

# Mobility Practice Emergence in Northern Zealand

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Understanding how the mobility practice performances  
of 11 inhabitants in Gentofte and Gladsaxe  
Municipality emerged

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**Project title:**

Mobility Practice Emergence in Northern Zealand  
*Understanding how the mobility practice performances of 11 inhabitants in Gentofte and  
Gladsaxe Municipality emerged*

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# Abstract

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The following project investigates how Shove et al.'s Practice Theory can be used to understand 11 inhabitants, from the case area around Kildebakke and Buddinge Station, mobility practice performances. Practice Theory is a theory that is used to explain the habits and activities by a group of people by categorising different elements; materials, meanings and competences. The theory allows for an understanding of how certain practices emerge and change. This is interesting in this case because the interviewees live in Gentofte and Gladsaxe Municipality where there is a focus on facilitating a shift towards more sustainable mobility modes. Throughout the project the use of the interviews allowed for the best possible understanding of the inhabitants practices as they could explain the nuanced thoughts that went into the development of their practice performances. Kvale and Brinkmann's semi-structured research interview inspired the interview method.

The interviews showed that the perceived time the interviewees experience on their journeys are important in regards to which mobility mode they chose. Furthermore the freedom that is associated with the car seemed quite evident in the reasonings of several interviewee's mobility practice performance preferences. However, more than anything, what the interviewees showed was that each performance of the practices were dependent on their experiences throughout time but also that the links between the three interdependent elements of meaning material and competences needed to be strong in order for the practice performance to become the preferred mobility practice.

Understanding what affects the inhabitant's mobility practice performances means that planners have a better understanding of where policies and plans can be used in order to help Gladsaxe and Gentofte Municipality achieve their goals.



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# 1. Introduction

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The following project presents 11 different people's mobility practice performances. The interviewees are from an area around Kildebakke and Buddinge station in Gladsaxe and Gentofte Municipality. The purpose of the project was to investigate how their mobility practice performances have emerged and developed over time as well as how they changed. The reason for this being of interest was in order to understand how practices are formed and how they change in order to create some insight into which conditions make certain mobility practices thrive and others fail at having people perform them. As different mobility modes use different sources of energy, some cause challenges in our society's future regarding environmental, social and economical sustainability. Understanding the mobility practice performances could provide information as to what planners and regulators can do in order to facilitate a shift towards more sustainable mobility modes.

In order to study this, Shove et al.'s Practice Theory was explained in order to use it as a method for understanding any data collected. It also served as a structure and guide for the interview questions to be developed. Practice Theory's three interdependent elements of meaning, material and competences allowed for a simple but detailed method of gathering and interpreting data from the interviews. Furthermore an understanding of Theodore Schatzki's *Timespace* also gave an insight into how time and space have an importance in each activity and performance of a practice.

## Problem Formulation

Through our modern society's technological advancements within the transport sector, our daily lives have greatly changed. Our lives now take place beyond our own towns and cities as trains and cars have allowed us to travel greater distances in shorter time (Hartmann-Petersen et al. 2009). We can live in one city and work in another, and this time-space convergence has meant that we use more resources for our daily mobility. This has brought certain consequences for our natural and social environments, as motorised vehicles' emissions have both health and environmental implications (Hartmann-Petersen et al. 2009; IPCC 2013; UN 2012; Hartoft-Nielsen 2001).

Throughout Europe, the many different sectors have had a focus on decreasing emissions, and although most sectors have been successful in doing so, the transport sector continues to increase its emissions of greenhouse gases (Eurostat - Statistics explained 2011; ICLEI 2011; SGGCC 2016). It would make sense that due to mobility's importance in society and the increasing use of especially road transportation and car ownership the greenhouse gas emissions continue to increase. Perhaps it is a vicious cycle of increasing mobility's importance in society, the road capacity and the amount of car ownerships (Downs 1992, Danmarks Statistik 2017). The road capacity is expected to increase by 70% by 2030 (compared to 2008) whilst the Danish society loses kr. 5.7 billions each year because of traffic jams (Riis 2012). Furthermore, the more cars and other polluting mobility modes are available to the masses the worse the pollution gets, the more it detracts from the life quality of the place both physically and mentally (Hartmann-Petersen et al. 2009; IPCC 2013; UN 2012; Hartoft-Nielsen 2001; Realdania by 2015).

The space that these mobility modes take up, both on the roads but especially when parked for 95% of their lifetime, could mean less space for urban life to occur (Freudendal-Pedersen & Nielsen 2012; Hagman 2006; Lyons & Chatterjee 2008; Servant 1996 in Camagni et al. 2002). Furthermore, a consequence is the many health risks pollution brings with it, e.g. in the shape of respiratory illness. There are also the environmental damages from more extreme weather causing droughts and malnutrition, to name a few (WHO 2016; NASA 2016).

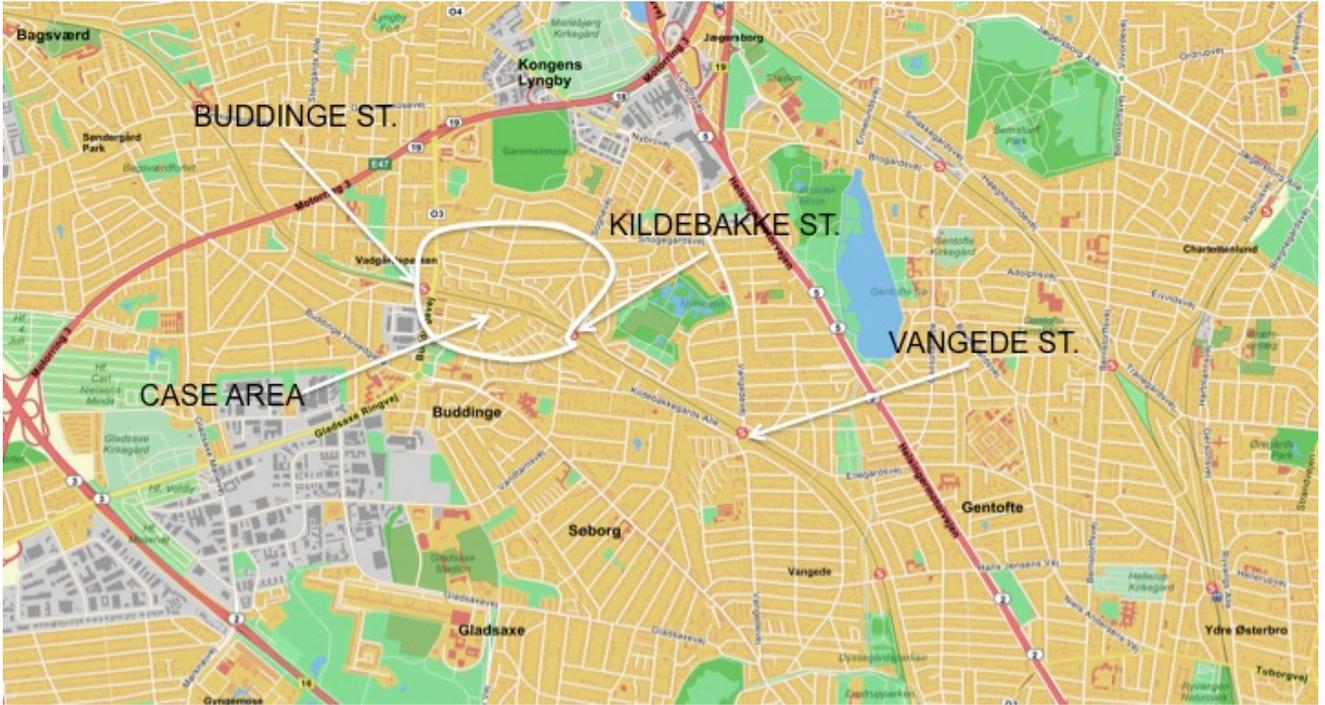
Therefore, it is essential to attempt to facilitate a shift towards more sustainable mobility modes, both for the sake of the natural and the social environments. But how can this shift be facilitated? What is necessary for the shift to occur? One element that is of great importance is research and development of less consuming and polluting mobility modes (Energi-, forsynings- og klimaministeriet 2016). Another element could be: understanding how changes in mobility have previously taken place through investigations into mobility practices (Shove et al. 2012). As the social mobility practices of people are often seen as a hurdle for truly implementing a cleaner mobility mode (Shove et al. 2012; Urry 2007 in Freudendal-Pedersen & Nielsen 2012). This could inform policy makers and planners in their work, as this is where certain challenges occur. In a previous project, one of the main observations revealed that one of the factors that make planners reluctant to focus on sustainable mobility modes in the planning is that they worry about the citizens reception and being able to sell the area to investors and developers too (Jørgensen 2017). In this case, the understanding of the citizens' mobility practice performances could perhaps highlight some opportunities for transitioning their practices in a different direction through the planning process.

## Case Area

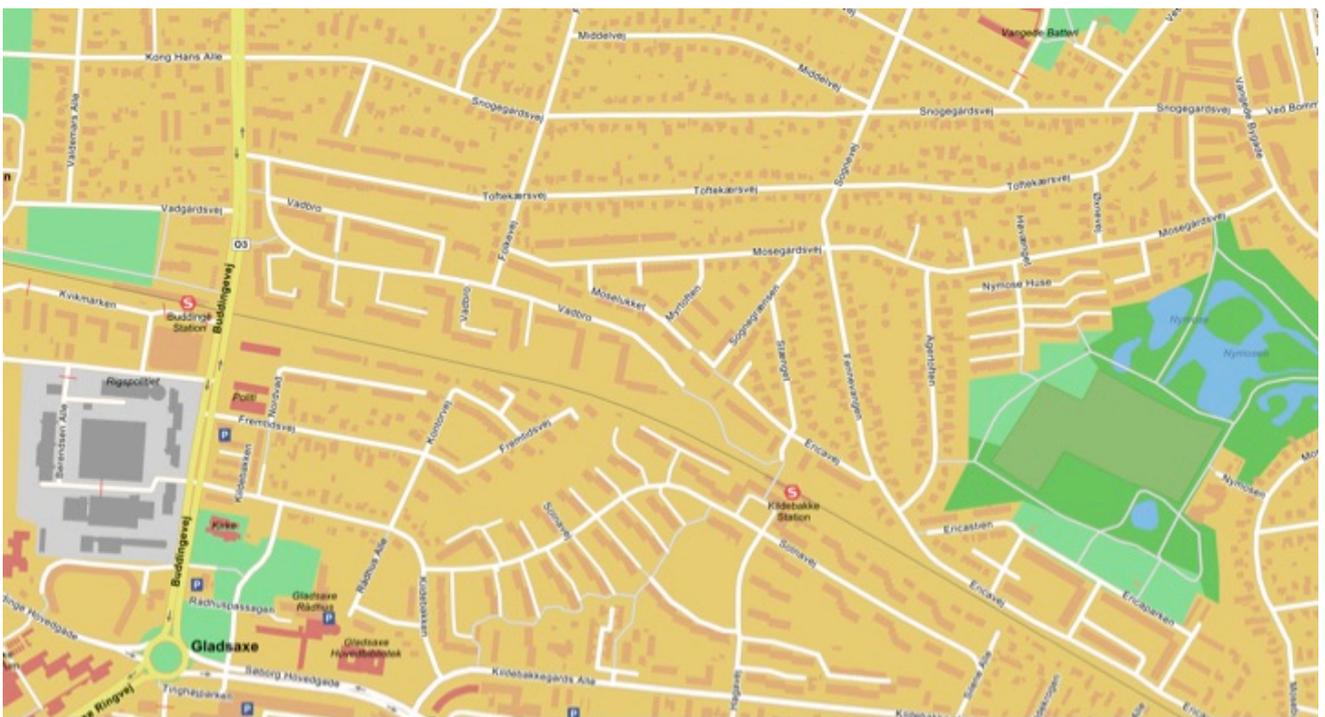


MAP 1: Case area on Zealand

The case area chosen was an area within Gladsaxe and Gentofte Municipality, as there was a high availability of different transportation services. The municipalities are served by a wide array of transportation modes, including busses, s-trains, motorways, a wide net of bicycle and pedestrian paths and with a future light rail. This means that currently the municipalities are connected to Copenhagen through the, s-train, the Hillerød and Helsingør motorway, buses like the 6A and 250S, and bicycle lanes. Furthermore, the s-train, as well as the buses, bicycle and pedestrian paths, the 03 motorway connects the municipalities to Northern Zealand and other parts of Zealand.



MAP 2: Case area in relation to the train stations, the motorways (red lines)



MAP 3: Shows the area in which the interviews were carried out

The O3 motorway also serves as a guide for which route the future light rail will take. It will connect everything from Lyngby-Taarbæk Municipality, through Gladsaxe, Herlev, Glostrup, and Vallensbæk Municipality, ending in Ishøj Municipality, with a few stations being quite close to Gentofte Municipality too (which is also the route of the future light rail. See diagram 1).



DIAGRAM 1 : Shows the light rail's line with the stations. From: Hovedstadens Letbane N.d.

The availability of bicycle and pedestrian paths, as well as the public transport are of special importance to Gladsaxe Municipality as it has made a Traffic and Mobility plan with hopes of facilitating its inhabitants to shift towards more sustainable mobility modes. In this plan the municipality has some specific goals which include [1] to increase the amount of bicycle journeys the inhabitants in Gladsaxe Municipality take by 15% in 5 years, [2] To cooperate with traffic companies and neighbouring municipalities to increase the passenger counts in the public transport by 25% in a 10 year period, [3] To better the road circumstances for car traffic and especially the public transport by reducing the congestion on the municipal roads (Gladsaxe Kommune N.d.).

In Gentofte Municipality, there is a focus on the areas surrounding the stations as the municipality states that these areas should be facilitate mobility behaviour that favours public transport. Furthermore the municipality states that offices with limited parking should consider a company bicycle scheme or shuttles to and from the local station (Gentofte Kommune 2017). Beyond what Gentofte Municipality states in the Municipal Plan, they mainly focus on traffic safety stating that they in the recent years and in the future are focussing on improving the areas where most accidents occur, especially to encourage children to be able to get around in the traffic on their own (Gentofte Municipality 2017). The Traffic Safety Plan 2017-2020 has five main focus areas in order to ensure an improvement in the safety: [1] Traffic behaviour and speed, [2] The next generation of people in the traffic, [3] Parking, [4] Bicycle Traffic, [5] Accessibility. According to the plan, the citizens in Gentofte Municipality often experience unsafe conditions on the roads caused by car drivers' illegal and reckless actions such as speeding, especially on smaller roads (which they use to get around the congested roads), and parking recklessly. In general the traffic conditions seem to be negatively impacting the citizens, the speeding of cars and cyclist as well as increased car congestion in the municipality is scaring the citizens away from the roads, according to the municipality (ibid.).

The two municipalities have ultimately have some similar goals regarding altering their inhabitants practices in order for them to use more sustainable modes of transport like being able to cycle due to safer conditions. However, the conditions on either side of the train track are quite different, it would seem. This is due to general focus being on safety in one municipality and on sustainable mobility modes on the other. Perhaps Gentofte Municipality's focus on safety is due to less well-developed bicycle lanes making dangerous conditions for the children in the area. This would explain the municipality's focus on this over sustainability.

## Research Question

How can Shove et al.'s Practice Theory enlighten our understanding of how the mobility practices of the inhabitants living around Buddinge and Kildebakke station are formed?

## Sub-Questions

1. What are mobility practices and how do they emerge?
2. How can mobility practices change theoretically?
3. What are deciding elements in the emergence of the interviewees' performance of the mobility practices?
4. Has the mobility practices of the interviewees changed? Why?

## Methodology

This project came about as it seems that more research into what shapes people's mobility practices was necessary. In order to investigate the mobility practices of people, Gladsaxe and Gentofte Municipalities were settled upon as the case area. Having inhabitants from a similar physical and societal context would allow for an investigation of their practice performances without having to take too much into account an extensive analysis of several different places when trying to interpret the answers of the interviewees. In order to answer the research question, it was necessary to have an understanding of what has shaped the interviewees mobility practice performances throughout the interviewees' lives. Using practice theory by Shove et al., as a frame of understanding for empirical investigations, it was possible to highlight some of the different elements of importance to developing mobility practices; these are materials, meanings and competences.

Furthermore, incorporating different research and theoretical thought to support practice theory by putting the elements into a temporal and spatial context, like Schatzki's timespace theory, gave a greater understanding of the importance of the organisation of e.g. the material in regards to the temporal organisation of the tasks that are carried out with this mobility practice.

The empirical analysis includes a number of qualitative interviews, inspired by Kvale and Brinkmann, but built against Shove et al. 2012's practice theory. The interviews were with inhabitants from the area around Buddinge and Kildebakke station. The interviews were about the interviewees' mobility practices, analysed using the three interdependent elements of practice theory, as well as the temporal and spatial organisation of the elements.

By attempting to understand why people perform the mobility practices as they, it allows for an insight into understanding what planners can learn from the inhabitants that they are planning for, hopefully creating better, more inviting policy framework, competences or infrastructure for the more sustainable mobility modes to become a more integrated part of the citizens mobility practices.

## 2. Theory

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As mentioned in the methodology, the knowledge that frames the interviews was the theory. Practice Theory allows for an understanding of some of the key components of practice formations, whereas timespace provides a context for organising the meaning, material and competences in a temporal and spatial manner. This allows for further understanding of the mobility practices' occurrence and therefore what can be attempted to change in order for more people to be accepting towards changes to mobility practice systems. Shove et al. (2012) explain in the opening chapter of *The Dynamics of Social Practice* that through an understanding of social practices presented in the book there could be a chance that the value of sociology could be found in regards to challenges like climate change. Another sociologist makes a similar statement, according to mobility sociologist John Urry, the understanding of social practices is an important topic in regards to sustainable mobility, hence for how climate change can be tackled through social practices (Urry 2007 in Freudendal-Pedersen & Nielsen 2012).

This is why the following chapter will present and discuss how Elizabeth Shove's understanding of practice theory informs this project and how Theodore Schatzki's timespace theory could possibly be used as supplementary theory.

### Practice Theory

In *The Dynamics of Social Practice*, Shove et al. presents their understanding of practice theory, one of many understandings regarding sociological investigation of habits and practices (2012). Practice theory is used for explaining how a practice occurs; what goes into a practice being created and continuously carried out. Shove et al. explains that a practice is a repetitive activity that emerges due to three interdependent elements being linked together. The elements of material, meaning and competences are linked together by a group of people, rather than an individual, in order to create a customary activity - a practice (ibid.). Theodore Schatzki explains that a practice is a collection of activities, this definition will be explained in more detailed later in the chapter (Schatzki 2010). A common definition of practice is "*the usual or expected way of*

*doing something in a particular organization or situation; a habit or custom...*" (Oxford University Press 2001).

It is important to realise that according to Shove a practice is carried by the people involved in the habit/custom. This should not be misunderstood as the individual creating the practice, but rather having the individual be a carrier of the practice that is established through several people utilising the three interdependent elements to shape the practice (Shove et al. 2012). It can also be thought of as the individual being a practice performer, that with every one of their activities are participating in the practice's continuous existence (Shove et al . 2012, Schatzki 2010).

Several theorist and philosophers, including Heidegger, Wittgenstein, Giddens, Bourdieu, Schatzki and Reckwitz, have contributed to these theoretical thoughts, with different focuses, purposes and results. Coming from different backgrounds, these theorists' different approaches and understandings of practice theory all lend elements to Shove et al.'s practice theory. Shove et al. presents practice theory as being made up of three interdependent elements; meaning, material and competences. It is here that the theorists have different interpretations and understandings.

### Shove's Meaning, Material and Competences

The three interdependent elements of practice theory are meanings, materials and competences. Together they shape the practice, and therefore individual motivating elements or driving forces do not shape the practice. Reckwitz's practice theory has been one of the main building blocks upon which Shove has formulated her interpretation of practice theory. This is because he included several different elements like "*forms of bodily activities, forms of mental activities, "things" and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge*" (Reckwitz 2002 p. 249 in Shove et al. 2012 p. 23). These were then narrowed down, by Shove, to the three elements of material, competences and meaning. Although these three elements are featured in Reckwitz's theory, that is not always the case for the rest of the theorist studying practices. This is interesting since more recent writings upon the subject have placed more importance on e.g. materials (like with Røpke, Schatzki and Reckwitz) than previously (like Bourdieu and Giddens). Schatzki also highlights the importance of material as all human activities (which are the performance of practices) happen in some kind of material context (Schatzki 2010). Including and perhaps even featuring materials in the understanding of practices seems like it would make sense, especially in the sense of the importance of spatial elements, which Schatzki discusses further regarding *timespace*, which will be expanded upon later.

The material element of practice theory therefore has a significant role in the shaping of practices and includes everything from the body itself to infrastructure, tools and other objects. However, the material element alone is not enough to establish a practice as there still needs to be an understanding of what the purpose is and how to utilise these materials accordingly (Shove et al. 2012).

The second element is meaning, which is a slightly more abstract element in that it can include e.g. emotions, moods, motivation, beliefs and purpose, or as Shove explains it, meanings: “*represent the social and symbolic significance of participation at any one moment.*” (Shove et al. 2012, p. 23). A practice does not emerge from nothing, the purpose or meaning of a practice is essential, each activity that an individual person takes part in, occurs for a reason, not just randomly (Schatzki 2010). Furthermore, without a similar reference point for the practice performers, the practice also could not exist as a cohesive collection of activities. For Schatzki, meaning is more related to the inclusion of emotions, moods, beliefs and purposes into the organisation of the practice through its temporal and spatial location. It is part of the coordinates for timespace. Therefore, because Schatzki believes that activities create or unite the temporal and spatial location (*timespace*), this does not fit with Shoves three interdependent elements as it would mean that an individual element such as a location is interrelated in the activity with the other elements, whereas Schatzki believes that the activity unites and gives purpose to the location and time (Schatzki 2010). On some level it makes sense that the activity and the possibility of an activity can give meaning or importance to a time or space that otherwise would be nothing. However, when understanding how a practice occurs it is important to be able to study the importance that the material location has to the practice becoming what it is. So although one may initially find the idea of the temporal and spatial coordinates of a practice important and interesting when studying practices, it cannot, in this case, be used in its entirety as described by Schatzki. What seems to be most compelling in regards to this project is that Schatzki considers that the organisation of an activity in time and space has an importance which is directly related to the purpose or meaning of the practice. Furthermore this organisation could, as Schatzki also mentions, be related to the social construct of a person’s purpose and the timespace that is created through their activities (Shove et al. 2012, Schatzki 2010).

The social construct also links to the final element, the competences. In a society, there are certain social constructs that allow us to have a similar understanding of what is normal and usual to do. It gives a similar foundation to our practices taking place. Furthermore, competences can also include individually acquired skills, but they are often based on the same facts and knowledge, whether it is how to drive a car, which laws and rules apply or whether it is how one person finds their way around an urban area. The competences are essential to practices being formed.

## Time and Space

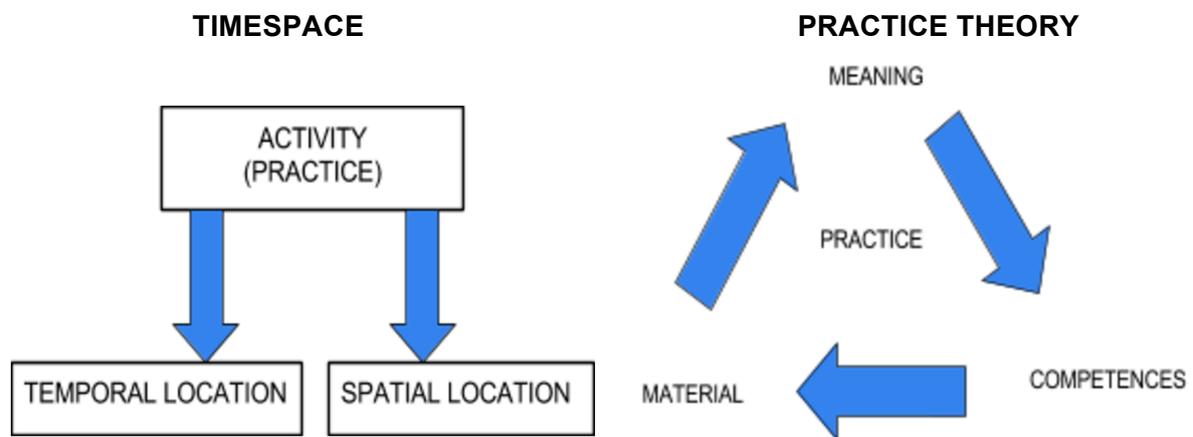


DIAGRAM 2: Timespace occurs when an activity takes place as can be seen in the diagram to the left. In the diagram to the right, it can be seen that a practice is made up of meaning, material and competences.

It can be argued that although timespace and practice theory are quite different, as can be seen by the diagrams above (diagram X), there are ways of arguing that they can supplement one another. The different theorists that Shove et al. mention have different amounts of elements compared to material, meaning and competences, these could include: emotions, moods, and purpose etc. However, Shove et al. intentionally boiled many of these different elements down in order to simplify the theory. As timespace has the element of time in it, it could be connected to the meaning as it is the purpose: an activity taking place at a certain time/place; the place is material; having competences a greater understanding of options and routes opens up for other timespaces to occur. It could be argued that perhaps the theory was simplified too much, making some elements seem less important, such as timespace, the temporal and spatial location of a practice. It could also be argued that using timespace and Schatzki's understanding of practices could introduce some relevant aspects to Shove's theory. Understanding that practices are shaped in society by materials, meanings and competences is of course an important and interesting element. Furthermore, understanding that for the individual person, the practice performer, the practice is seen through each of their activities. In these activities, the material, meaning and competences would still be present and have an affect on the practice, but the activity will also be affected by the meaning, material and competences of the society. The meanings, materials and competences are affected by the past, our competences that have been developing through past experiences, the materials that have developed and improved, the meanings that have been

affected throughout time. Schatzki uses the term *historicity* to explain the existence of the past in our present (Schatzki 2010). Shove also mentions this in regards to how practices have changed throughout time.

As individual performers carry out a practice, not all performers commit to performing a practice in its entirety. This is, according to Shove et al., due to certain trade-offs being allowed in order for other practices to be able to take place completely (Shove et al. 2012). It is important to realise that no one's life only consists of one sole practice, but rather a collection of practices that are organised in a certain way. During a day people often have routines e.g. a morning routine consisting of a sequence of practices. The sequencing is done using time and space. A timespace is created every time a person performs and takes part in a practice (Shove et al. 2012, Schatzki 2010). Time is especially important in regards to the sequencing of practices. According to Shove et al. time is a *coordinative infrastructure* which we all must understand and utilise for our modern lives to be able to continuously take place. However, as technology develops and as we can now alter or update plans on the go, time becomes more fluid, less stringently used. This also results in a change in our sequencing of practices. We can begin to create new timespaces when the activities change even slightly. Furthermore, the practices we perform can alter or perhaps change from that which was intended to that which occurs.

## Interdependency and changing practices

The interdependency of the three elements of practice theory is essential to the practices continuation (Shove et al. 2012). Although individuals can be seen as carriers of a practice, it is the community of people who act in similar ways using the same material, competences and meanings that create the practice and reinforce the links between the interdependent elements continuously. This is why a practice can never "normalise". If the links are broken, or not refreshed, the practice becomes an ex-practice. If any of the meaning, material or competences are changed/ replaced/ separated from the other elements the practice would cease to exist, often replaced by a new practice consisting of a different configuration meaning, material or competence. This not only makes the elements interdependent but also mutually shaping as they all affect one another by e.g. giving an importance to the material, or the material requiring a meaning to develop a new competence or that having a certain competence can affect the purpose and meanings behind a practice taking place.

When an element becomes unimportant for a practice, it becomes dormant, waiting for a new opportunity for a practice to utilise it. In the end certain elements become completely irrelevant. A

practice changes when a large number of people defect from one of the elements, e.g. in favour of a new or more convenient element. Shove uses an example of how the development of writing tools has created changes to the writing practice. Although the quill and fountain pen were the main material in the practice of writing, the practice was changed each time a new technological development occurred. It meant that the meaning completely changed for the practice, all due to a large number of people changing to the newly developed writing device (Shove et al. 2012).

Understanding that the three elements of meaning, material and competences are interdependent is essential when attempting to understand how practices can change. As mentioned earlier, the performance of a practice can be slightly different depending on the situation the performer is in, what their purpose is etc. However, for a practice to change, there needs to be a quite significant break in the link between the interdependent elements (ibid.). One such example could be if a person were to move from one place to another. This would create a significant break in the material context and often causes the person to be more open towards changing their mobility practice performance because they are able to re-evaluate the material in the new context, there may be different material available that they give a different meaning and they might also acquire new competences to perform the new practice (Thomas et al. 2016).

## Summary

The links between the elements change e.g. if a person moves, gets older, becomes a parent, gets a new job etc. These situational context changes, cause a break in the practice allowing for new practices to be considered. A significant break in the practice will allow the performer to evolve or develop their competences and meanings in order to encompass these new materials or meanings. Significant changes are thereby an important element to investigate in order to understand how practices can change. The changes mentioned are mostly coming from individual choices made by the practice performers, but it could be argued that perhaps certain policies could affect some of the interdependent elements from the outside.

# 3. Method

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The method used for the data collection was qualitative interviews with citizens from Gladsaxe and Gentofte Municipality around Kildebakke and Buddinge stations. The interviews that were carried out, had to be qualitative in order to encompass the history of the citizens mobility practice performances, understanding each element that went into shaping their mobility practice performances. It could be that they always have had a quite consistent mobility practice or one that has changed when things change in their lives. Everything from the weather, their familial situation, their place of employment to the location of their home, the timespace of the performance of a practice, could have an affect on their practice performances according to the aforementioned theories (Shove et al. 2012, Schatzki 2010). Since these elements are relevant to incorporate it was important that the interviews were qualitative rather than quantitative. Furthermore, it uses the strengths of practice theory by providing additional data to what is usually gathered in regards to transport e.g. traffic numbers, amount of cars that pass a certain point, or where the people from one building/neighbourhood work etc. As mentioned in the theory chapter, understanding the practices will provide an understanding of how a practice could possibly be changed.

The interview method was based on Kvale and Brinkmann's interview method: semi-structured research interview. The idea behind the semi-structured research interview is to have an overall goal and purpose of the interview without solely following an interview guide. This is because this allows for more fluidity as the interview is a qualitative interview where the answers could be rather nuanced. Furthermore the questions are quite open as they include an investigation into the values and thoughts of the interviewees, and the interviewees were encouraged to respond with as much nuance and depth as seemed appropriate. The fact of having a purpose for the interview and a semi-structured interview also meant that more follow up questions were possible if some elements were left unsaid or in the case that the interviewee mentioned something that could be elaborated upon.

The interviews were recorded so that interpretations and analysis' of the answers were possible. It is important to realise that although all the answers can be used, they should be interpreted in the light and context of the interview. Both the interviewee and interviewer came into this

conversation with an interest, mind-set, and agenda, which would affect the responses and the understanding of the answers.

This also gives extra importance to the interview guide as it sets out clear goals for the conversation and allows for a similar mind-set regarding the interview (Kvale and Brinkmann 2009).

Although the interviews are based on the structure and understandings of Kvale and Brinkmann, the actual interview guide and interviews were based on Practice Theory. Having an understanding of practice theory gave the opportunity to structure some questions that could be used to investigate the three interdependent elements of practice theory. The questions sought for answers regarding the interviewees values, the purpose of their mobility, the material they use, when they use it, why they use it at a certain time/place, which competences they have or had, all of which were inspired by Shove et al.'s Practice Theory and Schatzki's theoretical thoughts on *timespace*. Many of the questions that were asked did not use the actual words of *material, meaning and competences*. This is because it is rarely something people will organically mention when explaining e.g. how they get to work, which is why the more investigative questions are relevant to be asked. In order to acquire answers to what the meaning, material and competences are, more nuanced answers are necessary, which requires questions to be investigative whilst the interview guide remains quite open in order to add or adjust questions according to how well they cover the interdependent elements. There were also no questions using the word *timespace* as this is a complex idea not easily explained in the limited time that was available for many of the interviews. However, many of the interviewees, touched upon it in some capacity.

A lot of thought and reflection went into planning the interview guide, which is why there were several drafts and iterations of the interview guide writing process. Following the first outing where the first five interviews were carried out, some of the learning's were added to the interview guide. Even between some of the interviews on the same day, there were some notes added to further develop the interviewing skill and ensure that new thoughts and ideas were also remembered during the next interviews. Some of the new notes were questions that naturally came up in conversation with the interviewees. See the interview guide in Appendix W.

## 4. Analysis

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The following chapter presents the different interviewees views on their mobility practices in regards to material, meaning and competences. This is in order to answer sub-question regarding the practices of the interviewees as in sub-question 3, and finally sub-question 4 regarding the change in the mobility practices for the interviewees. Each of the interviewees were asked similar questions. As every interview is shaped both by the interviewee and the interviewer, each interview was adjusted to suit the conversation about their mobility practices.

Each interviewee is presented separately, with each of their involvements in mobility practices being highlighted as well as the three interdependent components - meaning, material and competences. The interviewees are presented in groups depending on their dominant mobility mode preference, be it car, public transport or bicycling. As walking seemed to mainly occur in connection to one of the other mobility practices, no one had this as their dominant mobility mode despite walking quite a bit. Furthermore the analysis looks at whether other practices, such as grocery shopping or recreational activities can affect the mobility practices.

Map 4 below shows the different locations where the interviews took place, where each number represents the interviewee. For the purpose of presenting the different mobility practices as told by the interviewees, the interviews will not be presented in a chronological order, but rather depending on their most dominant mobility practice. The decision to not present the interviews chronologically came about in order to allow for a more cohesive look at the different mobility practice performances.



MAP 4: Each X on the map shows the approximate location of the interviews, as well as their identifying number. The location is not necessarily their home.

It should be noted that despite map 4 merely showing the locations where the interviews took place, each interviewee's home (except interviewee 2) is presented on the maps in each run through of the interviewees' mobility practices.

## Multi-Modal

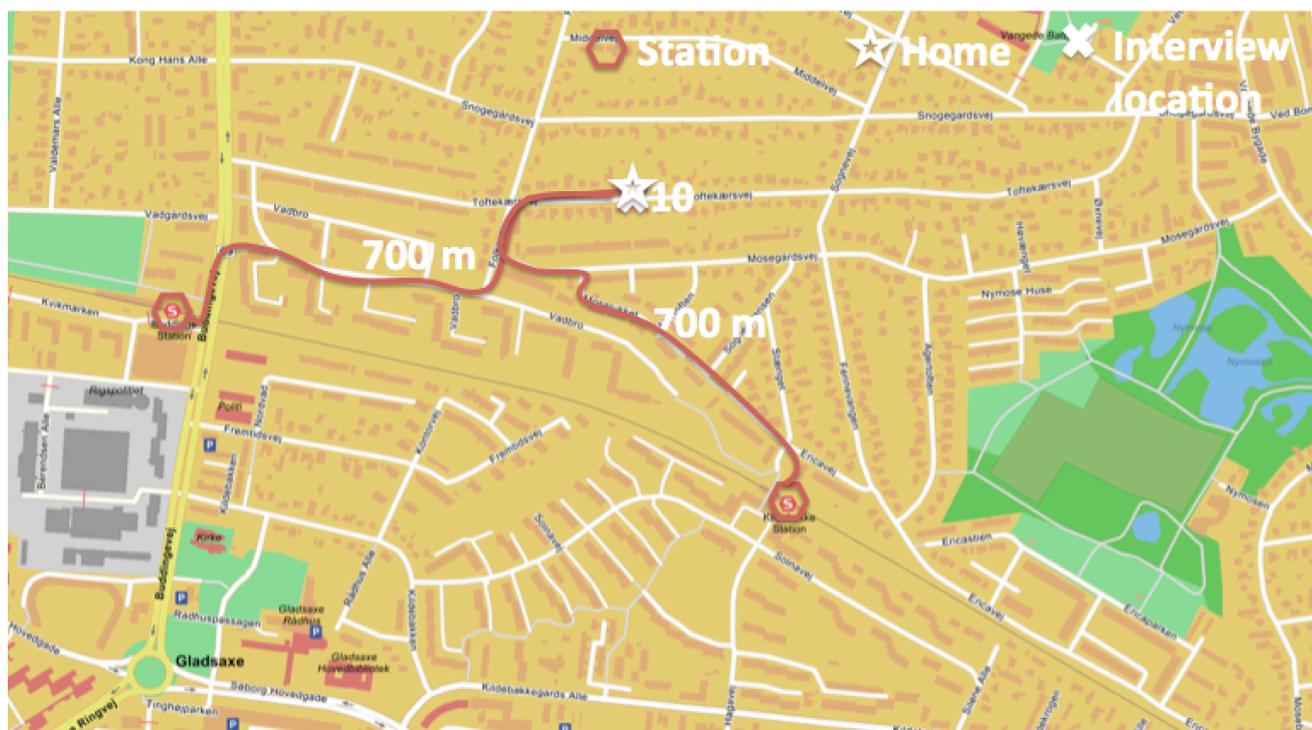
Despite several if not most interviewees could be considered to be multi-modal, most of them do mainly rely on one mobility mode. However one of the interviewees stands out due to his work being a little all over Zealand, causing him to use many different mobility modes and therefore also having quite set meanings, materials and competences. This is why Interviewee 10 will be presented as a practitioner of a multi modal mobility practice. As his practice involves all the next sections, any summations on his practices will be done in collection with the others in each section: car, bicycle and public transport.

## Interview 10

Interviewee 10 is a man in his mid to late 30's. He practices a multi-modal mobility practice mainly using car, train and walking. He used to live in Ørestaden and earlier in Frederiksberg. In Ørestad he used the car, and on Frederiksberg he would cycle to work.

He has three children, two with his current wife, aged 1 and 2 years old, and one son with his previous wife, at the age of 9. His son only lives with him every second weekend. On those weekends Interviewee 10 drives to Solrød to pick up his son after school, drives him to school and to his karate lessons. This usually occurs from Thursday to Sunday.

Interviewee 10 works as an external consultant for Nykredit and therefore works in different locations depending on where they need him. Currently he is mainly working at Kalvebod brygge, previously having worked a lot in Roskilde. He expects that he may soon mainly being stationed in Lyngby. Depending on where he works he uses different mobility modes.



MAP 5: Shows where interviewee 10 lives and the distances to the nearest station.

## Material

Interviewee 10 grew up in Greve Strand and all the way through school and high school would cycle the distances. However, when he started the military he would take the train there, and later when he continued his education in Lyngby where he would take the bus and train. He grew up in a household that occasionally would have two cars, his father would always drive to work, as he

worked in Værløse, and his mother adapted her mobility modes depending on where she was working, sometimes driving, cycling or taking the train.

He works as an external consultant at Nykredit, currently taking the car to the station to take the train into the city. On the way home he stops by the preschool to pick up his two youngest.

According to interviewee 10, the transport infrastructure in his area works really well with very few challenging parts. He states that the trains come with high frequency and the roads, free parking, and cycling paths are well looked after. However he does have a few wishes regarding the infrastructure, both in respect to the car. One wish was for another lane on the motorway and the other is regarding the future project of the light rail. Here he expressed a worry that the light rail may take away space from the cars:

*"With the light rail, how it will be placed in regards to the cars will be very interesting to see because there are two lanes over there on Buddingevej down to Lyngby, there are two lanes. How will there be a light rail without it impacting the two lanes. There are also bicycle lanes and pavements. But I know they are moving some of the houses, or so I have heard" (Interview 10, 28.15).*

When going to Copenhagen the car is definitely not his favoured vehicle due to the difficulties with finding parking and the amounts of traffic in the city. It is never the parking prices that affect this choice as his car is a company car. This is also reflected on the days where he brings his son to school by car in the mornings, instead of driving into the city, he takes the train because there is too much traffic.

Interviewee 10 claims that he uses the same routes most of the time. This is of course unless he needs to stop by the shop or does not have to pick up his children. Occasionally he will walk from Kalvebod brygge to Nørreport station instead of Københavns Hovedbanegård.

He uses a number of different navigation devices including a GPS, Navigon for the iPhone, and Google. For his train card he has a monthly card on his iPhone as an app: *"It is pretty clever, I didn't think it existed but it did."* (Interview 10, 35.40).

As grocery shopping mostly occurs online on coop.dk and nemlig.com for Interviewee 10's family, grocery shopping rarely becomes a factor in his mobility practice performances: *"It is a thousand times easier when you have children like we do, especially when they are little"* (Interview 10, 4.27) However on the few occasions where they need to stock up a bit between

the larger hauls, his wife or occasionally himself drive by the grocery shop on the way home from work, and in his case before picking up the children at preschool.

Regarding other information services available to inform one on their trips he does not use rejseplanen and rarely checks the weather or traffic situations. Occasionally he brings an umbrella but certainly still remembers having experienced times with rain and without an umbrella.

## Meaning

As mentioned earlier interviewee 10 grew up in a car owning household, occasionally even owning two cars, furthermore it was normal to acquire a driving license as soon as possible, which can be interpreted as if the car driving practice being the expected mobility mode for the people Greve Strand: *"That was probably just because it was natural. That's what everyone else was doing"* (Interview 10, 21.30).

Interviewee 10 has based most of his meanings on what is practical for the general situation, usually involving planning his life when having two young children: *"When you have children, it becomes necessary to plan a little. The spontaneity just does not work out, especially when the children are small. When they get older it gets much easier."* (Interview 10, 6.20).

Since planning is important, it means that many of the meanings he prescribes to the different mobility practice performances are related to the same themes: time and distance. He explains that he as a person is quite punctual and therefore has the same expectations to others, stating that the most important thing is *"To be on time. (...) I am very punctual. I hate being late and I hate when people are late. So it [the most important thing] is being on time. And that's why I am sceptical towards the public transport sometimes, because I have often experienced that it is a mess and then I have to leave earlier"* (Interview 10, 19.23).

Interviewee 10 explains that he previously worked in Roskilde and the journey there took approximately 22 minutes by car. He currently spends most of his time at work at Kalvebod brygge which takes 40 minutes when using a multi-modal approach (car, train and walking): *"It almost takes double the time to travel 8-9 km [to Copenhagen] rather than 40 km [to Roskilde]"* (Interview 10, 3.52). Here it seems that the time taken to travel a certain distance creates the meaning. The two different timespaces that are created by both activities are what he compares to one another to create a meaning. Although the times of day are similar, the spaces travelled differ.

Money on the other hand seems less important as he still pays for two cars. Interviewee 10 explains that the car is *"perfect, very expensive, a very bad investment. If you want to invest*

*money, do not buy a car. It is... What I haven't lost of money on cars. You really shouldn't think too much about it. It is terrible. It is crazy how much you loose on them.*" (Interview 10, 9.11). He goes on to state that when living within a city the car makes no sense to have due to traffic, so in this context the car acquires a negative meaning for Interviewee 10 despite it remaining positive in regards to his current living place, and not work place. Furthermore parking is never a problem because of money but rather due to lack of space.

An additional meaning he gives the car is prestige over having a slightly fancy car, wanting it to make a sound when the engine is started.

Despite on numerous occasions referring to his children, or at least the practicality of the car in regards to children he goes on to say that his children are not the reason why he has a car but rather that he has mostly worked outside the city. However the meaning remains the same regardless, as it has to do with time and distance.

Interviewee 10 states that he was initially quite sceptical when it came to public transport:

*"I'm very sceptical over public transport, VERY, but I have to admit and I have actually said this to a lot of people: I actually think that it runs pretty well. I was actually quite surprised that it wasn't cancelled every time I got to the station. But it actually hasn't been. There has been a few cancellations and few train-person collisions but I think it has actually been quite stable and it actually came as a surprise (...) If you have to go across of the lines then you would have to take the bus"* (Interview 10, 12.59).

It seems that the situation with the public transport system, especially the train, has challenged the meanings that Interviewee 10 has, towards more positive meanings. He is aware of his past view on the train as being often delayed but has acquired more knowledge on this with time, now realising that with his destinations the train is more favourable over the car purely due to the amount of traffic in the city and on the motorways, also considering unforeseen events like accidents. The same cannot be said about busses since he always tries to avoid them, walking rather than having to step onto a bus. His love for walking is also clear in that he thinks it is a fantastic, albeit limited, mobility mode: *"It is my favourite, to walk or to run. There is nothing better than walking"* (Interview 10, 17.37). He occasionally walks to Lyngby from his home, which takes 25 minutes. It seems that in certain situations he would be more content with walking longer distances than in others. He has previously stated that walking more than 10 minutes to a station would not be favourable, however he is willing to walk 25 minutes to avoid taking the bus. It would seem that depending on the intent when he leaves the home and how many mobility modes he is dependent on, his meanings regarding walking changes. If he has to spend time on public

transportation walking becomes tedious, however if he is only walking, it is alright that it takes a little longer than 10 minutes.

Regarding the taxi as a mobility mode, time is once again given an important meaning: *"...sometimes it makes more sense to take a taxi rather than waiting for the public transport and the taxi gets paid by my own company"* (Interview 10, 16.09). Interestingly the route that he explained he did not mind walking, he also occasionally takes a taxi on. When taking the taxi he prefers taking it within a 10km range and does this approximately twice a month. The meaning that the taxi is given is that it is a means to combat waiting time on days where waiting does not make sense to him.

Having cycled to work when he lived in the city himself, but having moved out, he explains that *"Those who say you should simply cycle to work are always those who live in the city and work there too. But for others it is quite difficult to live outside the city and then both taking the public transport and the bicycle, that just does not make sense"* (Interview 10, 10:22). He explains that in situations outside the city it becomes more difficult with bicycles and trains: *"It is just a question of how much time you want to use and on whether you want to pick up your children later. Because, I can of course cycle."* (Interview 10, 10:59). Furthermore, despite Interviewee 10's use of a very multi-modal approach, it does not seem like he necessarily appreciates others performance of multi-modal mobility practices: *"I never ever bring my bicycle on the train. I hate people who have their bicycle there. Arghh... I think it is horrible! And people come on-board with their bicycles and they don't care if their tire hits one's trousers."* (Interview 10, 25. 01). He gives the train and the bicycle practices the meaning of being impractical for longer distances or across train lines due to more time being spent on each journey. Again his children are used to give context to the importance of time in the meaning for all his mobility practice performances and therefore distances should be short in order for his plans to work out: *"The bicycle is fine, but no more than 5 km. I do not want to cycle more than 5 km"* (Interview 10, 12.46).

The battle of space on roads, especially in Copenhagen, is something Interviewee 10 is very interested in. He gives the meaning to the car (and its owner) that it is the champion in investing money for the state treasury. He is quite aware of the controversy of such a statement and that it would probably not be changed, but still, he explains that ideas like the bus lanes, and favouring trains over buses, the possible light rail perhaps taking up road space would all be unacceptable and that it seems like a waste of space. He believes that the car should be prioritised as long as it is the main contributed to the economy.

## Competences

Interviewee 10 has been practicing many different mobility practices for years. He learnt to cycle at a young age. Later he began taking the train with friends into Copenhagen to see movies etc. Then at the age of 18, he learnt to drive and was able to develop the competence due to a car being available to him when his dad was not using it. The fact that he started developing mobility practices at a young age and continued to enhance them may have lead to his sense of place, stating that when he is going to a new place: *"I research where it is located online, and then I figure out how I get there and then if it is close by I would cycle. If I am driving I will figure out where I can park. Is it with the public transport then I just note where it is and which station I need to get to and then walks there"* (Interview 10, 24.17). This is not only the case by car apparently, since Interviewee 10 would at most check which the relevant stations were when going out, but not train times or how long it takes to walk the distances. It seems that he trusts in his own competences and knows how to develop them further.

However, there are a few areas where knowledge of the system could perhaps be missing in Interviewee 10's case. This is in regards to shared cars and bicycle cars on trains. As was evident in a previous quote from the interview interviewee 10 does not appreciate people bringing their bicycles on the train, it could perhaps suggest that he may be affected by not having acted upon the experiences he has gained previously regarding the bicycle car. Others may have decided to sit in a different section and therefore being able to avoid getting their trousers dirty. it could suggest a lack of knowledge of the common practice that is connected to the bicycle car of the S-train.

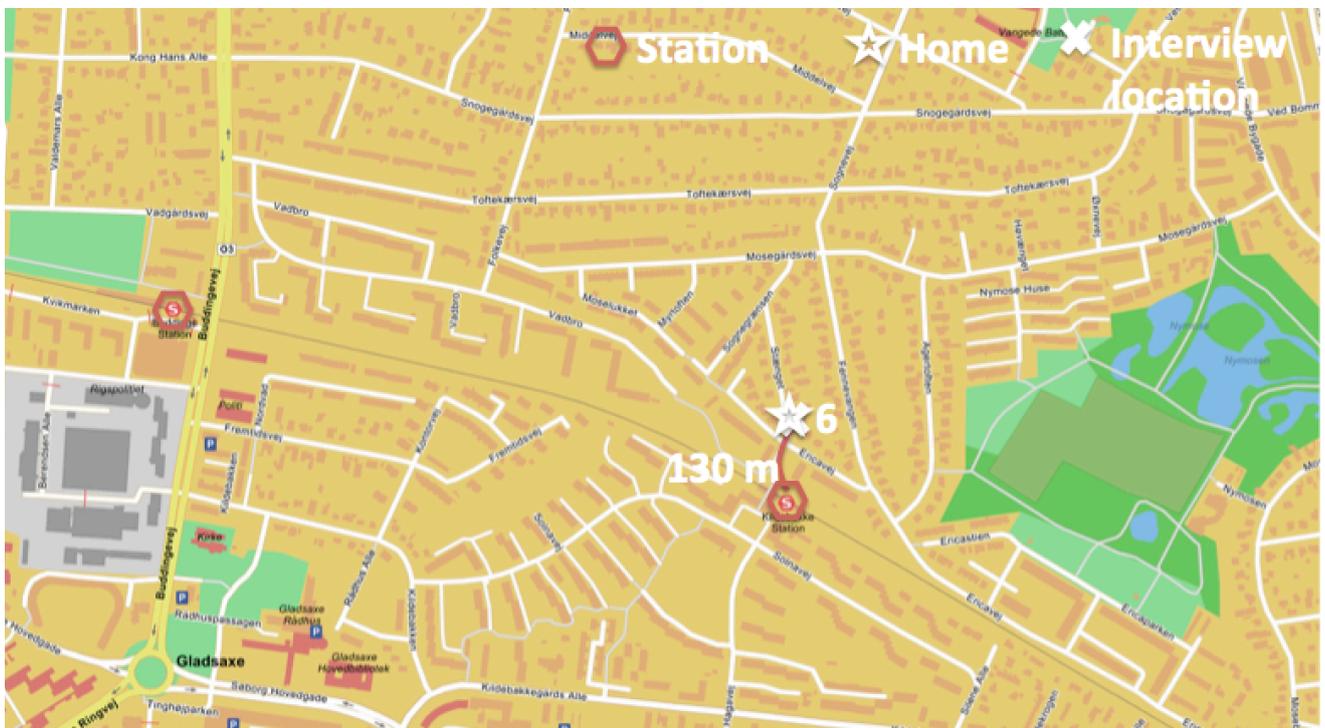
Regarding shared cars he states that he knows nothing about it: *"I actually don't know anything about it, nothing. I think the idea sounds good but I would think it was super annoying if I came out and thought I had a car and then someone else had taken it. But I don't actually know how the concept works"* (Interview 10, 16.50). Here he shows a lack of competences regarding shared cars. He does not know how it works, and although thinking it is a good idea, it does not seem to be something he has thoroughly thought about, quite possibly because he already has a car and would not have to worry about the car not being there, especially since the family has two cars (Interview Notes in Appendix U, Interview Sound in Appendix J).

## Car

The following section presents the interviewees with a quite car-based mobility practice performance. Each of the interviewees mobility practices are presented using practice theory's three interdependent elements, despite the focus being on highlighting what goes into their car practice performance, their other mobility practice performances will also be presented as this can both show how a certain practice is strengthened or weakened by another practice. Finally the main ideas of the car mobility practice will be summarised to find the similarities and differences in the ways that the interviewees perform the car mobility practice.

### Interview 6

Interviewee 6 is a 47-year-old male living with his wife and two children close to Kildebakke station. The family has been living there for 14 years. He works in Hillerød and drives there by car, dropping of his children at school on the way. His children are 14 and 11. His wife works at Rigshospitalet and cycles there. Whilst having purchased a new car recently, he would prefer to change his mobility practices if the timing was more favourable with public transport or on bicycle.



MAP 6: Shows where interviewee 6 lives and the distances to the nearest station.

## Material

Owning an 11-year-old car, interviewee 6 is currently awaiting the arrival of his newly purchased car. He has owned cars for more than 20 years. He uses it for driving to work, dropping his children off at school, driving them to handball 3 times a week and to get to family and friend gatherings. He drives 33 km to and from work, each trip taking approximately 20 minutes. About dropping his children off at school he explained: *"I drop them off on the way to work, and then sometimes we bring their bicycles along so they can cycle home"* (Interview 6, 4.39). Previously he used to drive both his children to and from handball but now his daughter cycles the 15-minute journey. For the games he continues to drive them since the games could be quite far away.

Interviewee 6 explains that the infrastructure in their area works really well. He did however have a few pointers regarding both the roads and bicycle lanes. He explained that he wished for more speed bumps on the roads as people tend to drive too fast. Furthermore, he explained that: *"there are relatively a lot of bicycle lanes, however there are also a lot of roads without any bicycle lanes, like some of the larger roads. (...) The more bicycle lanes, the better!"* (Interview 6, 9.54).

Finally, he explained that regarding the trains, he feels they have a good service level explaining that the frequency is quite high and the train is close by: *"We have the station right down here and the trains (...) But yeah we are well covered"* (Interview 6, 10:17). However, he does initially forget to mention that although the infrastructure works well in their area of residence, this is less so the case for his place of work: *"But the infrastructure to my place of work is just not good enough to take public transport, it would take more than an hour, it would take more actually."* (Interview 6, 12.17).

The urban structure means that he lives rather close to a grocery store, which enables his practice of riding a bicycle when doing the grocery shopping. On the few occasions where either he is on his way home or it is pouring down when he is going grocery shopping, the car practice is performed instead which takes approximately 4 minutes in each direction. He explains that they usually try to bicycle since they mostly grocery shop on the weekend and this is why he would say that 70% of the trips happen by bicycle and 30% by car: *"If we are just going grocery shopping on a Saturday, then there is no reason to take the car, then we just take the bicycle"* (Interview 6, 1.59).

The benefit of using the car in bad weather is also evident in that he does not use rain clothes or umbrellas when performing the driving practice.

Regarding the public transport practice, interviewee 6 does not use anything to plan his journeys nor does he own any sort of public transport card like rejsekort or an app for the smartphone.

## Meaning

Interviewee 6 explains that what he values most in a mobility practice is: *"that it is fast, that I don't have to spend too much time on it"* (Interview 6, 4.06), no matter the transport mode. This could perhaps be the reason why the car currently is his favoured transport mode when going to work: *"it [the car] is easy and fast, it is easy to get around and it is just comfortable"* (Interview 6, 2.29). His performance of the driving practice when driving to and from work is also facilitated by the traffic situation that he is met with. The lack of cars in the directions which he drives help develop the meaning that the driving practice has of being fast: *"There is one way that is the quickest, and I am not there to cruise around, I am just going to work"* (Interview 6, 5.46). Here he enforces the driving mobility practice as being purely for effective and quick transportation not for leisure. He understands that in order for the driving practice to be the best for his situation it only works when going certain places. This is perhaps also why he tends to use the trains when he is going into the city.

Growing up, interviewee 6 would usually cycle and the same goes for his parents despite them having a car and both having driving licenses. This is interesting because his parents seemingly were not as dependent on the car, however the car's presence in their lives could not be denied as interviewee 6 received a driving license as his 18th birthday present. This enforces the driving practice as one that is normal for transporting oneself, strengthening the practice even for those that do not use it regularly.

As interviewee 6 regularly uses the car when going to different family functions as well, it seems that the only situations where the car does not get used are for going into the city, due to the traffic, or going to the grocery shop on weekends because time is less important on a day where he is free from work. Time is otherwise of an immense importance to how he chooses to perform his mobility practices.

Interestingly, his choice of performing the driving practice, using it in most situations and having been driving for 30 years could also have an effect on his children's practices in the future as the car's meaning of being a normal transport mode is being enforced from a young age since he drives them to school. However, the choice to drive them to school is not only supported by the thought of it being the norm, but also through the cycling practices meanings, specifically in the situational context of his children perhaps not being the most experienced cyclists: *"we haven't been very fond of the thought of them cycling around by themselves when they were a little younger because it can be dangerous if they don't orientate themselves properly"* (Interview 6, 5.02).

Interviewee 6 explains that the cycling practice is positive stating that the bicycle: "... can also be used, it gives you fresh air and exercise" (Interview 6, 2.41). He seems to have a quite positive view on the bicycle as a transport mode also claiming that if possible he would enjoy getting out of the car and onto his bicycle and a train in order to get some fresh air: "When you meet at work, you are more fresh and awake since you have had some exercise" (Interview 6, 13.32). It would seem that under the right conditions the meaning is there for him to choose the bicycle and train as a multi-modal alternative to the car: "It would be awesome if there was a train to Hillerød, then I would take it and would bring my bicycle along. That's for sure. If there was a direct connection to his workplace, then he would take the train" (Interview 6, 10:46).

However, seeing as he attempted a couple of times to do a multi-modal approach with the journey taking more than double the time he wished, the issue of time once again may dampen the meaning of the car in his situation. However, in explaining the lack of well connected infrastructure for public transport between his home and workplace he once again brings up how impractical it would be "especially if you have smaller children" (Interview 6, 12.30), making it unclear if this is a general argument or one that he uses to justify his choice.

As he sees the bicycle working in other situations it cannot be ruled out completely since he understands the benefits of the bicycle in the city: "As soon as you are in the city centre, then it, with parking spaces and traffic etc. then the bicycle is much better" (Interview 6, 11.54).

As mentioned above, he does have some positive thoughts on the S-train, stating that he prefers it over buses: "yeah I hate buses, I never go on buses because it is tedious and it takes a long time, and sometimes there are a lot of people on it and it is expensive" (Interview 6, 2.45). He goes on to explain his use of the S-train: "I prefer that [the train]. We always use the train when we are going into Copenhagen" (Interview 6, 2.57). It would seem that he generally has a good opinion regarding the train also speaking positively about the frequency. It could perhaps be due to his minimal use of the train, also evident by his lack of rejsekort, that he initially states mainly positive ideas about it. However his actual experiences with it for going to work were less than positive causing him to give the train transport a less favourable meaning: being time demanding.

Regarding other mobility modes interviewee 6 generally remains positive initially but also explaining how those practices do not fit into his life for one reason or another. "I like walking, but it is seldom that it is as a transport mode" (Interview 6, 3.14), he states that walking is not a realistic mode of transport most of the time for his situation. Regarding shared cars he states: "I think it is extremely positive that people share their cars, but I don't use it because I need the car everyday, so I can't share it. Sometimes there has been someone from work living close by, we haven't

*shared, but if they need a ride they got it"* (Interview 6, 3.30). The shared car is given the meaning of being impractical when he usually uses the car to get to work daily.

## Competences

When driving to and from work he always takes the same routes as there has been no reason for him to learn others.

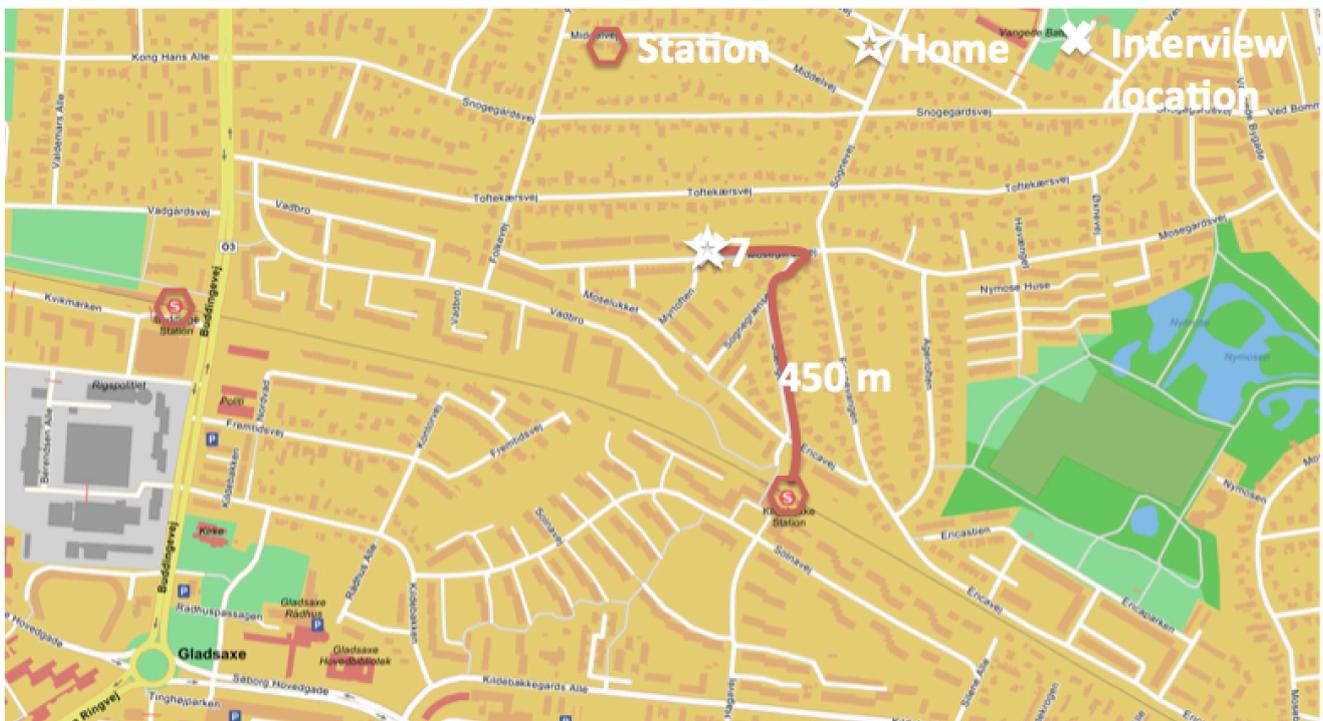
As mentioned earlier, interviewee 6 does not have a rejsekort and does not use rejseplanen, he explains: *"I don't use it [rejseplanen]. I don't know how to use it. I just walk up to the station and wait"* (Interview 6, 7.27). He has not developed the competences to use the public transport system extensively. He knows that the train station is close by and that the train frequency is high when he usually walks to the station. The timespace he creates when going to the station to take the train has perhaps provided him with a reason for not having to attempt to acquire the competence for using rejseplanen. If he were to create a different timespace, there would perhaps be a better foundation on which to develop this competence as the train may not be going as often etc.

Having learnt to cycle at the age 5, he has grown up cycling for the first many years, as well as when he lived on Nørrebro previously. It could be presumed that the competence is quite well developed as he even does his grocery shopping this way today. However the cycling practice becomes less pronounced in his life as he does not use it as much now, and especially not for the longer distances, not even in combination with other practices. As he works in Hillerød he does have the option of bringing his bicycle on the train if he decided to cycle to e.g. Gentofte station 9 minutes away from his home. The actual train ride would take 30 minutes making the trip 39 minutes long (Google maps N.d.; Rejseplanen N.d.). However, depending on his offices location in Hillerød the full journey could take around one hour, whether this would be acceptable to him is unclear, however the 30 minute train ride paired with the fact that he would be getting fresh air instead of sitting in the car was something he claimed would be very appealing. So the question is, does he lack the meaning or competences for this practice to occur, or is it in fact because of the material as he states: *"But the infrastructure to my place of work is just not good enough to take public transport, it would take more than an hour, it would take more actually. It wouldn't work, especially if you have smaller children who need to be dropped off and you have meetings at 9 in the morning"* (Interview 6, 12.17). In his description of a time he took the train and bicycle to work, he went through Farum which ended up taking him much more than an hour: *"I tried taking the train to Farum and then cycling from there. I tried that a couple of times. But it takes a long time. It*

is too far. If I worked in Copenhagen I would take the train to the central station" (Interview 6, 13.42). Therefore, it could quite possibly be that his lack of knowledge about rejseplanen has meant that he has not planned the best route the few times he did attempt something other than the car. Although more likely in his case it is, in the end, more likely the meaning he has given the car in his situation that prevents him from properly trying to find a different method of getting to work (Interview Notes in Appendix Q, Interview Sound in Appendix F).

## Interview 7

Interviewee 7 is a woman living with her husband on Mosegårdsvej. They have been living there for 9 years, previously having lived on Christianshavn in Copenhagen since childhood. Despite having had a bicycle heavy mobility practice when she lived in Copenhagen, this has changed with her move, especially with her job being located in Sydhavn and her work out location being on Vesterbro. Previously she would cycle to work from her current home, this was at a previous workplace located on Frederiksberg. She now mainly drives when going anywhere. She has a couple of children, but they do not live at home full-time as they split their time between the interviewee's home, their mother's home, and their "efterskole", therefore their lives very rarely affects her mobility practice performance.



MAP 7: Shows where interviewee 7 lives and the distances to the nearest station.

## Material

Interviewee 7 favours her car and uses it for most trips especially to and from work.

Driving from her home she has a number of different route options, with the motorway being one of the prominent elements to these. Interviewee 7 understands that the location of where she lives is pretty good, with almost everything just within her reach: *“You can hear the motorway, you just have to look that way and you are in the city [Copenhagen], that way, then you are almost on the countryside right! So that’s fantastic”* (Interview 7, 20:01). She also states that the grocery store is quite close, driving there takes 2 minutes. She grocery shops almost daily and usually on her way home from work, however she has occasionally both cycled and walked over to grocery shop, but this occurs quite seldom.

Another benefit she has, is that parking is quite good at her work in Sydhavn, seeing as she has free parking available to her: *“At my workplace there is parking so there are no problems”* (Interview 7, 12.11).

On her way home she stops by her work out place on Vesterbrogade: *“It is on my way, or it is kind of on my way home”* (Interview 7, 11.59), as it is close to her workplace but also due to the fact that her preferred sport can be practiced there. Having the car with her makes it easy for her to bring any equipment she might need. However, the parking at the workout place is a more difficult situation, she says it can be difficult to find a parking spot and that it costs money, but she has always found a parking spot.

Regarding any equipment she uses when driving, she states that she owns a GPS, but it just sits in the car unused and if she needs any help with directions she uses her phone instead. Occasionally she uses Google maps or Krak.dk on her computer in order to plan routes.

She also does not care about the weather forecast *“...because it is easy to run from here [her house] to the car and just drive of”* (Interview 7, 14.43), and during the winter, she can turn on the heating in the car.

Regarding other materials she uses for other mobility practice performances she states that she owns a bicycle and would use it frequently both as a child and when she worked on Frederiksberg, she would take the approximately 30 minute cycling trip to and from work.

She owns a rejsekort that she uses on the rare occasions when she takes the train into the city. Beyond this she would take a taxi home when she had been drinking.

## Meaning

For interviewee 7, the most important thing is her free time. She values being able to spend as much of her free time at home *“Free time means a lot to me! When I am off from work, I just want to get home fast so I can be there!”* (Interview 7, 4.35). This also means that time is a very important element in any mobility choices she makes except if she is going somewhere just for the fun of it. When going into the city or to work, the fastest route is best as she considers sitting in the car as a waste of time. This also means that she would prefer that she maximum has to be on the move for an hour at the time. The discussion on time lead to her explaining that for her, the flexible times of her work allowed for her to mostly drive when the roads were clear. She also started to compare this in regards to the time it takes with the public transport, stating that *“It is always delayed and you risk that there are so many people that you cannot get on board”* (Interview 7, 6.16). If she is late getting out of the door in the morning she says it is still possible to be in relatively good time at work. When comparing public transport and the car, the car wins due to the flexibility it gives her and she never gets wet in rain or snow and does not need to wait for the train or bus that are delayed. It would seem that whilst she gives the car the meaning of flexible and punctual she automatically puts it up against the public transport where her meanings seem to be rather more negative as she in multiple points of the interview claims the trains are delayed. The meanings for the public transport then become tardy, unreliable and often stuffed with negative people who might not have the best hygiene.

Interestingly her first comparison of the two mobility practices were based on time and money, where she started out claiming that using the public transport takes almost the same time as the car. The price for the public transport is high and as long as she can afford the car she will continue to own and use it. *“When you have the option of choosing this [the car], then it is just what you choose. So that’s awesome for me. In this case you are allowed to be a little selfish, I think, and put your needs first. So that is pretty great for me”* (Interview 7, 6.42).

She realises that all her thoughts on her mobility practice performances are based on a view where she can enjoy her privileges that a lot of people do not have: *“It is not like it [not owning a car] would ruin my life or anything. That luxury could just disappear (...) It is pure luxury and rather privileged ”* (Interview 7, 21.20).

The car gives freedom, flexibility and apparently, more time. This is an idea, despite actually knowing that in reality the time it takes by public transport and the time it takes by car is quite similar. This may be due to her generally quite negative view on the train as a transport mode. She states that her view on the public transportation is that it is rarely punctual and she prefers being in control, being able to just sit in her car and go, being able to change routes depending on what the

situation is. This is also evident in her view on her less tardy days, days when she leaves the house slightly later she feels that she is more able to be in somewhat of a respectable time.

Another interesting thing about her mobility practice performances is that she had grown up bicycling everywhere, even bringing this with her when she moved to Gentofte, taking the 30-minute bicycle ride with her. However with her current job she has a approximately 45 minute bicycle ride to work, that is 15 minutes less than she states she has a limit for her daily commute each way. It could seem that the meaning of the car being flexible may have taken over her otherwise more than 40 year favoured mobility practice cycling, which she states she does miss.

## Competences

In regards to interviewee 7's competences they are very well developed for her car practice and it would seem that this is evident since she has been driving since she turned 18. It is also evident in the her three or four main routes to work, not counting the shortcuts she uses in different situations when e.g. there is traffic build up on the motorway. She seems to be quite skilled at finding her way around, mainly using her own sense of direction unless it is a new place. As mentioned earlier she also has the competences to prepare herself in the situations where she is going to a new place, first checking routes out at home on the computer on Krak.dk or Google maps: *"Then I am good at remembering that I have to take that specific exit"* (Interview 7, 18.35) also stating: "I use my phone if I suddenly get lost... but that rarely happens" (Interview 7, 13.45).

Another competence she seems to have is how to plan her route depending on traffic, so she may decide to plan out when and where she is driving depending on the traffic lights or traffic jams. Here the timespace she creates when doing an action, strengthens her car driving practice performance.

Furthermore, she seems to be strengthening her mobility practice by not having the most recent knowledge regarding the public transport system. She stated that her workplace was located near Aalborg University, which is 13 minutes walk from Sydhavn station where the A train that goes from her nearest station. However despite having been able to take the train and then supplement it with the bicycle for the rest of the route previously, this is no longer possible, according to interviewee 7, as she now has to change at the central station. Perhaps she considers the 5 minute bicycle ride from the station more impractical or perhaps she does not have the most current knowledge on the train schedule as it recently changed from being the B line at Kildebakke station, which does not stop at Sydhavn station, to the A line, which does stop at Sydhavn station. If it is the latter, it would seem that this knowledge would be quite easy to get as she is familiar with rejseplanen. However, having the car and taking part in her established practice performance of



Interviewee 9 listens to the traffic radio on P4 and sometimes uses a GPS on her phone: Google or a different map app.

Interviewee 9's preferred mobility practice is the car, which is also evident in that she uses it for visiting friends and family on Lolland, in Kalundborg and Ringsted several times a month. This would continue even if they decided to move:

"If we were to move away from here. We have considered whether we should stay here or if we should move into the city. And if we moved into the city, we would just have one car (...) because our mothers live on Lolland, we would like to be able to visit our children, we play golf that also requires a car because you have a lot of equipment and you have to drive far, it is not near public transport often. Therefore we would have one car. I couldn't imagine anything else" (Interview 9, 20:09).

On the few occasions where she does not use the car she uses a mixture between other mobility practices. Interviewee 9 occasionally brings her bicycle on the train to go to work but would usually prefer not to because she already brings many things with her usually, and would have to bring even more on the days where she would bicycle: a change of clothes and stuff for her hair etc.

When going into the city for leisure she does also sometimes bring her bicycle on the train.

When using the train, interviewee 9 does not use a rejsekort but rather a multi-trip voucher on her smartphone.

Interviewee 9 has only cycled the full way to work two or three times a year, and usually in May since her workplace joins in on the cycling to work competition (Cyklistforbundet A N.d.). Her plan was also to cycle to work a few times this year, hopefully beating the amount of the previous years: *"So I am going to attempt to cycle on some of the days, not everyday"* (Interview 9, 1.30).

Grocery shopping does not affect interviewee 9's mobility practice since it is mostly her husband that takes care of this.



IMAGE 1: A street in the case area on a sunny Sunday.

## Meaning

Interviewee 9 has developed her driving practice from a young age. During her childhood she was often driven to and from where she needed to go as the distances were quite far on Lolland where she grew up. This is perhaps where the meaning of the car started developing for her. It was seen as the most practical mode of transport as it could be used to travel longer distances than that of the bicycle or by walking.

She explains that she used the bus for many years when she was younger, even after having her children: *"Actually the first year when we had two children, we did not have a car, so in reality for many years that was fine"* (Interview 9, 6.36). However they got the car as it was *"practical in regards to working a lot whilst having two children that needed to be picked up in each their own place and my husband began working in Northern Zealand and I was working in Copenhagen, and then it just sort of became necessary to have first one car and then two cars"* (Interview 9, 6.47). For interviewee 9 it seems that time and the practicality of the car became the main reason for acquiring the car in the first place. It was a means to combat the rising demands of both of their jobs whilst their children were young. And even to this day they

continue to have two cars despite not having any children living at home. Her husband could actually just bicycle as he works maximum 3 km from their home. "*One day when I had driven him to work he ended up walking home, that was no problem*" (Interview 9, 7.35). She explains that the flexible, independent nature of the car is one that she prioritises quite high.

Interestingly, interviewee 9 explains that: "*I think it [the car] is a fantastic mode of transport. And I do know, since I am generally quite environmentally conscious, then I know it affects the environment a lot. But that is probably the last place I will adapt my ways*" (Interview 9, 3.31). She explains that she would expect the municipality to have goals regarding changing the inhabitants mobility practices towards more sustainable modes, explaining that that is what everyone currently wishes in order to become more green and healthy: "*I fully understand it but I am not going to do it as long as it does not fit into my daily routine as it currently is. If I get a different routine, perhaps if I get a job where I work 30-40 hours a week, then I could seriously consider it. As it is currently, I cannot seriously consider it, or I don't know. It is going to cost me too much time and flexibility*" (Interview 9, 17.45). It seems that she realises that the car is bad for the environment but the meaning of freedom and flexibility seems to outweigh the other meanings. Despite having given the car the meaning of freedom, she describes certain occasions where it would seem that the freedom and flexibility is much more limited. The two or three times a week where she drives in the rush hour, she experiences a lot more traffic which limits her routes and prolongs the journey which she finds annoying. Despite considering riding the train if she lived further away and having to drive in traffic, this is not the case where she currently lives. Here she would rather leave even earlier in the morning to avoid traffic.

Interviewee 9 explains that she usually takes the exact same route all the time, only with few variations when she has classes or plans. She will always drive because she is going somewhere giving the car the meaning of purely being for transport.

Interviewee 9 gives the bicycle the meaning of being adequate as a mode of transport. Despite it being able to transport her from one place to another, it does not give her the same flexibility and freedom as the car. This is because it would be more difficult to travel around with all the stuff she needs for her full day. Furthermore, she gives the bicycle the meaning of being practical on some journeys around the city where parking is expensive when driving. However, this is only the case if the weather is good: "*I couldn't dream of cycling if it was raining*" (Interview 9, 15.16).

Interviewee 9 explains that she would actually be fine with taking the train to work in the mornings, but it is the evenings that bother her. She explains that sometimes it is because she has plans in the evenings and since the frequency of the train becomes less in the evenings when she is free from work it just does not fit: *"When I want to go home when I have been at work for 12-13 hours, then I just want to get home"* (Interview 9, 4.41). It becomes impractical and annoying that she has to wait for another train and she will often end up taking a taxi home in these situations. The meaning of the train may be quite good but, it does not have the same meaning as the car regarding flexibility and freedom according to interviewee 9 creating some ambivalence in the train using mobility practice's meaning.

## Competences

Interviewee 9 has been driving since the age of 18 and has since then developed her driving competence further. She has her main routes to and from work but can also adjust her routes occasionally: *"I have a few shortcuts that I can take (...) as soon as there is traffic I take them."* (Interview 9, 12.47). She explains that they are good because either there are fewer cars, less traffic lights. Interviewee 9 also explains that she uses the traffic radio but that in the cases where there is traffic it can still often be difficult to find a route that is faster: *"From here to Tuborgvej there is rarely any traffic, but then it hits when I get to Tuborgvej. And I have to go through there. Otherwise I have to take it further and get out to Kalkbrænderisgade and there the traffic is even worse so it is a choice between two evils"* (Interview 9, 12.20). Interviewee 9 shows that she has gained her competences through experience and is able to develop them further, usually not requiring any navigational tools.

When going to a new place, interviewee 9 is more likely to use some type of navigational tools: *"If I am going to any new places, then I have the GPS on my phone"* (Interview 9, 13.14). For this she uses Google maps or sometimes Garmin, but seeing as she cannot find it on her phone it would seem that it gets used less often.

Interviewee 9 learnt to cycle at the age of 6, and despite having used it all her life to some extent, it does not seem like she has spent a lot of time developing her competences a lot further as she continues only to cycle on the rare occasions where the weather is good. Despite this, she is actually able to cycle the full distance to work and has a certain route she uses. Furthermore, she is able to bring her bicycle on the train in order to cycle around the city.

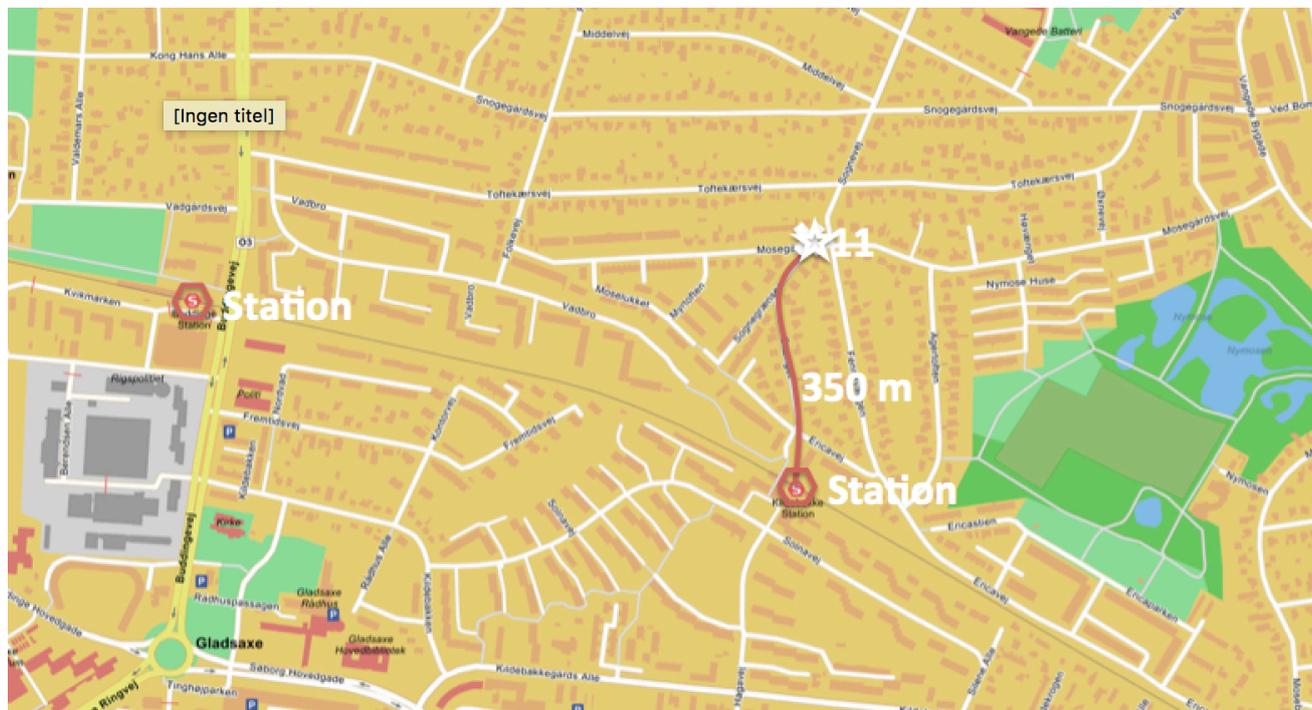
Despite having learnt to use public transport at the age of 10, interviewee 9 has continued to develop her public transport using mobility practices, especially when the paper multi-trip vouchers

were phased out. This meant that she had to acquire new knowledge in order to continue performing the public transport mobility practice. With help from her colleagues and the internet she found the electronic multi-tip voucher for her smartphone. This shows that interviewee 9 was able to adapt to the changing practice. However, on other parts it would seem that more knowledge or developing her competences would even further allow her to be able to use the public transport. It seems as though she believes that since the train frequency is less in the evenings when she is off from work, it cannot be a suitable mode of transport for her way of life. However, having a general idea of the train times and adjusting her time of departure depending on this could perhaps adjust it. She could perhaps leave a bit earlier and finish some work on the train ride, seeing as working is already something she claims she does on her drives to and from work by making calls, this could be done more safely on the train, however less privately. However, due to the material with her home and work being quite close and the meaning that the car is fast and flexible, this does not seem to be an option she is likely to completely switch to (Interview Notes in Appendix T, Interview Sound in Appendix I).

## Interview 11

Interviewee 11 has lived in the area for 12 years, previously having lived in Hareskovby. She used car both places. She grew up in Gentofte usually cycling and walking.

Interviewee 11 retired from her job at an international company 1.5 years ago.



MAP 9: Shows where interviewee 11 lives and the distances to the nearest station.

## Material

Interviewee 11 explains that she has been driving for the past many years, especially whilst she was working since she had around 19 km to work. However, she has recently acquired a bicycle that she intends to use more.

Interviewee 11 lived in the same area as a child as she does today and explains that the infrastructure has not changed much since then. The only change is the frequency of the train but the distances are still good: *"I have a train that takes me 5-10 minutes to walk to. I have a bus over here that takes me 5 minutes. It couldn't be any better"* (Interview 11, 21.54). Furthermore she explains that by having access to one train line, she has access to all the train lines that she needs: *"With a different train line, then I can reach a different station"* (Interview 11, 22.14). Regarding the infrastructure for the car she explains that the access to the motorway has served her well.

However, in regards to the bicycle lanes she explains that Gentofte municipality, despite being a great municipality, is missing some cycling infrastructure. She explains that: *"The school is relatively far away and there are many children on this road and there should be bicycle lanes. I can see that there are many parents that drive with the children"* (Interview 11, 20:16).

It seems that there are very few situations where she could not imagine having the opportunity to take either public transport or the bicycle. Despite being able to imagine these situations, it does not necessarily mean she brings these into action. One of the occasions where the car cannot be substituted is when shopping at specialist's shops: *"If I am going to a specialist shop then I will continue to use the car"* (Interview 11, 2.54) this is because the distances are greater. Another situation is when going to visit her children and grandchildren.

A situation where she would consider a different mode of transport is when she is going into Copenhagen. In this case she will often take the train, however at night she is quite likely to take a taxi. She also has a friend whom she always goes to visit by train.

As mentioned earlier, interviewee explained that she could see a future where she would use her bicycle more. Following her retirement she bought it in the hopes of using it more, especially for grocery shopping: *"This is also one of the times where, now that I have the bicycle, then there is no doubt that I'll use that a lot if I am just taking care of my small grocery trips."* (Interview 11, 2.44). Whereas she currently drives the 5 minute journey by car, every second day.

She also hopes to use the bicycle in connection with the train. The purchasing of the bicycle allows her to have the material required for the performance of a different mobility practice than she has had since her children were younger.

Another mobility mode she imagines could have affected her mobility practice performance during the time where she was working is the light rail. She explains that if the future light rail had existed during the time she worked, she imagines that it would be an adequate mobility mode that could substitute the car on most days.

## Meaning

Interviewee 11 grew up in a time and place where it would be common to get a driving license at the age of 18: *"That's what you did back then"* (Interview 11, 12.32). Having grown up in environment like this most likely meant that most people in the area considered the car as a normal mode of transport. But despite this being the case, interviewee 11 did not begin driving regularly before the age of 23. It was not before she actually began having a further distance to travel, from her home on Frederiksberg to her workplace in Gentofte. This meant that the car's meaning of being easier due to the time spent in it began really taking shape in interviewee 11's mobility practices.

Regarding the car, interviewee 11 explains: *"I do know that nowadays you have to be quite aware about sitting one person in the car, but it is incredibly lovely to have it. It makes existence easier (...) because no matter whether it is raining or snowing then it is easier to go out and open the car door and just sit and drive off"* (Interview 11, 6.28). It would seem that beyond the meaning of time, the car also has a meaning of convenience and comfort. The car allows her to not have to plan too much when a situation changes: *"That you don't have to think too much. That when I go and sit in my car I have already taken everything into consideration, I can go shopping in five different stores that are located everywhere from Holte to where else I shop (...) Or I can quickly get to and from a place. That also means a lot. I have children and grandchildren, and in those situations it is nice that you can quickly get to and from where they are."* (Interview 11, 11.32). It would seem that there are many different meanings tied to the car for interviewee 11; ease, convenience, comfort, time and flexibility. So the question could be, is this the only mobility mode where interviewee 11 sees these meanings?

It would seem that this is not the case as in certain situations, interviewee 11 would not wish to bring her car with her out of convenience problems. Speaking about the benefits of the train, interviewee 11 explains: *"I don't wish to deal with the problems with finding parking or anything like that. It has become a huge advantage that you can take the train and go directly in there [Copenhagen]"* (Interview 11, 5.21). It would seem that here the car gains a negative meaning as being inconvenient to bring into the city due to lack of appropriate material for this practice.

However this is not the only meaning that poses some challenges between the train and car - feeling safe seems to be of some importance to interviewee 11 when performing mobility practices, and in this case it is the car that wins: *"I actually never feel completely safe at the bigger stations, I really don't. And I feel unsafe in the evenings especially. On those occasions I find it nice that you can go into your car and close the car door"* (Interview 11, 5.53). Sometimes the feeling of being unsafe even causes interviewee 11 to practice the car mobility practice again, but as a passenger in a taxi.

The taxi and train however also have a common meaning between them - that they allow for a certain freedom regarding interviewee 11 meeting up with friends for dinner where there might be some intake of alcohol. However in other situations the car seems the most convenient due to long distances and lack of connection by train. Here the train gets the meaning that it lacks freedom and is inconvenient for cross train-line travel.

Interviewee 11 relying quite a bit on the taxi is due to her former job, which would bring her to the airport quite often, and she explained that this caused the development a bit of a bad habit.

Interviewee 11 also seemed to have opinions regarding mobility modes that she did not currently use nor have tried, the first being the shared car: *"I think it is an amazingly good idea"* (Interview 11, 9.48). For interviewee 11, shared cars allow for new technologies to be introduced into her mobility practice awareness:

*"I think it would be very positive in that it could be an electric car. And the reason why I am saying that is that I could never imagine getting my own electric car because there are too many things you have to consider such as how far it can drive, where can I find a charging station. I think it would be easier to have a shared car with someone who knows about the electric car"* (Interview 11, 10:08).

To Interview 11 joining a shared car programme would allow for her to step into an electric car without much hassle and without first developing the full set of competences. The meaning she gives the shared car is a more convenient method of being environmentally friendly, which she understands is the issue with her current car. However, she does see certain drawbacks of a shared car could be no longer having the same *"... convenience of just having to go out there and over to the car"* (Interview 11, 10:53). But under the right circumstances she could imagine that the positive would outweigh the negative.

Another element, that is still not available, she believes could have been good for her circumstances was the future light rail, which she imagines would be an adequate mobility mode that could substitute the car on most days back when she was still working.

Interviewee really seemed to not have much of a meaning to give the buses, perhaps because, due to her use of the car and train meant she rarely needed to go somewhere that these two mobility modes could not cover.

Considering interviewee 11 recently having bought a new bicycle, it was limited which meanings she gave the cycling practice. The main meaning was health and fitness, which she gave it both in regards to her own health but even more so for the neighbourhood children. Here she explained that the lack of bicycle lanes resulted in the increase in overweight and unhealthy children since less children cycle.

Interviewee 11 grew up with a father who usually drove around by car and a mother that would either cycle or use a multi-modal approach with the bicycle and train to Copenhagen. She came from a family where not only the car was seen as a norm, but also the multi-modal mobility practice. It could be presumed that this is why she has adopted a quite open mind and generally positive views on all mobility modes. However, with her descriptions of the different mobility modes and their meanings, it is quite clear that the car is especially her favoured as she seemed to have most meanings attached to the driving practice.

## Competences

Interviewee 11 learnt to drive at the age of 18 and has since then, she has been driving a lot continuously being able to develop her competences. She feels quite confident driving, even to new locations stating that in those situations: *"I get into the car and start the navigation system"* (Interview 11, 13.53). This is except in situations where she expects to be drinking like going out for dinner, here she states that she would probably rather take a taxi because going by train would be too complicated and the taxi is very carefree.

Another way she develops her competences is by listening to the traffic radio in order to have information on the traffic situations: *"I listen to P4, (...) if they say that there has been an accident or something then you decide to go by a different road"* (Interview 11, 19.13).

She explains that depending on where she is going she would use either her own sense of direction or her GPS. She has the competences required to deal with a number of different situations when using the car.

Her public transport practice performance has less developed competences despite interviewee 11 explaining that she does use it quite frequently. She gains most of her information from signs and information screens on the station and occasionally on DSB's app. Interviewee 11 does not know much about rejseplanen, confusing it with the DSB app during the interview. However she does use Google maps to find her way too and from stations. Another common competence regarding the performance of the public transport practice is to use either monthly cards or rejsekort, however, interviewee 11 uses the *mobilbilletter* app to buy individual tickets for each journey stating: *"It is super easy"* (Interview 11, 17.34). One of the areas where she does seem to have the competences is regarding having her bicycle with her on the train, and this also helps with her cycling practice, decreasing the need for the competence to use the bicycle on longer journeys.

As her cycling practice was developed from an early age, approximately age 5, she used her bicycle a lot during the earlier years. However, due to the fact that she has not been performing the mobility practice in quite some time, she explains that she is currently not very confident that she would cycle in bad weather like rain: *"Maybe if you ask me in 6 months time, I would say that I would just get dressed appropriately"* (Interview 11, 18.49).

In other situations, interviewee 11 explains that she currently has the competences to plan and prepare for different weather situations she may meet when either driving by car or using public transport, namely by bringing an umbrella (Interview Notes in Appendix V, Interview Sound in Appendix K).

### Car Driving Mobility Practice

The driving mobility practice is one that is performed by the majority of the interviewees to some extent. Only 2 out of the 11 interviewees did not have a driving license. This fact alone makes it quite clear that, whether you drive daily or only have the car for the unforeseen incidents, like your child having gone with a friend home from school one day, owning a car is seen as the norm for most of the interviewees. However, the level at which it is ingrained in their mobility practice performances depends. It seems as though the main meanings the car is given is that it is convenient, time-efficient, flexible and comfortable. The car gives many of the interviewees a method to which they can plan a balance between their home and work life. A balance, which is not dominated by a lot of time, spent on the journey from A to B, but rather one what gets them there as fast as possible. It is important for punctuality, flexibility, luxury and time saving to be dominant in the practitioners performances, especially with younger children or even if they had ever been a parent.

The interviewees who believe that the car gives them freedom are especially those who use it where the material allows for the low traffic conditions or free parking. The others tend to use the car less for driving to work, but rather to the station, to pick up their children, to go grocery shopping.

Whilst very few had any complaints regarding the infrastructure in their neighbourhood, some wished that there would be more efforts to reduce the speed of the drivers in the neighbourhood. Furthermore, a few mentioned that the traffic on the motorway could be quite bad which should be alleviated by more lanes and that with the future light rail, the cars should not be affected in any way.

The competence of driving was often one that most of the interviewees began to develop at the age of 18 and had been further developing since. One of the main helping tools was some kind of navigational device like a GPS, Google maps, krak.dk, Navigon or maps on a smartphone. Some even planned, using the weather forecast regarding, whether the umbrella should join them in the car.

Interestingly there was some disagreement on whether driving was a cheap or expensive mobility practice. Interviewee 7 and 8 stated that whilst the car is as inexpensive as it currently is, the chance of them getting rid of it would be limited. Whereas interviewee 10 stated that the car was the worst investment one could ever make, he had personally lost quite a lot of money on his cars.

Whilst several of the interviewees who used car also used other mobility modes, especially for trips to Copenhagen, it could be presumed that the strength of their favoured mobility practice is keeping them from performing a different mobility practice for the majority of their trips. For some of the interviewees, the current situation with their children and work is compelling them to ease their lives with the car, at least to some extent. For others they continue to use the car despite their children being grown and there being no need to be home to pick them up quickly. Where many of the interviewees had been able to plan their lives sufficiently before children with other mobility practices, the car has come into their lives and shown the ease, comfort and convenience. The material and meaning has perhaps meant that on the odd occasions that the interviewees did not drive, their competences and material regarding the mobility practice was undeveloped compared to those who used the practice regularly since they did not have need for these competences. However, the lack of competences also causes them to have unrealistic views on other mobility practices, which interviewee 10 could attest to with his surprise in how well functioning the trains actually were.

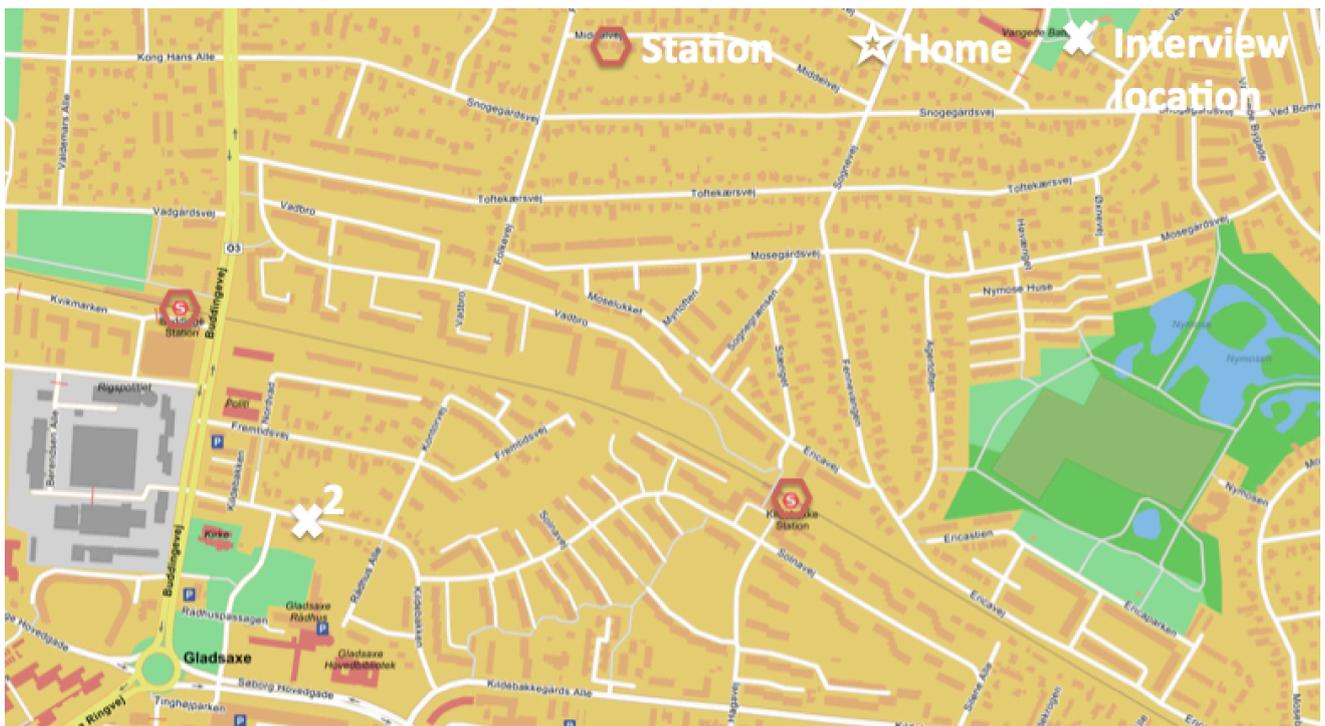
## Bicycle

This section presents the interviewees who performed the cycling practice as their dominant mobility practice. The interviewees all use more mobility modes than just the bicycle, but to a lesser extent currently than many of the others. They also have interesting meanings prescribed to the bicycle as a result of their dominant practice performances.

### Interview 2

Interviewee 2 was a university student. Although she did not live in the area, the fact that she travelled daily to the area as a result of her internship at Gladsaxe Municipality, meant that she has been included. It should however be remembered that she does not represent the inhabitants in the area but rather one of the users of the area.

Interviewee 2 has lived in Lyngby for 5 years and studies on Frederiksberg. Her current internship brings her to Gladsaxe daily, usually by bicycle. Going into the city she uses the public transport.



MAP 10: Shows where interviewee 2 was interviewed. Her home is not on the map as she lives in Lyngby.

## Material

Her current main mobility practice which she performs is the cycling practice if her *“fitness levels allow it”* (Interview 2, 2.33). When bicycling, she brings her rain clothes if she has seen the weather

forecast on the news the day before. She always brings a rain cover for her bag. However once every two weeks she takes the car. When ill, she also uses the car.

Where she lives she is pretty well connected to Gladsaxe, being able to cycle a few different routes, Furthermore the area is well connected to the city too, with 10 minutes to the station, and bus routes nearby too, which she also uses occasionally, mostly to school. Normally she has an *Ungdomskort*, however currently uses a Rejsekort as her need for the public transport is much lower during her time in Gladsaxe. She has taken the bus from Frederiksberg to Gladsaxe a few times stating it works well.

Both on bicycle and in car she uses the GPS.

Another benefit for the area she lives in is that the grocery shop is quite close meaning she will often just walk there as she shops daily.

In her free time she uses the car to get around e.g. to visit her boyfriend's family and their friends.

## Meaning

Despite interviewee 2's current main mobility practice being cycling, she gives very little meaning to the bicycle simply saying it is "*fine*" (Interview 2, 2.09). However, as mentioned earlier she mentions her fitness levels and health, it could be understood that she currently finds the bicycle as a tedious mobility mode requiring the use of energy that she does not wish to spend on transport. This could also be reflected in her view of changes in public transport where she feels that being able to relax is crucial.

The car allows for a less physical and stressful option when she had been ill. When asked what would influence her mobility practices she explained the weather, stating that if it is windy she would end up bicycling to the nearest station in order to save energy. The most important thing for her, in regards to mobility, is that it is simple "*that I don't have to change too often, like with the public transport system, it might take an hour and a half in the bus or train, but if it only takes an hour and a half in that sole train or bus, then it is fine. As long as it is on time, it is fine. However, if I have to transit 20 times, I could not be bothered with that. Then you don't relax*" (Interview 2, 4.02). Her values of punctuality and minimal changes reflect her meaning for the bicycle in the public transport. It could be assumed that for her the optimal meaning for the train would be simple and punctual. She has no need for them to be fast.

Interviewee 2 finds the train very expensive "*I use the train daily, and I think it is crazy expensive and it takes a long time*" (Interview 2, 1.12) continuing by stating: "*It is costing me way too much money every time I have to go into the city for school*" (Interview 2, 1.20).

Regarding the bus she states it is annoying "*I simply just don't want to [use it]...You cannot count on them*" (Interview 2, 2.45). The busses tardiness gives it a negative meaning to interviewee 2,

however she continues to use it. It could be that the meaning of simplicity and minimal exertion that the bus has outweighs that of tardiness.

When asked about her opinion on the car she said *“it is lovely, it is flexible, it is easy... that I alone can decide when I have to leave or when I arrive, it takes 10-15 min, depending on the traffic, to get here [Gladsaxe Town Hall], and depending on how good the parking situation is. So it is just I’m going to sit in the car, it is half past and I’ll be there quarter to, I know this beforehand, with the train it is unknown”* (Interview 2, 1.35). The car is again given the meaning that it is flexible, easy and fast.

Likes the concept of shared cars, but has never tried it. She does not believe it could substitute the privately owned car as she uses it a lot in her private life: *“so I could not do without it, I mean of course I could, and we have previously [gone without], but it is just a slight bit more luxurious to have the car. Rather than having to use rejseplanen and not being able to get home when it is 10pm”* (Interview 2, 3.37). Once again, the importance of simplicity, minimal exertion and comfort is highlighted and the car being prescribed all of these meanings would probably give the bicycle and public transport a less favourable meaning.

## Competences

Interviewee 2’s competences using the different materials affects the meanings she gives the mobility practices. E.g. the bicycle as a material requires more physical energy than the car and is therefore given a negative meaning. However, it could be that if she chose to develop her cycling competences further she would facilitate the meaning towards something more positive. In some ways she is attempting to develop her competences by attempting new routes, although the reasoning again was more in the likes of simplifying her route and time it takes. What is interesting is that she is attempting to improve competences in one practice based on competences from another practice by trying a new route because she had walked before and thought it may be a shortcut compared to her bicycle route.

She has the competences and urban conditions to carry out the grocery shopping on bicycle or more frequently on foot meaning that the previous timespace that would occur when she drove to the shops has been replaced by a different timespace created by this different activity.

She understands her routes and has an idea of whether it would benefit her to go a different route due to hills. Furthermore she has the competences and foresight to prepare for different weather conditions.

When going to new places she tends to use a GPS to find her way around or checks on the internet at home. That was the case when she started her internship. She started out by looking into the route at home before walking it, but it suggested a route she did not know so she used a GPS on her way so it could guide her. She has the competences to allow her to attempt different ways of finding her way around.

She rarely uses rejseplanen unless she has heard that there are supposed to be any changes to the trains, meaning she has pretty well developed competences regarding public transport, time schedules and locations. Occasionally she will use her smartphone for rejseplanen.

Despite her meanings towards the car being probably the most positive, it is evident that she did not necessarily need to acquire the competences to drive. She had decided to push it until there would be a car available for her to use, therefore she learnt to drive when she was 20, because she could afford it and had a car available.

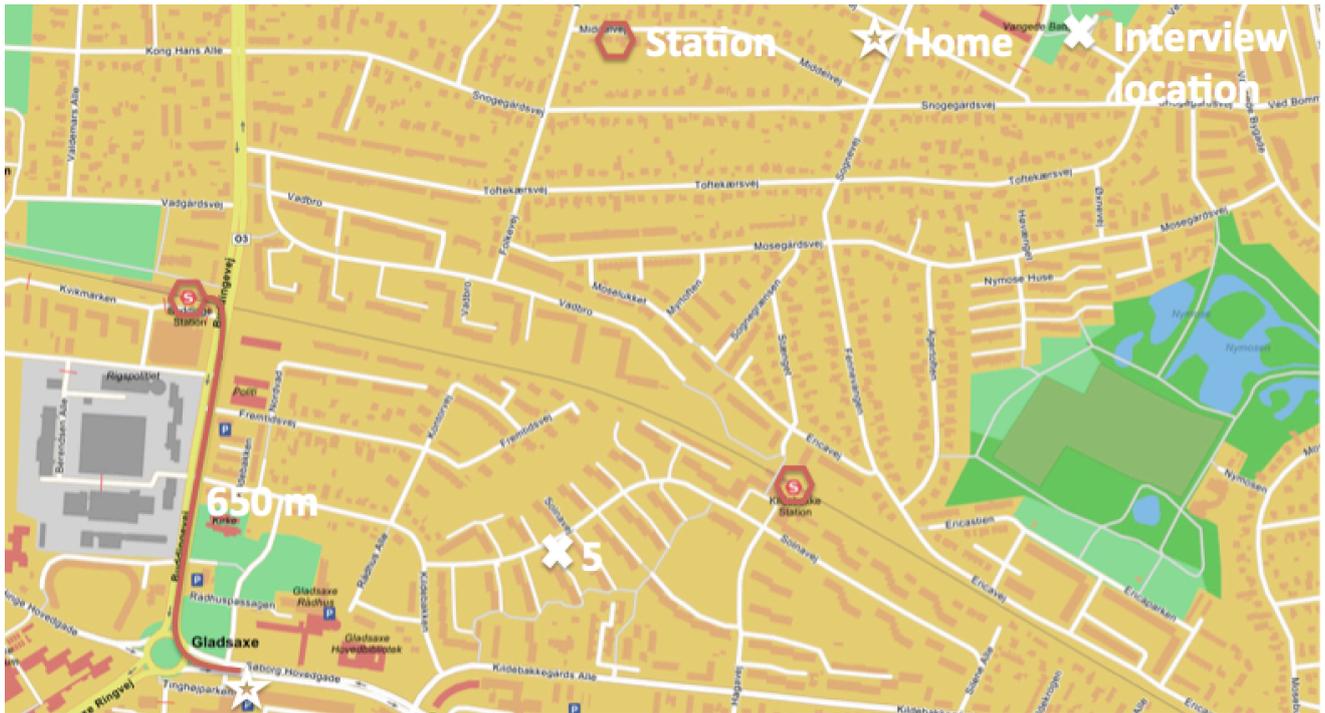
Regarding shared cars, she also does not have as well developed competences and knowledge about the systems.

Interviewee 2 refuses to drive when abroad as she is unsure of the rules. Her lack of familiarity and confidence with the car when abroad hinders that practice from being performed by her, however, this is not the case for her bus and train practices as she does not find it difficult to find tickets (Interview Notes in Appendix M, Interview Sound in Appendix B).

## Interview 5

Interviewee 5 was a man working living in Gladsaxe municipality and working in Gentofte Municipality a couple of kilometres away. He lives above a Fakta, the grocery store, with his wife and preschool aged daughter. The family has been living in the area for a couple of years but interviewee 5 grew up in India where he mainly travelled by train.

He and his family tend to go on trips in the weekends to visit friends, this occurs on train.



MAP 11: Shows where interviewee 10 lives and the distances to the nearest station.

## Material

Interviewee 5's short journey to work, takes place by bicycle currently, also picking his daughter up on the way home from work, despite it not being on the normal route.

Living above a supermarket means that his mobility practice performance in these instances is based on walking.

According to interviewee 5, the transport infrastructure does not provide optimal cycling conditions: *"Here, we do not have bicycle lanes and there are a lot of places where we have to cycle up and down which is a little difficult"* (Interview 5, 10:23).

Despite currently performing quite a sustainable mobility practice, he is planning on buying a car within the next few months. He explains that currently when he goes to visit friends or when going to the city, they tend to take the train and occasionally the bus. In order to plan these journeys they use Rejseplanen.

## Meaning

For interviewee 5, he has given the car a meaning that it increases flexibility especially in the summer, less so in the winter due to snow. He explained that it makes his life easier: *"it is easier for me when I have to pick up my child and when I have to drive to work at different offices"* (Interview 5, 2.05) going on to state: *"It is just the energy! I have to use more energy when I have to cycle. Especially when it is windy"* (Interview 5, 2.23). For interviewee 5, the meaning of the

bicycle is that it is a way to get around, but one that requires more energy. Furthermore, when he compares that to how the car would simplify their life, require less energy of them and allow for more flexibility when going on longer journeys as a family, the car is given a more positive meaning than how interviewee 5 is currently putting together his mobility practice performances.

## Competences

Growing up in India interviewee 5 learnt to ride a bicycle at an early age, later also adding bus and train to the list. At the age of 25, he learnt to drive a car, this is later than many of the other car owning interviewees.

One of the other mobility practices that this family performs, using public transport, supplements their other mobility practice performances when they go on longer journeys or the whole family is going somewhere. This shows that they have the competences to plan their mobility and lives around different mobility practice performances, adjusting depending on the situation. In the public transport using practice, they are able to plan their journeys using Rejseplanen. Interviewee 5 also uses other apps/websites than rejseplanen: *"If I am going on a trip or travelling to a new place, I use Google maps, and if I know the address I type it in, so I can find the shortest or fastest route"* (Interview 5, 7.01). He also has the competences to be able to adjust a route if he knows the area a bit. If not he follows the suggested route (Interview Notes in Appendix P, Interview Sound in Appendix E).

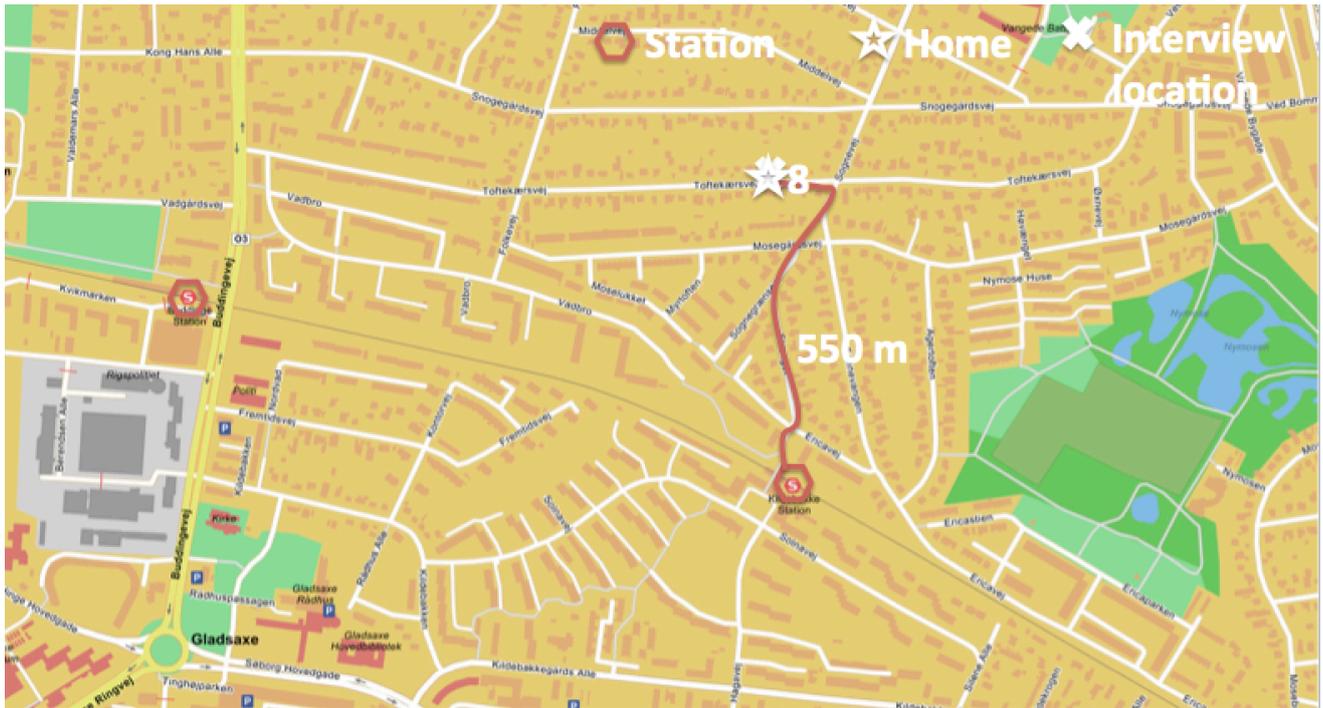
## Interview 8

Interviewee 8 is a man in his late 40's. He has lived in his current home with his wife for 10 years, previously having lived in Copenhagen. His children are 7, 10 and 13 years old respectively.

Interviewee 8 works in Herlev and his wife works by Kalvebod brygge. Neither have any recreational activities beyond visiting friends and family. Their children on the other hand do have activities - some close by, some in Hellerup.

Growing up in Jutland, his main modes of transport were the bus and bicycle. His parents favoured the car, and he therefore considers himself more sustainable than them *"(...)it's going in the right direction"* (Interview 8, 12.07) he states regarding mobility practices.

His overall view of the area, is that most people drive a car, some people even own two cars, however, those who work in Copenhagen might also use the public transport, is his impression.



MAP 12: Shows where interviewee 8 lives and the distances to the nearest station.

## Material

The whole family has bicycles and they all use it to get around from home to school or work. Some of the children's recreational activities take place close by and others further away, the older children therefore cycle to the ones close by. The youngest gets driven to his sports activity. The two oldest boys also have music lessons after school, one cycling there and the other being driven as Hellerup is too far away.

Grocery shopping in this family mostly happens by car and the smaller stock ups only require a bicycle. The larger grocery trips happen approximately 3 times a week and twice a week interviewee 8 goes by the grocery shop on his way home from work. This is not much of a detour as it basically is on his established route.

Seeing as the interviewee cycles a lot he uses cycling clothes when going to work and therefore he brings his change of clothes with him.

Owning a car goes with the neighbourhood Interviewee 8 lives in, and therefore, despite previously being without a car in Copenhagen, they own one now. The infrastructure in the area is good with plenty of bicycle lanes. However he wishes for more speed control, especially by the school, as he believes there is a tendency for cars to drive a bit too fast.

Interviewee 8 uses the car for trips to the grocery store and for small trips like picking up his children.

Even on vacations they have usually opted for renting a car, however they are planning a bicycle vacation this year.

Interviewee 8 uses his smartphone for checking maps when going on family outings.

Interviewee 8 does not look at the weather forecast, instead he looks out the window. This occasionally results in some surprises.

The public transport situation is good where he lives, especially because he lives so close to Kildebakke station. He also uses the train in case the weather is poor, in this case the car makes no sense, according to interviewee 8, as the availability of parking is impossible. When using public transport, interviewee 8 uses his rejsekort and rejseplanen.

## Meaning

Cycling is the most important thing for him in regards to his mobility, and he would love to cycle to everything. He enjoys the movement and the effectiveness. Effective and good way of combining everything. He would prefer to cycle all the time in all weather and therefore he cycles in cycling clothes and changes at work.

The bicycle allows for a certain freedom and pleasure. About once a month he takes a different route in order to enjoy a more scenic and longer route. Interviewee 8 sees his mobility practice performance in a slightly different way than many of the others. He has a sense of enjoyment and gives the cycling practice a meaning of freedom and exercise. This allows for a very different timespace to occur. Most of the others see their mobility practices as a means to an end. They have to get it over with.

This also explains his ambivalence towards the car: *"[I] Would rather avoid it because I love cycling so much, but I can't. I feel that I can't avoid having one because there are the children (...) and they suddenly decided to go home with a friend and needs to be picked up in the evening and they don't want to cycle, then you just jump in the car. What would you do in that situation [without the car]? I guess you could deal without a car but things wouldn't be as effective. As long as there are no good alternatives to these small logistical tasks that we have in the everyday, then I am dependent on it [the car]"* (Interview 8, 5.16). It seems that he in this statement highlights one of the main conflicts when it comes to those who wish to not use the car as much as they currently do. Due to his situational context the car is given a meaning of necessity as it eases certain logistical situations despite him truly wishing everything could be done on bicycle: *"we moved out of the city, so in that way our car dependence has increased. We previously lived in the city without a car. So in that way it is also when you move out of the city you also decide that the car is necessary (...) so there we have taken the consequences of moving out of the city. That's just how*

*it is*" (Interview 8, 20:33). The car is also not expensive to own making it a luxury item for them to have to simplify certain situations. Furthermore, he grew up in a household and neighbourhood where having a driving license and car was the most natural thing, although this does not seem to be a very important meaning to him despite still realising that it is one of the most common mobility modes in his current neighbourhood.

Regarding the other mobility modes the meanings become less important as the mobility practices are less dominant in his life. He would prefer to avoid the bus most of the time, having gotten bored with bus journeys as a teen in Jutland. To him the bus has the meaning of being inefficient and always taking a complicated route. The rail transport is therefore much preferred. Interviewee 8 quite likes having the train station relatively nearby especially because it has a meaning of being well connected to Copenhagen with high frequency.

Finally shared cars have a meaning of being impractical due to interviewee 8's thinking the lack of availability of shared cars at different times.

## Competences

Interviewee 8 acquired both of his main competences at some of the earliest stages possible, learning to cycle at the age of 5 or 6 and driving at the age of 18. The reason for learning to drive at that age was *"well it was in Jutland so, it was just what you did. You started just before you turned 18 and then you could take the test straight after you had your birthday. I just did like everyone else. It was never something that you thought about a lot. It was a given when you turned 18 you got a driving license."* (Interview 8, 14.34)

At the age of 14 or 15 he began taking the bus on his own.

It seems that he learns his routes by heart, having developed the competence to adjust his routes depending on whether he is going straight home, past a grocery store or through a nice natural area. In the situations where he is deviating from his common areas he simply checks a map on his phone and then goes off of his memory without checking traffic or rejseplanen for times. Despite not planning routes on rejseplanen, he checks where the trains are on the map to see if he needs to hurry.

As mentioned above, interviewee 8 explained that shared cars seemed impractical, but here it would seem that it could be due to lack of competences regarding how shared cars can work that the mobility mode is prescribed this meaning. There are many different systems and perhaps if he

attempted to acquire more knowledge about the options, he would be able to change the meaning he gave the shared car (Interview Notes in Appendix S, Interview Sound in Appendix H).

## Cycling Mobility Practice

In general, it would seem that the bicycle is seen as an effective mode of transport. Most important the bicycle is a healthy and environmentally friendly way of getting around. Several of the interviewees explained that they enjoyed that the bicycle allowed for the opportunity to move and breathe in some fresh air. However due to the amount of energy that it required some of the interviewees viewed the practice as impractical and difficult due to the material not always being the most conducive to the cycling practice e.g. with hills or lack of bicycle lanes.

For the most part, the interviewees believed that the infrastructure for cycling was fine, but with some issues regarding safety on the roads and lack of bicycle lanes. These issues also pointed towards the importance of having developed adequate competences for orientating on busy roads. For some, the cycling practice was exclusive to warm or dry weather however to others it was a mobility practices that could be performed all year around if one had the competences to prepare for different weather using e.g. rain clothes or rain covers for bags. Others prepared by having a change of clothes with them to get dressed in when at work.

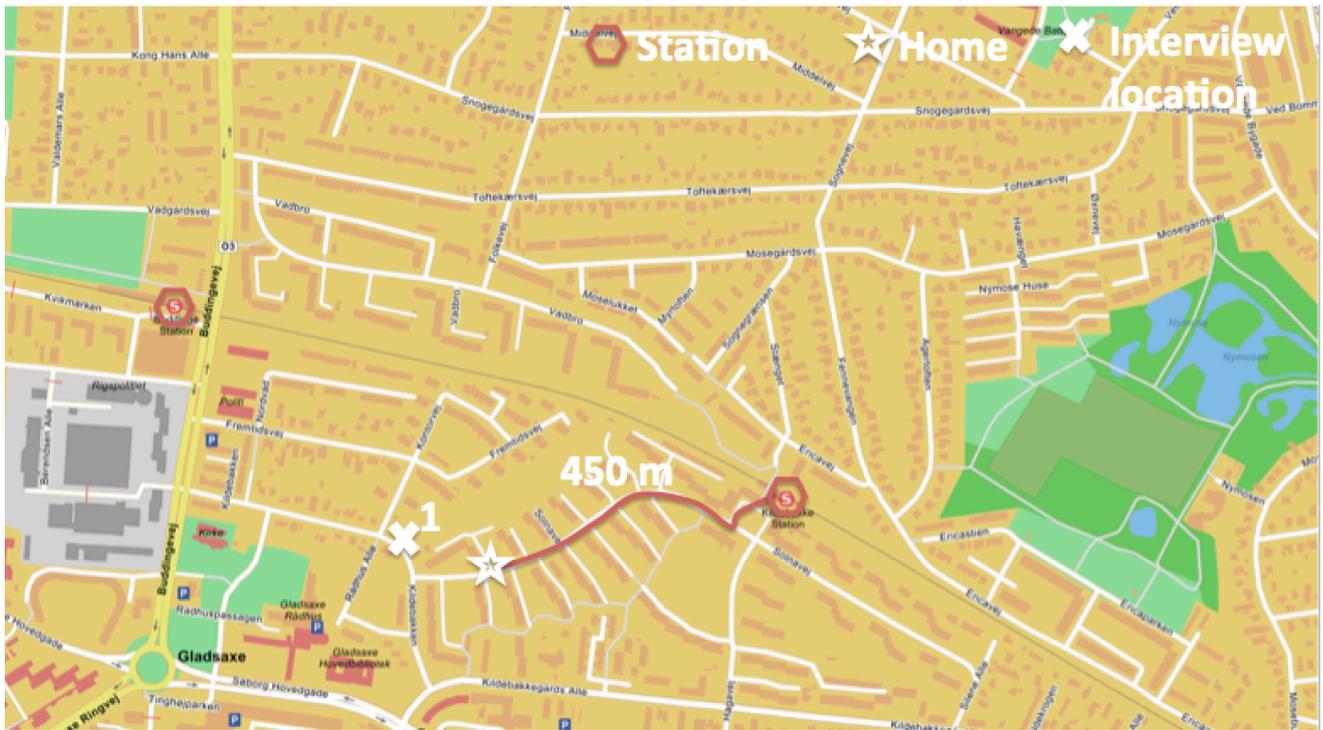
Interestingly there was a mixture of different meanings given to the cycling practice. For some, the cycling practices lacked the opportunity for freedom and flexibility. However, for others, this was the opposite, with especially interviewee 8 explaining that the bicycle allowed him to change his timespace by cycling for the purpose of transport and leisure. This would suggest a level of freedom not seen in any of the car interviews.

## Public Transportation and Walking

The following section presents those interviewees who performed their mobility practices in ways where an individualised vehicle was unnecessary, meaning those who utilise the public transport in the area or those who walk. These mobility practices were less common and two of the people who were interviewed did not have a driving license. Furthermore, none of them currently made much use of the bicycles if they had any. Finally two of them currently did not work, one being retired and therefore having changing mobility needs and the other mainly just walking in order to get out the house.

## Interview 1

Interviewee 1 is a mother of two who has lived in the area with her husband for 8 years. She works on Gl. Kongevej in an Irma. She walks to and from the station, taking the train into the city. She grew up in a family without a car, both parents would cycle and walk everywhere, which also meant that she cycled everywhere.



MAP 13: Shows where interviewee 1 lives and the distances to the nearest station.

## Material

Interviewee 1 walks and takes the S-train, usually from Kildebakke station and although she does own a bicycle she explains that they tend to walk: “We walk a lot” (Interview 1, 1.35). Furthermore, it seems that her bicycle does not always work. When taking the train she will usually use a monthly train card. For her train journeys she does sometimes use rejseplanen. The urban layout and transport infrastructure in the area, which they live, works quite well and they have access to the train, grocery shops, preschool and school all on foot. She does however wish that there would be a few more bicycle lanes. They grocery shop daily at Kvickly by Buddinge station, usually on foot.

When going somewhere as a family she says her husband drives them as he does have a driving license and car. He drives to his workplace in Bagsværd where he works in a bicycle shop. He practically never cycles, she jokes that he had cycled 3 times in the past nine years.

When she has been into the city to have a drink, she has occasionally taken a taxi back home.

They will soon be moving however it is within the same neighbourhood, meaning she will only have to change the train station she uses to Buddinge station instead of Kildebakke station.



IMAGE 2: Train arriving at Buddinge St.

## Meaning

For Interviewee 1, the most important thing is punctuality especially when *“going to work or having an appointment or plan with a friend, especially now that they have changed everything again. Then there is really chaos surrounding time schedules, departures and rail maintenance, so it is important to me that they are on time and there aren’t any quick changes”* (Interview 1, 2.01). As time is given a huge importance, it is not that she necessarily believes that they are too tardy, but lately there have been some issues. It is less of less importance when she is just going out for fun with the children: *“I like to be on time, always. If I am meeting up with someone, then it is important to me to be on time. Otherwise, if it is just me and the children, then it doesn’t matter, even though it is annoying.”* (Interview 1, 2.39). One thing she does not have to worry about in regards to the public transport is the accessibility to the train stations as it *“fits perfectly. I couldn’t have it any better!”* (Interview 1, 9.12).

Regarding the meaning of the car, she does not seem to be very interested. This may be due to her growing up in a family where *“It was completely the norm. It was just how it was”* (Interview 1,

3.22). So despite many of the other interviewees stating that they got their license at the age of 18 because that was the norm, she experienced the opposite.

She states that although her children going out on their own would be her “*worst nightmare ever!*” (Interview 1, 4.06), she would be alright with it depending on the distance and where they were going. Her worry could perhaps be due to the lack of bicycle lanes as she states that as a problem with the infrastructure, perhaps due to it creating unsafe cycling conditions.

## Competences

Interviewee 1’s mobility competences are mostly connected to her walking and utilising public transport. She has been taking the public transport by herself since the age of 12 and on a normal day she does not need to research how to get to certain places. However, if she is going to a new place she does have the competences to look up where she can go.

However she is not likely to need to look up new routes in a daily connection as she rarely goes beyond her usual routes. She even joked that she would only barely be able to find her way if she accidentally strayed off her normal path. But as she learnt to navigate the area through trial and error, this would perhaps just help developed her competences further.

Furthermore when it comes to the public transport, she seems to have the competences in order to travel by the train without planning and checking the route before she leaves for work, but she also knows how to prepare herself in situations that warrant it.

She does not have a driving license. When asked whether she could ever see herself driving a car in the future she stated “*No, never! I will never get a driving license. I’m the kind of person that all men hate*” (Interview 1, 8.14). This could mean that she expects that others would find it annoying to have to drive her around. In reality her lack of competence when it comes to the driving practice means that she is highly unlikely to develop very positive meanings towards the practice. As her current norm serves her well, it seems that there is no incentive or meaning pushing her towards changing her favoured mobility practice.

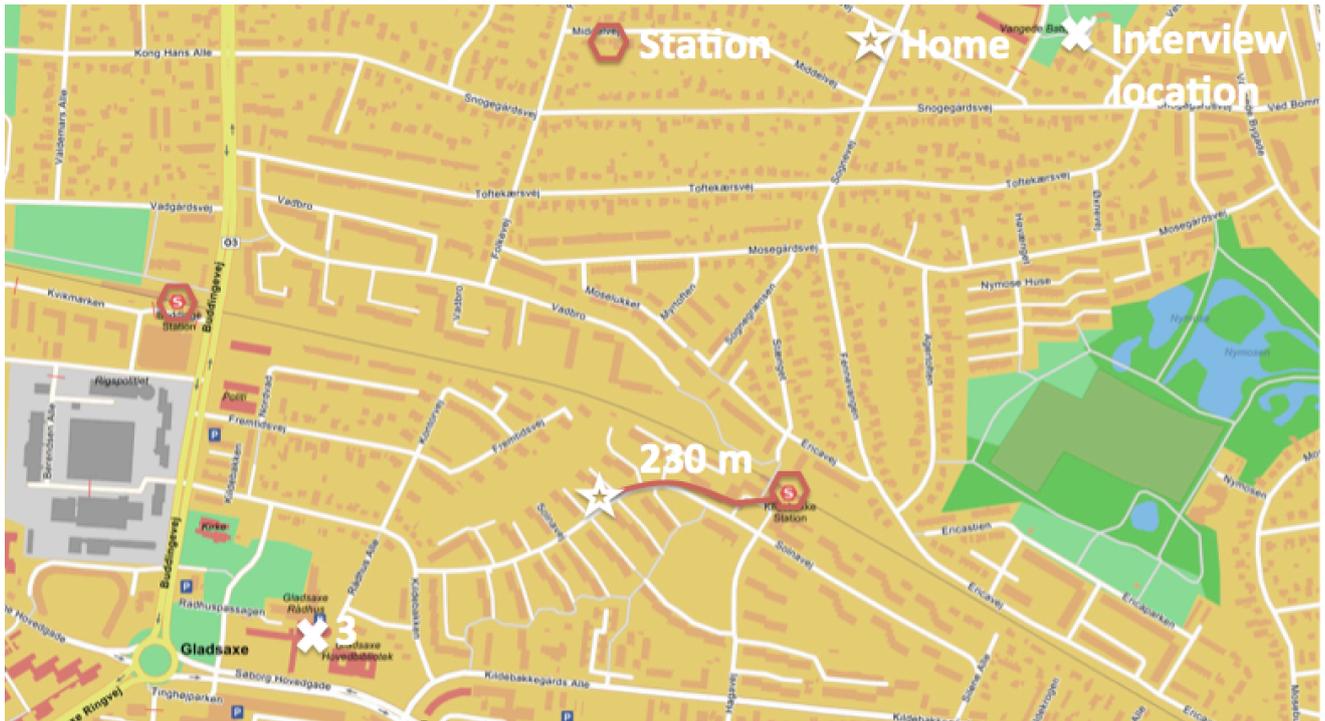
Despite having learnt to ride a bicycle at an early age, it seems that this is not a practice that will dominate either, in this case it seems that it is neither due to lack of the immediate competence of cycling nor that it is a normal way of transporting oneself, but perhaps because she has gotten used walking when her bicycle was not working.

She has the competences to plan her grocery shopping so she can pick it up on the way home (Interview Notes in Appendix L, Interview Sound in Appendix A).

## Interview 3

Interviewee 3 is a bit of an outlier compared to the other interviewees. He is currently out of work and therefore his mobility practice is mainly based on walking to and from the city square.

Furthermore, his answers were had very little detail sometimes, making it difficult to understand how his mobility practice could be if he was in a different life situation. He has lived in the area for 15 years .



MAP 14: Shows where interviewee 3 lives and the distances to the nearest station.

## Material

Interviewee 3 does not have many places to go and without a job his main mobility is centred on him going to either the gym or going grocery shopping. In both cases he walks. Everyday he leaves his house to go grocery shopping at the city centre.

He does own a car but he is currently fixing it up. When his car worked he would use the GPS on his smartphone to find his way around.

On the few occasions where he travels by public transport he uses rejseplanen to plan trips and uses his rejsekort as payment.

Interviewee 3 does check the weather forecast but it does not affect what he brings with him, perhaps because he has the freedom to plan his day accordingly.

## Meaning

The most important thing when it comes to mobility for interviewee 3 is that the public transport is punctual: "I don't want to wait!" (Interview 3, 1.42). Considering this as his view, it may be that he has experienced some tardiness when taking the public transport that has caused him to have this view. In his opinion, the Danish public transport system should attempt to model its pricing system after New York where he explains that within one neighbourhood, the public transport should be free. He thinks the public transport system is pretty well connected, but the fact that it is too expensive makes more people use their cars. The meaning he gives the public transport is that it is too expensive.

He also considers a privately owned car expensive, which is why he has considered shared cars. When it comes to walking it would seem that the meaning he has connected to it is a means of getting out of the house and down to either fitness or the grocery store, this would mean that he would not find it necessary or relevant to go walk a different route for a different experience. Perhaps if he viewed walking like interviewee 8 views cycling, he could try out different routes with different experiences.

## Competences

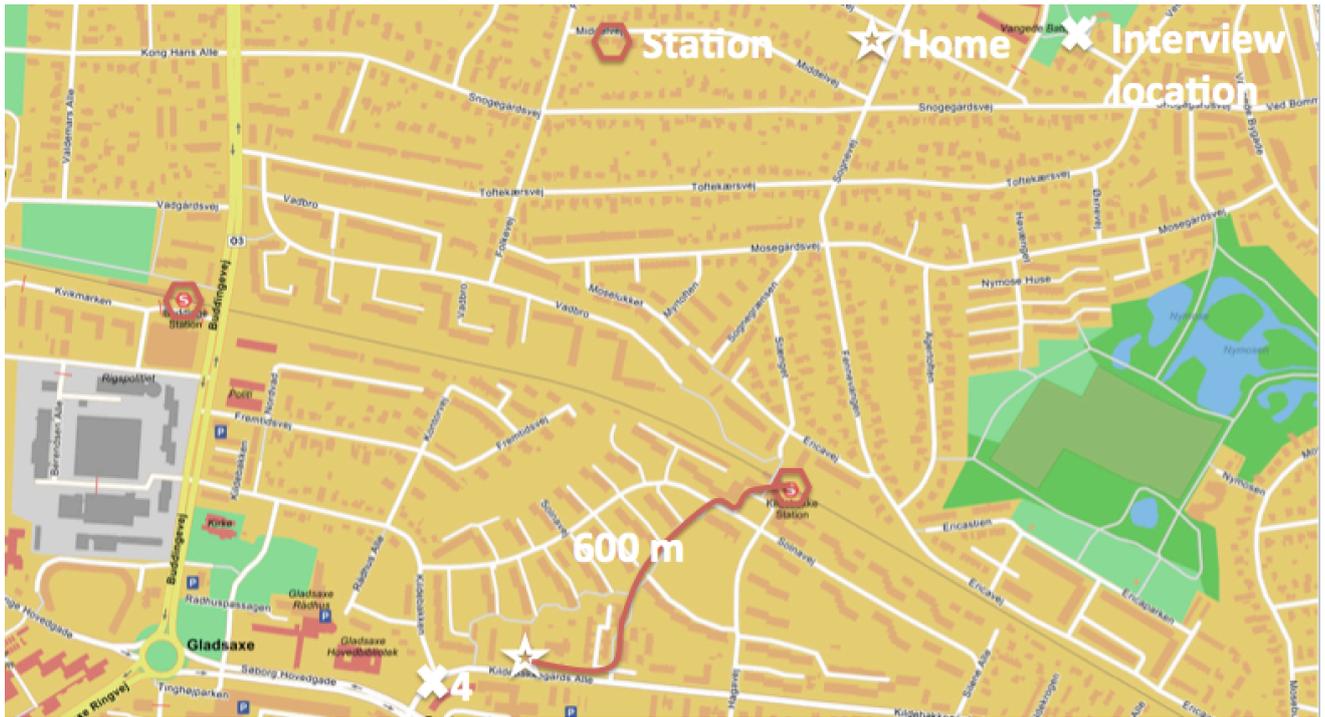
Although he leaves the house daily he does not try out different routes, this could be due to lack of competences regarding altering his routes and habits or perhaps lack of meaning. Regarding public transport it seems that he mostly checks rejseplanen for delays, which makes sense with his expectation being that the train should be punctual.

He comes from a car using family, he states that when they were not at home, he would take the car keys and take the car for a spin. He started driving at the age of 15, he only needed to take three driving lessons before being able to take the driving test. His driving competences seem like they are quite developed but since he is not good at navigation it could perhaps be difficult for him to attempt new routes. He usually uses the GPS on his smartphone to find his way around (Interview Notes in Appendix N, Interview Sound in Appendix C).

## Interview 4

Interviewee 4, a soon to be retired woman in her 60's, has lived in the area for 38 years. She currently still works on Frederiksberg and always uses the bus to get to work.

Growing up she mostly walked as she lived close by her school. Her father would cycle to work and the mother was a homemaker.



MAP 15: Shows where interviewee 4 lives and the distances to the nearest station.

## Material

Interviewee 4 lives in Gladsaxe municipality, not far from both Buddinge and Kildebakke station. However, it is not the train that is her main mode of transport but rather the bus, 6A. She commutes by bus daily, and although the coverage works well for her the frequency in the evenings when she is off from work does not cover her wishes.

Interviewee 4 grocery shops on Frederiksberg when she is on her way home from work. This occurs almost daily and is therefore for daily consumption and small sizes. However, sometimes she buys a bit more when expecting her children.

Despite owning a bicycle, it rarely gets used.



IMAGE: Bus driving in the direction of Gladsaxe Town Hall

## Meaning

For interviewee 4, time is also an important element in her daily mobility as she states: *“It could be better. I think that bus, 6A, the idea that only every second or third goes out here, that is just not good enough”* (Interview 4, 1.11) going on to say: *“When you are free from work late, that does not get taken into account [when planning the bus times]”* (Interview 4, 1.32). She prescribes the meaning of infrequency to the buses, however this perhaps slightly negative connotation has not altered her mobility practice performances, nor has it pushed her towards a different mobility practice performance, even when her situational context changes when she retires. Time becomes less important when she is going somewhere for recreational activities.

Not using the bicycle fairly often means that she does not prescribe it any specific meaning, at least not one that she mentions in the interview.

She does not have a driving license, which for her means that she does not have any relationship to the car beyond her son owning one. There is no meaning for a car driving practice performance by her to take place.

## Competences

Interviewee 4 is one of the 11 interviewees that did not have a driving license, meaning the competences regarding car driving were lacking, however, her knowledge of especially the bus system that she often used was quite developed. This included remembering overall the frequency of the busses that she could use. She also uses rejseplanen to plan out new journeys, not just for the bus times but also for the walking route to and from the bus, meaning that her entire mobility is planned mainly using a public transport journey planner.

Furthermore, she is able to plan her grocery shopping so it fits with her daily need and so she can bring it with her home from work on the bus.

This also means that she does not have just one route, but different ones depending on whether she needs to stop at the grocery store on the way, or e.g. a road is blocked so she has to take a different route.

When watching the news she also takes note of the weather and sometimes plans to bring an umbrella or even by simply looking out the window. How the competences for this add to the way that she performs the mobility practice of taking public transport (Interview Notes in Appendix O, Interview Sound in Appendix D).

## Public Transport and Walking Mobility Practices

One of the most common comments that the interviewees had regarding the public transport as a mobility practice was that it quite often was tardy and since many of the interviewees weighed punctuality quite high this was often used as an argument as to the meaning of time being why the train or bus would not be a part of the interviewees mobility practice. However, for some the public transport seemed to serve them well, with one, interview 10, even explaining that he was surprised by how punctual the trains were. For others, it was not exactly the tardiness that affected the meaning of the public transport mobility practice, but rather the lack of frequency during the time where the interviewee would need the train.

The use of different material reflected how people perceived the mobility practice too. For those who often would use the public transport they would have a monthly card or rejsekort and would not find it necessary to constantly check rejseplanen. For others they sometimes did not even own a rejsekort and would rarely use the public transport, these often did not use rejseplanen either, however due to the reason that the timespace they would create with their performance of the practice would always mean that they did not need to know how to use rejseplanen as the material set-up with frequent trains was enough for their timespace.

It seems that the public transport using mobility practice is one that is usually given the meaning as being only for transport, although in some situations it did open up for other meanings to manifest such as spending the time on the train watching Netflix or taking calls.

Despite many of the interviewees spending some time performing this practice, the majority had quite negative views on it as a primary transport mode.

## Summary

The 11 interviews resulted in a number of different results. Each and every interviewee had developed their way of performing a practice throughout time, taking upon them different meanings, using different material and developing new competences. Although not all interviews were equally detailed, they provided some information into how some practices occur, but with some interviews giving more to analyse upon.

Interestingly, despite many of the interviewees taking part in many of the same practices, their performances were quite different and the importance of the different interdependent elements differed depending on what their current competences, meanings and materials were. Many of the interviewees grew up in families with quite different mobility practices, but most got a driving license at the age of 18. Despite this, not all continue to use the driving practice as their main practice today. Furthermore, several interviewees gave the bicycle the meaning of being healthy and good for them, this did not mean that they all chose this as a main mobility mode, nor did the fact that they all owned a bicycle. It is clearly not enough for one similar element to be present for the practice to be chosen as the main mobility practice. This will be discussed in the next chapter.

## 5. Discussion

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The following is a discussion of the different elements that affect the mobility practice performances of the interviewees. Firstly the interviewees' perceived time and actual time in our society today is discussed. Secondly the dichotomy of freedom and control are discussed. This is in order to understand the how the interpretations of freedom and control regarding different mobility modes affect the practice performances of the interviewees. Finally a discussion of how practices are change is presented. Starting with a discussion on how the perceived 'normal' that the interviewees have developed throughout time, affects their mobility practices. The discussion also includes arguments regarding how the interviewees see their mobility practices changing. Finally arguments regarding policy and planning is presented in order to present some different takes into how the practices could be affected by policies and planning.

### Perceived Time in Connection to Mobility

For several of the interviewees, perceived time seemed to be an extremely important element that was top priority either due to planning their home lives or for optimising their free time and getting the most out of it. They feel the need to be able to find a sequence for their practices in their lives and this seems to be quite dependent on time for several of the interviewees. This may be due to the apparent increased speed of society where we are expected to quickly and easily move from one place to another (Hartmann-Petersen et al. 2009).

Each of the three interdependent elements of practices have some effect on how time was perceived for the different interviewees. This is also where many discussions regarding our increased mobility stem. The dichotomy of both being able to travel further in less time whilst still having some very concrete locations that you are connected to like your home or place of work, perhaps your parents live on Lolland like interviewee 9 (Hartmann-Petersen et al. 2009, Hagman 2006). It could be argued that the perceived time created by the place attachment and being able to travel further creates pressure on the interviewees and their expectations for their daily sequence of practice performances.

Actual time also affects the mobility practices of the interviewees as they are dependent on work hours, train or bus schedules, stores opening times, preschools' opening time (Hartmann-Petersen et al. 2009, Hagman 2006). That being said, it continues being how the interviewees sequence together their day and how they perceive time that affects their choice in mobility.

One of the most important elements that seem to affect the interviewees' perception of time was the urban form in relation to the distances to the different urban functions, distances to work and connections with public transport.

Since the car's introduction into society, we have continuously developed and spread a road network around the country, one that is more elaborate than our train and bus networks: *"Cars have become progressively embedded through patterns of economic and suburban development and through the remaking of space and time in ways that demand and assume a relentless logic of automobility."* (Shove et al. 2012, p.154). As Shove mentions, it has become one of the fabrics of our society, figuratively. It has tied together different parts of the country, allowing us to be able to travel further in shorter time (Shove et al. 2012, Hartmann-Petersen et al. 2009). This has also allowed us to have jobs in different towns than where we work, which is where the problem starts for the environmental sustainability, and according to Interviewee 10, for our money (Hartmann-Petersen et al. 2009; WHO 2016; NASA 2016). This is why the importance of the connection for the public transport is essential. The better the connections are, the less travel time there will be, giving people an increased incentive in choosing the more sustainable mobility mode. It was clear in most of the interviews except for interview 3, 5, 8 and 11, that they did not mention time as being nearly as important. Out of the four that did not mention time; two did not work and the other two primarily used bicycles and had rather direct routes that were unaffected by traffic. It could be argued that the time spent in traffic is of more importance to those who work. Another argument could be that the meaning that interviewees 5 and 8 give the bicycling practice is generally positive, at least for the trips to and from work and the time it takes is not something they compare to other mobility practices.

The material also affects the understanding of time in that the time spent looking for parking is seen as more stressful than the time spent in traffic. As interviewee 7 explains, she has free parking at work, which to her is an important element in her driving practice. The perceived time of finding parking is important, although she continues to also drive to the gym on Vesterbrogade, where parking is slightly more difficult, although she has always found a parking spot. Olle Hagman explains that if one does not have a parking space available at one's destination, there is no reason to even be mobile. The problem is that with every car being parked for so much of its

lifetime and the fact that during the day a lot of cars need to park in the same area, near an office, gym, supermarket, the perceived time is of immense importance again (Hagman 2006). It is also due to how society is organised - we all work within the same general time period, grocery shop on the way home, and have free time on the same days. This makes it difficult for the car practice to work optimally when combined with the perceived time and values of the people.

When sitting in a car during a traffic jam, many drivers seem to become used to the experience, interviewees 7 and 9 explain that they find it annoying but they have both developed the competences to fight the annoyances. This is done through different routes that perhaps have fewer traffic lights or are less prone to traffic. This affects how they perceive the time spent in the car, they are not spending time waiting, but are actively attempting to get to work. It could be argued that this coping mechanism makes sense since some argue that the time spent waiting in traffic almost makes people feel like they are suffering from a disorder (Riis 2012). In the cases where the congestion cannot be avoided interviewee 9 has another coping method that is based on taking both personal and work phone calls whilst driving. The coping mechanisms used by car drivers shows the importance of time, as these interviewees explain that they want to get to and from work quickly, it could be argued that time spent waiting would go against what they feel is quick (Hagman 2006). This however does not necessarily have a base in reality, and as interviewee 7 explains, the time difference between taking the car and the public transport is in reality quite minimal when going to Sydhavn.

For a practice like the public transport, the similar work hours, free time etc. helps out the practice performer to some extent, since the frequency of the train is higher during these times. This could be why interviewee 1 did not mention any issues regarding frequency, the only time that affected her mobility practice was the punctuality of the train. Here it may be due to the time waiting in traffic not being able affect your own level of punctuality.

The time of work hours and free time affecting the frequency of the train becomes a challenge again in the evenings when the train is less frequent, this was experienced by Interviewees 4 and 9. The time then makes it inconvenient to take the public transport. People like Interviewees 7 and 10 explained that the trains would be stuffed with people during the rush hour, pointing towards an argument that although there is higher frequency of trains, the capacity is still not always optimal.

It seems that the perceived time and how time is used to organise our society is of immense importance to which mobility practices the interviewees performed. The fact that it is not only the actual time that is connected to how often the train and bus goes or when there are many cars on the road makes it difficult but also how this is perceived by each interviewee helps them define a

meaning and how to organise their lives. Each of the interdependent elements come into play when it comes to time, how it is perceived and how to deal with it.

## Dichotomy of Freedom and Control

Due to the material, meaning and competences that the interviewees have, one practice is often performed over another. This is due to their everyday lives being organised in such a way where the Interviewees perform a number of different practices throughout the day. These activities/performances occur in a certain sequence. It could be argued that this individual sequencing was enabled through the mobility they perform and without the mobility practice, the other practices could not take place (Hartmann-Petersen et al. 2009). As mentioned above the perceived time by the interviewees result in certain meanings for the mobility practices, some being lack of control and freedom or opposite for others. The mobility of the different modes can mean freedom or it can mean barriers and out-side control (ibid.).

Interviewee 10 explains that with young children, it is especially important to plan one's day and the amount of time available is what restricts how the day is planned. It could be argued that due to Interviewee 10's perception of time and how he plans for his children, that he only sees that he can have freedom with a partial car driving practice.

For interviewee 9, the car meant that in her quite busy and controlled everyday life, she could have some freedom and flexibility added by driving to and from work without being dependent on others. It could be argued that Interviewee 9 is able to act on her impulses when it comes to the car driving as a mobility practice, this being a way to control her own freedom (Hartmann-Petersen et al. 2009). This freedom was one meaning that she considered quite essential, which is something that Interviewees 6 and 7 echoed. The car being seen as a mobility mode that can allow for a fast trip to and from the workplace, controls their opinions on the mobility practice. This interpretation of the interviewees opinions is echoed by Olle Hagman: "*The image of cars as extending one's radius, speed and freedom of movement is also deeply rooted in the minds of car users*" (Hagman 2006). In reality Interviewee 7 and 9 experience a lot of congestion on their journeys going into Copenhagen quite frequently. They explain that the car gives them freedom, when in reality it could be argued that they seem to mostly have the choice between driving at odd times or being stuck in the traffic, which could really be seen as the opposite of being free. According to the Oxford Dictionary one definition of freedom is "*the right to use something with nothing to limit you*" (Oxford University Press 2001) which would not seem to be the case for Interviewees 7 and 9.

According to Olle Hagman, the interpretation of the car giving freedom is not one that comes out of nowhere. Along with the meaning having been developed and reinforced for years (Shove et al. 2012), it is portrayed in advertising constantly adding to the meaning that many car drivers have, however the advertisements do not show the reality experienced by car drivers:

“[T]he lack of mention of obligations, obstacles and restrictions (...) In the world of car advertising it appears as if nobody has to work. Car users are never on their way to work. If they are on their way to anything – and most frequently they are not – it is always to a holiday, a party, or some other leisure activity. There are no traffic jams. In fact, in most cases there is no traffic at all! The road is completely open for driving, and driving is for leisure and for fun, for enjoying the car and its driving performance. There are no restrictions of any kind: no speed regulations, no ‘road ends’ and no parking problems.” (Hagman 2006, p. 66).

Interestingly, the world of the car in advertising is rather far from the reality where people work and primarily use the car for the commute, and less so for leisure. Of course, this is not something that the interviewees mentioned, but when society portrays the car in such a way it helps build the meanings for the practice.

Another way to define freedom is how interviewee 8 does it regarding his bicycle. He uses it for most trips and this allows for him to go most places however he wishes to. He has the freedom to create a completely different timespace through taking a different route just for leisure, using the same mobility mode as he uses for transport to and from work. The fact that it is entirely his choice whether he decides to use one route or another without outside forces like traffic affecting him, fits better with the definition of freedom. Comparing this with interviewee 6 who described his driving practice as such: *“There is one way that is the quickest, and I am not there to cruise around, I am just going to work”* (Interview 6, 5.46). Where one person, as a cyclist can see an opportunity to change the meaning of their transport mode, a car driver sees the same opportunity but completely ignores it because he is just going to work, thereby maintaining the same timespace.

It could be argued that generally Interviewee 6 does have the freedom in the car, at least when going towards Hillerød, however, the meaning he also gives the car as solely a transport mode affects the experienced freedom.

For others, like interviewee 2, the lack of competences for finding her way, means that she does not experience the same freedom when cycling and is instead controlled by her lack of competences.

Nevertheless the freedom meaning of the car seems to be quite widespread amongst the interviewees, despite it not being based completely on the real situations the driver's experience in their daily mobility. It could be said that the freedom they experience with the car is the freedom to go anywhere without much need for planning in regards to weather and being able to bring things with them. They also have the freedom to control their days how they see fit.

In regards to public transport, the meaning of frequency and punctuality is given immense importance for the interviewees' mobility practice performances as mentioned earlier. However, several interviewees mentioned that when performing the public transport practice, they rarely planned their journey either. It could be argued that the train especially gives freedom to those going somewhere with the S-train. It does not require rejseplanen as it goes quite frequently. However, it is not in all cases that this mobility practice supplies freedom, as you are still affected by the time schedule, especially in the evenings for those who work late. Here the interviewees feel controlled by the schedule causing them to seek the freedom of the car. As there is less congestion on the roads in the evenings it is not surprising that they chose this freedom. Another sense of control they feel being put upon them is the predetermined routes, the connections that make it difficult for the interviewees to go exactly where they need to go, this is a challenge for interviewee 6 when using public transport or a multi-modal approach. This also restricts the feeling of freedom for the interviewees (Hagman 2006).

It would seem that the level of freedom perceived by the interviewees affected their performance of each mobility practices. Despite all mobility practices being able to supply some freedom in different situations, both the car and public transport are still subjected to some control from the outside. However, the level of freedom that the car allows for when the parking is optimal, makes it possible to deal with the loss of freedom and control in traffic jams. For the public transport the level of control from the outside both benefits and obstructs the meaning of the mobility practice, depending on the time of day. For the bicycle, the control seems limited as long as you are willing to cycle the distance you should be able to use it, but the meaning of freedom is mostly contributed to the bicycle if it is used for more than just a mobility mode.

## Changing Mobility Practices

The many different mobility practices are affected by both meaning, material and competences as has been discussed in the earlier chapters. However, another seemingly important element could

be how normal is defined for the performers of the different mobility practices. The strength of a mobility practice is no stronger than the links between the different interdependent elements. How the interviewees view each practice affects this too, as a practice needs to be seen as the norm for the links to be strengthened.

Shove et al. writes: *“Interestingly, rates of cycling have begun to increase, particularly in Denmark and the Netherlands, and in these locations, lost meanings of cycling as normal are being recovered”* (Shove et al. 2012, p. 61), in these cases the meaning of normal is stronger than that of leisure according to Shove et al. Although this is not always the case, as the interviewees from Gentofte and Gladsaxe proved (Interviewees 1, 3, 4, 6, 7, 9, 10). These interviewees contribute normal to other modes of transport, be it the car, the bus or the train.

However, there are also those who contribute both leisure and normal to the bicycle, especially interviewee 8. He described how, for his family, the bicycle was the usual mode of transport, and that they also really enjoyed it. In this case, the practice of bicycling can be seen having several different meanings attributed to it, some which to others could be seen as opposites.

Another meaning of the mobility practices that can be of importance is the identity that it gives the performer. Interviewee 10 considered the car as a symbol of prestige, enjoying the motor sounding a certain way. Interviewee 7 enjoyed the luxury of the car. Interviewee 9 enjoyed that the car was a place where she could also perform tasks like taking phone calls. Interviewee 2 enjoyed that the car was able get her to work with little stress and Interviewee 11 enjoyed that the car made her feel safe at night. In general the interviewees had a large amount of meanings connected to the car that were not only reliant on time and freedom. It also had to do with identity, the feeling of *self* or *home* connected to the car (Hartmann-Petersen et al. 2009). Interestingly in this regard the car seemed to be the one most associated with these identity features. However for Interviewee 8, it could be argued that the bicycle also seemed to give him a sense of belonging. He seemed extremely content using the bicycle to get around or even just to have fun on already seeming to pass this meaning of the bicycle onto his children by encouraging their use of the bicycle for the majority of trips and even for leisure on their upcoming vacation. Unlike Interviewee 6 who is shaping his children’s mobility practice performances through his own meanings regarding the infrastructure and other drivers in the area creating unsafe conditions. His 11-year-old son’s lack of cycling competences makes him give the bicycle the meaning of being unsafe which might affect the child’s meaning towards the bicycle and also how he may continue to develop his competences. It could be argued that the high speeds on the roads, especially near the school, makes for unsafe conditions for children to develop their cycling mobility practice. This would be unfortunate to the children’s mobility practice development since they would not be able to carry

out the practice like most other children (Cyklistforbundet B N.d.). This would result in the children not having an understanding of the bicycle being a normal mobility mode.

It seems that in places where at least some of the interdependent elements of the different mobility practices have remained, there is a higher chance that the practice could come back and be considered normal again. However it can require either that there is a change of focus on mobility from a governmental or institutional level like in the case of congestion charge for cars in London and Sweden (Shove et al. 2012; Hagman 2006). It could also require that it is a certain type of person that begins to use and consider the practice normal - "normal people" (Shove et al. 2012). Of course it is important to realise it is not always the most logical way to attempt to facilitate a normalisation of a more sustainable practice by simply pushing out the other, less desirable mobility practice. However, it does show how the dominant mobility practice in society can be affected by what is seen as normal and what helps identify the performer of the practice.

It is often not the actual mobility mode itself that affects the person's wish to participate in the practice but rather which conditions they are in both physical and life situational.

A person may have grown up performing one specific mobility practice, but as their contexts change, moves, educations, children, retirement etc. their mobility practices are challenged. Although the mobility practice as a whole does not disappear as the three interdependent elements continue to be present for the majority of the practice performers, some of the interdependent elements may become less dominantly present in a person's life making their practice performance more difficult and therefore less likely to be continued. For the different interviewees this can be seen in that almost all of those who have moved to the area who previously did not drive a car took the practice up and to some extent dropped previous practices like cycling. A research study found that when moving you experience a break in the interdependent elements that make up your mobility practice. The material context in which you used to carry out the mobility practice has altered, meaning the performance changes or perhaps you even carry out a larger change of mobility mode in order to combat the changes (Thomas et al. 2016).

Interestingly Interviewee 7 seems to be aware of the political vision of changing the car's dominance in our society's mobility, however she states that where she lives (Gentofte Municipality) it is not such a big deal *"because we have it pretty easy actually. We have the trains (...) I think there are many people that take the train into the city, I think."* (Interview 7, 19.04). This is interesting because she stated that for her it is alright to focus on what is the best for her, and if everyone thinks like this, then it would be very difficult for the political vision to be realised as this would be a part element in the car driving mobility practice. This would also continue to strengthen the competences for the car creating less reason for her to go out and develop an unused or new

competence. It could perhaps be because she, like many others when it comes to practices, does not think much about her options in her daily life (Freudental-Pedersen & Nielsen 2012).

For interviewee 8 he has previously changed his mobility practice from relying only on the bicycle to using the car a slight bit more. He credits this to his children being young and that it is difficult to handle all the small logistical tasks that come with having children without owning car. He does hope that this can be changed since he does not wish to own the car. He is not the only parent who thinks the car is necessary due to having children. Interviewee 10 also explains that having young children you have to pick up from childcare means a car is necessary. He argues that although he can see scenarios where he does not touch a car for his own mobility purpose, when it comes to his children, this is not as easy. Then there are people like interviewee 1 who simply walks everywhere, even though she has a bicycle, she has chosen to focus her mobility practice performance on walking when taking her children home from preschool.

It could be argued that owning a car simply is not up to the individual to choose, despite most people finding that statement as a personal attack on their perceived freedom of movement (Freudental-Pedersen & Nielsen 2012). As practices can only change if a large group of performers alter their preferred practice, stopping their support for the practice, it would be difficult to say that the practice is individual (Shove et al. 2012).

Søndergård et al. explain that in order for a change to really take effect in society, there needs to be a network of actors on a governmental level that maintain and develop the technical, economic and political promotion of new sustainable technologies (Søndergård et al. 2009). It could be argued that like new technologies, new views on mobility practices or less dominant mobility practices like the public transport system needs a network of advocates that can ensure the establishment of the practice in society. It seems that on a governmental level, there is a focus on attempting to improve the effectiveness of the transport system and change the mobility to less or no emission vehicles (Energi-, forsynings- og klimaministeriet 2016). This is to be done through EU-regulation as the government argues that Denmark's limited market cannot implement large technological changes alone. To this extent there has been quite a bit of discussion as to whether EV's (electric vehicles) should, once again, have some sort of decrease in tax since the numbers of new cars apparently had decreased a lot since a tax-cut on EV's was removed back in 2015 (Westersø 2017). It could be argued that despite the seeming support from government, the wavering back and forth is not exactly conducive to facilitating an establishment of the EV's in society. Furthermore, as the EV technically is better for the environment, the electrical car would not necessarily help combat the issues that currently bother the interviewees mobility practices - congestion and lack of parking. To some extent it may be beneficial for people such as interviewee

11 who would like to be a part of a shared car scheme in order to be able to use an EV in a controlled environment. The support of the EV's on a governmental level could therefore to some extent have some effect on less car dependent car driving practice performers like Interviewee 11. The government's support of a mobility mode like the EV's with tax subsidies, is one example of how a group or institution is able to affect the mobility practices of people as it would change the availability of the material for a more environmentally sustainable mobility practice. This alone would of course not be enough to truly change the practices of the people, it would only ease it for those who already had decided to swap out their cars. As interviewee 11 explains, she does not know how to use an EV, which is what is stopping her.

Shove argues that the method which has been used throughout some time as a method to investigate practices, ABC (attitude, behaviour and choice), is one that cannot truly provide any usable information from planners. This is because it puts all the responsibility into the practice performers hands (Shove 2010). However, as practice theory highlights, the individual practice performer is not alone able to change a practice. They can change how they perform the practice if they have enough incentive in changes to the material, meaning or competences. It would therefore seem that it could not be the performers responsibility alone to facilitate the changes to the mobility practices. Therefore interviewee 11 cannot be expected to be at the forefront of the EV mobility practice.

As the views and perception of the different mobility modes affect how the mobility plans and policies are carried out, there needs to be more focus on how policies can make a difference (Hartmann-Petersen et al. 2009).

Søndergård et al. explain that in order for a *“sustainable transition to occur, environmental planning and -politics must be redirected towards changing our society's socio technical systems.”* (Søndergård et al. 2009). It will not be a smooth transition to a less car dependent future (Dennis & Urry 2009).

The car-based practice is difficult to change with policies and planning because it involves so many aspects, such as the road systems, petrol companies, car manufacturers, tax systems (Søndergård et al. 2009). These all affect one another, the car driving practice but also how our society is currently structured. As Interviewee 10 says, car drivers give a lot of money to the government. Another argument is that, despite the bicycle not giving a lot to the state directly compared to the car, the bicycle still gives to the economy since cyclists tends to use more money in retail than the car driver according to a Dutch study showed (Ministerie van Verkeer en Waterstaat 2009 in Freudendal-Pedersen & Nielsen 2012). So although our society has a system

set-up that continues to strengthen the car driving practice, there are also unexplored forces doing the opposite, perhaps eventually being able to weaken some of the links for the driving practice.

As Shove et al. explains, if a practice survives it is due to the constant re-linking of current bonds by performers of that specific practice, enforcing a practice further (Shove et al. 2012; Søndergård et al. 2009). A key question to ask when planning to attempt to change a mobility practice is *“How do specific initiatives in climate change policy intersect with the careers of practices and practitioners?”* (Shove et al 2012, p. 156). Understanding the way politics, plans and policies affect a practice enlightens the planner on how each initiative can affect the performer of the practice in a way that could help build sustainable mobility modes’ links stronger: *“[T]here are no reliable means of steering or governing transitions in practice: systemic forms of policy intervention only have effect when taken up in (and through) practice. Equally important, such effects are never stable, being always subject to ongoing reproduction”* (Shove et al. 2012, p. 162). Despite a practice taking in benefits of a policy, if the bonds between the interdependent elements are not continuously strengthened, the practice could lose momentum.

According to Shove, the need to learn more about how practices strive and how to facilitate changes is essential. Throughout this project this has been the objective, albeit for a small handful of mobility practitioners, it is nevertheless more knowledge and information regarding how the different mobility practices thrive and fall apart depending on the conditions, both for the three interdependent elements, but also for the individual practitioners upbringing and performance of the practices. Seeing as each performance can be done slightly different, it truly is quite difficult to ever have a full understanding of the different mobility practices.



## 6. Conclusion

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The project has been written with the purpose of understanding how the mobility practices of some inhabitants in the area around Buddinge and Kildebakke station have been formed. Using Shove et al.'s practice theory to enlighten this process does this. In order to do so, the project has presented how Shove et al.'s practice theory is understood in this project. This was necessary in order to have an understanding of how the central ideas of the theory that shaped the interview guide as well as the analysis. By understanding the three interdependent elements of material, meaning and competences as well as Schatzki's definition of timespace, the interviews could be analysed to an extent to which certain similarities and differences were evident. It was clear that despite the fact that some of the material, meanings and competences were to some extent quite similar, the practices carried out by the interviewees were not necessarily performed the same. As both Shove et al. and Schatzki explain, some of the interdependent elements used in the different mobility practices can overlap (Shove et al. 2012, Schatzki 2010). Activities occurring in the same place, enabling different mobility modes to be available (Schatzki 2010).

There were in fact several nuances to how the practices were performed which had been developing throughout the different interviewees lifetimes as well as with the development of society. The interviewees have spent their entire lifetime performing a number of different mobility practices, with some being more ingrained into their consciousness than others. The interviewees have experienced different material situations, developed new competences, giving new meanings to the different mobility modes. This is also why mobility practices can be difficult to study and work with. As there is not one purpose for a mobility practice there is also not one way of performing a mobility practice, nor is there one way of developing said practice. With different worldviews, interpretations of time and space, and values, the interviewees would find it difficult to base their entire mobility practices on what planners, politicians and scientist wish them to do. Some interviewees felt more busy because they wished to be able to get home to their children, like Interviewee 10, others felt the need to spend every moment of time of work free to do whatever they wished, be it being at home, like Interviewee 7, or going to meet up with friends, like Interviewee 9. The interviewees were not constantly conditioned to use one certain mobility mode, nor are they unable to try out new ones. It was clear that most of the interviewees had tried a number of different mobility practices even if only as passengers. However, certain barriers do

come with each of their backgrounds of mobility practices, and this cannot be ignored. When a mobility practice functions so well, in the interviewees daily life, that it inhibits them from attempting new mobility modes, developing new competences and realising new meanings, like Interviewee 6 who has no reason currently to try out the public transport practice, then the change in mobility practice is unlikely to occur. However for interviewee 10, going into Copenhagen by public transport caused him to develop his competences and meaning. Another barrier could be how they view their transportation, as Interviewee 8 clearly enjoyed his time on the bicycle and saw it as an enabler of freedom, but despite others, like Interviewee 6, seeing the bicycle similarly or another interviewee 7, having used the practice a lot previously, the meaning of the bicycle has changed for them due to the material situation being that the distances were further, having a meaning of the car that overshadowed the bicycle and the lack of competences to plan a bicycle ride that is helped out with public transport.

So how does all this help with the understanding of the shaping of mobility practices? And can this help planners with where and how to make changes in order to hopefully facilitate a shift towards more sustainable mobility practices in the society we live in? That is truly a difficult challenge that many researchers in sociology, geography etc. have been working with for years. And although some then may ask what is the point in this research if not to have definite answer or solution? The truth is it allows for planners to have a realistic sense of their abilities to affect the world. Although material alone is not enough to change people's mobility practices, making a well connected and punctual public transport system would be one step, as the connections and the experienced time it takes using public transport is something several interviewees explained was necessary for them to consider this change. This would most likely help with the meaning connected to the public transport, which was generally negative. Another could be changing the price of owning a car, perhaps through climate or green policies, as several interviewees mentioned that this could mean the end of the car for them. It could also be removing some of the stigma surrounding bicycles, cargo bicycles and electric bicycles, as this prohibits many from truly carrying out this practice that does give more freedom than many realise.

However, with each of these ideas it should be realised that in order for the practice to truly change, the material, meaning and competences all need to be affected to some extent. A significant break in the current practice needs to occur in order to enable the interviewees to consider new information and try out new mobility modes. Developing a new practice is not going to happen overnight, but rather through a lengthy process of acquiring new competences, new meanings and using the available material to the best effect of the environment without it having too much of an effect on their lives.

# 7. Perspective

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Throughout this project the mobility practice performances of 11 people were investigated. Giving more insight into the nuances of each interviewee's mobility practice performances, how they emerged and how other practice performances were left behind or are used to a lesser extent. Furthermore, in the discussion the challenge of policy and planning's effect on mobility practice performers was discussed to some extent. This also highlighted that one area that seems to need some further investigation is how individual policies affect the mobility practices. This however would be extremely difficult as shown through just the investigation into the mobility practices of the interviewees. Each mobility practice performance was shaped by years of experiences with different mobility modes, meanings being built up by society and by experiences throughout their lives. Competences being developed to different extents making the performed mobility practice seem like, even though the material might be the same, it seems like it is used in so many different ways and given many different meanings. Being able to identify the individual policy or plan's effect on the mobility practices may be quite difficult. It would almost have to be an investigation of the practices of a group of people before and after being affected by a policy change. This would mean that you would have to have an understanding of their current mobility practices, the policy and when it would be enforced, and following the progress of the people's mobility practice performances following the policy being set in motion. A lengthy and difficult process that would require much time and collaboration both with planners and performers of the practices. Nevertheless it could be extremely interesting to investigate.

Interesting policies that, according to the 11 interviewees from this project, could affect which and how mobility practices are performed include a lot of dichotomy in that it seems that two mutually exclusive elements would have to occur for some of the interviewee's to change their practices. One example of this is an increase in the connectivity and frequency of the train whilst also decreasing the price of riding public transport. Another is that some interviewees wished for the conditions for the car to continue being as good as they are whilst also making room for a light rail and bicycle lanes which might not always be possible as all consume quite a lot of space. Then there are the

policies regarding cars such as increasing the price of owning a car or the price of driving it certain places, although many said they would change their practices if the price of the car increased, it is a question of how much it would need to increase before the public transport or bicycle become more attractive. As several of the interviewees were able to own more than one car, it would seem that they should be able to continue at least having one car even if the prices increased. Although these are just a couple of issues that would be interesting to study the effect of on the different performances of the mobility practices, there could be many more.

For planners, the general outcome seems to be a massive effort needs to be put into both changing the material, the meaning and competences for the area. Improving the connections of the public transport system would not be enough for a change to occur in the practices. It would also require that the meaning of the public transport system was improved greatly, since none of the interviewees had inherently positive things to say about it currently. The few positive notes were that it worked surprisingly better than some expected and that the frequency was good, but in both cases this was in regards to travelling into Copenhagen. It seems that the positive view on the public transport was strengthened by the poor functioning car based mobility practice in Copenhagen, with the congestion and parking problems being highlighted. It seems that in order to strengthen the public transport using mobility practice the understanding of the car mobility practice needs to be impaired. People need to experience the real car situation, and not be blinded by the promises of adverts and general descriptions of the car. It may take several generations and many iterations of green mobility policies, for another practice to truly be able to be more dominant in our whole society.

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# Appendices

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## **Appendix A – Interview 1 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfaRkgxdWZSdkNaeG8>

## **Appendix B – Interview 2 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfaMWQzLS1mMzh2TFU>

## **Appendix C – Interview 3 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfaeTlfQXk3ejdMaEU>

## **Appendix D – Interview 4 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfaV1BEQU80bFVjRVk>

## **Appendix E – Interview 5 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfaV1FGd1Z6NEFxTW8>

## **Appendix F – Interview 6 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfaWUk5LTNDZVhxSDg>

## **Appendix G – Interview 7 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfaN3VQUFgwaFpPUIE>

## **Appendix H – Interview 8 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfaT2tzOWRCc25td0k>

## **Appendix I – Interview 9 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfabHd5MGtHdUJLM0E>

## **Appendix J – Interview 10 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfaczRtOEo4cmxpb3M>

<https://drive.google.com/open?id=0B4IIQG106jfaSXC1V2RFcE5VM3c>

## **Appendix K – Interview 11 Sound**

<https://drive.google.com/open?id=0B4IIQG106jfaSTQ2dEI0Q0hybUU>

## Appendix L - Interview 1

lived there 8 years

2 daughters

Works on gl. kongevej in irma. Husband works in a bicycle store in Bagsværd. He drives to work, she jokes that he has only cycled three times in the nine years that she has known him.

Grocery shops daily in Kvickly. Different amounts each time.

Bilen: "I don't have a driver's licence. It is only my husband who has a driver's licence." (Interview 1, 01:08 ).

Doesn't have any relationship to the car as such.

Bicycle "gets used occasionally when it works"

Train: she mostly uses the train as she takes it into the city.

Bus: sometimes

Walk: "Vi går meget" (Interview 1, 01:34)

Taxi is for when she has been out drinking otherwise not so much.

Most important: punctuality is the most important to her due to going to work or having an appointment or plan with a friend, especially now that they have changed everything again. Then there is really chaos surrounding time schedules, departures and rail maintenance, so it is important to me that they are on time and there aren't any quick changes" (Interview 1, 02:01)

"I like to be on time, always. If I am meeting up with someone, then it is important to me to be on time. Otherwise, if it is just me and the children, then it doesn't matter, even though it is annoying." (Interview 1, 02:39)

Childhood: walked and cycled. Parents did not have driver's licences and would therefore walk and cycle everywhere. It is only her sister that has a driver's license. "It was completely the norm. It was just how it was" (Interview 1, 03:22).

Safety: "My worst nightmare ever, but yes I could [imagine my children cycling on their own], it depends on where and how far they were going." (Interview 1, 04:07 )

Route: always take the exact same route. Sometimes she might stop by a grocery store or buy something and bring it home from work.

Even on bicycle the routes are very similar.

"I know where I am going. So either I have researched it in advance or on the way" (Interview 1, 05:39) This is done using rejseplanen either on the computer or smartphone.

Monthly card

Using her memory to find her way around. She learnt to navigate the area through trial and error and getting lost, so now it is by memory and she does think she would be able to find her way even if she strayed of her usual routes.

Bicycle: 3 or 4

Public transport: 12

Mobility change: The most she sees it changing is from Kildebakke st to Buddinge st.

"I will never get a driver's license, it won't happen!" (Interview 1, 08:13)

Gladsaxe goal: unaware but not due to their lack of communication but because she does not consume the usual ways of spreading information

Infrastructure: Bicycle lanes are missing some places but the rest works fine. On the access to train she said "It fits perfectly! I couldn't have it better"(Interview 1,09:10).

## Appendix M - Interview 2

Lives in Lyngby. She has lived there for five years.

Shops daily.

On the day of the interview she drove by car as she had been ill. Otherwise usually only uses the car every 2 weeks.

Interviewee 2 uses the bike the majority of time when going to Gladsaxe if her “fitness levels allow it” (Interview 2, 2.33).

Usually takes the train, using ungdomskort. She currently uses rejsekort as she is mainly in Gladsaxe.

Studies in Frederiksberg, and has occasionally used the bus to get to Gladsaxe, which works fine.

Does not currently use the bus whilst doing her internship, however uses it normally.

Uses the car to get around in her free time to go and visit her boyfriend’s family and their friends.

Lives 10 minutes from the station.

When bicycling, she brings her rain clothes if she has seen the weather forecast on the news the day before. She always brings a raincover for her bag.

Uses GPS.

The car allows for a less physical and stressful option when she had been ill. She also allocates a health description to the bicycle when stating that she uses the bicycle when her fitness levels are up to it. When asked what would influence her mobility practices she explained the weather, stating that if it is windy she would end up bicycling to the nearest station in order to save energy.

Finds the train very expensive “I use the train daily, and i think it is crazy expensive and it takes a long time” (Interview 2, 1.12). “It is costing me way too much money every time I have to go into the city for school” (Interview 2, 1.20)

When asked about her opinion on the car she said “it is lovely, it is flexible, it is easy... that I alone can decide when I have to leave or when I arrive, it takes 10-15 min, depending on the traffic, to get here [Gladsaxe Town Hall], and depending on how good the parking situation is. So it is just I’m going to sit in the car, it is half past and I’ll be there quarter to, I know this beforehand, with the train it is unknown” (Interview 2, 1.35)

According to interviewee 2, the bike is “fine” (Interview 2, 2.09) and she uses it often.

Regarding the bus she states it is annoying “I simply just don’t want to [use it]...You cannot count on them” (Interview 2, 2.45).

Likes the concept of shared cars, but has never tried it. She does not believe it could substitute the privately owned car as she uses it a lot in her private life: “so I could not do without it, I mean of course I could, and we have previously [gone without], but it is just a slight bit more luxurious to have the car. Rather than having to use rejseplanen and not being able to get home when it is 10pm” (Interview 2, 3.37).

The most important thing for her, in regards to mobility, is that it is simple “that I don’t have to change too often, like with the public transport system, it might take an hour and a half in the bus or train, but if it only takes an hour and a half in that sole train or bus, then it is fine. As long as it is on time, it is fine. However, if I have to transit 20 times, I could not be bothered with that. Then you don’t relax” (Interview 2, 4.02)

She did not grow up in a household with a car. Her mother usually bicycled to work.

She lacks the knowledge about shared cars.

She always uses the same route but is trying to change her routes, especially on bicycle. She recently tried a new route because she had walked it and thought it may be a shortcut compared to her bicycle route. It did not feel shorter.

She has the competences and urban conditions to carry out the grocery shopping on bicycle or more frequently on foot. She never uses the car for this anymore.

She understands her routes and has an idea of whether it would benefit her to go a different route due to hills. She is prepared for the weather to change when bicycling by having the necessary equipment to minimise especially her bag getting wet.

When going to new places she tends to use a GPS to find her way around or checks on the internet at home. That was the case when she started her internship. She started out by looking into the route at home before walking it, but it suggested a route she did not know so she used a GPS on her way so it could guide her.

She rarely uses rejseplanen unless she has heard that there are supposed to be any changes to the trains. Usually on the way around on her smartphone.

Learnt to drive when she was 20, because she could afford it and had a car available (her boyfriend's car). She had decided to push it until there would be a car available for her to use.

Refuses to drive when abroad as she is unsure of the rules, however that is not the case with bus or train because as long as you have a ticket you would be fine.

## Appendix N - Interview 3

Man in his late 40's walking to the city center everyday just to get out of the house. Grocery shops daily. Usually takes the same route every day. Owns a car, but is currently fixing it up. Wishes that public transport was free within the municipality. Has lived in Gladsaxe in 15 years. He works out and grocery shops daily.

At a young age he would skateboard to get around, but at the age of 12 he bought a scooter.

He comes from a car using family.

In general he mostly walks.

Walks when food shopping.

Owns a car that is currently being fixed up so it cannot currently drive.

Owns a rejsekort. Interviewee 3 also uses rejseplanen.

Uses a GPS on his smartphone when driving.

Checks the weather forecast.

Does use bus and train but not very frequently.

The things have to work, they have to be punctual "I don't want to wait!" (Interview 3, 1.42).

Has considered shared cars as it is cheaper than owning a car.

He does not bike.

He believes that public transportation should be free at least within the confines of one's own municipality and that this could be a way for Gladsaxe municipality to facilitate their inhabitants mobility practices towards a shift away from cars and towards public transport.

He thinks the public transport system is pretty well connected, but the fact that it is too expensive makes more people use their cars.

Although he leaves the house daily he does not try out different routes, this could be due to lack of competences regarding altering his routes and habits.

He comes from a car using family, he states that when they were not at home, he would take the car keys and take the car for a spin. He started driving at the age of 15, he only needed to take three driving lessons before being able to take the driving test.

He is not so good at finding his way around, so he usually uses the GPS on his smartphone to find his way around.

Checks rejseplanen to see if there are any delays.

## Appendix O - Interview 4

Has lived in the area for 38 years.

Works on Frederiksberg

Grocery shops daily for daily use unless her children are coming over to eat.

Car: her son has a car

Bicycle: doesn't use it often

Bus:/train "It could be better. I think that bus, 6A, the idea that only every second or third goes out here, that is just not good enough" (Interview 4, 1:11).

"When you are free from work late, that does not get taken into account [when planning the bus times]" (Interview 4, 1:32).

She is not home from work before 7 pm and then there are 20 minutes between the 6A's.

Time is very important to her.

Does not use shared cars. Rarely uses taxi.

Does not have a driver's license

In her free time, time is less important when being mobile.

"It would be nice if it [the bus] went a little more often"

Childhood: walked

father: cycled

mother: did not work

Routes: Time. She grocery shops where she works so that occasionally gives altering routes (3.24).

E.g. If Jagtvej is closed, then she takes a different route.

She uses umbrella once in awhile.

Listens to the news and looks out the window to see what the weather is like (4.45)

The smartphone is used to navigate by using rejseplanens app.

Going to new places she also uses rejseplanen to orientate herself.

Bicycle: 6-7 years old.

As a child she would cycle with her parents.

Gladsaxe Municipality Vision - no

Will not change her mobility practices following her retirement. Will continue using bus and train.

## Appendix P - Interview 5

2 years in the area

1 daughter

Visits friends in the weekend

Works in Gentofte - 2km away

Grocery shops in Fakta beneath the flat every 3-4 days.

Car - it gives more flexibility in the summertime, less so in the winter because of snow. They do not currently have a car but intend to buy one within the next 3-4 months.

"it is easier for me when I have to pick up my child and when I have to drive to work at different offices" (Interview 5, 2:05)

When he is asked why it is easier he answered: "It is just the energy! I have to use more energy when I have to cycle. Especially when it is windy" (Interview 5, 2:23)

Does not use bus or train for work because it is too close. He uses bus and train when going to visit friends or going to CPH. Bus + train works really well, especially with rejseplanen for checking schedules, travel times etc.

The price is fine within a couple of zones, beyond the two zones, it becomes expensive. The connectivity is not always the best and you risk having to change train.

Shared car and taxi are not something they use, however they do occasionally borrow a friends car to go to e.g. a summerhouse.

The most important is time and flexibility.

Grew up in india taking bus and train.

Routes - usually always the same, unless he needs to pick up his child, which is a longer route.

Weather - due to lack of route options, weather does not affect his performance of the cycling practice. "I don't have that many options, so if there is wind, I have to take the same route, irrespective of whether there is wind or not"(Interview 5, 05:45).

weather forecast - owns rain gear and brings it daily in his bag and uses it in case of rain.

doesn't use gps on bicycle.

"If I am going on a trip or travelling to a new place, I use google maps, and if I know the address I type it in, so I can find the shortest or fastest route" (Interview 5, 7:01)If he knows the area he'll

change his route to the easiest one, however if he doesn't know the area he would simply use what is suggested on google maps or Rejseplanen.

Learned to bike as child.

Learned to drive at the age of 25.

Municipality wishes: aware. "last year there was an arrangement here in front of the town house about that everyone should cycle in may or june. we also have the same competition at my workplace where everyone has to go on a website to show how many kilometers they bike" (Interview 5, 8:44).

"Here, we do not have bicycle lanes and there are a lot of places where we have to cycle up and down which is a little difficult" (Interview 5, 10:23),.

He would prefer bicycle lanes here as it makes his trips easier.

## Appendix Q - Interview 6

14 years in the area

2 children 14, 11

handball currently but previously a lot

family arrangements happen often and the family gets around by car.

The daughter cycles to handball but the son is driven. The daughter also used to get driven. It takes 15 minutes to cycle there.

The reason why they decide to drive their children to handball is that it occasionally is far away and it is not necessarily that easy to get to virum. They train twice a week and play games once a week.

He works in Hillerød and always drives there and there are 33km each way taking him 20 minutes to drive.

They usually cycle when they are going grocery shopping. Occasionally he will stop by the grocery shop on the way home from work in car to take care of the shopping. 70% on bicycle and 30% by car. When asked about the reason for sometimes grocery shopping one way, and other times a different way he explains: "It is coincidental. If we are just going grocery shopping on a Saturday, then there is no reason to take the car, then we just take the bicycle" (Interview 6, 01:58 )

They usually shop for a couple of days at a time.

On vacation they usually fly there and then rent a car to drive around in.

Car: "it is easy and fast, it is easy to get around and it is just comfortable" 02:29

Bicycle: "it can also be used, it gives you fresh air and exercise" 02:40

Bus: "yeah I hate buses, I never go on buses because it is tedious and it takes a long time, and sometimes there are a lot of people on it and it is expensive" 02:45

Train: "I prefer that [the train]. We always use the train when we are going into Copenhagen" 02:57

He goes to CPH once a month, his daughter goes there 3-4 times a week.

Walking "well I like walking, but it is seldom that it is as a transport mode" 03:13

Shared cars or Rideshare: "I think it is extremely positive that people share their cars, but I don't use it because I need the car everyday, so I can't share it. Sometimes there has been someone from work living close by, we haven't shared, but if they need a ride they got it" 03:30

Taxi: "very seldomly, if we have been out somewhere with alcohol and can't drive the car" 03:52

Most important: "that it is fast, that I don't have to spend too much time on it" 04:06

Childhood: usually cycled around. Parents: both cycled too because of the exercise, despite owning a car and both having a driver's license.

Children to school: "I drop them off on the way to work, and then sometimes we bring their bicycles along so they can cycle home" 04:39

When asked if he finds it safe enough to let them cycle around he states that there is an age limit set at 12, when cycling alone in the traffic for children. "but yeah, we haven't been very fond of the thought of them cycling around by themselves when they were a little younger because it can be dangerous if they don't orientate themselves properly" (Interview 6, 5:01)

"It is that they have to cross a slightly bigger road over here before they are going to school, and sometimes people drive very fast on that road so it is not safe" (Interview 6, 5:15)

He feels more than ok with the oldest taking this trip now.

Routes: usually the same unless he has an errand or needs to grocery shop on the way home. "There is one way that is the quickest, and I am not there to cruise around, I am just going to work" 05:46

He is not bothered by traffic as he is driving against the traffic, both to and from work.

He does not find it necessary to bring anything to shield him from the weather like an umbrella or a raincoat. This is most likely due to the fact that he spends limited time exposed to the elements. However, when going grocery shopping by bicycle he explains that he may put on some rain clothes unless it is pouring down. In this case he would jump into the car. But it is not so far away, it takes 3-4 minutes by car.

With the frequency of the trains, it is unnecessary to check the time schedule on rejseplanen. His daughter and wife both use rejseplanen a lot more.

"I don't use it [rejseplanen]. I don't know how to use it. I just walk up to the station and wait" 07:27.

It seems rather unlikely that he would not be able to use rejseplanen, but more likely that when he takes the train it is not necessary to use it due to the high frequency in trains. The timespace he creates when going to the station to take the train has provided him with a reason for not having to attempt to acquire the competence for using rejseplanen. If he were to create a different timespace, there would perhaps be a better foundation on which to develop this competence.

Further evidence being added to the lack of competences regarding the public transport utilising mobility practice is that he does not even own a rejsekort making him dependant on his wife each time, as she has a rejsekort.

He was 18 when he learnt how to drive a car and has therefore had the competence to drive for almost 30 years. He got his driver's license as a birthday present. This could perhaps be showing that in his family it was the norm to get a driver's license.

Bicycled: 5 years old

Bus/Train: Aged 12

New place: then he uses the GPS

Municipal Visions: No.

Infrastructure: Although he does think the roads are good, he does think there should be more speed bumps as people drive too fast.

bicycle:" there are relatively a lot of bicycle lanes, however there are also a lot of roads without any bicycle lanes, like some of the larger roads.09:54

"The more bicycle lanes, the better!"10:09

Public transport: "We have the station right down here and the trains, and the buses that actually also go to Charlottenlund. But yeah we are well covered 10:17

Lightrail: The light rail would not work out that well for him as it would not make his journeys to Hillerød better. "It would be awesome if there was a train to Hillerød, then I would take it and would bring my bicycle along. That's for sure. If there was a direct connection to his workplace, then he would take the train"10:46

Timewise he thinks that if the train journey would take almost the same time as the car, then that would be fine, even if it took a little longer than 20 minutes. If it took double as long that would not be the case. He explains that being able to take the bicycle on the train would also be great as it would mean that he would get some fresh air instead of sitting in the car.

He has always driven around everywhere, even when he lived elsewhere. At some point he lived on Nørrebro, and at that time he would always take the bicycle because it allowed him to get to work easily: "As soon as you are in the city center, then it, with parking spaces and traffic etc. then the bicycle is much better" (11:54). The way the city functions are placed, short distances, lack of parking, expensive parking combined with the health effects of cycling.

"But the infrastructure to my place of work is just not good enough to take public transport, it would take more than an hour, it would take more actually. It wouldn't work, especially if you have smaller children who need to be dropped off and you have meetings at 9 in the morning" 12:17

They have had the car for 11 years. He had a car when he got his driver's license so probably in 20 years. They have just bought a new car because the old one no longer works as it is necessary for when he has to get to work.

Wife bicycles to her work at Rigshospitalet everyday, she loves to cycle. "When you meet at work, you are more fresh and awake since you have had some exercise" 13:33

"I tried taking the train to Farum and then cycling from there. I tried that a couple of times. But it takes a long time. It is too far. If I worked in Copenhagen I would take the train to the central station" 13:42

## Appendix R - Interview 7

Has lived in the area for 9 years.

Children who live with their mother and interviewee 7. They are currently in efterskole.

Recreational activities by on Vesterbrogade on the way from work. Quite frequent.

Works in Sydhavn.

Grocery daily - on the way home. Takes 2 minutes to drive. Sometimes cycles or walks. Shops for 100-200 kr

Vacation: car rentals or motorcycles

Car: Yes! Uses it a lot

Bicycle: uses it, but a lot less.

Bus: rarely

Train: occasionally when going into the city or for when she is planning on drinking

Walking: mostly leisure

Taxi: when drinking.

recreation: does not matter

to the city: fastest, time, what makes most sense

work: 1 hour each direction. Waste of time sitting in the car.

“Free time means a lot to me! When I am off from work, I just want to get home fast so I can be there!” (Interview 7, 4.35).

She has relatively flexible work hours so she can plan when she goes to work, at least enough not to have to worry about the rush hour traffic. 40 minutes to work.

Public transport: takes the same time (perhaps a bit longer): would not save much on it because it is too expensive with the public transport system.

They have tried to calculate whether it would make sense to use it instead if the car, which it does not seem so to them. Almost same money and time spent

The car wins because of the flexible experience. won't get wet in the rain or snow. you can just go sit in the car. don't have to wait for trains that are always delayed. and same goes for buses.

Can drive quite accurately with her car.

Is it not the same with the public transport?: “It is always delayed and you risk that there are so many people that you cannot get on board” (Interview 7, 6.16).

In the car she can still make it to work when she gets out the door late. That can't happen on the train.

“And now, these are luxury challenges I am talking about, hello! there are people who have it 100 times worse than me” (Interview 7, 6.36)

“When you have the option of choosing this [the car], then it is just what you choose. So that's awesome for me. In this case you are allowed to be a little selfish, I think, and put your needs first. So that is pretty great for me” (Interview 7, 6.42).

Childhood: walked and cycled. Family had a car they used for going to the summerhouse, but parents walked to work. They lived in the city (Christianshavn). In the city she would always cycle. Lived there for 40 years. Walked when it was raining (rarely took the bus).

Thinks it is safe enough for the children to get around the neighbourhood by bicycle. In the city  
No!

“When you are a car driver and drive in the city then you think: there are really many of the cyclists that have a deathwish because they are cycling without using their brains” (Interview 7, 8.10).

Routes: 3-4 routes she changes between if she feels like it. Motorway is the quickest. She has a route for when she leaves her home late: you learn the quickest routes:

“Here there are, what did I count? 15 red lights you have to stop at, it is also crazy annoying in the morning then I say ok, here there are only 7, then I'll take that one today, then it fits” (Interview 7, 10.02).

“Your subconscious knows that on Mondays there are a lot of people on the streets with a car. Then on Thursdays and Fridays there are less people in cars. You can almost not see it but you feel it anyways, so you can think that on Fridays there aren't so many so then you can drive this route” (Interview 7, 10.30). you don't think about it.

Compact vesterbrogade: then a different route. “It is on my way, or it is kind of on my way home” (Interview 7, 11.59)

“At my workplace there is parking so there are no problems” (Interview 7, 12.11). Free so super easy.

Fitness: cost money and difficult to find parking but has always been lucky.

Works out there because it is an awesome sport.

GPS does not get used much (never). Usually uses own sense of direction: “I use my phone if I suddenly get lost... but that rarely happens” (Interview 7, 13.45). Google maps.

Rejseplanen - for the city or when the children are going somewhere. Rejsekort

Weather forecast: not on a daily basis: "because it is easy to run from here [her house] to the car and just drive of" (Interview 7, 14:43)

Learnt to drive at 18 years old. "You could do it and so it was exciting and then you just did it" (Interview 7, 15:40)

Car available.

Bicycle: always had it "You just had to" (Interview 7, 16:07)

Used to cycle from Gladsaxe to Frederiksberg when she worked there. But now that she works in Sydhavnen, 16 km away "It is a bit too far in the morning, showing up all sweaty and totally red in the head, it is also pretty far and takes quite long time. It is unfortunate (...) It is unfortunate, I actually miss it a lot" (Interview 7, 16:15)

Electrical bicycle: "it is crazy dangerous they drive so fast that when you hear the bell ring, they are almost besides you and rush past. I think it is just too crazy fast for a bicycle on the bicycle lanes. It is also why people say that a lot of them fall and hurt themselves because around them... and electrical bicycles they are almost killed because they have so much speed. So no I don't want to use them not because you're going fast but because it is not A bicycle. It is like those old mopeds scooter is with a pedal" (Interview 7, 16:20)

She is also sceptical towards cargo bicycles with motors.

She started taking the bus at an early age because there were plenty in the city it was easy.

New Place - car. She uses google maps and krak on the computer beforehand.

"Then I am good at remembering that I have to take that specific exit" (Interview 7, 18:35)

Phone when/ if she gets lost close to the destination, or GPS but that is rare.

She knows that generally there is a political vision of getting more to use the public transport and bicycles but not so much for in her area

"because we have it pretty easy. we have the trains so it is not... I think there are many people who take the train into the city, I think" (Interview 7, 19:04)

No need for more transport.

"You can hear the motorway, you just have to look that way and you are in the city [Copenhagen], that way, then you are almost on the countryside right! So that's fantastic" (Interview 7, 20:01).

If there were more more direct route to her work please she would definitely consider using public transport.

A couple of years ago she could take the train to work and cycle the rest of the way now she has to get off at Copenhagen Central Station and change again so it is easier by car.

Weather and the car: I can turn on the heat instead during the winter.

There are a lot of smelly people on the train or not really.

“But in the morning it is totally looks Uranus and as long as I can I will enjoy it” (Interview 7, 21:01)

“It is not like it [not owning a car] would ruin my life or anything. That luxury could just disappear (...) It is pure luxury and rather privileged ” (Interview 7, 21.20).

“Pure luxury very privileged” (Interview 7, 21:36)

## Appendix S - Interview 8

10 years on the address

3 children - 7, 10, 13

All children have sports. The youngest gets driven the others cycle. The two oldest also have music where one is driven because it is in Hellerup and the other cycles.

Interviewee 8 works in Herlev and cycles there. His wife works on Kalvebod brygge and takes the bicycle and train.

Family activities happen by car as it is fast and practical

If the weather is bad he uses public transport. There are no other alternatives due to horrible parking situations.

Grocery shopping approximately 3 times by car. Otherwise the sometimes stop by on the way home from work on the bicycle, this happens a couple times a week.

The routes vary a little depending on grocery shopping but these are not huge deviations from the original route.

Vacation usually happens by car “it gives a freedom to drive yourself” (Interview 8, 4:20) going on to expand “it has its advantages when you are as many people as we are that needs to get around. It is the most obvious and easiest thing to do, throwing the children in the car and driving off” (Interview 8, 4:55) They were considering a cycling vacation.

They are a very cycling family. Everyone cycles to school or work.

Car: “Would rather avoid it because I love cycling so much, but I can’t. I feel that I can’t avoid having one because there are the children (...) and they suddenly decided to go home with a friend and needs to be picked up in the evening and they don’t want to cycle, then you just jump in the car. What would you do in that situation [without the car]? I guess you could deal without a car but things wouldn’t be as effective. As long as there are no good alternatives to these small logistical tasks that we have in the everyday, then I am dependent on it [the car]” (Interview 8, 5.16)

Without a car, things become a bit more complicated. Furthermore, it is too cheap to own a car for one to consider getting rid of it, so it continues to be nice to have.

Bicycle: Effective and good way of combining everything. He would prefer to cycle all the time in all weather and therefore he cycles in cycling clothes and changes at work.

Bus: No! I tend not to use the bus and would rather avoid it.

Train: works well and with high frequency. He prefers public transport modes on rails so not living close by an S-train station would detract from the value of such a home. The train is a good connection to the city. The public transport is well connected for him

"price would affect me in regards to taking the public transport" (Interview 8, 18:34)

Walking: The family walks a lot even though the station is located 500 meters away.

Shared cars: Interviewee 8 has considered shared cars, but not really as he has never really understood the idea. He explains that you need the car for those small logistical situations mentioned earlier where you probably did not book a car, and in that case he feels that he might as well just cycle as there would be not time benefit otherwise.

"when living out here it is necessary with a car, especially with young children" (Interview 8, 9:36). The car also makes grocery shopping easier.

He explains that he uses the car for so many different projects and that this is a reason why he has the car: "There are just so many practicalities connected to having it [the car] parked out here for it to be a realistic alternative to throwing away or not having it any longer. But I have got to say that there is not a distant thought. I have played with the thought sometimes. Thinking about whether it could happen. But the answer is always that there are 20% where you think, that it can't really work without a car." (Interview 8, 10:11)

"the most important thing is that I can cycle, I priorities that high. If I were to pick a job or have a job offered that was so far away that I couldn't cycle, then it wouldn't be very attractive an offer to choose, it is important for me to be able to cycle to cycle everyday" (Interview 8, 11:13).

"It means a lot to me to be able to be active in that way, to use the transport to and from work on the bicycle" (Interview 8, 11:41)

Childhood on bike. His parents favoured the car, and he therefore considers himself more sustainable than them "I am more of a cyclist and more green than they were so it's going in the right direction" (Interview 8, 12:07).

Routes: "If it was good weather, then to drive through Dyrehaven, to take a proper detour just for [the fun of it], that I could definitely do" (Interview 8, 12:25)

"If weather was good one day, and I didn't have to pick up children and I was in good time, I would cycle a around just for my own enjoyment sake. When you have to get home anyways then alright it'll take 30 minutes extra to cycle around Hareskoven or Dyrehaven, then that I could definitely do, it happens about once a month." (Interview 8, 12:38)

brings change of clothes as he cycles with cycling clothes.

"The s-train has this nice app where you can see where they currently are. I use that a lot. So you can go down to the station, then you can look, if it is stopped in Buddinge, then you better run! I use that" (Interview 8, 13:41)

owns a rejsekort

weather --> looks out the window. Sometimes you are surprised but that's just how it is. GPS --> on phone

learnt to drive at the age of 18. He answers that the reason was "well it was in Jutland so, it was just what you did. You started just before you turned 18 and then you could take the test straight after you had your birthday. I just did like everyone else. It was never something that you thought about a lot. It was a given when you turned 18 you got a driver's licence." (Interview 8, 14:34)- borrowed parents car.

bicycle 5/6 years old. bus 14/15 years old- used the bus a lot. "many borrowing hours spent on the bus in Jutland, also because the bus has the reputation that it goes in and out, (...) it was a lot of detours" (Interview 8, 15:55)

Going a new place - checks his phone to see how to get there and then just goes off of memory. Doesn't check traffic either.

the infrastructure is fine. "the automatic speed control (...) something like that is missing around the schools to remind people that the cars are going too fast"(Interview 8, 17:46)

If driving becomes more expensive with more charges etc. he would try to use the bicycle a bit more

if they were visiting friends on e.g. frederiksberg, then they would drive. We could also take a train, that could work too but it is just a little more demanding, so if it was crazy expensive with a congestion charge or city toll then they would not bother driving by car.

"we moved out of the city, so in that way our car dependence has increased. we previously lived in the city without a car. So in that way it is also when you move out of the city you also decide that the car is necessary (...) so there we have taken the consequences of moving out of the city. That's just how it is " (Interview 8, 20:33)

"I feel like everyone drives by car. I think people who work in Copenhagen take the S-train a lot. I don't think it makes them avoid the car, they still have the car. Then there are many who have two cars, that's no good, we do not condone that behaviour" (Interview 8, 21:15)

## Appendix T - Interview 9

Interviewee 9 has lived in the area for 18 years.

No children living at home.

Works out at a fitness center 1-3 km away and goes there by car.

Family arrangements happen quite often. In these cases she goes by either car, bicycle or taxi. In the evenings, when she expects to be drinking wine she will either take the bicycle or a taxi, otherwise we take the car.

Works in Nordhavn and drives there. However during the month of May she will attempt to cycle at least a few days "So I am going to attempt to cycle on some of the days, not everyday" 01:30

Outside of May, it is very seldom that she would use the bicycle. Maybe twice a year.

Has been working in Nordhavn for 9 years, but before that she also worked in the city.

Grocery shopping: a couple of times a week. Does not shop so much since it is just her and her husband now. When they have guest they may be more likely to go on bigger shopping trips. They usually only shop for their daily needs, and her husband does the majority of the shopping on his way home from work.

Vacation: They usually fly to their destination and the rent a car.

Car: "I think it is a fantastic mode of transport. And I do know, since I am generally quite environmentally conscious, then I know it affects the environment a lot. But that is probably the last place I will adapt my ways" (Interview 9, 3:31). She goes on to explain that it is due to her long work days: "Because I have long work days, working a lot of hours and often I have fitness and then I have plans and a dinner out, so that's why the car fits me best. It gives me a level of freedom" (Interview 9, 3:45).

Interviewee 9 explains that she would actually be fine with taking the train to work in the mornings, but it is the evenings that bothers her. She explains that sometimes it is because she has plans in the evenings and since the frequency of the train becomes less in the evenings when she is free from work it just does not fit: "When I want to go home when I have been at work for 12-13 hours, then I just want to get home" (Interview 9, 4:41).

"Actually the first year when we had two children, we did not have a car, so in reality for many years that was fine" (Interview 9, 6:36). However they got the car as it was "practical in regards to working a lot whilst having two children that needed to be picked up in each their own place and

my husband began working in Northern Zealand and I was working in Copenhagen, and then it just sort of became necessary to have first one car and then two cars " (Interview 9, 6:47). For interviewee 9 it seems that time and the practicality of the car became the main reason for acquiring it in the first place. It was a means to combat the rising demands of both of their jobs whilst their children were young. And even to this day they continue to have two cars despite not having any children living at home. Her husband could actually just bicycle as he works maximum 3 km from their home. "One day when I had driven him to work he ended up walking home, that was no problem" (Interview 9, 7:35).

Bicycle: "I think it [the bicycle] is fine" (Interview 9, 4:53). The problem with having to cycle to work is that she usually has a lot of things that she brings with her like her workout gear and computer etc. If she were to cycle this would increase since she would need a change of clothes. "I usually leave my home at 6.15 in the morning in order to go to fitness and then I get home at 8 in the evening and then I don't have a lot I need to do" (Interview 9, 5:45). On the few occasions where she does not get up that early to go to the gym she might go for a run in the neighbourhood.

Due to her earlier start to the day, she rarely meets much traffic on the roads.

Bus: "I think it is an ok transport mode. I have used it for many years before I got my own car when I was young." (Interview 9, 6:28).

Train: "I think that is also very very good. That is essentially what I think, and I have also sometimes if I have to go somewhere, then I sometimes cycle down there and take the train and then cycle around the city. But it shouldn't rain or anything" (Interview 9, 7:54). When trying to formulate this statement it was as if she tried to battle her own ambivalence regarding the train as a transport mode, because as she mentioned earlier, the train works well but not in the evenings where she would also be dependant on it. So despite generally liking the train it becomes this mode of transport that she to some extent wishes she could speak nicer of.

Most important element for her mobility practice is that it needs to be flexible "That I am not dependent on anything, and I do actually use a lot of the time in the car for work, then i sit and take a bunch of phone calls" (Interview 9, 8:50).

Childhood: "I was driven. We lived on the countryside. So partly I was driven but at the same time there was a lot on foot and on the bicycle" (Interview 9, 9:25).

Parents: the drove. They have had a car for many years.

Routes: She takes almost the same route to and from work every time, that is unless she has errands, gym or other plans. The few times she cycles to work she also takes the same routes. On tuesdays

she paints, so she drives by the studio there. Her weeks vary a lot, but her routes mostly remain the same.

On the days where Interviewee 9 leaves the house later, she hits the rush hour traffic. This is annoying to her as she does hit this traffic 2-3 times a week. Especially Copenhagen is badly hit with enormous numbers of cars.

Umbrella in the car.

Listens to the traffic radio on P4. It rarely affects her routes. "From here to Tuborgvej there is rarely any traffic, but then it hits when I get to Tuborgvej. And I have to go through there. Otherwise I have to take it further and get out to Kalkbrænderisgade and there the traffic is even worse so it is a choice between two evils" (Interview 9, 12:20)

"I have a few shortcuts that I can take (...) as soon as there is traffic I take them." (Interview 9, 12:47) She explains that they are good because either there are fewer cars, less traffic lights.

"If I am going to any new places, then I have the GPS on my phone" (Interview 9, 13:14). For this she uses google maps or sometimes Garmin, but seeing as she cannot find it on her phone it would seem that it gets used less often.

Uses an electronic multi-trip voucher (klippekort) which she thinks works well. She needed to find a substitute for the normal multi-trip voucher, so she asked some colleagues at work and googled to figure out what her options were.

"I couldn't dream of cycling if it was raining" (Interview 9, 15:16) however she sometimes might bring some things to freshen up with when she arrives e.g. stuff for her hair.

Car: 18 because as soon as she had the opportunity she had to get a driver's license and she was given the keys to her parents car. Could use it sometimes.

Bicycle as a child (6/7) Bus/train: 10 on bus. Grew up on Lolland and was driven a lot so her parents would usually take her where she needed to go and picked her up.

She supposes she indirectly realise that the municipality wishes to get more people over into trains and on bicycles since everyone wants conditions to be greener and healthier.

"I fully understand it but I am not going to do it as long as it does not fit into my daily routine as it currently is. If I get a different routine, perhaps if I get a job where I work 30-40 hours a week, then I could seriously consider it. As it is currently, I cannot seriously consider it, or I don't know. It is going to cost me too much time and flexibility" (Interview 9, 17:45).

She feels that their location works pretty well as it is quite close to everything.

"We could definitely at some point consider that we only need one car, now that the girls don't live at home any longer, but not yet" (Interview 9, 19:03) This would be: "If our lives changed. When we get older and retire then I think we will only have one car. But how it is now, the situation is quite different and having two cars makes everything smooth in our everyday lives" (Interview 9, 19:20)

Any other possible changes that could affect your mobility?:

"If we were to move away from here. We have considered whether we should stay here or if we should move into the city. And if we moved into the city, we would just have one car (...) because our mothers live on Lolland, we would like to be able to visit our children, we play golf that also requires a car because you have a lot of equipment and you have to drive far, it is not near public transport often. Therefore we would have one car. I couldn't imagine anything else" (Interview 9, 20:06). They go to Lolland once or twice a month to visit their families, and to visit friends in Kalundborg, Ringsted.

The people in the area mostly use car: "You can see that when you are walking down the street, but I don't think everyone has two cars (...) So people use the car a lot and the bicycle. But I think it has to do with the idea that it has to fit together. You have to leave 10-15 minutes earlier to go down to the train, and in those 10-15 minutes, if I am leaving early in the morning, then it takes 18 minutes for me to drive to work and the same when I am going home" (Interview 9, 21:53).

If they are going into the city for leisure she occasionally brings her bicycle with her on the train because it is difficult to find parking in Copenhagen.

She uses the time where she is stuck in traffic to call her mother or mother-in-law and daughters, which she wouldn't do on bicycle. She could consider doing it on the train. The times where she has taken the train she has been working on the train ride and she thinks that that works well but it would not affect her enough to continue using the train: "Is it at 6 or 7 pm, then they [the s-trains] only go every 20 minutes and then I go there and have to wait 20 minutes for a train. I really can't be bothered with that. Then I end up going and taking a taxi instead" (Interview 9, 25:18).

"If we lived in Ringsted and I worked in Copenhagen, then I would take the train. I couldn't stand having to be stuck in traffic everyday. It is because we are so close to the city. Because I wouldn't want to be stuck for 30 minutes on the Køge Bugt motorway everyday" (Interview 9, 23:45). This does however not mean that whilst she is living in Gentofte, that she would take the train if there was more traffic on her current route. Instead it would affect when she would leave for work.

## Appendix U - Interview 10

### Sound Clip 1

Has lived there in 3 years.

Previously in Ørestaden and earlier in Frederiksberg. In Ørestad he used the car, and on Frederiksberg he would cycle to work.

He works as an external consultant at Nykredit. Currently he takes the car to the station to take the train into the city.

On the way home he stops by the kindergarten and nursery school to pick up his two youngest.

He has three children, two with his current wife, aged 1 and 2 years old, and one son with his previous wife, at the age of 9. His son only lives with him every second weekend. On those weekends Interviewee 10 drives to Solrød to pick up his son after school, drives him to school and to his karate lessons. This usually occurs from Thursday to Sunday.

Interviewee 10 goes running in the neighbourhood and therefore does not require or ever use any transport modes to take him to a running destination.

In his free time, Interviewee 10 visits friends and family. Some very close by, others in Greve or on Islandsbrygge. The car is the favoured vehicle for these journeys except when going into Copenhagen or to their neighbourhood friends.

When going to Copenhagen the car is definitely not his favoured vehicle due to the difficulties with finding parking and the amounts of traffic in the city. It is never the parking prices that affect this choice as his car is a company car. This is also reflected on the days where he brings his son to school by car in the mornings, instead of driving into the city, he takes the train because there is too much traffic.

He explains that he previously worked in Roskilde and the journey there took approximately 22 minutes by car. He currently spends most of his time at work at Kalvebod brygge which takes 40 minutes when using a multi-modal approach (car, train and walking): “It almost takes double the time to travel 8-9 km [to Copenhagen] rather than 40 km [to Roskilde]” (Interview 10, 3:52). During his time working in Roskilde he never took the public transport as “...it is crazy difficult!” (Interview 10, 4:01).

Grocery shopping usually happened online using nemlig.com or coop.dk: “It is a thousand times easier when you have children like we do, especially when they are little” (Interview 10, 4:27). The

smaller grocery shopping trips are usually done by his wife on her way home from work, by car. Quite seldomly, he will take the smaller shops before picking up the youngest children on the way home from the station.

Interviewee 10 claims that he uses the same routes most of the time. This is of course unless he needs to stop by the shop or does not have to pick up his children. Occasionally he will walk from Kalvebod brygge to Nørreport st. instead of Københavns Hovedbanegård. He explains that the reason for his lack of routes is that having children requires some planning in one's everyday life. "When you have children, it becomes necessary to plan a little. The spontaneity just does not work out, especially when they children are small. When they get older it gets much easier. There is a huge difference between having a child of almost 9 and one of 2,5 years. It is two very different worlds. One of them is 100% helpless almost." (Interview 10, 6:20).

Their last few vacations have been quite different. One was to Jutland by car and the other to Mallorca where they spent most of their time at a hotel. He "cannot be bothered with driving longer distances now that they are five. Try squeezing five into the car filled with bags. Despite the car not being small, five people is still quite a lot with child car seats into it" (Interview 10, 7:27)

Interviewee 10 grew up in Greve Strand and all the way through school and high school would cycle the distances. However, when he started the military he would take the train there, and later when he continued his education in Lyngby where he would take the bus and train. He grew up in a household that occasionally would have two cars, his father would always drive to work, as he worked in Værløse, and his mother adapted her mobility modes depending on where she was working, sometimes driving, cycling or taking the train.

Interviewee 10 explains that the car is "perfect, very expensive, a very bad investment. If you want to invest money, do not buy a car. It is... What I haven't lost of money on cars. You really shouldn't think too much about it. It is terrible. It is crazy how much you loose on them." (Interview 10 , 9:11). He goes on to say, "It also gives an immense freedom. I would say, as long as I am working in the city, I really could not be bothered to drive by car because of the traffic. It takes too long. I wouldn't be bothered. It gives freedom and when you live here and work in Roskilde, then you can't take the public transport, especially with children" (Interview 10, 9:39).

Despite on numerous occasions referring to his children, or at least the practicality of the car in regards to children he goes on to say that his children are not the reason why he has a car but rather that he has mostly worked outside the city. Having cycled to work when he lived in the city himself, but having moved out, he explains that "Those who say you should simply cycle to work are always

those who live in the city and work there too. But for others it is quite difficult to live outside the city and then both taking the public transport and the bicycle, that just does not make sense” (Interview 10, 10:22).

He again goes back to the justification of his children in regards to why the bicycle is not the most optimal mobility mode for him currently: “It is just a question of how much time you want to use and on whether you want to pick up your children later. Because, I can of course cycle to... I think I would cycle to the station and then go into the central station and then I would have to take the regional train from the central station to Roskilde station” (Interview 10, 10:59). What is interesting about this is that although he knows he technically can take his bicycle with him he does not seem to have the meaning or competences to actually either decide to cycle all the way into the city nor to bring the bicycle with him on the train. He explains that cycling and being able to pick up his children would be quite difficult and would require planning, so cycling is not going to happen for him. It would seem that time, distance and children are his main reasons for not cycling: “The bicycle is fine, but no more than 5 km. I do not want to cycle more than 5 km” (Interview 10, 12:46).

He explains that for him the distance to the station is essential since 10 minute walk to the station is right on the limit of acceptable walking times to and from the station. 20 minutes would be unacceptable and would require a bicycle.

Interviewee 10 states that he was initially quite sceptical when it came to public transport: “Now, I’m very sceptical over public transport, VERY, but I have to admit and I have actually said this to a lot of people: I actually think that it runs pretty well. I was actually quite surprised that it wasn’t cancelled every time I got to the station. But it actually hasn’t been. There has been a few cancellations and few train-person collisions but I think it has actually been quite stable and it actually came as a surprise (...) The Metro is fantastic! I used to live on Frederiksberg and have used the metro quite a lot, and it is perfect! But the transport into the city is fine, but if you e.g. live in Greve and work in Farum and have to take the train, then you are going across the system because there is the hand [fingerplan] where it goes out, and then it begins getting tedious. So it [the public transport] fine if you are going into the city or if you live in the city and work outside it. If you have to go across of the lines then you would have to take the bus” (Interview 10, 12.59). It seems that the situation with the public transport system, especially the train, has challenges the meanings that Interviewee 10 has towards more positive meanings. He is aware of his past view on the train as being often delayed but has acquired more knowledge on this with time, now realising

that with his destinations the train is favourable to the car purely due to the amount of traffic in the city.

The bus is the worst mobility mode according to interviewee 10. He explains that it is especially horrible in the city as they are stuffed and disgusting: “I would say, I always avoid busses and I have never ever had a pram with med in a bus, never! And I never will” (Interview 10, 15:07). He would much rather walk.

His love for walking is also clear in that he thinks it is a fantastic, albeit limited, mobility mode: “It is my favourite, to walk or to run. There is nothing better than walking” (Interview 10, 17:37). He walks to Lyngby from his home and would rather do that than take the bus. This walk takes 25 minutes. It seems that in certain situations he would be more content with walking longer distances than in others. He has previously stated that walking more than 10 minutes to a station would not be favourable, however he is willing to walk 25 minutes to avoid taking the bus. It would seem that depending on the intent when he leaves the home and how many mobility modes he is dependent on, his meanings regarding walking changes. If he has to spend time on public transportation, the walking time needs to be limited. However if it is just the walk, then it is alright that it takes a little longer than 10 minutes.

Interviewee 10 takes the taxi sometimes. Interestingly the route that he explained he did not mind walking, he also occasionally takes a taxi on. When taking the taxi he prefers taking it within a 10km range and does this approx. twice a month: “Then sometimes it makes more sense to take a taxi rather than waiting for the public transport and the taxi gets paid by my own company” (Interview 10, 16:09). In these cases it seems that his job paying him on an hourly basis could mean that he does not wish to wait too long for the train compared to how long he has been at work. The last few times he took a taxi was from Hellerup, Lyngby and Copenhagen. It would seem that the taxi is also a means of limiting the amount of time spent on transporting him home.

Regarding shared cars he states that he knows nothing about it: “I actually don’t know anything about it , nothing. I think the idea sounds good but I would think it was super annoying if I came out and thought I had a car and then someone else had taken it. But I don’t actually know how the concept works” (Interview 10, 16:50). Here he shows a lack of competences regarding shared cars. He does not know how it works, and although thinking it is a good idea, it does not seem to be something he has thouroughlly thought about, quite possibly because he already has a car and would not have to worry about the car not being there, especially since the family has two cars.

0% bus, 0% shared car, car to solrød and the station 15%, 40% walking, 40% train, 5% taxi.

18:39 "I can't do anything but drive to Solrød since I also need to pick up bags and karate gear."

Most important is: "To be on time. (...) I am very punctual. I hate being late and I hate when people are late. So it [the most important thing] is being on time. And that's why I am sceptical towards the public transport sometimes, because I have often experienced that it is a mess and then I have to leave earlier." (Interview 10, 19:23)

Do you experience the same in car? 19:57 "Yes"

"Neither [car or train] are super unpredictable in my opinion. Of course accidents on the motorway do happen, that's quite possibly the worst. To drive on the motorway in rush hour, especially here, and towards the city, that's horrible. The Køge bugt motorway where my parents live, has also been horrible, but has been expanded (...) I think 4 lanes aren't enough, it is crazy, but you can see when I pick up my son in Solrød and have driven towards Greve there is traffic, traffic, traffic despite there being four lanes, it is completely crazy, so that's probably the worst, the accidents on the motorway"

21:21 Learning to drive: 18 years old. 21:30 "That was probably just because it was natural. That's what everyone else was doing". He had a car available to him when he finished taking his driver's licence but only when his father didn't use it.

He did not need it.

22:04 He was 25 when he purchased his own car and he did it because he 22:15 "I was working in Danske Bank in Ejby. Transport to Ejby, that's in Glostrup, was horrible. There are no trains nearby, only the motorway and O3 and the bus and then I bought a car."

Learned how to cycle at a young age.

Public transport: Going from Greve to Copenhagen with friends

24:17 new place: "I research where it is located online, and then I figure out how I get there and then if it is close by I would cycle. If I am driving I will figure out where I can park. Is it with the public transport then I just note where it is and which station I need to get to and then walks there".

He does not use rejseplanen because there are too many things there, just google.

24:57 "I know when it goes up there [at the station] and then I just go into Copenhagen Central Station or Nørreport or Østerport or some of the others and then I just walk, I know approximately how long it takes to walk."

25:14 "I never ever bring my bicycle on the train. I hate people who have their bicycle there. Arghh... I think it is horrible! And people come onboard with their bicycles and they don't care if their tire hits ones trousers."

If he is bringing the children along he would always drive. 26:08 "If Malene [his wife] is with me, then we can take the train or if I have my son with me into the city, then we just take the train. But to have two young children with you in the bus and in a stroller, we have a double pram" but sometimes they bring it on the train and that works alright because we are two.

If they are going to their parents place they take the car.

Infrastructure:

I think it is really good. 27:50 → "An extra lane on the motorway is missing."

Trains go every 10 minutes and Bx in rush hour so there are plenty of trains.

28:15 "With the lightrail, how it will be placed in regards to the cars will be very interesting to see because there are two lanes over there on Buddingevej down to Lyngby, there are two lanes. How will there be a lightrail without it impacting the two lanes. There are also bicycle lanes and pavements. But I know they are moving some of the houses, or so I have heard"

28:56 "I think the lightrail is a really good idea but it should not affect the cars." 29:03 "I understand, in the city, that the cars are limited. I do however think that it has gone completely overboard with roads being closed etc. But otherwise I think the cars need to be prioritised"

29:42 "the cars and trains I think. I understand that the cars.. there is a car per person. And the train there are a lot of people in but the cars pay for the feast. People with a car throw a lot of money into the state treasury every year and it is too much for it to be ignored with the roads not being expanded and maintained."

30:23 "the idea that busses have their own lane is difficult for me because then the cars can be lining up traffic and then there is a bus lane with absolutely no busses in it because they drive with 10-15 minutes intervals. I think in these cases it could be done more intelligently, where you say then taxis and lorries can use the lanes. They can of course not park there but they can use them for deliveries and pickups. It'll never happen"

31:16 "It is completely irrelevant because in 15-20 years everything will be controlled by robots. It will be like that. I don't think you will own your own car, I don't. It'll be taxis all of it". He goes on to explain that the future will be dominated by automated vehicles.

32:39 "Who wants to own their own car, you won't be driving it yourself" explaining further that: "Who wants to buy an Audi for 700.000kr when you aren't allowed to drive it yourself anyways."

Prestige over cars: 33:43 "I am like that too, and I am happy that I have a larger motor in my car. There is a difference between driving my car and driving the one my wife does. Something happens when you press the buttons on the key. Not so much so in the other one. But that feeling won't be

there when it is controlled from a central place" 34:10 "It would eliminate all traffic and you can sit and work, you can sit and read the newspaper, you can sit and talk on the phone, you can sit and text, you can sit and surf, you can sit and do a lot of different things." For interviewee 10, it seems that despite the prestige and joy he gets from having an internal combustion engine vehicle, he realises that for him the benefits of being able to do what every you like in an automated vehicle is more attractive.

working on train: no watching netflix. 34:32 "I don't want to sit and work because it takes 17 minutes so I don't have time to open the computer, I don't have time for anything else. So I sit and watch Netflix"

Uses GPS in his car. On vacations he uses the GPS on his phone, downloading the maps he needs so not to use data when abroad. Navigon.

Monthly train card on the phone. 35:40 "It is pretty clever, I didn't think it existed but it did."

He rarely checks the weather in regards to preparing for his trip to work.

He brings an umbrella sometimes but has found himself in situations screaming because he forgot his umbrella but then just deals with it.

Sometimes listens to the radio in regards to traffic jams.

Anything that could change mobility practices.

37:30 "If I got a job in Lyngby, that is not unthinkable that I would have to go to Lyngby, then I would cycle". Takes 10 minutes. 37:58 "The cold doesn't matter. But if it is raining... I would probably take the bus".

If he was working in Lyngby, taking both the bus and the bicycle would mean he would have to go home and get the car in order to pick up his children, especially if it was raining.

Is unaware of the municipality's goals and what he notices is that the car parking is free and this is really great compared to when he lived in Ørestaden.

People primarily take their car although some also take the train, according to Interviewee 10

He used to fly quite regularly to Aalborg, almost weekly.

Sound Clip 2

When there are traffic jams, then the car becomes much less fantastic to deal with.

If he was working any other place than Copenhagen and Lyngby, he would drive, either because he would be going against the traffic or because the public transport options would be limited.

## Appendix V - Interview 11

Interviewee 11 has lived in the area for 12 years, previously having lived in Hareskovby. She used car both places. She grew up in Gentofte usually cycling and walking.

Her parents had a car which her father used, whereas her mother used her bicycle to go to Copenhagen or she would cycle to Kildebakke station and took the train into the city. The area has not changed a lot since her childhood, it is only the frequency in public transport that she notices explaining that it has increased.

She drives to fitness 3 km away but has recently purchased a bicycle that she is slowly beginning to use more. She works out 3 times a week. She bought it to increase her fitness levels.

She has meets up with friends and family a couple of times every week and will use different mobility modes to get around. She has a friend where she would usually use the train rather than the car, this is because she is able to have a few drinks and still be able to get home.

Her family lives a little further away and it would be complicated to visit them by train.

If she is going into the city she takes the train "I don't wish to deal with the problems with finding parking or anything like that. It has become a huge advantage that you can take the train and go directly in there" (Interview 11, 5:21). In the evenings she is less likely to take the train due to feeling unsafe: "I actually never feel completely safe at the bigger stations, I really don't. And I feel unsafe in the evenings especially. On those occasions I find it nice that you can go into your car and close the car door" (Interview 11, 5:53).

Interviewee 11 grocery shops every second day, usually going by car which takes 5 minutes. "This is also one of the times where, now that I have the bicycle, then there is no doubt that I'll use that a lot if I am just taking care of my small grocery trips." (Interview 11, 2:44).

"If I am going to a specialist shop then I will continue to use the car" (Interview 11, 2:54) this is because the distances are greater.

Flies to her vacation destinations and upon arriving she either rents a car or goes bus if it is a package vacation.

Car: "I do know that nowadays you have to be quite aware about sitting one person in the car, but it is incredibly lovely to have it. It makes existence easier (...) because no matter whether it is raining or snowing then it is easier to go out and open the car door and just sit and drive off" (Interview 11, 6:28).

Bicycle: She has only just purchased one recently following her retirement 1,5 years ago. She plans on using the bicycle a lot more, also bringing it with her on the train.

Bus: She doesn't use it very often, not for any specific reason as it is located in convenient locations for her.

Train: Uses it to Copenhagen.

When Interviewee 11 was still working she had a company car that she used to get around. She worked on Roskilde vej 19 km away. If the future light rail had existed during the time she worked, she imagines that it would be an adequate mobility mode that could substitute the car on most days. Uses the taxi when going to the airport, especially when she was still working the taxi had a quite dominant role amongst the other mobility practices. As she worked for an international company, she had to travel a lot, making the taxi rides frequent and she explains that this made her develop some bad habits.

She also uses the taxi on those evenings where she did not take the car into the city or if she has been drinking alcohol.

Shared cars: "I think it [shared car] is an amazingly good idea" (Interview 11, 9:48).

"I think it would be very positive in that it could be an electric car. And the reason why I am saying that is that I could never imagine getting my own electric car because there are too many things you have to consider such as how far it can drive, where can I find a charging station. I think it would be easier to have a shared car with someone who knows about the electric car" (Interview 11, 10:08). The drawbacks of a shared car would be "the convenience of just having to go out there and over to the car" (Interview 11, 10:53). She could see that the positive elements of the shared cars could outweigh the negative.

Most important: Convenience. "That you don't have to think too much. That when I go and sit in my car I have already taken everything into consideration, I can go shopping in five different stores that are located everywhere from Holte to where else I shop, the fishshop on Emdrup (...) Or I can quickly get to and from a place, that also means a lot. I have children and grandchildren, and in those situations it is nice that you can quickly get to and from where they are."(Interview 11, 11:32)

Competence: Car: 18 - "That's what you did back then" (Interview 11, 12:32).

When she was 23/24 she began driving regularly "because we lived on Frederiksberg and I worked in Gentofte and it was easier" (Interview 11, 12:48) It was easier regarding the time.

Bicycle: 5/6

Public transport: 12

Going to new places "I get into the car and start the navigation system" (Interview 11, 13:53).

Would usually choose the car when going somewhere new unless it was for a dinner. In that case, depending on where it was she would probably take a taxi and therefore not have to figure anything out.

She thinks the stations are quite well equipped with information regarding the train. She does also use google maps on her phone to find her way around. She does not use rejseplanen, nor does she really know what it is it would seem. She does however use DSB's app. She also does not know what a rejsekort is and usually uses the app "mobilbilletter" for purchasing individual tickets for each train trip: "It is super easy" (Interview 11, 17:34).

She would also check the weather forecast when going into the city or expecting to be outside. She checks the weather on her phone and then brings an umbrella, even when driving. She does not think that if the weather was bad, that she would cycle to the store: "Maybe if you ask me in 6 months time, I would say that I would just get dressed appropriately" (Interview 11, 18:49) because she would imagine that she could have gotten more used to the bicycle as a mobility mode.

"I listen to P4, (...) if they say that there has been an accident or something then you decide to go by a different road" (Interview 11, 19:13). "I would either use my own sense of direction or check my GPS" (Interview 11, 19:49).

"Gentofte Municipality is a fantastically great municipality, but [when it comes to bicycle lanes] they aren't very good and they are missing something" (Interview 11, 31:42). The infrastructure is fantastic according to Interviewee 11, however, one element that is missing is bicycle lanes: "The school is relatively far away and there are many children on this road and there should be bicycle lanes. I can see that there are many parents that drive with the children (...) but I have a daughter and a son-in-law that live in Virum and if you went to Virum and saw how many travel by bicycle there then it is very fantastic and a great joy. And I have a son who lives in Bagsværd where it is a closed residential neighbourhood, there they also cycle. But here, the roads are much larger and when that is the case, there really should be some bicycle lanes. Especially if you can the children to get used to using the bicycle" (Interview 11, 20:16). "I think people are starting to think a bit more about it. It is again the idea that it is quick. Going into the car and then driving off. But people

also understand that it is important that the children get to cycle and have some fresh air and are motivated to go to class." (Interview 11, 21:17).

"I have a train that takes me 5-10 minutes to walk to. I have a bus over here, that takes me 5 minutes. It couldn't be any better" (Interview 11, 21:54). "With a different train line then I can reach a different station" (Interview 11, 22:14).

Access to the motorway also works fine.

"It is a habit. I have worked a lot throughout the last many years and there hasn't been.. I mean as a child I was used to cycling. I would always cycle! And in many years I have used the car. And I would probably say that whilst my children were small I would often cycle to the forest but then for many years I did not use it because it is much quicker to go out and take the car, a lot quicker." (Interview 11, 22:50)

Would use the car daily when her children were younger because she work far away from her home, but her children would always cycle.

What could the municipality do to change the practices? They could increase the number of bicycle paths especially since the schools are fewer and with longer distances between the, with a lot of larger roads in between.

She finds the rising obesity issues as the real reason why the mobility challenges need to change. The health risks are large and when children do not move enough they will not develop adequate competences to move about in traffic either. This is where the increase in bicycle lanes could assist in creating safer conditions so more parents would feel that it was safe enough for their children to practice their cycling practice performances.

"We all know what is the sensible choice, but what is also important is to make one's daily life work well and if you have a job that is far away and across the country, and you have the opportunity to have a car, then it makes sense that people use a car. If you had to start from the very beginning then it would be logical that you did it but one does know that it isn't healthy and that cycling is much better and we know that for the environment" (Interview 11, 26:47).

"Families have 2 jobs, and both have a career. And this means that children spend a lot of time away from home which makes the parents rush around to pick the children up. That's a lot of different things that need to be changed. They will use their car for that in order to spend more time with their children" (Interview 11, 32:04).

She also explains that another element of cycling safety is that it should be visible as to make the cyclist feel seen so it should be along the road.

"The light rail is also genius because you could go to the end station and park your car, if they make a large car park, which I think is the plan. Then you can go sit in the train and then there is nothing that can stop it, it goes quickly through. There are a number of stations that it stops at 'bam' then it's in the other end and that way you can quickly get to work. That is genius" (Interview 11, 29:39).

"Out motorways are stuffed with cars now (...) and there are way too many cars going around with only one person in it" (Interview 11, 30:26).

It is extremely rare that people do not have a car, and most have 2.

She also agrees that people in the neighbourhood drive too fast.

# Appendix W - Interviewguide

Translated from Danish.

How long have you lived here?

where did you live before?

Which transport modes did you use?

Do you have any children living with you currently?

How many? How old are they?

Do you have any recreational activities? What about family/friend functions?

Where? For how long? How often?

How do you get around to these activities?

Where do you live?

How do you get there?

How long does it take?

Do you always take the same route?

On vacation?

How do you get around?

Where did you live as a child and how did you get around?

How did your parents get around?

Why?

Meaning

Car

Bicycle

Bus

Train

Walking

Taxi

Shared car

Light rail

What is most important for you when you are going somewhere?

Competences

When did you learn to use the different mobility modes? Why then?

Car - did you have a car available?

Bicycle

Public Transport

What do you do when you are going somewhere new?

Which transport mode do you use?

Could you imagine using a different mode of transport if you were going anywhere new?

Material

What do you think about the infrastructure in the area?

Access to public transport?

Access to the motorway?

Bicycle lanes and connections?

Do you use x and why?

GPS, maps and smartphone apps

rejsekort or other public transport tickets

weatherforecast

P4 radio or traffic information radio

Rain gear like umbrella or raincoats

Change of clothes/ cycling clothes

Rejseplanen

Is there anything that you think could change your mobility practices?

Have you always used the same mode of transport?

Are you aware of the municipality's vision of facilitating its inhabitants to shift towards the bicycle and public transport?

Why?

Do you read local newspapers?

Do you think the municipality could do anything to change your transport habits?

What is your interpretation of the areas most used mode of transport?

What do you think about this?