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Elderly's everyday travel as an effect of the pandemic

Understanding travel in Gothenburg from a capability and gender approach

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Abstract

People's everyday travel changed dramatically when the world was affected by the SARS-CoV-2 pandemic. One group that has been particularly affected by the pandemic, not least by limiting their social contacts or avoiding travel altogether, but also because of the high risk of becoming very ill, is elderly people. However, this is a group on which few qualitative studies have been carried out when it comes to their everyday travel during the pandemic. This study aims to increase understanding of everyday travel of elderly citizens in Gothenburg, during and after the pandemic, and as an effect of the pandemic. The thesis moreover aims to illuminate whether there is a gender dimension to how elderly citizens of Gothenburg make choices and adjustments in daily travel. Moreover, it aims to increase understanding of how this effect can contribute to sustainable mobility, and to identify learnings regarding adaptations of transport infrastructure to meet elderly citizens' needs.

The study is based on twelve semi-structured, in-depth interviews with elderly people between the ages of 65 and 91 who live in different parts of Gothenburg and either have access to a car or not. Results show that elderly people overall travel sustainably, with public transport being most respondents' primary means of travel before the pandemic. During the pandemic, travel decreased significantly and all respondents who had a car almost exclusively drove. All elderly people who had public transport as their primary mode of transport want to go back to it now after the pandemic, both because of economic and environmental factors. Some respondents cycle in the city and find it works well. However, both those who cycle and those who do not think that walking and cycling paths need to be improved and made safer if more elderly people are to continue cycling into old age. Public transport, on the other hand, is considered to be accessible and works well most of the time.

The conclusions of the study are that 1) elderly citizens changed their travel during the pandemic where the car dominated but learned that they want to go back to a more sustainable and convenient travel where public transport, walking and cycling are the primary means of travel, 2) there are some differences in how elderly women and men reason when it comes to their own travel and their surroundings which is still important to consider in transport planning and 3) elderly people feel that Gothenburg's infrastructure is adapted and planned for a younger generation and see that walking and cycling paths, in particular, needs to be made safer and more accessible.

Key words: Capability, Constraints, Elderly, Everyday travel, Gender Perspective, Time Geography

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1
Introduction

This chapter explains the background and problem discussion of the thesis, thus justifying why the research problem is relevant to study. This is followed by the aim of this thesis, research questions and delimitations, after which the chapter ends with an outline of the report that illustrates all chapters included in this thesis and what each chapter covers.

1.1 Background

The City of Gothenburg is constantly aiming to improve citizens' sustainable travel, this, with the help of a traffic strategy that is supposed to create a more sustainable city. Since 2011, this traffic strategy has led to major changes, with more people primarily choosing public transport as a means of transportation (Göteborg Stad, 2019). This traffic strategy is based on a couple of effect-goals that should preferably be achieved by 2035. Two of these place great focus on the choice of travel where effect-goal 1 is to increase the proportion of travel by bicycle and walking, and the goal is that by 2035, 35 percent of these trips will take place on foot or by bicycle. Effect-goal 2 will increase the proportion of motorized travel by public transport, and the goal is for 55 percent of all motorized travel to take place by public transport by 2035. In 2019, an increase in use with both public transport and bicycles can be seen. Car use had increased marginally in 2019 (Göteborg Stad, 2019).

In late 2019 a virus started to spread in the world. This came to be called SARS-CoV-2, or in other words, Covid-19 (Folkhälsomyndigheten, 2021). In March 2020 The World Organization of Health (WHO) declared Covid-19 as a pandemic and it started to spread rapidly in Sweden. During 2020, 2021 and onto 2022 citizens in Sweden were recommended to work from home, not to socialize with larger groups indoors and choose another means of transport than the public transport such as bicycle, walking or the car (Folkhälsomyndigheten, 2022). The City of Gothenburg's most recent travel habits survey in 2020 describes how the current situation with the pandemic has significantly affected the year of 2020 in travel. The pandemic led to a decreased marker of everyday travel, working from home became more prevalent, teaching took place digitally and cultural and sporting events were limited due to recommendations not to make unnecessary trips, both short and long. Overall, travel in Gothenburg decreased forcibly in 2020, especially public

transport. Cycling, walking and recreation in nature's surrounding areas is what has increased (Göteborg Stad, 2020).

Elderly people are perhaps the group most vulnerable to the corona pandemic, especially those aged 70 and over. Firstly, they are at greater risk of dying from the disease and secondly, because of this, they have been advised to limit their social activities and contacts even more than the younger groups. This recommendation was introduced mainly to reduce the spread of the disease and decrease the risk of elderly becoming sick, but it can moreover contribute to decreased physical and mental health, both in the long and short term. The lack of digital literacy among elderly people has been evident during the pandemic. People aged 70 and over are a heterogeneous group with different physical and mental conditions and it is clearly shown that those who are already worse off socially, economically and in terms of health seem to be getting even worse off, which may lead to increased inequalities between different elderly people (Folkhälsomyndigheten, 2020).

1.2 Problem description

Levin, et. al. (2007) highlights numerous benefits studying travel behavior of elderly citizens. It has a scientific relevance in view of sustainable development, as well as a great societal relevance in view of the benefits in the transport sector and actors in transport planning. Levin et. al also believes that travel habits surveys, which are usually the basis for different types of planning projects, should be supplemented with more in-depth and qualitative surveys to understand the complexity of people's travel (Levin, et. al., 2007). One of Sweden's major challenges today and for the future is that society is aging, a larger proportion are old and are living longer. The number of elderly people in society is increasing and in Sweden it is predicted that by 2060 one in four people will be over 65 years of age (Heikkinen & Henriksson, 2013). Therefore, activity patterns and behaviors change and thus the planning of transport systems must follow the risks and safety that come with a certain group of transportation users. Factors that must be understood include old age, failing health or limitation due to the lack of suitable transport (Levin, et. al., 2007).

Göteborg Stad (2021) has developed a plan to promote an age-friendly Gothenburg where three focus areas are considered most important for seniors which are mobility, accommodation and social participation and inclusion. They highlight five main aspects that need to be improved immediately in order for elderly people to have a good opportunity to move freely in the city and maintain their mobility, health and to be socially involved. These five activities are 1) better conditions for interaction between pedestrians and cyclists, 2) seniors' inventory where new

benches are needed, 3) working with seniors to improve winter road maintenance, 4) increasing accessibility at transfer points and stops to make it easier for seniors to use public transport, and finally 5) creating more space for pedestrians together with seniors.

Furthermore, there is currently insufficient knowledge regarding citizens of Gothenburg future travel habits as an effect of the pandemic, not least for elderly citizens. It is a life-changing phase that elderly people go through as they move from a work commute to a different type of everyday life with different economic circumstances and, for some, with slightly deteriorated health. It is important to gain further knowledge on not only how one does today and what choices one makes in everyday life, but moreover how one wants to travel in the future is important for today's decisions about tomorrow's transports. It can give implications for the transport planning now and in the future. This study therefore has a societal benefit as it can contribute to a great understanding of how elderly citizens of Gothenburg reason when it comes to their future everyday travel during and after the pandemic, and as an effect of the pandemic.

1.3 Aim and research questions

The aim of this thesis is to increase understanding of everyday travel of elderly citizens in Gothenburg, during and after the pandemic, and as an effect of the pandemic. The thesis moreover aims to illuminate whether there is a gender dimension to how elderly citizens of Gothenburg make choices and adjustments in daily travel. Furthermore, it aims to increase understanding of how this effect can contribute to sustainable mobility, and to identify learnings regarding adaptations that can be done to transport infrastructure in order to meet elderly citizens' needs. To fulfill these aims, the following research questions will be investigated:

1. How do elderly citizens of Gothenburg reason about their future everyday travel during and after the pandemic, and as an effect of the pandemic?
2. Do women and men's views of everyday travel differ, and if so, how?
3. What learnings could be drawn regarding adaptations to transport infrastructure, to meet elderly citizens' needs?

1.4 Delimitations

In addition to the stated aims guiding this research, some limitations had to be set to ensure a suitable focus of this thesis. This study is limited to studying the elderly, i.e., 65 years and older. There have been changes in everyone's everyday travel as an effect of the pandemic, but studies on elderly citizens are done less often, especially in the mobility sector. Furthermore, the study is

geographically limited to the municipality of Gothenburg, but still concerns elderly people's experience of traveling outside Gothenburg to surrounding municipalities.

1.5 Outline of the report

- Chapter 1, *Introduction:* The first chapter has introduced the societal and theoretical relevance behind the chosen research problem as well as its aim, research questions and delimitations.
- Chapter 2, *Literature review:* The second chapter is a brief overview on how travel in Gothenburg has been historically from 2011, how the pandemic has affected and changed citizens' travel, and how elderly people's everyday travel has been historically until today. In addition, an introduction to how gender plays a role in the transport sector and the identification of the knowledge gap that motivates the study is given.
- Chapter 3, *Theoretical framework:* The third chapter presents the theoretical framework on which the thesis is based upon. It is mainly based on the gender perspective, the capability approach but is supported by time-geography.
- Chapter 4, *Methodology:* The fourth chapter presents the chosen methodology and the data that underlies the study, how it has been collected and how it has been analyzed. Moreover, it provides a discussion of the chosen methodology.
- Chapter 5, *Results:* The fifth chapter presents the empirical findings from the conducted interviews thematically gone through with help from the interview guide, color coding and theoretical framework.
- Chapter 6*, Analysis:* The sixth chapter presents the analysis of the empirical findings based on the capability approach, the gender perspective, as well as understanding of time-geography.
- Chapter 7, *Discussion and conclusions:* The seventh and last chapter of this thesis presents a discussion and answer to the research questions based on empirical and analyzed findings and gives a brief discussion on future research and conclusions regarding elderly citizens travel behavior and findings in a transport planning context.

2
Literature review

This chapter presents previous research and knowledge regarding the change of everyday travel before and during the pandemic. It additionally illustrates the elderly people's travel before the pandemic and how choice of transportation differs in gender.

2.1 Everyday travel over time

2.1.1 Gothenburg's traffic strategy

The Office of Transportation's (Trafikkontoret) annual traffic and travel development report from 2019 illustrates that since the introduction of the traffic strategy in 2011, the number of trips by bicycle, public transport and car has increased. Bicycle trips have increased by 45 %, public transport has increased 33 % and car trips 0.1 %. Residents in and around Gothenburg are traveling more sustainably in 2019 than in 2011, but this is not enough. Bicycle trips need to be increased and car trips need to be significantly reduced (Göteborg Stad, 2019).

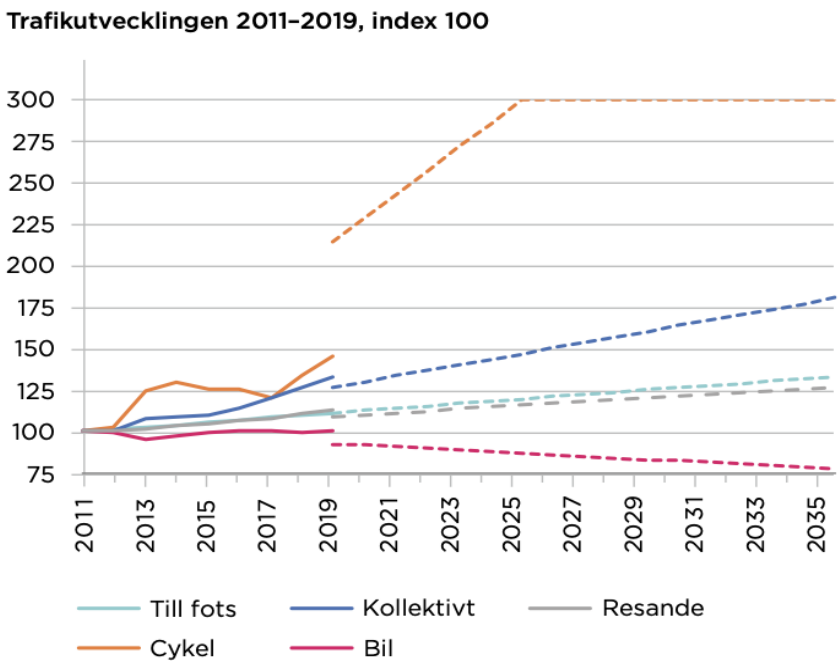

Figure 2.1: *Illustration of travel development from 2011-2019. (Göteborg Stad, 2019).*

Public transport is the mode that has developed most in line with the transport strategy, and over the last four years this development has been highly positive in relation to effect-goal 2 presented in the introduction. On the other hand, car journeys have not decreased, which means that effect-goal 2 is negatively affected from this point of view. One explanatory factor for some of the figures is due to Gothenburg's population growth between 2011 and 2019, which is 11 %, and 10 % based on the population of the whole Gothenburg region (Göteborg Stad, 2019).

2.1.2 Choice of means of transportation

Travel choices play an important role in understanding how people choose to travel and what factors play a role in the choices they make in the transport sector. One of the most common reasons highlighted by Frändberg, Thulin and Vilhelmsson (2005) is time. Time is a crucial factor for people when it comes to traveling from A to B and it determines which mode of transportation one uses. Those who have that choice, without for example financial constraints, make the choice where the journey is fastest. It is also important to mention the subjective experience of what is fastest, an example of this is that when waiting for the bus that is perceived as more time consuming and as a sacrifice of one's time rather than the equivalent amount of travel time. Other factors that also play an important role are flexibility in time and space and individual control. Flexibility emphasizes that one would prefer to be able to travel door-to-door and also to have the freedom to choose when to leave and also when to return again. As mentioned above, there can be an economic aspect where price can play a major role depending on the mode of travel and the choice of means of transport. However, car users are a group that is not very price sensitive, especially when it comes to short trips. Other factors such as comfort and convenience play a role, as does the ability to transport goods and equipment (Frändberg, et. al., 2005).

According to Frändberg et. al. (2005) public transport must be a real competing alternative to the car and therefore equally attractive. In some environments and aspects, it already is, for example in the center of large cities where bus and commuter train lines run often. Even around longer journeys where aircraft and trains are competing alternatives to the car. However, in other settings this competition is difficult to achieve, not least in sparsely populated areas.

2.2 Changes in everyday travel in Gothenburg during the pandemic

Public transport was the mode most affected during the start of the corona pandemic and throughout 2020. People were asked to work from home, take meetings at home and those who had to travel by public transport preferred not to do so at peak times. Also, citizens were told to not see people that often, especially not elderly people or in bigger groups. Instead, in 2020, public

transport and traveling together became directly linked to a risk, due to proximity of one to the other being a major factor in the spread of the disease (Göteborg Stad, 2020).

Every year, Västtrafik conducts a survey to find out about the travel habits of Gothenburg residents. In "Hållplats 2020", the report illustrates major changes in transportation and questions such as what their future travel will look like. Numerous believe that public transport will decrease, and that personal car travel will increase. The corona pandemic has had a positive effect when it comes to cycling. More people have started to travel by bicycle and more people think they will continue to cycle after the pandemic. The study illustrates that many people believe that society at large will make changes, but at the same time respond that they do not believe that they themselves will change their own behavior. 60 % of those surveyed in "Hållplats 2020" believe that travel will not return to normal ever again (Västtrafik, 2020).

Even on a national level, it can be seen that all types of transport increased, mainly that urban transport increased, and public transport and regional trains increased. Investments in infrastructure meant that more and more people started commuting to work. When the pandemic hit Sweden, the transport sector in particular was hit very hard by the recommendations to work from home and to keep distances. Public transport became laggard as it was no longer considered safe. All types of transport were drastically reduced such as road, air, aviation and shipping. Policy initiatives show on both a national as well as international level that sustainable societal development has become increasingly important, where the transport sector has a great responsibility with working on sustainable and efficient solutions around everyday and work travel but also other types of travel and freight of both people and goods (Transportstyrelsen, 2021).

2.3 Elderly people's everyday travel

The West Sweden package (Västsvenska paketet), carried out in 2017, illustrates that in Gothenburg and its surrounding municipalities people travel and use different modes of transport. The older one gets, the more work travel decreases. Between 65-74 there is still a certain percentage of travel to and from work. Within the 65-75+ age range, things like shopping and leisure/entertainment/exercise dominate over work, education and picking up/dropping off children. The West Sweden package also shows the distribution of transport choices between ages. The predominant mode of transport for the elderly, 65-84, is driving and getting around on foot. Furthermore, cycling and public transport follow (Västsvenska paketet, 2018).

The West Sweden package together with Levin's studies illustrates that older people's mobility may decrease when it comes to work travel, but the need for mobility does not decrease because of it. According to Levin and Berg (2011), for elderly people, the car dominates because of the safety and convenience it provides, then walking and cycling are far more common among elderly people than public transport. In one study, a group of people in their forties answered how likely they would be to travel more by public transport, with one in five saying they would not be likely to do so in the future. When one gets older, around 85 and older, the answers are different, and more people start to feel somewhat insecure about driving. On the other hand, Levin and Berg argue that more elderly people, around 20 % of the women and 17 % of men, are choosing to stay at home and not carry out any errands at all rather than having to use public transport or walk (Levin & Berg, 2011). As mentioned above from the West Sweden package, Heikkinen and Henriksson (2013) also confirm that there is a clear trend in how older people's trips are decreasing as work trips become fewer.

Vilhelmson, Thulin and Elldér's (2021) research on time use of elderly citizens in Sweden illustrates that elderly people continue to be active to a greater extent even in old age. In particular, the new generation of elderly people is more active in terms of their time use compared to previous generations. Among other things, their research showed that all age groups have a significant increase in work activities, i.e., producing goods and services in society (paid or unpaid). In addition, the study showed that new generations of elderly people are more likely to remain active in the workforce beyond the usual retirement age, and that this means that even the older middle-aged have become less likely to choose early retirement. In other words, Vilhelmson, et. al. research shows that the older population is remaining productive to an increasing extent.

In contrast, Vilhelmson, et. al. (2021) found in their research a reduction in time spent in the everyday sphere and in social engagements, which included, for example, social activities within their personal network. Decreased social activity was found to be a certain consequence in retired people. Social interaction and engagement are considered crucial to the health and well-being of individuals and Vilhelmson, et. al suggests that more research on elderly people is needed. The need is to understand how loneliness arises and develops later in people's lives, such as how activities are carried out, whether or not they are lonely, and the extent to which there is access to spatial technologies such as cars, public transport and internet.

Despite the fact that elderly people are rarely a group at risk in the public space and especially on public transport, the safety aspect is still important for elderly people, not least for women (Levin,

et. al., 2007). Studies show that it is usually media updates on violence and other stories that increase anxiety in public spaces, especially for women (Levin, et. al. 2007).

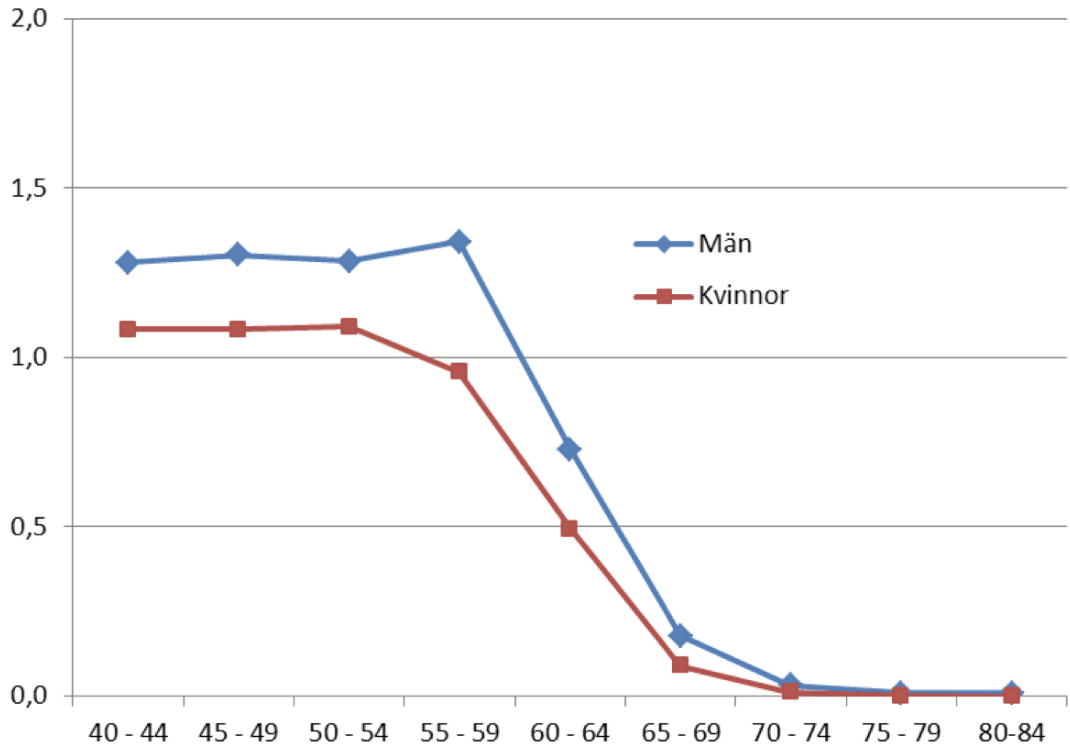

Figure 2.3: *Illustration of decreased travel behavior based on age from RSE 2005-2006 (Heikkinen and Henriksson, 2013).*

The car dominates and becomes a central part of elderly people's lives, and walking is an exception that barely decreases compared to other means of travel. Factors that play around driving license holders among the elderly today are mainly improved health, improved finances and active lifestyles. To understand elderly people's travel, one must look at and understand their travel needs and actual desires. The decline in travel does not always have to mean a desire for a slower life but may instead mean that the current public transport and travel choices are not sufficiently accessible and that one is not able to travel as one did in the past to the same extent. Different and unmet mobility needs are therefore a very important issue for current and future transport planning (Heikkinen & Henriksson, 2013).

Previous research from Rosqvist and Wennberg (2018) illustrates that the younger age group (20 years) uses public transport most often, and that this use increases again for people over 64. As mentioned earlier, the car is the dominant mode of transport for elderly people, mainly due to more women now have driving licenses and choose to drive their car. The older generation today has mostly had access to a car all their lives and is more or less dependent on the car for their own

mobility. As age increases and driving may no longer be an option, walking and public transport in particular will become the main means of mobility and independence for the elderly. One factor that plays a big part in the choice of transport for elderly is also the perception of safety, that public places are perceived as more unsafe for the elderly than younger perceives it (Rosqvist & Wennberg, 2018). Furthermore, when researching the mobility of the elderly, it is important to keep their capabilities in mind. Numerous elderly people have multiple disabilities (e.g., impaired mobility, vision, hearing and/or cognitive functions) and often use assistive devices to address these. Therefore, accessibility aspects of the whole journey are very important (Rosqvist & Wennberg, 2018).

2.4 Gendered everyday travel

Previous research illustrates that women use public transport more than men, especially during working age, and in general women are more positive about public transport compared to men (Levin, et. al., 2007). This can also be supported by Ryan (2019), whose thesis concluded that women, who also live in single households, use public transport more than men. At the same time, however, they argue that cohabiting can be a direct mobility resource where mostly men take the role of car drivers (Ryan, 2019).

Urban planning, and especially transport planning, is important to understand from a gender perspective as a result of men are generally more mobile than women. This is mainly based on the fact that women and men have different expectations, constraints and opportunities that shape their everyday travel spaces. Gender difference in mobility patterns is an important component to understand as it has implications for the current urban planning in Sweden (Gil Solá & Vilhelmson, 2022). The study of Gil Solá and Vilhelmson (2022) indicates that women, to a greater extent than men, experience constraints in accessing the city. This is mainly due to time and accessibility constraints, but also to the fact that the studied area is not best suited for the modes of transport primarily chosen by women to a greater extent compared to men, i.e., not traveling by car. The study also shows that men are more likely than women to choose more activities further away from home, resulting in them taking the car. Then Gil Solá and Vilhelmson argue that men are not influenced by individual socio-economic aspects. From a sustainable planning perspective, this indicates that action is needed in terms of, among other things, routine car use by de-prioritizing the car in infrastructure route planning. The research also shows that both men and women are satisfied with their local activities, which indicates that there is an opportunity to change the attitude of people, especially men, to use more local activities that do not require taking

the car. The alternative is also to create more accessible public transport and long-distance cycling for activities further away from the local area (Gil Solá & Vilhelmson, 2022).

From a Swedish perspective, previous research shows that men and women travel about the same amount, with women making an average of 1.6 trips and men making an average of 1.7 trips (Gil Solá, 2013). Moreover, everyday travel is on the increase, especially among women. What differs slightly between men and women is paid work, where men generally make more such trips while women make more trips related to shopping, leisure and services (Gil Solá, 2013). Gil Solá also describes that there are differences across Sweden. For example, in the Malmö region, women and men make roughly equal lengths of work-related trips, while in the Gothenburg region, men make twice as long work-related trips as women. There is also a big difference in terms of travel mode use between men and women. For example, women make more of their journeys using public transport than men. Meanwhile, if one looks at the combined distance women and men travel, there is not much difference between cycling, walking and public transport. The car is mainly used by men, even though it is the mode of transport dominated by both women and men. Over time, it has been observed that women have increased their trips by car while car use for men has remained unchanged (Gil Solá, 2013; Frändberg, et. al., 2005).

Gender affects how women's and men's mobility differs. Gil Solá (2013) argues that, in general, women and men travel mainly to access different activities, and these are geographically dispersed. However, these activities may differ among groups. Factors influencing these trips and choices are very much based on the individual, the activities and the individual's social and physical environment, for example whether one has access to a driving license or possesses a certain type of knowledge or strength. Activity-related aspects can be about picking up and dropping off children or various purchases needed while environment-related aspects are based on where the pick-up and drop-off of children at school or friends is located, as well as how the structure or bicycle-road and bus route network is shaped (Gil Solá, 2013).

2.5 Summary of literature review

The literature review illustrates that there are limited qualitative studies on how elderly people reason about their everyday travel. Some statistical studies have been done that are somewhat old, and also in a different geographical context than Gothenburg. However, the literature review indicates that there is a shift in thinking in terms of how the pandemic may have had an impact on how citizens in especially Gothenburg reason about their own travel and how they think it will be in the future. In addition, there are not many studies on how elderly people experience their

everyday travel, especially in Gothenburg. Therefore, it is relevant to study elderly people what their experiences and perceptions are of the current infrastructure and what could be improved to, for example, make them want to travel more by public transport, bicycle and walking. In conclusion, the literature review shows that there is a knowledge gap about how specifically elderly people reason about their everyday travel in the future, and whether there is a difference between women and men.

3
Theoretical framework

This chapter provides an overview of the theoretical framework chosen for this thesis. First, the definition of the activity approach will be discussed, which helps to describe the overall picture of the thesis concept. Second, the definition of the capability approach will be presented. Third, the gender perspective will be presented. Fourth, the time geographical approach will be presented that will help understand the capability approach. Last, the definition and understanding of young old, old and oldest old will be discussed.

3.1 The Activity approach

There are numerous ways to study human travel and understand human mobility. The activity approach is one of them, describing and starting from the individual's mobility caused by his/her need, or desire, to carry out activities that have a specific location (Gila Solá, 2013). It is through the individual's desires that it creates a geographically dispersed pattern of activity. The activity approach is most often applied when one wants to understand how the individual's mobility pattern is explained by when he or she will perform different activities, while the journey itself is not given a value (Frändberg et. al., 2005)

According to Frändberg et. al. (2005) the activity approach is used as an explanation to understand the entirety of the thesis and the concepts that are also further understood through the capability approach. The activity approach describes the complexity of mobility, and emphasizes factors such as the individual, the environment and activities. Firstly, factors that are affecting the *individual* are age, gender, health, education, access to a car and/or other means of travel or communication that influence how much one travels and communicates with the world. The individual is also about the individual's attitudes, values and perceived needs around his or her mobility. People experience their movement in different ways, some may be more bored and want to move more while some live their lives in stillness, others may not be able to do the things they want due to disability or their aging which has affected them both physically and mentally. The second factor that plays a major role and affects mobility is the *environment.* It is about the regional structure, which household one lives in, where one works or goes to school, or what activities there are in one's neighborhood that one wants to be able to access. It is also about the physical environment, such as where one lives and what means of communication are available

in one's vicinity. For example, it can be different if one lives in a big city or in a rural area, in the center or outside the city. The third factor that plays a major role in understanding the activity approach is simply related to the activities one performs or wants to perform. These may be necessary activities such as work or care, or more voluntary commitments such as leisure activities.

3.2 The Capability approach

According to Ryan (2019) the Capability Approach (CA) is primarily based on two normative claims. The first being freedom to achieve well-being and second that well-being should be understood in terms of people's capabilities and functions. CA is firstly known for its shift from the person's resources to their capabilities, and secondly, it's conceptualized as 'functionings' instead of utility, and lastly, the size of scope is considered to contribute to an individual level's well-being (Ryan, 2019). The capability approach can be used for a wide range of purposes. To explain the difference between function and capability in the simplest way, Robeyns (2003) gives a clear example of the difference. Using the classical model below illustrated by Sen, one can talk about two people who do not eat enough to function and achieve well-being. One person is a victim of starvation in Ethiopia, while the other person is on hunger strike in front of the Chinese Embassy in Washington to protest the occupation in Tibet. Even if both people lack being well-nourished, the difference between the freedom they have to avoid hunger is crucial. While both hungry people lack the attainable function of being well-fed and free from hunger, only the protester in Washington has the ability to attain that function, which the Ethiopian person does not have.

Furthermore, the capability approach can be understood as a notion of what activities one can undertake ('doings') and what kind of person one is able to be ('beings') and is influenced by three conversion factors. First, *personal characteristics* (e.g., metabolism, physical condition, sex, reading skills, intelligence) influence how a person can transfer their characters to functions in everyday life. For example, if a person is disabled or has poor physical characteristics, or has not learned to ride a bicycle, the bicycle may not be available as a function to achieve mobility. Secondly, *social characteristics* (e.g., public policies, social norms, discriminating practices, gender roles, societal hierarchies, power relations), and lastly, *environmental characteristics* (e.g. climate, infrastructure, institutions, public goods) play a major role in individual functions (Robeyns, 2003). Robeyns also explains that capability is the real freedom that people have to achieve potential doings and beings. The real freedom in this context then means that one has all the necessary means to achieve doing or being if one so desires. Which means that it is not just the

formal freedom to do or be something, but the concrete possibility of actually achieving it (Robeyns, 2003).

Amartya Sen (1995) believes that the capability approach can be used for a variety of studies and have different purposes in them. It is there to draw conclusions about the well-being of individuals and social policies. It focuses on what is of value in making judgements about social constraints, which in turn influence and constrain well-being and evaluations. The capability approach is useful when one wants to study poverty or inequality.

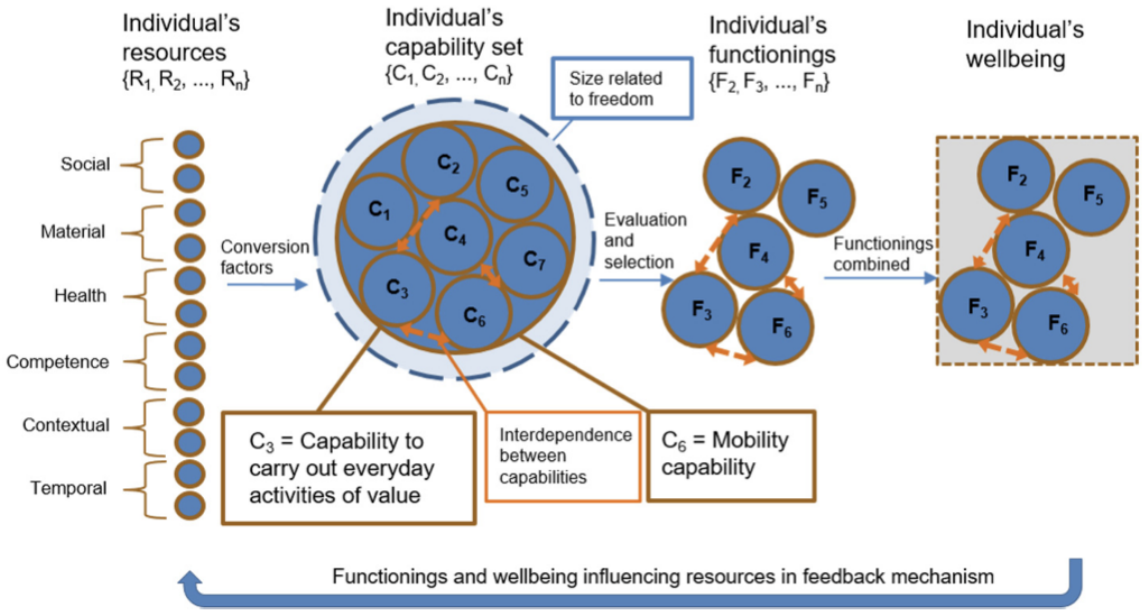

Figure 3.2: *Model illustrated by Amartya Sen of how the Capability Approach can be understood and analyzed (Figure adapted from Ryan, 2019).*

Through Sen (1995) and Ryan (2019) one can understand the capability approach from a transport perspective. The capability approach helps to understand what opportunities for mobility look like for the individual as well as comparison around what circumstances exist between individuals. Among other things, capability approaches shift the focus from proxies for capacity as resources, such as driving licenses, or realized mobility, such as completed trips, and instead focus on actual capacities, such as the ability to travel to an activity. The capability approach lends itself to analyzing the individual and looking at distributions, or differences, between groups, in this case elderly people. Overall, the capability approach helps to bring together issues such as the life course, the importance of mobility, transport-related social exclusion and equity in transport (Ryan, 2019; Sen, 1995).

3.3 Gender perspective

3.3.1 What is gender?

Gil Solá (2013) explains that in the past, a distinction has always been made between gender and sex, as sex describes female and male while gender describes what characteristics of female and male should be. Gender refers to the attributes related to the sexes female and male. Men may assume traditionally female attributes by having the main responsibility in the household while women may assume traditionally male attributes by possessing the highest paid job in a household.

Today, gender perspective serves as an analytical tool that helps one to understand relations between women and men. It also helps to understand how inequality arises. Therefore, power and the concept of "the male norm" are central themes in gender analysis. A kind of subordination is created, that is, perpetuated by what is called the gender system. It is based on two elements, one is the segregation of women and men where they are expected to be in different places, do different things and choose different professions. The second is the hierarchy of superiority and subordination, the pattern then being that men are superior, and women subordinate (Larsson & Jalakas, 2006; Hirdman, 1993).

3.3.2 Gender, geography and mobility

Gender perspectives in human geography have initially had an abstract and genderless concept of man, and the abstract man was mostly concerned with reshaping and processing the environment and its resources. It was about man's ability to foster landscape and nature - to create space. The focus was rather on production and not gender, power or emotions. However, criticism was directed at the dualistic perspective of pitting the natural against the man-made. Criticism was also directed at the depiction of nature and feminine metaphors. Gender geography came to show gender differences in material conditions and opportunities (Forsberg, 2003). There is a strong preconception that gender research is only for women, and that the goal of gender research is to put women in the same positions of power as men currently occupy. That the goal is some form of reverse sexism, and that the research is political and not scientific, but this is not the case. Instead, it is about alternative interpretations of social relations, power structures and the construction of society (Forsberg, 2003).

Gender is a constitutive factor of social relations and is based on perceived differences between women and men. Law (1999) explains gender and mobility with the help of a figure which in turns

works as a framework. It helps explain that in order to conceptualize gender, it is a matter of identifying areas of social life where gendered patterns of daily mobility can be identified. In this way, one can integrate scattered observations in the literature on gender and transport and gender variations in daily mobility (e.g., transport behavior, mode choice, trip frequency, distance and duration). This analytical framework can also help to identify issues of cultural meaning of mobility habits and attitudes (Law, 1999).

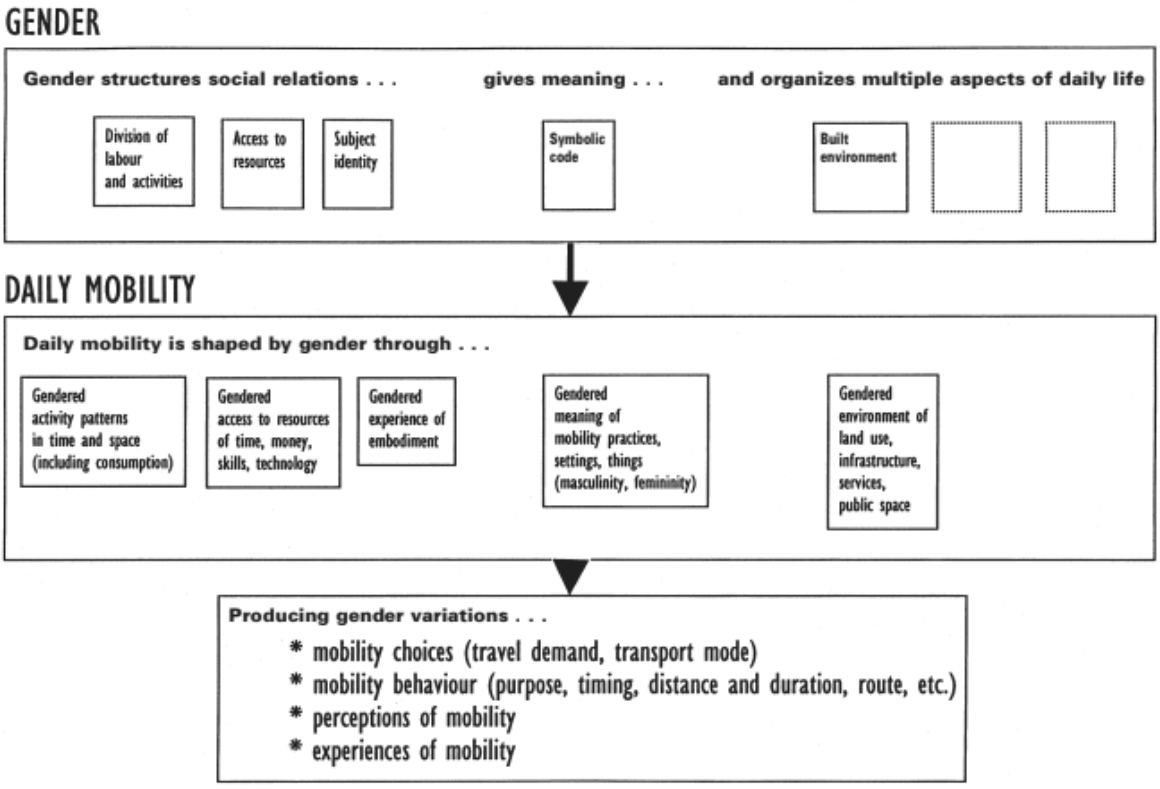

Figure 3.1: *Framework for understanding gender and mobility (Law, 1999).*

The choice of means of transport is usually gendered in one way or another. It is partly a question of the resources one has access to, such as income and driving license, but preferences and values also have an impact. These different components are, for example, strongly linked to the car (Gil Solá, 2013; Balkmar, 2012). This is also confirmed by Balkmar and Joelsson (2012) who argue, among other things, that there is a link between the individual and speed, risk-taking and technology which in turn shapes the identity of woman or man. Values about the environment and one's environmental awareness are something that Merritt Polk, among others, has studied where differences between women and men are visible, which in turn can influence car use. Dahl (2011)

confirms Polk's[1] previous research on women and men's environmental awareness by discussing that women express greater potential than men to adapt based on ecologically sustainable means of transport. Moreover, there is a historical view of the car as masculine, despite the fact that women have long challenged the relationship between masculinity and cars. This shows that there is an ongoing need to consider the masculinisation of the car as a construct in need of work as many women also drive cars (Dahl, 2011).

Gender relations can also manifest themselves in different ways depending on intersections with other grounds of discrimination such as age, ethnicity and class. It is central that intersectionality focuses on power relations. Intersectionality means where one line crosses another, where intersectionality is the point where lines meet. It focuses on the intersection within different societal power orders based on gender, age, ethnicity, class, nationality, functionality, religion etc. Age and gender within intersectionality are two different grounds of discrimination that intertwine and lead to specific processes and power relations (De Los Reyes & Mulinari, 2005)

3.4 Time geography and everyday life

Time geography is a framework founded by Torsten Hägerstrand and began developing in the 1960s and has gained momentum both in Sweden and internationally since the 1970s. Time-geography is explained as an understanding of time-space as concepts, relations and processes. Briefly, time-geography framework explains individuals as objects of study and is about mapping patterns of movement within a space and between spaces. If one sees the city as a space, one can map how a person moves in this space, for example movement between home and work (Ellegård, 2019). Mobility is directly linked to time and space. Without these two components, important facts about movement and mobility are missed. Time and space revolve around life, which means that movement is a passage of time while at the same time it occurs in a movement in space. Mobility is also part of the process within the social construction of time and space, this with examples such as the railroad where distance shrank because one could travel faster for a shorter time (Cresswell, 2006).

Within the time-geographical perspective, everyday life can be studied. Åquist (2001) defines everyday life as taking people's everyday lives as the starting point for research, which means focusing on individuals' everyday routines and activities. These are considered in terms of the

[1] Merritt Polk: *"Are Women Potentially More accommodating than Men to a Sustainable Transportation System in Sweden?"*, Transportation Research Part D-Transport and Environment 2003: 2, s. 85–94.

built environment, as well as social and material surroundings. The everyday life perspective encompasses individuals' activities, shaped by social contexts, and the time and space specific context. In everyday life, gainful employment is included, i.e., all everyday activities even if they are not actually gainful employment. Åquist does not share the view of Henri Lefebvre that everyday life is characterized by grey boredom and a lack of creativity. Rather, she sees it, on the one hand, as being characterized by boredom and routine, but on the other, as something creative and capable of giving rise to joy and satisfaction. Åquist was inspired by the time geography perspective, focusing on individuals, their events and processes in society, such as the activities of individuals and organizations in the form of projects (Åquist, 2001).

3.4.1 Projects

In time geography, the term *project* is used to explain the activities of individuals and organizations. A project is thus a targeted activity consisting of different elements that contribute to goal fulfillment. There are both individual projects and organized projects. The difference between these is that individual projects explain goals that are determined by an individual person and consist of activities to be carried out by him/her. Organized projects are created from an individual but based on organized level. For example, in a household where children's activities are determined based on the parents. Another example is at work where the organization sets goals and organizes the activities needed to achieve those goals. In both types of projects, the person involved is expected to perform in a way that achieves these goals. Some projects may also fail due to the individual, or individuals, who are supposed to perform these activities may face various constraints from which they are unable to move forward (Ellergård, 2019; Åquist, 2002). Both the understanding of everyday life and projects can be closely linked to the capability approach as Sen (1995) and Robeyns (2003) discuss both the right to well-being as linked to social constructs, time and space. In addition, they also discuss the right to achieve accessibility and mobility, for example by being able to cycle.

3.4.2 Constraints

In the field of time geography, Hägerstrand presents three concepts that can prevent people from achieving or carrying out various activities and their goals to achieve various projects in everyday life. These are *capacity*, or usually called *capability* constraints, *authority*, or usually called *steering*, constraints, and finally, *coupling* constraints. Capability constraints are linked to the individual's abilities, characteristics, knowledge and available tools to perform different activities. Authority constraints refer to the rules, laws and agreements that must be followed by an individual in an organization or in society. Coupling constraints are slightly different from the

above and involve the need to link individuals to each other in time and space and for them to successfully perform various activities in everyday life (Ellergård, 2019). For example, in order for a person to travel and arrive at a certain location on time, she needs to be at the right stop at the right time to perform that activity.

These different constraints are related to each other. There are several different examples of this, with Ellergård (2019) highlighting two clear ones. One is how the law says that parents should take care of their children which is the authority constraint that gives rise to the coupling constraint. Parents can leave their child at preschool for a while and delegate care to someone else. The coupling constraint between the child and the parent is eased and while the authority constraint still exists. Another example is when it comes to communication technologies, which allow people to communicate despite being in different places, so that they are not limited by their ability to shout or write a letter. Capacity constraints are alleviated, and technology helps people overcome coupling constraints.

3.4.3 Time geography and its' gender perspective

According to Forsberg (2003), time-geography was initially seen as genderless, and that it was also disembodied. Humans would have no characteristics. These traits were usually characterized as a stick figure and therefore took the form of a man. However, time-geography developed and offered an alternative perspective that instead highlighted gender balance. The body itself became an important component in the understanding of time-geography and provided an understanding of how time and space interacted and set limits on people's agency. Initially, time-geography perspective also saw productive activities in space, therefore it also put a lot of focus on non-productive activities which gave way to leisure activities. It thus became natural to integrate the gender perspective within the time-geographic analysis. When the body itself became visible within a field of study, one could identify female and male bodies' spaces of action (Forsberg, 2003). In addition, Scholten et. al. (2012) also believes that time-geography should have a gender perspective. When in Swedish context they mean that a gender analysis is important in every sector of the society. Hence, that build environment and transportation should have gender equality in considerations. Time-geography is embodied, meaning that mobility is conducted by bodily mobility. It is the body who sits in the car or on the bus, it is the body who carries bags, children or both and that the body is frequently contacted with a trolley, wheelchairs or other equipment (Scholten et. al., 2012).

3.5 Young old, old, and oldest old

3.5.1 History of elderly

In order to understand what elderly and older people mean in this paper, there is a need to clarify the definition of elderly, older people and aging. How age and aging are described today is rooted in history. Modern society is constantly evolving, and so is how old one gets and how one copes in society. This starting point and understanding is important when talking about age and aging in transport planning. Compared to the 19th century, people live twice as long today, which means that the older generation is both living longer and is a larger part and group in society than before (Levin, et. al., 2007).

Today, older people are often seen as a homogeneous group, with a chronological age range from 65 and upwards. There is a large group of people who will be considered elderly for a long time in their lives, and there are large variations in these groups as well. In transport planning it is not wrong to categorize different groups, as older people are considered and referred to as "older road users" and "older people's mobility", but it is important to understand the variation in that group as well. From the age of 65 upwards, i.e., between 20-30 years of life, a lot can happen. People may tend to become less mobile and thus limited, but there are also judgments that, due to different backgrounds, habits and life patterns, make a difference to how their mobility turns out with age (Levin, et. al., 2007).

3.5.2 Definition of elderly

Levin et. al. (2007) argues that both in Sweden and international older people are defined as "elderly" which is a problem considering that in practice it is a general term for all people aged 65 and over, and even if it is this group that is studied in this thesis, a clearer division of what elderly means is needed. In this paper the description of elderly will therefore be as follows; "young old" (from 65), "old old" (74-84) and lastly "oldest old" (from 85 and up). However, it is important to keep in mind that in transport planning, age per se is not important, but what is important is also to understand their abilities, needs and patterns of action in order to plan for improvement in long-term transport planning (Levin, et. al., 2007).

However, despite the problem of using only one word to cover a heterogeneous group, it is still necessary in this thesis. In the analysis and results part, the researcher will need to be clear about the age of the elderly. However, throughout the paper as a whole, the word elderly will still be used to make the text easy to follow.

3.6 Summary and use of the theoretical framework

Below is a brief summary of the theoretical framework that will be used and the nature of the use of each concept and theory in the thesis.

Table 1. *Summary of the theoretical framework.*

The Activity approach	The activity approach allows the researcher to examine how the respondents reason about their travel on an individual level, but also on their surroundings and to what geographical extent and how the desire or need to go somewhere and how these may differ in the choice of transport.
The Capability approach	The capability approach is used to examine elderly's freedom to achieve well-being, and to understand well-being in terms of the person's capabilities and functions.
Gender perspective	The study applies a gender perspective to analyze if there are differences between the male and female respondents on how they view their own mobility.
Time geography and everyday life	Time geography helps explain how projects are achieved by individuals and how they may face constraints, as well as helps understand the capability approach. The definition of everyday life used in the thesis also has a time-geographical origin.
Old, Older Old, Oldest Old	Provides a brief explanation of what is meant by elderly in this thesis. Elderly is a heterogeneous group and therefore different age ranges are clarified. However, the choice behind using the term elderly throughout the thesis is still justified.

4
Methodology

This chapter delineates how the study was conducted in terms of research design, data collection, data analysis and research quality. The chapter also includes reflections on chosen methodology.

4.1 Research design

To answer the research questions in a desirable manner a qualitative approach was chosen. This was motivated by the research questions focusing on rich descriptions of a specific group regarding their feelings and perceptions. More specifically elderly's perception of their everyday travel behavior, and to understand the "how" and "why" rather than describe extensive patterns in a bigger context and the effects of these (Bryman & Bell, 2019; Røe, 2000). A quantitative approach would not be suitable in this study since the research aimed not to collect numerical data nor test existing theory through a hypothesis by using a deductive approach. The goal for this thesis is to have an inductive approach to contribute with new theory and the researcher seeks to understand elderly's perceptions through their eyes (Bryman & Bell, 2019).

Advantages of qualitative research is their flexibility, natural settings, meaningful insights and generation of new ideas. Some disadvantages that are important to be aware of are subjectivity, limited generalizability and labor-intensive. Furthermore, a qualitative data collection of in-depth interviews was chosen to find new knowledge about elderlies' thoughts on future everyday travel behavior that does not occur in already existing academic literature and research (Bryman & Bell, 2019). Qualitative research is of great interest to apply into transport geography since they are necessary to understand effects at an overall level, and more qualitative research is needed that seeks explanations of the motives behind everyday mobility. Urban environment is perceived differently by different people and thus also provides explanations for how people view their own everyday travel in different ways (Røe, 2000).

Furthermore, this thesis adopted a case study research design. A case study is characterized by providing a qualitative, in-depth and intensive analysis of a single case. Today, case study can be almost anything, such as a company, a school, a family, or an organization, among others. A case study is therefore suitable when there is a clear object of interest that a researcher would like to delve into, in this specific case, it is to delve into the future travel behavior of elderly citizens as

an effect of the pandemic. Gathering in-depth data on a single case unique to its time and place is of great value when it comes to this type of qualitative approach (Bryman & Bell, 2019).

4.2 Data collection

4.2.1 Semi-structured interviews

Data collection was conducted through qualitative semi-structured interviews with twelve elderly people between 66 to 91 years old, both women and men. Sampling strategy and method are explained in section 4.2.2. In qualitative research the most common data collection is done by conducting interviews (Bryman & Bell, 2019). In this study, the empirical data was collected through twelve semi-structured interviews, evenly distributed between women (6) and men (6), all residents in Gothenburg, all interviews collected in a period of three weeks. Semi-structured interviews are good for keeping a certain structure with prepared questions (an interview guide) that have a clear topic but at the same time the interviewee is relatively free to decide how he/she wants to answer the question. It may be that the questions are not followed in the exact order that the interview guide is structured, which is fine. Semi-structured interviewing is considered to be very flexible, which is appropriate in this study (Bryman & Bell, 2019). Since the paper has a clear theme, the interview structure benefits from being somewhat structured with open to change, even though the respondents are individuals with different backgrounds and experiences.

During the creation of the interview guide, there are certain things to think about. It is important to have a certain kind of sequential order of questions and themes so that the answers will also be easier to clarify and thematize. The questions in the interview guide should also be formulated in such a way that they can be easily answered to the research questions of the study. In addition, the language should be simple and understandable to the respondent in question. One of the most important things to keep in mind when creating the interview guide and conducting the interview is not to have leading questions or avoid questions that could give the respondent a chance to only say yes or no (Bryman & Bell, 2019). The interview guide was designed in a way where the themes were clearly set in the different parts and where the questions in each theme were based on concepts from the chosen theoretical framework. For example, the question "Did you travel differently depending on the activity or place you were going to?" was based on the activity approach and the understanding of time geography, and the question "Why was your primary travel choice the best option for you?" was based on the capability approach, which provides an understanding of how and why different modes of transport work for elderly people in their everyday travel related to the theoretical framework (See appendix 3).

4.2.2 Selection of respondents

In order to select specific people to interview, a survey was carried out with questions about age, gender, living situation, access to a car or not, if the person has changed their travel behavior during the pandemic and if so in which ways and lastly, how near their closest grocery store is. A question about willingness to be interviewed was also included (See appendix 2). The researcher also clearly informed about being fully vaccinated and thus was flexible with being seen outside at the respondents' home or over the phone/zoom when conducting the interview. In order to receive help to distribute the survey to potential respondents, the City of Gothenburg (Göteborg Stad) was contacted, and communication was established with Johanna Bratthammar, Elderly Consultant, as well as Emma Matson, Development Manager Age-friendly Gothenburg (See appendix 1).

In order to nuance the results, a diverse group of respondents was chosen, especially in terms of age, gender and geographic scope. Of the respondents who answered the survey, only seven did not have access to a car. In a future study, one could have gone deeper on differences in car users or not, but it was therefore not possible here to the same extent. Therefore, a majority of this thesis respondents has access to a car, only two respondents do not, which are both women. Using the questionnaire, it was possible to handpick twelve respondents to conduct in-depth interviews. There were a total of 26 answers from the questionnaire survey, 21 women and five men. The women were selected by having a geographical spread and age, there were for example 10 who lived around Hisingen, Lundby and to spread the respondents geographically it was mainly based on that. There were only seven women in the survey who did not have a car and it was also from them the researcher tried to look at geographical spread as well as age when the researcher selected the two women who did not have a car. There was one woman who was 85 years old and a woman who was 91 years old, and these were the oldest women who wanted to participate and there was great value in having them in the study.

Three male respondents were found using the snowball sampling. This was done by informing the first respondents to be interviewed that not as many men wanted to be interviewed. Snowball sampling works in the way that a group of people are informed about the study and are asked to spread the word to other people who would be relevant to volunteer (Bryman & Bell, 2019). As some of the elderly people who was contacted by Emma Matson and Johanna Bratthammar come across a bit hard to get a hold on, snowball sampling was therefore a necessary and useful method to use as elderly people are likely to know other elderly people in their surroundings that the researcher would not be able to reach on their own.

Furthermore, it is sufficient to note that the participants in the study during an interview are not influenced in any way by their participation (Bryman & Bell, 2019). Therefore, the researcher has taken great care to ensure that this is the case. The interviewees chose to be interviewed themselves and they are aware that their responses are presented as anonymous. Finally, all recordings of the interviews are to be deleted after the thesis is completed.

4.2.3 Interview set-up

A pilot interview was held by the interviewer to test the selected themes and questions on someone who could be resembling the actual respondents in the study.

The interview guide and all interviews were conducted in Swedish as all respondents were Swedish speaking. The researcher conducted the interviews either in person or over the phone. Things that are important to consider before conducting an interview include being well-informed about the questions that are to be asked and what the purpose of the interview is. Another thing is to have a reliable recording device, therefore in this thesis the researcher's mobile phone was used which had the free app "voice memon" in it. It is also important to consider sitting at a location and conducting the interview where it is relatively quiet (Bryman & Bell, 2019), i.e., not a café or a place where lots of other voices could be brought up by the “voice memon”. Therefore, places such as cafes were avoided. Although the restrictions on the corona pandemic have been removed, it was important for both the researcher and respondents to respect the spread of infection that still exists.

According to Bryman and Bell, there are both advantages and disadvantages to conducting an interview over the phone or meeting face-to-face. Telephone interviews are both cheaper and quicker, the researcher avoids travel time and travel costs. Telephone interviews can reduce some bias that may come, either from the interviewer or the interviewee (such as gender and ethnicity), as these things cannot be seen over the phone. Face-to-face interviews can be an advantage to those who hear less well, as for example the older generation may do, as audio from the phone may be worse. As a general rule, telephone interviews do not tend to last as long as a face-to-face interview (Bryman & Bell, 2019), however, in this study this was not a problem. Perhaps the most common advantage of face-to-face interviews is that the interviewer can study body language and facial expressions that cannot otherwise be read over the phone. However, this must not be considered necessary but still good to have in mind (Bryman & Bell, 2019). The interviews were evenly distributed between digital or physical. There was no direct difference in whether the interviews were conducted digitally or physically. There was longer interaction with those the

researcher met with physically which makes sense as the majority invited the researcher into their own homes. Interviews ranged from 25 minutes up to 50 minutes in length. The longest interviews were those that were conducted face-to-face.

With respondents' approval for recording, this was followed by transcription of all recorded material. Not needing to take comprehensive notes during the course of the interview allowed for full focus on the respondents during the interview (Bryman & Bell, 2019).

4.3 Presentation of respondents

The respondents of the study, six women and six men in the age range 66 to 91 years old all live in Gothenburg. This section will present the respondents gender, age, where they live, how they live, if they own a car or not and how close they have to their nearest grocery store, as a measure of service provision in their neighborhood. Respondents will be presented in the results and analysis section as woman or man and with their age. Their names will not be mentioned under any circumstances.

Table 2. *Presentation of respondents.*

Gender	Age	Location	Access to a car	Accommodation	Nearest grocery store
Woman	91	Biskopsgården	No	Apartment	1,5 Kilometer
Woman	85	Kålltorp	No	Apartment	1 Kilometer
Woman	82	Hisings-Backa	Yes	Apartment	1 Kilometer
Woman	79	Fiskebäck	Yes	Apartment	500 Meter
Woman	70	Haga	Yes	Apartment	500 Meter
Woman	67	Lundby	Yes	Apartment	1 Kilometer
Man	66	Stampen	Yes	Apartment	500 Meter
Man	73	Länsmansgården	Yes	Apartment	500 Meter
Man	74	Älvsborg	Yes	Townhouse	1 Kilometer
Man	78	Olivedal	Yes	Apartment	400 Meter
Man	78	Eriksberg	Yes	Apartment	2 Kilometer
Man	86	HisingsBacka	Yes	Townhouse	2,5 Kilometer

4.4 Data analysis

Data analysis is the essential part of the research (Bryman & Bell, 2019). A thematic analysis was used, which is appropriate considering that it helps to find hidden meanings and patterns from the respondents' answers. According to Braun and Clarke (2006) thematic analysis is one of the most common forms of analysis in qualitative research. Furthermore, thematic analysis is highlighted as a flexible analysis and the researcher can design the structure in a structured whey during the whole process (Braun & Clarke, 2006).

Coding was used to break down the collected data. This was done by separating the data found into different concepts and then grouping these into themes (See appendix 3). The concepts and themes were identified using the research questions of the study, the theoretical framework and literature review. The analysis and extraction of concepts and themes ongoing during the interviews that were held. This is because thematic analysis is characterized for being used throughout the process and it works as a moving tool, and due to new themes and concepts can emerge during the course of the interviews (Bryman & Bell, 2019; Miles & Huberman, 1994).

Table 3. *Example of color-coding concepts, themes and example quotes.*

Concept	Themes	Example quotes
Public transport	Before the covid-19 pandemic	*"I have traveled a lot by public transport when I've stayed here in Gothenburg because it's easier to get around by bus and tram"*
Bicycle	During The Covid-19 pandemic	*"I cycled a lot more"*
Sustainability	Future travel behavior	*"It feels very good not to burden the environment"*
Accessibility	Improvement in transport planning	*"[...] you can't travel during rush hour, but you have to adapt"*

Thematic analysis is both time-consuming and a complex tool that requires a lot of focus. The result of a solid effort can be expected to be good, but it can be difficult to achieve a sufficient result if there are shortcomings along the way and the risk of losing context of the empirics. An important thing to consider is when choosing one's codes and themes. When the themes and codes are chosen, there is always a risk that some information that is considered important will not be

included in the final result, this is something that Miles and Huberman (1994) criticize with thematic analysis. However, the researcher studied and reviewed the transcription numerous times. In addition, the color coding, themes, and concepts were well chosen by the researcher in collaboration with the supervisors and ensured that the overall context was not overseen. Themes and concepts were carefully selected based on the study's research questions, and the theoretical framework. Themes were built up in the way the interview guide was formed, i.e., a time before, during and after the pandemic and improvements in Gothenburg's infrastructure.

4.5 Research quality

In order to ensure that the chosen methodology for a thesis is accurate and credible, a clear presentation of the thesis' research quality is required. Bryman and Bell (2019) highlight how reliability and validity are two important criteria for establishing and assessing quality of a quantitative nature. However, some criticize that these two components are not sufficient to confirm the quality of *qualitative* data. Bryman and Bell therefore highlight and take inspiration from Guba and Lincoln (1994) highlighting the necessity of looking at qualitative data quality with completely new terms. Thus, the term *trustworthiness* is used which is based on four criteria: *credibility*, *transferability*, *dependability* and *confirmability*.

4.5.1 Credibility

Credibility refers to if the qualitative research is internally valid, and that different people may interpret the social world in different ways. Since there are numerous ways of experiencing a social context or event, the researcher must ensure that what is presented in the study is consistent with the people the researcher has chosen to study. The researcher is the one that is describing the respondents' thoughts and truths (Bryman & Bell, 2019). To increase the credibility in this study the respondents were told and confirmed that they were anonymous during the whole process and while presented in the thesis. When being told to be anonymous the willingness of telling more gripping information and sharing their true subjective thoughts could come across during the interviews (Bryman & Bell, 2019). The researcher also ensured that there was the possibility of being contacted afterwards by email if the respondent had further questions or concerns or anything they wanted to add to their answers.

4.5.2 Transferability

Transferability refers to what extent the research design and/or if the findings of the research can be applicable in other terms of contexts (i.e., people, time or places). When gaining rich, detailed accounts of a group's experiences it can provide the possibility to transfer this detailed

information onto other milieus (Bryman & Bell, 2019). In this thesis it should be possible to see the outcomes in a wider context. However, drawing generalizations on qualitative thesis can always be difficult. Bryman and Bell argue, among other things, that it is very rare to take a case study and apply it to other places, but the research can exist as an understanding and still from certain perspectives draw conclusions from a larger perspective. In this study twelve elderly women and men have been interviewed, and they have contributed to gain greater understanding of how elderly reason about their future travel and thoughts and learnings about what could make transport planning to meet elderly citizens' needs.

4.5.3 Dependability

Dependability refers to the extent of the research findings' is consistent over time and under different conditions (Bryman & Bell, 2019). Furthermore, Bryman and Bell (2019) again refer to Guba and Lincoln who describe that an "auditing" approach should be used during the research process. This to complete records of the research process and also ensure that the records are accessible. Even though they do describe it as a rewarding method it is still not used that much in qualitative research. Since a social setting is of constant change it can be difficult to ensure that equal findings could be found again if the research were to be conducted again (Bryman & Bell, 2019). In this thesis, however, the dependability is achieved by keeping records of different phases of the data collection and analysis, such as selection of respondents, development of survey and interview guide, interview transcription and data analysis. The researcher has also conducted a diary of every supervisor meeting.

4.5.4 Confirmability

Confirmability refers to ensuring that the researcher has acted in good faith. In other words, the researcher have made sure that their own values and theoretical inclinations have not intruded in a high degree of the research (Bryman & Bell, 2019). To increase the confirmability in this thesis, the researcher has been clear in informing the respondents of their rights to remain anonymous throughout the process. The researcher has also had constant follow up with their supervisors to confirm that the chosen theoretical framework and previous research is relevant to the study. As a person, one is always colored by their different backgrounds and experiences, which can also affect one's analysis of a study. However, the researcher's ambition has consistently been to work objectively and openly with new incentives throughout the thesis.

4.6 Reflections on chosen methodology

One can always question whether recruiting respondents is the best way, no matter what it is about. One method that was widely used in the past was to go out on the street and recruit people directly on the spot, but that may not always be considered as effective, especially when there is a pandemic in the world. Digital means are therefore both more convenient and timesaving, not least during a limited period of the thesis as in this case. However, it may mean that the recruitment of respondents has been done in a way where only a certain group has been reached, partly those who are digital per se, and thus may be considered a group that can easily follow developments related to transport infrastructure, but also that the people who were recruited in this thesis are people who are involved in activities or organizations and call themselves future developers or want to contribute to an age-friendly Gothenburg. Therefore, these respondents can be considered to have a certain bias.

During the course of the thesis, the researcher has encountered other researchers and read older thesis's who use time diaries where respondents/participants are given the opportunity to write down how they travel, how the trip is experienced and thoughts about their travel, which can then be used as a complement to qualitative interviews. This is to get to know the respondents better and to have the opportunity to make an even deeper analysis on the respondents. Time diaries are something that is often used in qualitative interviews, not least when one applies time geography in their analysis to understand how the individual moves in time and space (Scholten, et. al., 2012). However, this was something that the researcher chose not to do. This is something that could be criticized and could weaken the study. However, it is a lesson the researcher will take into future studies.

The geographical scope of this type of study and context can play a major role, in relation to economic circumstances and how people have chosen to live their lives. Therefore, to understand whether it might differ in different places in Gothenburg, a study could have been done on a specific geographical area, such as Lundby, and a more central one in Gothenburg, such as Haga, and a comparative study could have been done. However, in this study this was not considered the most important thing, but rather to understand the whole picture/Gothenburg of how elderly people reason in their everyday travels. However, this study can serve as a complement to other geographically focused future studies.

5
Results

This chapter presents the thesis empirical results and findings based on the conducted interviews. The results are presented based on the structure of the interview guide in order to easily follow the respondents' thoughts and experiences of their own travel before, during and after the pandemic, as well as their thoughts on Gothenburg's infrastructure.

5.1 Everyday travel before and during the pandemic

5.1.1 Introduction

Travel and travel choices have differed greatly from before the pandemic and during the pandemic. This section presents which modes of travel have predominated during which time periods, before and during the pandemic, as well as perceptions and feelings about traveling by the different modes. Factors such as economy, environment and access to a car or not are presented with reference to the time-geographic and capability approach theoretical frame of reference.

5.1.2 Public transport most used before pandemic

Before the pandemic, public transport, walking and cycling were dominating among respondents. This is partly due to public transport being free for pensioners during certain designated times which is during off-peak hours: weekdays 08.30-15.00 and 18.00-06.00 and around the clock on weekends and public holidays.

> *"[...] Public transport is free. On the other hand, I think I said at home that it is fantastic that we have public transport in Gothenburg with buses and trams everywhere, so that it really does run, 24 hours a day, all year round, and we have the privilege of traveling for free during the day, which is not to be despised."* Man, 78 years old

The choice of means of transport depends on the activity and the proximity to the activity. One of the respondents describes that the car has always been the main form of transportation. The reason for this is mainly because of the convenience through coupling constraints and the fact that one does not have to adapt to specific travel times. Taking the car into central Gothenburg is

considered problematic and difficult and is usually not an option as it creates constraints, according to all respondents owning a car. In this case, public transport or walking and cycling works better and more conveniently. When it comes to doing activities or visiting friends in the city, taking public transport, or cycling, is the preferred option in most cases. If the car is necessary to take, it is done by driving the car to nearby parking close to the city center and then walking into the city.

> *"I do not take the car downtown, it is crazy."* Woman, 67 years old

> *"Well, Gothenburg is really good at getting people not to drive by digging up half the city and changing from one day to the next, so that it is just as well to leave the car at home, he he."* Man, 78 years old

Furthermore, sometimes the car can contribute to everyday life when public transport, walking and cycling cannot. Nine out of ten respondents who own a car consider the car to be a good complement to public transport, walking and cycling when shopping for food for the week. However, one of the respondents says that the bicycle together with public transport is her primary means of transport and that it works very well to shop for the week and hang the bag of groceries on the bicycle. She emphasizes the gratitude of living centrally in Haga and therefore she finds everyday life flows well thanks to her bicycle and the physical activity that the bicycle contributes to. The car serves as a complement to be able to travel and visit grandchildren outside Gothenburg.

Reasons for not owning a car are primarily based on health, abilities and accessibility to the city. The two respondents who do not own a car have voluntarily chosen to either decline to continue driving or have deliberately given up the car as it felt that it was of no use, it just stood there and withdrew money. The woman who did not want to renew her driving license has a neurological disorder that causes her legs to cramp, and she no longer wanted to drive, which she had not done for almost 15 years. Instead, the flex line and her son, who owns a car, have helped her with trips and activities when public transport has not matched her needs.

> *"The traffic (public transport) is so good here that I did not need a car, it was a relief to get rid of it, ha ha."* Woman, 91 years old

The four respondents who cycle occasionally, or more often, have in common that they live relatively centrally in Gothenburg and find it relatively easy to cycle shorter distances. As soon as

they have to go to the outskirts of Gothenburg, they find it easier and more comfortable to take public transport or the car.

> *"To work, it was the bike, actually, partly because it was a good way to get exercise and it does not cost any money, and then it depends on what I am going to do and if I am going somewhere I have a car and then I go with it, if I am going to travel somewhere or if I am going shopping or whatever. It will be different at which stage or what I am going to do, so to speak."* Male 66 years old

5.1.3 Car most used during pandemic

As a result of the pandemic, some changes occurred for respondents. All twelve respondents have significantly reduced their travel during the pandemic. All car owners switched to driving, but doing so very few times, to get their errands done or to get out into nature. Some respondents stopped seeing people altogether and stayed at home most of the time. All twelve respondents stressed their respect for others and themselves regarding the pandemic and found it a worrying thought to be infected, even though the majority of respondents have had Covid-19. Respondents stressed both that the number of trips and activities undertaken has decreased a lot during the pandemic.

> S: How often did you use public transport during the pandemic? *"Very different, the activities have been down for long periods of time and then you have been isolated so you have been sitting at home, so it is very difficult to answer. During the pandemic, it could take a month before you were outside the door. But it has decreased a lot compared to before the pandemic."* Woman, 85 years old

> S: Has the pandemic affected your travel and everyday activities? *"No, but the thing is, we are partly association people, we have not been able to get together, there has been Zoom and that sort of thing, and I do not like it, I guess I am old-fashioned that way. But that activity has diminished. But it became a bit less frequent during the pandemic, as you come out. Sometimes we can go home and think, no, now we have to go out because we cannot just stay at home. But it has certainly had an impact."* Man, 86 years old

> *"I stopped using public transport completely, I did not go, I can almost say I did not use public transport for almost two years, not really but almost two years, and then I took the car, it is a bit sad but that is how it was. And many of my activities also stopped. I did not work out at the gym for the first 1.5 almost two years but I worked out at home. The*

choir stopped, all the other social activities, they disappeared. So there was not that much traveling anyway. It was grocery shopping, to the extent that it was done. There was nothing." Woman, 79 years old

Activities have decreased, but the majority of respondents stress the gratitude of being able to get out into nature using the car or just walking in the neighborhood. Some were able to see and get to know Gothenburg with new eyes.

"I have learned to walk with neighbors, and we go to different areas and so on, discovering areas of Gothenburg that I did not know existed, he he. But then I went there by car, and we walked, nordic walking has become very popular, I must say, because there have not been many meetings and the meetings we have had have been digital." Woman, 82 years old

S: Has the pandemic affected your travel and everyday activities? Did you travel as often as before the pandemic? *"Not quite as much because there were so many activities that were canceled that I could not go to. So, it was less. But I have replaced it with walks here in the surrounding area, we have so much forest."* Woman, 91 years old

Although the majority of respondents avoided public transport altogether during the pandemic, a few respondents said that they did used public transport occasionally, but not as often. The one woman who did not have a car did not let the pandemic stop her; she says that she always traveled when she wanted or needed to, but she was careful to keep her distance and use mouth protection and gloves. The other woman who did not have a car expressed gratitude for the flex line, even though she sometimes traveled with other people in the same car (flex line?), she was not worried about infection during the journey. One of the male respondents traveled with public transport occasionally, when needed, but was also careful to use mouth protection and keep his distance.

Respondents owning a car, perceived that the car provided a certain freedom. It has been a comfort to be able to travel by oneself and the person can decide who will be in the car. Not least during the pandemic, thanks to the car, respondents have been able to get out into nature and move around without feeling anxious, as they would have if they had had to be crowded onto a tram or bus. Some of the respondents also expressed their gratitude for having the health to still be able to drive.

The respondents not owning a car expressed that they may feel some limitation without a car, especially if they would like to go out into nature. Instead, the local area has come to matter more. However, one of the women who does not own a car expresses gratitude for not having to think about the costs of a car and that she is contributing to a sustainable environment by not driving. The other woman without a car does not always just feel constrained because she does not own a car, but rather that she does not always have the opportunity to carry out the activities she wants to. One example she mentions is that she does not go out very often when it is dark because she has difficulty with her eyesight and therefore, she travels mostly during the day, but this is not related to the pandemic nor the fact that she does not own a car, but rather due to her illness.

> *"Not just because I do not have a car but more because I am limited because I cannot always do everything I would like to, because, for example, in the evenings when it gets dark I am very afraid to go out, because I cannot see where I put my feet if you put it that way, so therefore it is mostly during the day that I move around. And I would maybe sometimes, I sit and look at courses when it comes, that it would be fun and go to a course or something, an evening or so, but no I do not."* Woman, 85 years old

5.2 Everyday travel as an effect of the pandemic

5.2.1 Introduction

This chapter presents the respondents' thoughts and opinions on how they want to travel as an effect of the pandemic and in the future in general. Thoughts on public transport, car, walking and cycling are highlighted in relation to economy, environmental and safety awareness.

5.2.2 Increase of public transport, walking and cycling after pandemic

Respondents changing their travel behavior during the pandemic from what it was before the pandemic (all but one) say that they want to go back to their normal everyday travel where public transport, walking and cycling are their primary means of transport compared to driving. One of the respondents who had a car as his primary travel choice both before and during the pandemic says that he will still choose the car as his first choice but if he is going into town, public transport is the best. Despite the costs associated with owning a car, he felt that the cost of the car did not matter much in the grand scheme of things.

> *"It is four kilometers here, yes you should do that (take public transport or walk) but then you think, it is down there (the car in the garage), it does not affect us one way or*

the other, it is cheaper with public transport, but it does not matter to me. There is a bit of shame there. But of course, the environmental perspective has to be taken into account, and there is the tram, the same with the bus, you have 50 people in a bus instead of going by yourself in a car. [...] Yes, more public transport to the city that was not done during the pandemic. But the car is our main means of transport, I will be honest and say that." Man, 73 years old

The main reason why public transport suits the majority of respondents is due to economic factors, that public transport is free some of the time during weekdays and all weekends, compared to the car which stands idle most of the time and only costs money. The majority of respondents also see that their choice of transport has an impact on the environment and believe that using public transport or cycling contributes to a better environment. Some of the respondents expressed that it was hard to have to take the car often during the pandemic, even if it was necessary and convenient, due to costs and because they contributed to emissions. Two of the respondents expressed that they have a hybrid or electric car which they think can be somewhat more positive than only gasoline powered cars. If they drive in the city, it usually runs on electricity which does not cause emissions.

"We use free public transport and that plays a role. As I said before, the pension is not so high anymore, so you think a bit more like that, because sure, free travel, no petrol costs, no parking costs, it does quite a lot in a day. A hundred or something, maybe even more." Man, 86 years old

The majority of respondents who want to return to public transport as their primary mode of travel express Gothenburg's convenient public transport system. They are grateful that as seniors they can travel for free and that they can get around Gothenburg thanks to all the good connections. Gothenburg's public transport also includes the boats across the river, Älvsnabben among others, to which some of the respondents expressed their gratitude. They consider it to be exclusive to travel across the river and, in addition, there are usually fewer people on these than on a tram or bus, which makes it feel safer, from an infectious disease perspective.

"I like public transport. Being able to walk to the bus stop right across the street makes it easier to relax, and I also like Älvsnabben. It is wonderful to go over water, it is exclusive. So it is a mixture. But I can say that we try to avoid lazy car rides." Man, 78 years old

Some of the respondents believe that it is important to maintain their health and therefore acknowledge that taking public transport means a few extra steps here and there. The movement they get in is necessary. Similarly, for those who cycle, it becomes a health issue where they are aware that they want to maintain their own health which they feel they get thanks to taking public transport or cycling.

> *"Since I live so centrally, I do a lot of cycling, because I also see part of the physical activity at my age. It is easy to get around because it is very flat here in my area (Haga), and I keep my body going, my skin."* Woman, 70 years old

Some of the respondents expressed that they can travel farther to achieve their goals. For example, one of the male respondents has chosen a health center that is across town from him as the health centers that were close to his residence did not match his needs. Another female respondent conducts yoga across the river and finds it works well to travel longer distances to reach her final goal. None of the respondents expressed thoughts that places were not accessible or difficult to get, meaning that it is possible to get around by public transport most of the time.

Traffic information is perceived as accessible when traveling with public transport and the respondents have no opinion when it comes to information in general, it is easily available on the internet or at the bus- or tram stops.

However, sometimes, choice of transport can shift between respondents depending on their perceived safety, where there is no increase in public transport. None of the respondents express direct feelings of unsafety related to traveling, however, some people avoid traveling at certain times of the day as well as the choice of means of transport for safety reasons. One respondent described that she and her friends appreciate taking earlier after-work trips than others might so that they can go home when it is still light out, and that there are cinemas during the day, for example. Another expresses that she appreciates public transport very much but feels safer in her car in the evening.

> *"I have used the bus and tram very, very much, but if I have been out in the evenings and needed to change to a tram or bus, I have often taken my car for safety or security reasons."* Woman, 82 years old

> *"When I meet someone, even before the pandemic, if you have been out for an After Work with me and some girls, then we go so we are in town at about four o'clock so we go home*

in good time before it gets dark and late because we think it is scary. We do not all live in the same place either, so we get off at different places and walk alone for the last bit. It is all part of the public transport system, it does not take me all the way home. I have to leave my car in the parking lot, but it is still closer. I would rather go during the day and do things during the day. And I know that more people appreciate the fact that you can see a film during the day, etc." Woman, 67 years old

None of the male respondents expressed that they feel unsafe, and some have not thought about it. One of the respondents may sometimes think that he may be at risk of being a third person, getting caught up in a violent crime or similar, but at the same time is not directly concerned about it. He has then chosen to take the bus instead of the tram since they have different ways to travel through the city and the bus feels safer.

"Actually, I'm not worried, but it is more uncomfortable if something happens. Not to me but, of course, then it is like this, but how often does it actually happen that a third person is hit, the violence that you are afraid of, happens to me as a third person, it is an accident. There is no greater chance to go out to be exposed to the violence that exists in society." Man, 73 years old

5.2.3 The car is necessary but cumbersome

All ten respondents who own a car agree that driving in central Gothenburg is neither fun nor easy. The majority of respondents highlight all the projects and excavations that are underway in Gothenburg, and while some understand why these constructions are being done, they feel that there should be better structure on how diversions of car traffic, for example, should be done in order to continue driving through the city. The majority of respondents who live on the outskirts of Gothenburg tend to drive around Gothenburg and park a bit outside the city center if they have errands in town and need the car. Those who live in central Gothenburg find it quite cumbersome and difficult to get out of the city mainly because of all the diversions that they feel change day by day.

While car owners say it is hard to drive in the city, they also understand that, and it makes them think twice before getting into the car to make an errand. They say that public transport usually works well. The car is a good help, especially when respondents go grocery shopping, as it is considered a hassle to carry grocery bags on public transport. On the other hand, the majority of respondents stress that owning a car is expensive and therefore they want to avoid driving too much as well, especially now that petrol prices are rising in line with inflation and war.

"[...] But if you look at all the costs of the car, it is almost always cheaper to go by public transport, I live at Hagen station, and if you go shopping I take the car, it's 3km to Frölunda Torg, when we grocery shop we shop a lot so it is by car, but otherwise we have a decent bus connection there." Man, 74 years old

5.3 Thoughts on how to improve transport planning

5.3.1 Introduction

A concluding question in the interview guide was asked about ideas for improvements in Gothenburgs' transport planning. The focus was on improvements in public transport, walking and cycling. It is clear that the car is necessary for the elderly but not the primary means of transport in everyday life. Desires around transportation planning indicate both opportunities and constraints of the elderly as well as the right and accessibility to the city.

5.3.2 Public transport

The majority of respondents think that public transport works well and is well adapted for an elderly group. In Gothenburg, there are both old trams and brand-new trams. The old carriages are something that several respondents point out should disappear. Even if they have a certain charm, the steps and the doors that do not open by themselves can be problematic sometimes. In the case of buses, the elevated steps to the seats are one thing one of the respondents' comments on, when asked about not taking the bus as much as the tram.

"Trams work well for me, especially now that the old trams are being phased out, because I do not want to walk up the high steps, so the new carriages you just walk straight in, it works very well. Buses, on the other hand, I have not traveled with for years, actually, and that has to do with the fact that they do have low floors inside, but usually there are steps up to the seats and so on, and then I find it a bit difficult, so in that way I have not traveled with bus for years." Woman, 85 years old

One man expresses his opinion on how bus drivers behave in traffic. He thinks many are bad at respecting those who are going to travel. He says he understands that the bus has time to spare but sometimes they close the doors even though one can clearly see that a person is running towards the bus. Moreover, the bus driver closes the doors when people get on, especially the elderly who may not be as quick as younger people to get on or those who are looking for a handle

on the bus to get help when they get on. But also helping out when something happens on the bus, he doesn't always think bus drivers help out as much as he feels they should if someone gets hurt. However, he wants to stress that many bus drivers are therefore very good at their job and believes that others should follow suit.

Even if public transport is perceived as good in itself, some respondents wish that the walking distance to the nearest bus stop could have been made more pleasant with, for example, more park benches. This allows many of the elderly people who walk to and from their stop to rest occasionally, especially for those who do not have their own walker.

> *"What I think about is that sometimes when I walk to my bus stop which takes approximately 5-7 minutes, there is not a single opportunity to sit and rest, not to sit down. I have been working with the talkative park benches or park benches. I am sure there are more places like that, people who walk and get around might need to sit down sometimes to walk a little further."* Woman, 79 years old

Although all twelve respondents find traveling by public transport convenient for themselves, they guess that other elderly people may find public transport difficult or cumbersome and therefore do not use it as often as they could and should, especially since it is free during the day. They suspect that information is not getting out to everyone that public transport in Gothenburg is actually free at certain times. But also, that not everyone understands and knows how paying for a trip works. Some criticism can be directed at apps and other digital means that may not always be understood or accessed by all elderly people. However, all respondents admit that regardless of the digital app or loaded card, it works fine for them.

> *"But I think it might have to do with aging as such [...] It can have an impact. That it would be cumbersome, that could be a factor, but I do not know. It has been criticized for things like apps and so on."* Man, 78 years old

When respondents were asked to think about how they think more elderly people in Gothenburg would like to travel more sustainably, whether by public transport or walking and cycling, one respondent suggested offering free travel weeks, where one gets information about places one can travel to and the different carriages and buses available and where they take you, so that one can get out and test how it actually works. Indeed, some respondents believe that there are those people who are afraid to try something new, especially those who rarely travel by public transport and may be more used to or have grown up with a car.

5.3.3 Walking and cycling infrastructure

The majority of all respondents believe that walking and cycling infrastructure needs to be improved. Today, many walking and cycling routes are perceived as unsafe according to the respondents, and in particular because almost all respondents feel that people cycle fast on the roads. One respondent feels that Gothenburg's walking and cycling routes are adapted for a younger generation and that people go fast and rough on the roads.

> *"I think that is one of the big issues, unfortunately, I always say, you young people have to understand that there is an older generation too. A lot of people forget that in their planning. Our generation has a different upbringing, new things come along and it is not always us oldsters who keep up."* Woman, 85 years old

> *"I think you have to look at the cycle paths and lanes in the city, make them wider, I think a lot of us seniors feel almost scared to go out on the lanes with the hard and high speeds, I am just saying. There is, uh, some risk of injury when you go out there. Safer bike lanes, wider, and maybe what they have in Copenhagen, fast bike lanes. There is a big fear of getting hit, so it is hard to get more people to cycle."* Woman, 70 years old

Some of the respondents who live on the outskirts of Gothenburg notice that pedestrian and bicycle lanes are becoming narrower and merging in some places, and cyclists are perceived to be coming at a tremendous speed. It can also be difficult for the pedestrians who meet, if for example a cyclist, a person with a stroller and a person with a walker come at the same time, it can be crowded.

Some respondents feel that bicycle traffic is the priority in Gothenburg and that pedestrians end up in the background. For example, there are often narrow sidewalks in some places, but also that, snow ploughs plow up the snow on the sidewalks instead of elsewhere, just to increase accessibility for cyclists. As a result, pedestrians find it more difficult to get around or have to walk in the cycle lane, making it even more crowded.

The respondents who cycle think that construction mainly affects the cycling experience. They wish there were more clear signs about what applies at different areas and indicate clear diversions of cycle routes. Some have had to leave their bikes at home because they know that there is a lot of construction in certain areas and therefore find it unsafe to take their bikes.

> *"I have in mind, around the center and the bridges, it varies from day to day, there is not a single sign. Yesterday I was going to cycle, cycle from Gustav Adolfs torg to Nordstan, then I had to cycle one way through the car park to get to the other side of Nordstan. There was only a stop, no sign, there was an old man who said stop, you have to cycle through the garage. Ah, thank you. Keep to the right so you do not get hit by the cars, he told me. It is not a bit like that, it is all the time."* Man, 66 years old

Some respondents expressed that they had stopped cycling a few years ago, partly because they felt they were no longer old enough, that their balance and reactions were deteriorating, but also that cycling traffic had become increasingly tough over time and that this was also a factor in stopping cycling. Numerous of the respondents believe that one of the solutions to getting more elderly people to walk and cycle in Gothenburg is to start doing so at an early age and gain confidence in traffic. That one has to maintain one's cycling otherwise it can become more difficult over time.

One of the respondents who cycles several times a week understands why the cycle paths in Gothenburg have received a lot of criticism but thinks that because he is so used to cycling himself, he thinks it works well for him.

> *"They scold us cyclists for cycling too fast, and Gothenburg has received a lot of criticism for its cycle paths, ah I do not know what to say, if you are a real road cyclist you do not cycle on cycle paths, you cycle on the street. Honking cars in. That is how it is. Just because we drive fast. I think there are good cycle paths, but there are some things that need to be fixed. But in principle very good. [...] It is in the soul of cycling, attitudes."* Man, 78 years old

One of the male respondents has worked with public transport issues himself during his working life and he believes that an incredible amount is invested in cycling in Gothenburg, to the extent that walking is neglected or not prioritized in the same way. He does not think it is wrong to invest in cycling in Gothenburg, but believes that pedestrians are under-prioritized. For example, he says that people who drive a car or take public transport also walk a lot, to and from stops, to and from car parks or around the city, and therefore pedestrians should also be prioritized. He also argues that this is a public health issue because, as well as cycling, pedestrians should be encouraged to keep walking and the infrastructure must also be conducive to this in a convenient and accessible way. He thinks that public transport almost always benefits the elderly, apart from the older

trams, but that cycling is geared to a younger generation where many people cycle fast and do not always know how to ride.

The majority of respondents consider electric park bikes in Gothenburg to be a problem. Firstly, when young people drive them, often irresponsibly, fast and furiously in the middle of the city. Secondly, that they are parked anywhere and sometimes litter. None of the elderly ride these electric park bikes and would never stand on one either.

5.4 Summary of empirical findings

A vast majority of respondents (all but one) used public transport as their primary mode of transport before the pandemic, and for some, cycling was a good complement to public transport. One respondent had a car as his primary mode of transport. During the pandemic, all car owners switched to driving the car almost entirely, which no one really appreciated. The two who did not have a car traveled significantly less, one used the flexi line more and the other traveled with caution by public transport. All but one respondent expressed that they would like to go back to the way they traveled before the pandemic, i.e., with public transport as their primary mode of transport and cycling as secondary, for those who do cycle, and they expressed their gratitude for the fact that public transport is free during generous daytime hours.

All respondents have more or less in common that they find Gothenburg's infrastructure for walking and cycling to be difficult, unsafe and cumbersome, which has resulted in several respondents stopping cycling, perhaps sooner than they would have liked. The solutions respondents see to this include widening walking and cycling routes and making the roads clearer with signs and directions. In order for more elderly people to also choose public transport over the car, numerous of the respondents believe that elderly people need to be given the opportunity to try riding for free and to be given clear information about how convenient public transport can be if they are given the chance to learn it. Respondents believe that many may think that public transport is perceived as cumbersome when it is not, if one would try it.

6
Analysis

This chapter discusses how results can be understood based on the previous research and the thesis' theoretical framework.

6.1 Capabilities and constraints in everyday life

The empirical results illustrate that the capability approach is a key concept. Mobility can be understood in terms of being a tool to achieve something one wants to do, based on what one can do. This study illustrates how elderly people are a heterogeneous group with different capabilities to carry out different activities in their daily lives. Before the pandemic, it was clear from respondents that a good everyday life was accessible and everyday travel was working well. However, there was a turnaround during the pandemic, with everyday life becoming greyer. For the majority of respondents, it did not become directly difficult to achieve a functioning everyday life, but it was perceived to be just greyer and more different than before. Ellergård (2019) and Åquist (2001) discuss how projects can be a way to achieve different types of goals in life, where the right to be able to move without any constraints becomes clear. The results of the pandemic show that the mobility of the elderly changed, where there was a reduction in both traveling and carrying out activities. However, this turnaround during the pandemic is something the respondents do not express as a direct problem but see that they will be able to return to their previous everyday life where joy and satisfaction again exist (Ellergård, 2019: Åquist, 2001).

Respondents in this study say they are satisfied with the way their everyday travel was before the pandemic and how it will be in the future, not least when it comes to public transport. Most often, it is the bus and tram that contribute to the elderly people feeling that everyday life is accessible as they feel that they can gain everyday activities (Åquist, 2001) and that they have the capability to do various things. During the pandemic, it was the car that took this role, for the majority of respondents. The two who did not have a car felt that, despite the pandemic, they were able to travel and move around the city, albeit by other means, however, there was some respondents who expressed that even though they could travel it was not that gainful employment as when not in a pandemic since life as it was came with restrictions. Robeyns (2003) discusses conversion factors which are personal, social and environmental characteristics. These three factors explain how one achieves functions to do things in everyday life, and in this case primarily mobility.

Elderly people, who are a heterogeneous group, have these factors, though in different ways. The study shows how the elderly have different types of personal characteristics, such as some not reflecting on their balance or ability to move while others see them as a factor to no longer riding a bike or driving a car. Personal characteristics have a strong correlation with capability constraints since it means that the constraints could differ depending on individual factors such as not being able to drive a car or cycle (Ellergård, 2019). Environmental characteristics are based on, among other things, the way the infrastructure is perceived and designed, which numerous elderly people in this study believe could be improved. Meaning that had Gothenburg's infrastructure been different and been planned for a wider group of people with different capabilities, this factor would have been strengthened among elderly people. Social characteristics, which are based on social norms and gender roles (Robeyns, 2003), do not show up as clearly in this study, more than that women and men reason differently in some respects, but not others.

Previous research described how the car is becoming a central part of elderly people's lives (Heikkinen & Henriksson, 2013), which is partly confirmed in this study. The car is not central to elderly people's lives but is necessary for many to carry out everyday tasks such as grocery shopping or driving longer distances to visit friends or family, both before, during and after the pandemic. However, the primary mode of travel is not the car, for the majority of respondents. The difference between function and capability stated by Robeyns (2003) can be seen in the material. Since functions means that one can transfer personal, social and environmental characteristics into everyday life, e.g physical condition, gender roles and infrastructure. As it is about looking at the person's functionalities rather than utility and shows a shift from the person's resources to their actual capabilities. For example, the elderly with cars were able to get around quickly and safely during the pandemic, while the two women who did not own cars were not able to, in the same amount. Instead, they were either forced to travel by public transport despite the fact that it was risky due to covid and something that was suggested not to, or got help from friends and family. However, this is not something they personally expressed as a problem, but still shows the differences behind the functions and capabilities elderly people may face.

Elderly people do not always have the same capability to carry out activities as other individuals do, perhaps not because of their age but rather because of health problems or general insecurity/anxiety, among other things. However, no one directly feels that they are unable to carry out activities, but rather that they have chosen other means of transport where they would actually have liked to carry out something else, such as taking the car during the pandemic or stopping cycling earlier than they would have liked. A large proportion of respondents say they

do not see any constraints in achieving a functional daily life based on their travel. However, there appears to be a big difference during the pandemic and before and after the pandemic. The car came to play a major role during the pandemic. But for most, no direct constraints emerged. A clear example that emerged during the pandemic was that one of the women who no longer drove, partly due to physical problems, had to rely on the flexi line, but also her son who drove. The coupling constraints become clear because she becomes dependent on someone else for her mobility (Ellegård, 2019). Previous research by Vilhelmson et. al., (2021) also shows that elderly people today are more active than previous generations. They care about their time-use and want to be active even in old age. In this study, numerous of the elderly people have in common that they expressed being active in different organizations and the like, partly because it is fun but also because they want to get out and be active. Productivity thus continues even in older age today compared to previous generations (Vilhelmson et. al., 2021).

Even if it is possible to detect a certain difference in the movement patterns of the younger elderly (old) compared to the older elderly (oldest old), for example that the younger elderly cycle to a greater extent than the older elderly does, they still express that they have more or less the same possibilities to achieve well-being and the activities they want to reach, they can reach a goal fulfillment. Sen (1995) confirms that the capability approach can be understood on the basis that it is not whether one has a driving license or not that determines whether one can get from place A to B but rather what opportunities and capabilities one must, in one's own way, get where one wants to go. The results of this study can thus be understood from Sens' theory that elderly people in Gothenburg feel that they can move around as they wish. This is particularly evident among women in this study who do not own a car, who are 85 and 91 years old, who do not feel limited because they no longer have a car, but other factors such as health or dependence on functioning public transport play a role, or through coupling constraints (Ellergård, 2019) where one uses their son to travel around the city. However, their movement patterns may sometimes be limited based on their capabilities and functions to walk or cycle, as several of the respondents emphasize that they no longer walk or cycle to the same extent as they use public transport. Partly because they do not feel they have the balance or capability to do so, but also because they do not feel they can cope with existing traffic where speeds are high and infrastructure is unclear, and where it perceives as the infrastructure is planned for a younger generation.

Even if the respondents in this study have not highlighted their own health as being poor, their thoughts on safer infrastructure could still contribute to more elderly people in the community wanting to cycle and walk more, with the subsequent increase in public health overall. None of the respondents who live a short distance from the center of Gothenburg cycle, but only those who

live in the center of Gothenburg (Haga, Linné, Stampen and Eriksberg) say that they cycle. It can be clearly shown how, for example, a man living in Hisings-Backa chooses to go to Askim because the health center there works better, and therefore needs to drive or take the bus to get there. He is one of those who stopped cycling a few years ago because he did not feel he had his balance left to cycle well and that the distance to achieve activities were too long for him to cycle. The study shows that central residents have another alternative to the car when they cannot take the bus or other public transport, which is to take advantage of the proximity. Frändberg et. al. (2005) highlights the importance of travel and activities based on environmental circumstances where in this case the neighborhood and accessibility to nearness came to matter more. The study shows that proximity and accessibility can differ depending on where one lives. The respondents all express that proximity has come to matter, not least during the pandemic. This proximity plays a different role for the elderly; if one lives in central Gothenburg, proximity and cycling have become important for getting around when public transport is no longer an option. The same is true for people living further out from the center of Gothenburg, who use their proximity instead of traveling longer distances when the bus or tram has no longer been an option.

Coupling constraints may take different forms in this study, as mentioned above, one woman used her son, who had access to a car, to help her when she could not take public transport or travel on the flex line during the pandemic. One of the male respondents who has a car as his primary mode of travel before, during and after the pandemic suggests that the main reason for this is the convenience of controlling his own time and between space. The coupling constraints he has to his car become considerably clear (Ellegård, 2019). Authority constraints do not take the same form as the other constraints do in this context. The elderly people in this study have no children of their own to care for, nor do they have anyone other than themselves (and perhaps significant others), which means that their authority constraint is not visible as the capability and coupling constraints become.

Overall, it appears that elderly people feel that they can travel and get around the city as they wish, mainly using public transport, car and bicycle, for some. However, Sens' (1995) theory clarifies the capability approach and the right to equal transport where social exclusion should not exist and where people's life course should be the focus. The study shows that elderly people are a group that is not always taken into the same consideration as other groups are and therefore somewhat restricted in their travel and choice of transport mode.

6.2 Gendered travel behavior

Gender aspects are not visible everywhere, but only in certain respects. There are some differences in the choice of means of transport, but they are not striking and may therefore be random, but are instead mainly visible in environmental awareness, and the perception of safety. Some spheres are gendered but others are not, or they are gendered to varying degrees. For example, the study shows that mobility patterns do not directly differ between women and men in terms of purpose of travel or distance. All respondents have similar mobility patterns between each other, such as explicitly not placing much value on the length or time of the trip but appreciating how smoothly public transport works.

Although it may be difficult to draw conclusions about gender based on twelve respondents, there are patterns indicating that female respondent's reason more highly about the environment than male respondents do. As Gil Solá (2013) and Balkmar (2012) discusses, means of transport are usually gendered in one way or another. In this case, even though ten out of twelve respondents have a driving license there is some difference in preferences and values that have an impact. This is based on the fact that all women in the study have in common that they reflect on the environment when choosing their means of transport and express that they like the idea of contributing to a better environment and cleaner air when traveling. As Dahl (2011) discusses where women as a group have greater potential than men to adapt based on ecological sustainable means of transport. On the other hand, the men differ in their thoughts about the environment, some of them saying that they think about it when choosing a means of transport and actively choose public transport over the car most of the time. While others either express that they do not think about it or, when asked about environmental awareness, express that they may think about it sometimes, such as choosing an electric car over a petrol-driven car.

Previous research by Levin et. al. (2007) suggests that elderly people are rarely a group at risk when it comes to traveling with public transport, but despite this, the importance of safety on public transport and in public spaces in general is still emphasized, not least for women. Studies show, among other things, that it is media updates about violence and other stories that make women in particular experience anxiety or fear in public spaces. Although no respondents in this study expressed direct insecurity on public transport, they described how their choice of transport and change of location could change depending on their perception of safety, due to the fact that they are women and know about women's vulnerability in society. Unlike the men in the study, who either do not reflect on their own safety or are aware that others may experience insecurity but have never considered that they themselves might be vulnerable, and therefore

never base their trips or travel choices on insecurity (Levin et. al., 2007). Not to be forgotten in gender research is that travel or choice of means of transport does not always have to be just gender-based but can also be based on intersectionality. Which is a collective term for power descriptions around age, gender, ethnicity, class etc. (De Los Reyes & Mulinari, 2005). Although none of the respondents expressed that their own age made them in any way vulnerable in traffic, many expressed a certain feeling that the older they get, the tougher it gets in traffic. Travel choices and locations may therefor change over time due to aging.

The material shows something that Larsson and Jalakas (2006) argue, as well as Hirdman (1993), is still evident in planning when gender analysis is not used: women and men are sometimes expected to be in different places and do different things and take up different occupations, partly based on norms, but also because that is the way it has always been. Women and men in this study, without reflecting on it themselves, choose different means of travel sometimes, which becomes most clear when the female respondents express that they avoid certain places, such as a bus or tram station that is perceived scary at a certain time and choose other means of transport due to feelings of insecurity. For example, the woman who chooses to take an early after work with her friends so it would not get dark when they are going home. Among other reasons, because of the norm, women know that they can be exposed to violence and men know that people are exposed but are not themselves afraid of being exposed, and therefore do not reflect on where they are, when they are there and which means of transport they use, to the same extent as women do. There may be some gender differences when it comes to mobility choice, i.e., a link to the choice of means of transport. The choice of means of transport was characterized by the fact that women and men make different choices in certain contexts, based primarily on environmental awareness and safety (Law, 1999).

7
Discussions and conclusions

This chapter discusses the results and analysis chapters and answers the research questions of the thesis. Furthermore, conclusions are given as well as a discussion on the need for future research about elderly people's travel.

7.1 How do elderly citizens of Gothenburg reason about their future everyday travel during and after the pandemic, and as an effect of the pandemic?

Elderly citizens in Gothenburg want to have public transport, walking and cycling as their future everyday travel. All respondents, except one, do not want the car to be the primary mode of transport in the future, instead they want public transport to come first and the car to be only an aid. One of the respondents is aware of free public transport but considers that the car works best for him both in terms of convenience but also because it is easy. Although elderly people are a heterogeneous group with different capabilities, the study suggests that the older they get, the less they can carry, for example when grocery shopping, the car is a good complement to other means of transport to avoid carrying too much. It is the same when the elderly must travel longer distances to visit friends and family. Being able to decide on the journey themselves and take their own breaks with the car makes it feel better and more convenient, which is evident both before, during and after the pandemic. On the other hand, age can also be an indicator of car abandonment due to impaired vision, limited mobility or reactivity that affect driving, showing that accessible, convenient and easy public transport is essential for many.

However, the material reveals that proximity during the pandemic has come to mean a lot. Whether it is people who have not had access to a car, who have used their local area more, or who, because of the pandemic, have started to drive more and have become aware of the need to travel a little further afield. Several respondents said that the car was convenient and fast in that way. The study also shows that travel is not always the primary means of achieving accessibility in everyday life. On the other hand, respondents stressed their disappointment at no longer being able to carry out various activities during the pandemic, such as traveling to see friends and family or finding other activities. As a result, the local area has come to mean much more to respondents.

On the other hand, elderly's use of walking and cycling infrastructure is not only about the supply of an infrastructure that is safe for the elderly, but also about the attitude of the elderly towards walking and cycling. The study shows that public transport is necessary and convenient for all respondents to carry out their most important chores, with the car as a complement. However, if more elderly people started cycling at an earlier age, or dared to cycle more at a later age, their perception of walking and cycling in Gothenburg might have been slightly different. Moreover, if the infrastructure is to be improved in the future, it is important that elderly people also feel confident in themselves and dare to start cycling more, or again since they last stopped.

7.2 Do women and men's views of everyday travel differ, and if so, how?

Women's and men's views on their future everyday travel are similar. Basically, respondents want to go back to the way things were before the pandemic and leave the car at home. Compared to previous research, which suggests that sustainable travel will decline and that more people will choose the car, these respondents contradict it. Those who no longer work still have activities, friends and businesses they want to visit on a daily basis and therefore will want to travel as before. Just as much and preferably just as often, and nothing differs between women and men in the bigger picture.

On the other hand, the study illustrates that women's and men's views on their travel differ in terms of concerns about environment and safety. In terms of environmental concern, women more vividly and often express that they think about the environment and like the idea of contributing to a better environment when they choose public transport over the car. Male respondents do not reflect on environmental issues to the same extent as female respondents. Some of the male respondents express that they do not think about the environment at all, however, when the question comes up some say that they know they are doing good in traveling by public transport. The aspect of safety was the one that differed most between women and men and how they make choices and think about their travel. Women avoid public transport at certain times, particularly in the evenings, and feel safer undertaking activities during the day, and traveling in the evenings may feel safer taking the car rather than having to change and wait at empty stops. Men, on the other hand, say they do not reflect on feeling unsafe in public spaces or when traveling, regardless of the mode of transport.

The study indicates that it is possible to see both differences and similarities in women's and men's thoughts about future travel. Therefore, it remains important to integrate gender into further transport planning.

7.3 What learnings could be drawn regarding adaptations of transport infrastructure, to meet elderly citizens' needs?

This study has given the respondents the opportunity to reflect on what can be improved for the elderly in Gothenburg and how the future everyday travel of the elderly can be all the more sustainable. Returning to the traffic strategy mentioned in the course of the paper, which describes what needs to change in the choice of transport modes to achieve the targets set for 2035 (Göteborg Stad, 2020) it appears that elderly people may not be fully included in the traffic strategy, as they may not fully have the capability to contribute since much focus is on, for example, cycling. As well as the fact that the need for travel may not be the same for elderly people as for other groups. Or the need is there but does not always look the same as for other people (e.g commute to work or school), which means that a deeper understanding of elderly people's travel choices and thoughts about travel is sufficient. Therefore, as an effect of the pandemic, it is sufficient to study how elderly people travel and want to travel, and which modes of transport work for them and which do not. Which could lead to elderly people having the same opportunity as other groups. This could partly be done by promoting walking and cycling, for example, by encouraging elderly people to cycle further into old age, rather than stopping earlier than desired, but also by creating safer and wider walking and cycling infrastructure. The car is necessary for certain special errands, and it was absolutely necessary to carry out various errands during the pandemic. However, there is a consistent emphasis throughout the study that elderly people perceive transport planning to be somewhat geared towards a younger generation or a generation who cycles a lot. This, with walking and cycling infrastructure in particular considered to be poor, due to respondents partly expressing that pedestrian and bicycle traffic is narrow and difficult to get around on, especially with people who have better balance driving very fast. As a result, those who cycle a lot also cycle very fast, and when the infrastructure is unclear with narrow roads, perhaps sometimes even a lack of clearer guidelines on what is a pedestrian or cycle path, both pedestrian and cycle paths are perceived as difficult to navigate for elderly people.

Finally, to keep in mind, these respondents are already very active in the community in that they cooperate with the City of Gothenburg (Göteborg Stad) in one way or another, which means that they are probably more aware of how public transport works and thinks it is important that elderly people also get out into the community.

The researcher, in consultation with COWI, has also had frequent discussions about how traffic planners work with similar issues such as planning for accessible pedestrian and cycle routes. Certain frameworks need to be taken into account and it appears, for example, that the focus is more on functional variations (such as visually impaired, hearing impaired, wheelchair users, etc.) and not age, which is difficult to determine whether it is right or wrong in the overall picture. The framework may need to be clarified in the future with regards to different age groups as well, in addition to functional variations.

7.4 Future research and conclusions

7.4.1 Future research

At the start of the thesis, the researcher had no perception on how elderly people generally travel, or what the differences or similarities might be in their choice of travel mode, pandemic or not. However, in this study, it has become clear that the respondents (all but one) travel most by public transport and therefore this mode of transport also receives a major focus throughout the thesis.

In a future research study on a similar topic, it would have been striking to do a quantitative study first and then, based on that, do an in-depth qualitative interview study that could work together as a mixed method research. This would have given the researcher the opportunity to reach out to a much larger group than at present. It is also possible to think about how one would reach out to the people who do not actually travel at all and find out why they do not travel. One can imagine that there are elderly people, and other groups as well, in society who, for various reasons, do not choose to move outside their home that much and do not have access to a computer or the internet and therefore are not included in this study at all. This means that people who did not have access to a computer or email were not able to participate. This could have been developed or improved for the next study to possibly go out into town and ask people who are on the move, however this was not something that was justified or was an option this time as the pandemic was still a fact.

Furthermore, in this study, no specific focus was chosen on whether or not people had a car, but this is something that could have been done in a future study. It was not possible for the researcher, based on the survey responses, to handpick respondents based on gender, age and geographic extent in addition to whether the respondent had a car or not. Therefore, this study is based on twelve respondents where ten have access to a car and two do not, who happened to be two women. Thus, the study could have had a different focus where, for example, one studied

differences in elderly people and their accessibility to the city depending on whether they have a car or not.

Finally, the results could differ depending on geographical location, since Gothenburg is a big city with good public transport the study could be seen as more needed for elderly living here rather than in smaller cities where public transport is not that evolved yet. Also, it would have been interesting to do a comparative study on Gothenburg and a city in another country similar to Gothenburg to investigate how transport planning takes a stand on an international level for elderly.

7.4.2 Conclusions

This thesis has studied elderly people's experience of everyday travel during and after the pandemic, and as an effect of the pandemic. Moreover, their opinions and thoughts about Gothenburg's infrastructure and made suggestions on how it can be improved. The study shows that elderly people want to go back to the way they traveled before the pandemic, compared to previous research that suggests some change where studies indicate that public transport will decrease (Västtrafik, 2020), not least for public transport travel to and from work. The fact that elderly people want to go back to their pre-pandemic 'usual' travel may mainly indicate that they do not have the same opportunity to do things from home as students and workers can do today, or at least this study shows that they do not want to stay at home too much. The pandemic has had the kind of effect on respondents that they understand the importance of how well and smoothly public transport works and learned that they want to continue to do so in the future, and not drive the car, or to be dependent on someone else, to the same extent as during the pandemic. In addition, elderly people have understood the importance of movement and travel during the pandemic and want to have the freedom to move as they want in the future. Furthermore, this study illustrates that women and men, in some cases, reason differently when it comes to themselves and their environment regarding transport, not least sustainable transport. The women in the study reflect on their environment, both on sustainability issues but also on the safety aspect for themselves, which the men in the study do not to the same extent.

The introduction presented the action plan 2021-2024 (Göteborg Stad, 2021) that has been launched to improve the lives of elderly people in Gothenburg. One of their main focuses is on mobility and hubs for elderly people. For example, the study indicates that walking and cycling are considered difficult and complicated for elderly people today, and the action plan is working to ensure that there is a clear and better integration between pedestrians and cyclists where they can move in the same places without there being any kind of conflict of interest. In addition, the

study confirms that more park benches in the city would be desirable and that space and width for pedestrians is of great importance. Furthermore, this study shows how important mobility is for elderly people and confirms that it needs to be easier and more accessible than it is today. In other words, this paper can contribute to the further action plan and their work to understand how elderly people reason about their travel on an in-depth level.

In conclusion, this study indicates that Gothenburg's infrastructure has potential for improvement, not least when it comes to walking and cycling paths. On the one hand, all people need to reflect on their surroundings and how they conduct themselves in traffic, but also the infrastructure needs to be clarified with signs, clear routes and comfortable surfaces and roads that make it accessible for more people to walk and cycle, especially for elderly people who can cycle further into life than some do today.

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Appendix

Appendix 1. Email sent out from Göteborg Stad to potential respondents

My name is Siri Antonsson, and I am a master student in Geography with a focus on Sustainable Urban Development at the University of Gothenburg. I am currently writing my master thesis on the future travel behavior of Gothenburg residents as an effect of the pandemic with a focus on elderly people (65+). I would therefore like to know a few things about you, and if you would be willing to do an interview with me. The questionnaire contains questions such as age, living situation, access to a car or not and if you would like to be interviewed for about 45 minutes.

All interviews are anonymous when presented in the report. If you would like to be interviewed, we can meet outdoors or indoors and at a distance or do the interview by phone or a digital meeting tool such as Zoom. You, the interviewee, choose what is best. The person interviewing you is fully vaccinated against Covid-19.

Click here to access the survey:
https://docs.google.com/forms/d/e/1FAIpQLSfMu2NYf8geIMaexEF5a4xhFWRZ-R279jhR3gRZUpavf2MVTg/viewform?usp=sf_link

Thank you for contributing!
Best regards,
Siri Antonsson

Appendix 2. Questionnaire survey

1. How old are you?

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2. Gender

- Man
- Woman
- Other
- Do not want to specify

3. Which district do you live in?

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4. What type of accommodation do you live in?

- Apartment
- Townhouse
- House
- Elderly care
- Other

5. Have you changed your use of transport during the pandemic? (Car, walking, cycle or public transport?

- Yes
- No

6. If yes, how? (Describe briefly)

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7. Do you have access to a car?

- Yes
- No

8. How close are you to the nearest supermarket? (Km)

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9. Would you be willing to do a short interview (about 45 minutes) about your travel behavior and how you think you will travel in the future after the pandemic?

- Yes
- No

10. How can I contact you?

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11. If there is any additional information you would like to provide, you can do so here:

Thank you for your answers!

Appendix 3. Interview guide

Formal questions	Is it okay if I record the interview? Is it okay if I use your answers in my study?	*General background information such as gender, age, living situation and whether the person has a car or not, I get through the questionnaire (pre-study).*
General information on everyday travel before the pandemic	What has been your most common way of traveling before the pandemic? Did you travel differently depending on the activity or place you were going to? How often did you travel by public transport before the pandemic? Why was your primary travel choice the best option for you?	*Walking, cycling, car or public transport* *(Or other means of transport depending on the respondent's answer above)*
General information on everyday travel during the pandemic	Has the pandemic affected your travel and everyday activities? What has been your most common way of traveling during the pandemic? Do you travel differently depending on the activity or	 *Walking, cycling, car or public transport*

	place you are going to? How often do you use public transport during the pandemic? Do you feel anxious about traveling during the pandemic?	*(Or other means of transport depending on the respondent's answer above)*
For those who do not have access to a car	Feeling limited without a car? Why/why not?	
For those who have access to a car	Do you feel a certain freedom with a car? Why/why not? Once the restrictions are lifted, will you want to change your current mode of travel?	*(Depending on what the respondent answered above) Why/why not?*
Changes	Have you made any changes during the pandemic when it comes to your everyday travel? You mentioned earlier that you did X and Y, have you made any more changes? Why did you make these changes? Was there a reason for them? How have these changes worked for you?	*What type? Why?*

Future everyday travel	What do you think your future looks like when it comes to your everyday travel, now that restrictions have disappeared? How often do you think you will use public transport/walk/cycle in the future? More/less compared to today? Do you have any suggestions on how you think more people, especially elderly people, would like to use public transport/walk/cycle more after the pandemic?	*Listen, think about what they said before, how can they develop their answer, do they have a car, economic factors, get along with everyday life, environmental perspective, safety perspective*
Is there anything you have thought of or would like to add? *Final comment*		