air quality/pollution (AC). No pro-environmental personal norm (AR) regarding CS behavior/ CS policy support activated.	Openness to change, Self-Transcendence and Self-Enhancement. Medium score on biospheric values. Right side of political axis, but also varies depending on what cases are important in an election.
J	**Tolls:** Highly disagree/ Negative **Car-free city center:** Mainly negative	1: 51 2: U/ND 3: Yes 4: Separated 5: NA 6: One, 20 y 7: Two gasoline	Uses car for commuting to work, has tried using PT but spends up to 3-4 times as much time on this. Child no longer living at home.	Uses car because of the flexibility it provides for doing many things in one day, compared to using PT (has tried it). Says transportation is usually just a means to an end, then mentions the environment and that one needs to take that into consideration (likely because J becomes focused on me). Values easiness and time highly, says PT is cheaper but it does not matter because 'time is money'. Time is very precious for J.	Both driving and PT use in social circle, but the ones with children mainly use car. CS behavior not sanctioned, no social/non-internalized transport norms, somewhat expectation from social circle that J will use car due the time-value aspect. On societal perceived social norms regarding everyday travels (mainly in Oslo), J thinks this is difficult to answer, but sees a polarization between those who are very radical and forward thinking (e.g. doesn't want cars) and those who are very conservative (doesn't want anything to change), and thinks these groups are about the same size. J also mentions groups in between here.	Knowledge on one policy (tolls) rationale and function but doesn't believe in the environmental functions. Disagrees with tolls financing public infrastructure, will collapse if people stop driving. Thinks time and environmentally differentiated tolls is a way to tax more and avoid building more roads. Notions of 'green' thinking has been 'pushed' on people without enough time to adjust. Not concerned with outcome equity. Doesn't think the car-free city center works well enough. Believes in partly man-made CC (also doubting some of the natural science behind it), takes some personal responsibility. Makes a connection between car driving, CC and/or air pollution (not clear) (AC). No pro-environmental personal norm (AR)	Self-Transcendence, somewhat Openness to Change and somewhat Self-Enhancement. Medium score on biospheric values. Undecided side on political axis, traditionally been on left side, but most likely changing party affiliation at this point.

						regarding CS behavior/ CS policy support activated.	
Object	*Policy support* (attitude variable climate survey/ in interview)	*Individual characteristics* (socio-demographic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteristics* (personal and political values)
O	**Tolls:** Highly disagree/ Negative **Car-free city center:** Mainly positive	1: 50 2: HS 3: Yes 4: Married 5: >850 000 6: Two, 24, 27 years 7: One diesel	All daily activities within walking distance, uses PT for shopping or weekend travels. Car is used mainly by spouse, for commuting to work, weekend trips and other errands. Children no longer living at home. Had everything within walking distance when children were young.	Walks because it is the most practical and because O likes it. Uses PT when necessary because it is cheaper and more convenient than car, also mentions that it's better for the environment.	Mainly car use in social circle, based on cost of monthly pass for PT and comfort of travelling by own car, some instances due to distance from daily activities. CS behavior not sanctioned at all, no social/non-internalized transport norms. On societal perceived social norms regarding everyday travels (mainly in Oslo), O thinks most people thinks one should use PT since it's about to become car-free in the city.	Some knowledge on both policy rationales and functions. Disagrees with tolls financing PT projects or bike lanes, should be spent on roads. Feels like one is not supposed to have a car, being controlled. Highly concerned with outcome equity. Thinks it's fine with less cars in the city, but thinks it should be adapted so that people coming from outside can easily park outside city center and commute in. Does not believe in man-made CC, rather that it's 'weather phenomena', no personal responsibility. Makes no connection with car driving and CC but mentions issues with air quality/pollution (AC). No pro-environmental personal norm (AR) regarding CS behavior/ CS policy support activated.	Conservation , Self-Transcendence and somewhat Openness to Change. Low score on biospheric values. No clear place on political axis, O thinks somewhere in the middle. Wants to vote for the party against tolls in next municipal election.
Q	**Tolls:** Quite disagree/ Negative **Car-free city center:** Mainly negative	1: 50 2: BA 3: No, 50% employed / 50% disabled 4: Divorced 5: <450 000 6: Two, 26, 23 years 7: One gasoline, one	Uses car for commuting to work. Uses motorbike for other leisure and weekend/ holiday travels. Is aware of the possibility of using PT for commuting to work.	Uses car for commuting to work due to illness. Would like to commute with train if it was possible because it's comfortable, but also loves driving and riding the motorbike. Finds commuting with car comfortable and easy, has own parking space at work. Car is exempted from the tolls due to Q being partly disabled. Is	Mainly car use in social circle, some use PT. Perceives CS behavior somewhat sanctioned (commented upon by those who use PT), a weak social/ non-internalized norm that one should try to use environmentally friendly means of transportation. On societal perceived social norms regarding everyday travels (mainly in Oslo), Q thinks most people are positive towards using more PT, but that they want to choose it for themselves and not being pressured. Q also thinks most people want to have the opportunity to drive when necessary, that it's not 'either or'.	Knowledge on one policy (tolls) rationale and function. Disagrees with tolls financing 'Fornebubanen' or bike lanes, should be spent on roads or reduction in PT fares. Notions of 'green' thinking has been 'pushed' on people without enough time to adjust, infrastructure is not ready. Highly concerned with outcome equity. Concerned about (HC) mobility and the business community in the city. Believes in partly man-made CC (whilst doubting some of the natural science behind it), takes some personal responsibility but mainly regarding recycling.	Somewhat Self-Transcendence, somewhat Openness to change. High score on biospheric values. Normally in center to left side of political axis but is now unsure and re-evaluating.

		motor-bike		positive towards electric car for environmental reasons but lacks charging infrastructure.		Makes a connection between car driving, CC and/or air pollution (not clear) (AC). No activated pro-environmental personal norm (AR) regarding CS behavior/ CS policy support.	
Object	*Policy support* (attitude variable climate survey/ in inter-view)	*Individ-ual char-acteris-tics* (socio-demo-graphic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteris-tics* (personal and political values)
S	**Tolls:** Quite disagree/ Mainly negative **Car-free city center:** Positive	1: 44 2: HS 3: No, welfare/ volunteer work 4: Single 5: <450 000 6: One, 25 years 7: No	Uses PT for all daily activities and weekend travels. Does not have a driver's license.	Is content with the PT system, doesn't see the need for a car in daily life when living in Oslo, perhaps only when moving bigger things or travelling to Sweden. Thinks prices of PT are generally ok.	Mainly car use in social circle, based on both practical reasons and comfort/easiness in some cases. CS behavior not sanctioned at all, no social/non-internalized transport norms. On societal perceived social norms regarding everyday travels (mainly in Oslo), S thinks that most people maybe think that one should travel by car because it's the easiest way.	Limited knowledge of both policy rationales and functions. Thinks cost of the tolls have become too high, but also sees the need for them. Not personally affected but hear both complaints and acceptance from family and friends. Concerned with outcome equity. Sees the benefits of a car-free city center due to less pollution and better navigability. Believes in partly man-made CC, takes some personal responsibility but mainly regarding recycling. Makes no connection with car driving and CC but recognizes issues with pollution (AC). No activated pro-environmental personal norm (AR) regarding CS behavior/ CS policy support.	Self-Tran-scendence, Conservation and somewhat Openness to Change. High score on biospheric values. Center of political axis.
A	**Tolls:** Neither or/ Mainly negative **Car-free city center:** Positive	1: 40 2: BA 3: Yes 4: Cohabitat ion 5: >850 000 6: One, 12 years 7: One gasoline, leased for 3 years	Uses mainly PT, sometimes car, for commuting to work. Child uses mostly PT, sometimes driven to sports activities. Uses PT for leisure activities, car mostly used for weekend trips or holidays.	Uses PT because it's usually practical, sometimes easier, environmentally beneficial and the possibility to read etc. Prefers using public transportation that is efficient, e.g. t-bane (metro). Has considered electric car but doesn't want to fear not having enough mileage to	Both driving (electrical car) and PT use in social circle, most of those with children can walk them to school/kindergarten. Weak social norm of owning electric car, but CS behavior not sanctioned. Feels a certain pressure about how to travel, but mainly concerning flying, not so much on the choice of using both PT and car for everyday travels. On societal perceived social norms regarding everyday travels (mainly in Oslo), A thinks there is a divide: those who have been used to having the freedom and space to drive anywhere, who might	Some knowledge on both policy rationales and functions. A understands and agrees to the need for collecting money for building infrastructure but think it should be a tax that everyone pays. Doesn't think the PT infrastructure is ready to accommodate travelers who switch mode of transportation. Positive towards time- and environmentally differentiated tolls but thinks road pricing is the future. Highly concerned with outcome equity. Thinks less cars in the city will give space for pedestrians,	Self-En-hancement, somewhat Self-Tran-scendence and somewhat Openness to change. Medium score on biospheric values. Far left on political axis.

				perform longer trips.	experience this as a right rather than a luxury, and those who have come after, understood consequences and experienced the limited capacity.	cyclists and PT, more vibrant city life. Believes mostly in man-made CC, takes some personal responsibility. Makes a connection between car driving, CC and air pollution (AC). Activated pro-environmental personal norm (AR) regarding CS behavior (average), but not CS policy support.	
N	**Tolls:** Neither or/ Mainly negative **Car-free city center:** Both positive and negative	1: 46 2: U/ND 3: Yes 4: Single 5: NA 6: One, 16 years 7: One hybrid	Uses car for commuting to work. Child uses PT for leisure activities, walks to school. PT availability/ frequency low in the area, doesn't fit with commuting needs, spends up to 3-4 times as much time with PT. For weekend travels: uses car when bringing dog, uses PT when going to the city center.	Uses car because it's faster and more convenient than PT. Chooses means of transportation based on what is most practical and efficient. Has considered electrical car, but lacks charging infrastructure, hence chose a hybrid for both cost and environmental reasons.	Mainly car use in social circle, based on both practical and convenience motivations. CS behavior not sanctioned at all, no social/non-internalized transport norms. On societal perceived social norms regarding everyday travels (mainly in Oslo), N thinks most people probably think one should use PT or low emission transportation because the pollution is easily felt, but at the same time thinks it's cheaper and more practical to use car.	Some knowledge on both policy rationales and functions. Agrees with many aspects of the tolls, but disagrees with revenue spending, should be spent on roads rather than PT investments. Doesn't not see the benefits of PT investments, thinks prices just keep rising. Concerned with outcome equity. Thinks less cars in the city will benefit people living there but concerned for business community. Believes in partly man-made CC, takes some personal responsibility. Makes a connection between car driving, CC and/or air pollution (not clear) (AC). No activated pro-environmental personal norm (AR) regarding CS behavior / CS policy support.	Self-Tran-scendence. High score on biospheric values. No place on political axis.

9.2.2 Respondents with positive attitude variable

1: Age 2: Highest level of education (U: University, MA: Masters-level, BA, Bachelors-level, ND: No degree, HS: High school, PS: Primary school) 3: Full-time employment? 4: Marital status 5: Household income 6: Number of children and age 7: Car-ownership and fuel type. Abbreviations: Public transportation (PT), Climate change (CC)

Object	*Policy support* (attitude variable climate survey/ in interview)	*Individual characteristics* (socio-demographic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteristics* (personal and political values)
X	**Tolls:** Highly disagree [121]/ Mainly positive **Car-free city center:** Positive	1: 46 2: MA 3: Yes 4: Divorced 5: 650-800 000 6: Two, 9, 19 years 7: One gasoline	Uses PT or walks for all daily activities. Children walk or use PT. Car is mainly used for weekend travels to cabin, sometimes for driving children to leisure activities.	Uses PT or walks because it's the most practical. X says he/she also enjoys driving, but not in the city. Prefers using tram in the city because it feels more urban than bus. Has not considered electric car because of lacking charging infrastructure. X will always choose what is most practical.	Mainly PT use in social circle. Perceives CS behavior somewhat sanctioned, a weak unspoken social/non-internalized norm that one should use public transportation when commuting. On societal perceived social norms regarding everyday travels (mainly in Oslo), X thinks most people is pro more use of PT, that this is what is seen as the normal and best option. Mentions the lack of parking spaces in the area, and that the buses are usually very full. Thinks that there is a considerable 'car-shame' in the urban areas around where X lives.	Knowledge on both policy rationales and functions. Doesn't mind paying for polluting, especially when revenues are spent on investments in PT, but is concerned with outcome equity and therefore doesn't fully agree. Thinks it's positive with less cars in the city so there'll be less pollution and easier navigability for PT. Believes in man-made CC, and takes some personal responsibility, but thinks it's mostly about economic and social change, rather than e.g. just "buying a Tesla". Makes a connection between car driving, CC and air pollution (AC). No activated pro-environmental personal norm (AR) regarding CS behavior, but for CS policy support (average).	Somewhat Self-Transcendence, somewhat Openness to change, somewhat Self-Enhancement and somewhat Conservation Medium score on biospheric values. Far left on political axis.
I	**Tolls:** Neither or/ Mainly positive **Car-free city center:** Mainly positive	1: 47 2: MA 3: Married 4: No, about 75% 5: >850 000 6: Three, 14, 12, 8 years 7: No (sold in sep 2018)	Works from home or in same building, uses bike (in summer) or PT (in winter) to get around if necessary. Children walk/bike to school, use PT for leisure activities. Owned car to use for excursions or bigger errands, but sold it in	Uses bike and PT because it's the more efficient than car, it's practical and less expensive. Mentions the environment but says it's not really a valid reason for the transportation choices. Not a huge fan of driving, especially not in the city. Likes using the train for travelling because it is	Knows many people in the neighborhood who owns a car and uses it for driving children to sports activities, but not for driving to the city center. But he doesn't talk to them about it so it's only a guess. Transportation not a big topic in social circle. CS behavior not sanctioned at all, no social/non-internalized transport norms. On societal perceived social norms regarding everyday travels (mainly in Oslo), he thinks it's difficult to say, and recognizes a divide between supporters and opponents of	Limited knowledge of both policy rationales and functions, I explain a lot. Is positive towards the policies if they are "rational". Thinks people make choices based on what is rational to do, hence the policies are a good way to control what people find rational to do. Not concerned with outcome equity. Thinks less cars in the city is great but says one should consider people coming from outside the city and make sure they have good access to PT. Believes in man-made CC, and takes some personal responsibility,	Somewhat Self-Transcendence, somewhat Openness to change, somewhat Self-Enhancement and somewhat Conservation Low score on biospheric values. Left side of political axis.

[121] This variable difference was noticed, but interpreted as a mistake in the survey due to the expressions in interview

			favor of renting, as this was more cost-effective. Also uses train for longer trips.	comfortable and convenient. Thinks riding a bike is more flexible than PT, and that it provides some exercise.	restrictive car policies. But he thinks most are positive towards better alternatives to private cars.	but thinks it's more about an organized collective moderation of consumption rather than just personal responsibility. No clear connection with car driving and CC and/or air pollution (AC). No activated pro-environmental personal norm (AR) regarding CS behavior / CS policy support.	
E	**Tolls:** Quite agree/ Mainly positive **Car-free city center:** Mainly positive	1: 49 2: MA 3: Yes 4: Married 5: >850 000 6: Three, 13, 17, 18 years 7: One electric, one diesel	Uses PT for commuting to work. Children walk or use PT to school and for leisure activities. Car is mainly used for grocery shopping or other errands. Children's sports activities are nearby, but car is sometimes used for driving to games. Carpooling is normal in those cases.	Uses PT due to lack of parking possibilities, because it's the cheapest, most convenient. More of a hassle to use car. Would prefer to use PT of environmental reasons, but if it was possible E would like to be able to drive an electric car door to door when commuting. Seems to have a somewhat inner conflict of choosing environmentally friendly or comfort.	Both PT (/bike) and car use in social circle, depending on where they work (PT if in city / car if on the outskirts). Car is typically mostly used for leisure travels amongst social circle. CS behavior not sanctioned per se but feels a weak unspoken social/non-internalized norm in their social circle that one should consider the environment. On societal perceived social norms regarding everyday travels (mainly in Oslo), E thinks there is a strong polarization in Oslo, and that those who oppose tolls are worried about their freedom of movement and that good access to PT curbs this opposition.	Some knowledge on both policy rationales and functions. Is positive towards the tolls, but unsure about the scope, thinks it could have been aimed more directly at work trips rather than leisure trips with children. Not especially concerned with outcome equity. Thinks it's nice with less cars in the city center, but that the driving pattern is too confusing. Believes in man-made CC, and takes some personal responsibility, but thinks we need a general collective moderation in consumption. Makes a connection between car driving, CC and air pollution (AC). No activated pro-environmental personal norm (AR) regarding CS behavior, but for CS policy support (weak).	Self-Transcendence. Medium score on biospheric values. Left side of political axis (member of Labor Party).
K	**Tolls:** Quite agree/ Mainly positive **Car-free city center:** Positive	1: 38 2: BAx2 3: Yes 4: Married 5: >850 000 6: Two, 7, 5 years 7: No	Uses electric bike (in summer) or PT (in winter) for commuting to work and delivering children to school/ kindergarten. Husband also uses PT for commuting. Use PT a lot for family activities as well. Uses delivery services for big grocery shopping and other big items. Sometimes borrow parents' car for weekend excursions.	Uses PT because of good access, no need for car in daily life. Easy and relatively short distances. Says the cost of owning car is too high and unpractical considering parking space. If car is ever needed (which is rare), K always finds a solution. Prefers biking as means of transportation when commuting (except in winter).	Mainly PT and bike use in social circle, very few have cars, if so, it's mainly used for errands or weekend excursion. CS behavior not sanctioned, no social/non-internalized transport norms, but has had reactions from acquaintances who doesn't live in Oslo about not having car when having children. On societal perceived social norms regarding everyday travels (mainly in Oslo), K thinks most people are pro using PT and that they think it's generally nicer than queue driving, but that there is a lot of discontent regarding the PT-service: delays, limited space and unreliability.	Good knowledge on both policy rationales and functions. Is positive towards the tolls as a means of changing attitudes and behavior, simultaneously acknowledges that it's sometimes challenging to use PT. Concerned with outcome equity. Positive towards car-free city center as long as its accessible for taxi, transport of goods and people with a handicap. Believes in man-made CC, and takes some personal responsibility, but thinks it's mostly about economic and social change. Makes a connection between car driving, CC and air pollution (AC). No activated pro-environmental personal norm (AR) regarding CS behavior, but CS policy support (strong).	Self-Transcendence, somewhat Openness to change, somewhat Self-Enhancement and somewhat Conservation High score on biospheric values. Far left on political axis.

Object	*Policy support* (attitude variable climate survey/ in interview)	*Individual characteristics* (socio-demographic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteristics* (personal and political values)
P	**Tolls:** Quite agree/ Positive **Car-free city center:** Positive	1: 51 2: MA 3: Yes 4: Cohabitation 5: >850 000 6: Two, 10, 15 years 7:One gasoline	Uses PT for commuting to work or delivering children. Car is mainly used for driving children to sports and leisure activities, weekend excursions and practical errands. Difficult with PT for children's activities: their age, health issues and difficult travel pattern.	Uses PT because it's easy and convenient, frequent departures. More hassle to use car now, was more practical where P used to work before. Environmental reasons also somewhat important, and not driving in the densely populated neighborhood. Likes to drive, but not in the city, prefers to use the tram because one gets the feel of the city. Important for P to have access to a car.	Both PT and car use in social circle, mainly depending on where they live (PT / walking if in city / car if on the outskirts). CS behavior not sanctioned, no social/non-internalized transport norms, but thinks those who own a car or use carsharing services might wonder why they don't use it (because of the expenses of owning a car). On societal perceived social norms regarding everyday travels (mainly in Oslo), P thinks there is much variation between people and what kind of person you are: someone who cares mostly of their own rights to drive or those who recognizes the collective benefit of environmentally friendly travel, and thinks the latter is easier when one has good access to PT.	Some knowledge on both policy rationales and functions. Understands the need for reducing car use in the city, is therefore positive. Not concerned with outcome equity. Thinks car-free city center is fine as long as electric bikes and scooters are regulated in a good way. Believes in man-made CC, and takes some personal responsibility, but thinks it's mostly about economic and social change that must be enabled and facilitated by technology and policies. Makes a connection between car driving, CC and/or air pollution (not clear) (AC). Activated pro-environmental personal norm (AR) regarding CS behavior (weak) and CS policy support (average).	Self-Transendence. High score on biospheric values. From center towards left on political axis.
R	**Tolls:** Quite agree/ Positive **Car-free city center:** Positive	1: 46 2: PS 3: No, odd jobs 4: Single 5: <450 000 6: Two, 15, 18 years 7: No	Mainly walk or bike to work or for other errands, sometimes uses PT if travelling far or if in a hurry. Both children use PT for getting to school or sports activities, sometimes carpooling.	Walks or bikes for several reasons: it provides some exercise, is environmentally friendly, car is unnecessary in the city and both car and PT is expensive. Prefers to walk, depending somewhat on the distance, walks all year round.	Small social circle, most of them live abroad. But most use PT, bikes or walks. CS behavior not sanctioned, no social/non-internalized transport norms. On societal perceived social norms regarding everyday travels (mainly in Oslo), R thinks this is difficult to answer, thinks a lot of people are good at using PT, walking and biking, but he's worried that most people still wants to be able to use cars.	Limited knowledge on both policy rationales and functions. Thinks the new toll rings are important to limit car traffic into the city, but also sees the need for infrastructure efforts, making it easy for people to commute with PT. Somewhat concerned with outcome equity, but limited knowledge on the system. Very positive towards less cars in the city, thinks this should even be expanded further. Doesn't see the point of having cars and parking spaces in the city. Believes in man-made CC, takes some personal responsibility, but thinks it's up to science to give us the solutions society needs. Makes a connection between car driving, CC and air pollution (AC). Activated pro-environmental personal norm (AR) regarding CS	Self-Transendence. High score on biospheric values. Left side of political axis, also "green".

						behavior (average) and CS policy support (average).	
Object	*Policy support* (attitude variable climate survey/ in interview)	*Individual characteristics* (socio-demographic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteristics* (personal and political values)
T	**Tolls:** Quite agree/ Mainly positive **Car-free city center:** Positive	1: 39 2: BA 3: Yes 4: Single 5: 450-650 000 6: Two, 12, 6 years 7: No, sold it recently	Usually walks to work, depending on work situation. Uses a combination of city-car (electric) from VY and PT when delivering youngest child in kindergarten (takes too long and is too stressful with PT) or when tired, older child uses PT.	Time, flexibility and low stress are important factors for T, especially when having the children. Cost is also important. Sold car because it was too expensive, and more environmentally friendly to get a membership with the electric city-car.	Mostly car use in social circle, a few uses PT. CS behavior not sanctioned, no social/non-internalized transport norms, but those who use car thinks they must use a car. On societal perceived social norms regarding everyday travels (mainly in Oslo), T thinks that many people have the idea that PT is good, but then its cumbersome because you lose a lot of time and it is felt as stressful with departure times that you have to meet and it is very full in the morning, so even though one must drive in a queue, it is still worth it.	Some knowledge on both policy rationales and functions. Doesn't mind paying for polluting, thinks this is only natural in a big city, but the way one is affected by the tolls geographically is too random. Thinks road pricing would be more just, but then again, the time- and environmentally differentiated tolls works better regarding pollution. Not concerned with outcome equity. Doesn't see the need for private cars in the city, for environmental and safety reasons. Believes in man-made CC, takes personal responsibility. Makes a connection between car driving, CC and/or air pollution (AC). Activated pro-environmental personal norm (AR) regarding CS behavior (weak) and CS policy support (average).	Self-Transendence. High score on biospheric values. Center-left side of political axis.
D	**Tolls:** Highly agree/ Positive **Car-free city center:** Positive	1: 43 2: BA 3: Yes 4: Separated 5: 450-650 000 6: Two, 10, 8 years 7: Going from gasoline to electrical (for economic reasons)	Uses electrical bike to commute to work (can also use PT), tries to do it all year round (is worried it is going to be easier to use the car now that it'll be electric). Children walks/bikes to school or nearby leisure activities. Car is mainly used for 'out of city' activities, major shopping errands and for things that	Uses electrical bike for economic reasons (almost free) and because it provides some needed exercise. Likes to be able to bike past the queue of cars when going home. Somewhat challenging in winter. Rarely uses PT, it's easier to take the car due to free parking many places in the city through work. It depends on the activity, e.g. often uses PT when travelling with	Mostly PT use when commuting to work in social circle, but car use when delivering children at school/kindergarten and other activities. CS behavior not sanctioned, no social/non-internalized transport norms, but coworkers sometimes give positive feedback when biking to work and negative feedback if using car instead. On societal perceived social norms regarding everyday travels (mainly in Oslo), D thinks many people use PT as much as they can in everyday life because one notices that it works, thinks few see driving far to and from work as a real alternative if they don't have	Knowledge on both policy rationales and functions. Thinks the tolls with time- and environmentally differentiated and subsidies for electric cars is a reasonable way to achieve better air quality, less pollution and queues. Not concerned with outcome equity. Thinks car-free city center gives less emissions, more awareness on how to get around in a more environmentally friendly manner. Believes in mainly man-made CC, thinks one should take personal responsibility. Makes a connection between car driving, CC and air pollution (AC). No activated pro-environmental personal	Self-Transcendence and somewhat Conservation High score on biospheric values. Traditionally center, but unsure this election, most likely on left side of political axis.

			doesn't fit on the bike.	children because they like it.	to and would rather spend time on other things they like.	norm (AR) regarding CS behavior, but for CS policy support (average).	
Object	*Policy support* (attitude variable climate survey/ in interview)	*Individual characteristics* (socio-demographic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteristics* (personal and political values)
L	**Tolls:** Highly agree/ Positive **Car-free city center:** Positive	1: 38 2: MA 3: Yes 4: Married 5: NA 6: Two, 4, 6 years 7: One electrical	Uses PT for commuting to work, walks to deliver children in kindergarten/ school. Use PT or bike and carrier for activities in city center or nearby area. Use car mainly for children's leisure activities (some carpooling), weekend excursions and errands.	Use PT for several reasons: relevant for L's job, the environment, it's possible to do other things during the travel and predictable travel times. Bikes sometimes, but often practical difficulties. Practicality and efficiency important. Not fond of driving, prefers PT and bike (because of exercise). Thinks PT gives more flexibility than car.	Mostly car use in social circle. CS behavior not sanctioned, no social/non-internalized transport norms. L comments that it's very easy for him/her to use PT, and it may not be as easy for social circle, but thinks it also has to do with attitude and preference of driving. On societal perceived social norms regarding everyday travels (mainly in Oslo), L thinks a lot of people think that those who have the opportunity should use PT and then there is always someone who thinks that they can justify their own car needs or someone who likes to drive and wants to drive.	Some knowledge on both policy rationales and functions. Doesn't think it's appropriate that most people have the possibility to drive in the city and thinks economic incentives are necessary to enable an attitude change. Not concerned with outcome equity. Thinks it's positive with less cars in the city, easier navigability for PT. Believes in mainly man-made CC, takes some personal responsibility. Makes a connection between car driving, CC and air pollution (AC). Activated pro-environmental personal norm (AR) regarding CS behavior (average) and CS policy support (average).	Self-Transcendence and somewhat Conservation High score on biospheric values. Center of political axis.
M	**Tolls:** Highly agree/ Positive **Car-free city center:** Positive	1: 49 2: U/ND 3: Yes 4: Married 5: >850 000 6: Three, 30, 18, 15 years 7: Two gasoline, one motorbike	Uses motorbike to commute to work, uses PT or gets a ride with spouse (who drives to work every day) in winter. Uses PT for everyday leisure activities. Children use PT, walks or bikes to school, has no leisure activities that requires driving.	Uses motorbike because it's easy and fast, at least half the time of PT. It's also because the motorbike is exempted from the tolls, but not the sole reason for owning it. Prefers to use motorbike in the city, thinks it's a hassle to use car, would rather use PT. Is considering switching to electric, since a new toll station has been set up on between them and the city.	Mix of either PT use, car use, or both in social circle. Thinks many people in the area use PT. CS behavior not sanctioned, no social/non-internalized transport norms. On societal perceived social norms regarding everyday travels (mainly in Oslo), M thinks most people are different people, and that there are divided opinions about it. Thinks that Oslo people in general may be more positive towards PT than elsewhere in the country and thinks it may have something to do with the fact that public transport actually works really well in Oslo.	Knowledge on both policy rationales and functions. Understands the idea of tolls and thinks it's the correct way of doing it. Simultaneously understands the perspective that one also pays for the PT infrastructure and road projects through 'normal' taxes, but thinks tolls are better because then mostly local people pay for local projects. Not concerned with outcome equity. Thinks it's nicer with a city center that has less cars. Believes mainly in man-made CC, nevertheless one should live after the precautionary principle, CC must be combatted through political and economic incentives. No clear connection with car driving and CC and/or air pollution (AC). No activated pro-environmental personal norm (AR) regarding CS	Self - Transcendence, somewhat Openness to Change, somewhat Self-Enhancement and somewhat Conservation High score on biospheric values. Left side of political axis.

						behavior, but for CS policy support (weak).	
Object	*Policy support* (attitude variable climate survey/ in interview)	*Individual characteristics* (socio-demographic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteristics* (personal and political values)
U	**Tolls:** Highly agree/ Positive **Car-free city center:** Positive	1: 39 2: MA 3: Yes 4: Married 5: >850 000 6: Three, 1, 5, 7 years 7: No	Use bike to commute to work and for small errands. Spouse also bikes or walks. If doing activities with family, they use PT. If they're traveling far and feeling lazy, they use car-sharing services (both have driver's license). Children have kindergarten in the building next door.	Use bike (all year) because it feels like the most practical and efficient means of transportation. Likes to not feel constrained by PT departures. Has not owned a car before. Prefers using bike because it efficient both in time and cost. Used to have a monthly pass for PT, but just stopped buying it at some point.	Mostly PT and bike use in social circle, both for commuting to work or delivering children to school/kindergarten. CS behavior not sanctioned, no social/non-internalized transport norms, but experience that some might find it strange to bike in winter. On societal perceived social norms regarding everyday travels (mainly in Oslo), U thinks most people think that one should travel by PT or bike. U adds that he lives in a place where it is very easy to think that way, but also thinks that the PT infrastructure in Greater Oslo is quite well developed so people prefer that way of travel.	Some knowledge on both policy rationales and functions. Thinks private cars takes up a disproportionate amount of space in the city, that there's no room for more cars and that people must be lured into other forms of transport. Not concerned with outcome equity. Thinks it's positive with less cars in the city. Believes in mainly man-made CC but thinks it's too big of a problem to fix. Makes a connection between car driving, CC and air pollution (AC). No activated pro-environmental personal norm (AR) regarding CS behavior, but for CS policy support (average).	Self-Transcendence, somewhat Openness to Change. Medium score on biospheric values. Center-left side of political axis.
V	**Tolls:** Highly agree/ Positive **Car-free city center:** Positive	1: 49 2: MA 3: Yes 4: Cohabitation 5: >850 000 6: Two, 14, 16 years (1 bonus, 12 years) 7: One gasoline	Use bike for commuting to work, shopping and all other activities, tries to avoid using the car. Children are big enough where they can get to school etc. by themselves. Car is mainly used for driving children to sports activities/ matches (they also use PT), going to cabin or visiting family.	Use bike because he/she likes it, has always used bike, provides exercise and its good for the environment. Thinks car is stressful and inconvenient in the city, would rather use PT. V does not consider him/herself a 'car-person'. Prefers to use bike but says it might have been different if work was very far away but would nevertheless be skeptical towards using the car.	Most people in social circle have car but doesn't use it for bringing children to school/kindergarten, some use it for work and training. Few uses it for everyday activities, but for driving children to matches. Family in Oslo walks or bikes. CS behavior not sanctioned, no social/non-internalized transport norms, but experience that some find it strange that V always bikes to training (most drive), even in winter. On societal perceived social norms regarding everyday travels (mainly in Oslo), V thinks most people have a desire to travel by PT, says he/she sees few bikes around, but that its increasing, so it seems like people wants to bike. V adds that some people seems to be dependent by car in everyday life, no matter	Knowledge on one policy (tolls) rationale and function. Thinks it seems like the new tolls give a more equal distribution of the costs which is good. Not concerned with outcome equity. Thinks less cars in the city changes the atmosphere, makes it nicer and busier with people instead. Believes in man-made CC, thinks politicians take to little action. Makes a connection between car driving, CC and/or air pollution (not clear) (AC). Activated pro-environmental personal norm (AR) regarding CS behavior (average) and CS policy support (weak).	Self-Transcendence. High score on biospheric values. Left side of political axis.

					how well the PT system works.		
Object	*Policy support* (attitude variable climate survey/ in interview)	*Individual characteristics* (socio-demographic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteristics* (personal and political values)
W	**Tolls:** Highly agree/ Positive **Car-free city center:** Positive	1: 37 2: MA 3: Yes 4: Married 5: >850 000 6: Two, 5, 7 years (1 bonus, 12 years) 7: One electrical	Use bike for commuting to work (all year), delivering children in school/ kindergarten. Oldest child use PT. Use PT when doing activities in the city. Spouse also bike all year. Use car for driving children to sports activities (some are close enough to walk) and for weekend travels outside the city.	Uses bike for several reasons: doesn't like to drive, not a good driver and environmental reasons. After a while they realized it was faster and less stressful than driving, so now practical reasons are just as important. Now prefers to bike, and says car is not that important, but that they're an active family who likes to do many things on the weekends.	Mostly bike and PT use in amongst friends and neighbors, also for bringing children to kindergarten/ school/ leisure activities. Family has cars, but mother and brother bikes/ walks, while father drives some. CS behavior not sanctioned, no social/non-internalized transport norms, but experience that some find it strange that W always bikes to work, even in winter. On societal perceived social norms regarding everyday travels (mainly in Oslo), W just says he / she lives in a "bubble" where it is given an impression that everyone cares about the environment and are highly educated, but that he / she realized lately this is not true for Oslo in general.	Knowledge on both policy rationales and functions (the only one who has expressed it explicitly as a climate policy). Thinks the restrictive car policies are contributing to an important change towards a futuristic and healthier city to live in. more concerned with the environment than outcome equity. Thinks it's important to make sure that emergency vehicles can access the city center, otherwise thinks it's a good idea with less cars there. Believes in man-made CC, takes some personal responsibility. Makes a connection between car driving, CC and air pollution (AC). Activated pro-environmental personal norm (AR) regarding CS behavior (average) and CS policy support (average).	Self-Transcendence, Conservation and somewhat Openness to Change. Medium score on biospheric values. Left side of political axis.
H	**Tolls:** Don't know/ Positive **Car-free city center:** Positive	1: 37 2: U/ND 3: Yes 4: Married 5: >850 000 6: Three, 9, 7, 4 years 7: One electrical, one diesel	Use diesel car to deliver children at school/ kindergarten, bikes (all year) from there to work. Used to deliver children by bike with carrier, but they are too big now. When all start school, they will walk together. Spouse use electric car to work (would have spent twice as long with PT). Use it to bring one of the children to	Says this solution is mainly about timesaving in a busy everyday life, H thinks driving to work would only save about 5 mins at the most, but he / she also doesn't want to drive due to environmental and economic reasons. Prefers bike because of time and cost efficiency, freedom and provided exercise. Says it's different if doing a lot of grocery shopping,	Both PT and car use amongst friends, many neighbors jog or bike, and use (electric) bike with carrier when commuting and / or for bringing children to kindergarten/ school, says it's a very sporty neighborhood. Parents drive a lot, but planning to get an electric car, while siblings both drive and use PT/ taxi services. CS behavior not sanctioned, no social/non-internalized transport norms, but has experienced that social circle find him / her sporty when using bike (and carrier). On societal perceived social norms regarding everyday travels (mainly in Oslo), H thinks the majority thinks that ideally it should be environmentally friendly, but that you also must be allowed	Some knowledge on both policy rationale and function. Opposed the restrictive policies in the beginning because it felt forced and that it was just a top-down decision. But after a while, H felt the benefits when biking: better air quality, fewer cars and general increase in safety. Still thinks there should be more "carrots" and less "sticks". Not concerned with outcome equity. Believes mainly in man-made CC, nevertheless one should live after the precautionary principle, some personal responsibility. Makes no clear connection with car driving and CC but recognizes issues with air pollution (AC). Activated pro-environmental personal norm (AR) regarding CS	Self-Transcendence, somewhat Openness to Change, somewhat Self-Enhancement Low score on biospheric values. Center-right on political axis (votes for the Christian party due to their values and family-policies, not anything related to religion).

			sports activity in the city.	going far or bringing someone.	to do what suits you and your everyday life.	behavior (weak) and CS policy support (weak).	
Object	*Policy support* (attitude variable climate survey/ in interview)	*Individual characteristics* (socio-demographic factors)	*Context specific physical context* *Context specific behavior* (daily travel behavior)	*Context specific motivations* (reasons for transportation choices)	*Context specific institutional context* (social norms, conventions)	*Context specific beliefs and attitudes* (policy knowledge, awareness of consequences (AC), ascription of responsibility (AR)→ activated pro-environmental personal norms)	*Individual characteristics* (personal and political values)
G	**Tolls:** NA/ Positive **Car-free city center:** Positive	1: 50 2: HS 3: Yes 4: Cohabitation 5: >850 000 6: Two, 11, 14 years 7: One gasoline	Use bike for commuting to work (5 mins), use PT for other activities, avoids using car. Partner also bikes. Use car for driving children to sports activities if bad weather or if there are matches, but most of it takes place in the neighborhood. Always carpooling to sports activities.	Walks and uses PT mainly of environmental reasons, but also because he / she doesn't like to drive and because it's a hassle when going to the city center. Prefers to use PT (mainly bus and metro). Says the car is not used on an everyday basis, mainly for sports matches, big shopping errands, summer vacations and sometimes on the weekends.	Thinks some people in neighborhood tend to use car very easily, but otherwise in friend group and neighborhood it's mostly PT / biking / walking when commuting or bringing children to leisure/sports activities. Family on west-coast use car a lot. CS behavior not sanctioned, no social/non-internalized transport norms. On societal perceived social norms regarding everyday travels (mainly in Oslo), G thinks there is a 'green mindset' between colleagues and friends and has the impression that many people use PT when they can.	Limited knowledge on both policy rationales and functions. I explain this regarding the tolls, and G thinks it is positive, but worried that the traffic is not decreasing enough. Not especially concerned with outcome equity. Thinks the idea of less cars in the city center sounds amazing and feels like there has already been some changes. Believes in man-made CC, takes some personal responsibility. Makes a connection between car driving, CC and air pollution (AC). Activated pro-environmental personal norm (AR) regarding CS behavior (strong) and CS policy support (average).	Self-Transcendence, somewhat Openness to Change. High score on biospheric values. Far left on political axis.

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