



# “I think it’s more women on buses but I haven’t thought about why”

*A qualitative study of public transport and its relation to gender equality in Västerbotten County*

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## **ABSTRACT**

As the population across the world steadily increases, we become more globalized and travel more extensively. This burdens the environment and causes a decrease in safety, and increases congestion and pollution in both rural and urban areas. It is therefore vital to reduce these impacts and thus encourage more sustainable transport solutions.

Studies show that men in general travel less sustainably than women, as they use cars for transportation more often. Women, however, use public transport to a greater extent. To be able to encourage a modal shift towards sustainable alternatives – thus creating an attractive public transport system for both women and men – it is essential to understand the underlying causes for these differences in attitudes and travel behaviour between men and women.

The purpose of this thesis is to examine gender equality in relation to public transport. More specifically, the thesis will investigate how focusing on gender issues is significant in order to create and develop a sustainable public transport system. The method for this thesis is based on interviews, in which both frequent and less frequent bus travellers have shared their current notions and perceptions on public transport. Part of the aim has been to identify any differences between men and women's answers and the way they discuss these issues.

Furthermore, thematic coding analysis was used to analyse the results that led to five different themes being identified as most frequently mentioned during the interviews. The results were subsequently put into context with related academic research concerning gender equality, mobility, transportation and sustainability. Conclusively, the results show that there are tendencies for gender inequality within public transport in Västerbotten, which is expressed in several different ways by the respondents.

**Keywords:** gender equality, public transport, sustainability, mobility, accessibility, travel patterns, Västerbotten County

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# 1. INTRODUCTION

During the last decades, there has been an extensive increase of travel in many of the western countries, which can be regarded as a result of people's need to reach and participate in various activities and due to functions and amenities being spatially segregated. In relation, individuals develop different travel patterns according to their activities, which further must be aligned with the opportunity to move between these places. The possibility to be mobile must therefore be acknowledged within various transportation systems, in order to provide a comprehensive supply of urban and rural activities and amenities. Additionally, it is essential that transportation systems offer a variety of options to accommodate different travel behaviours. Several studies show that there is a difference between men and women's travel patterns, as for choice of transportation mode, travel frequency and travel distances. In general, women tend to use public transport to a higher degree than men, whereas men on the other hand use cars for transportation more often. Comparatively, men travel longer distances even though women's trips encompass more complex activities (Ellaway et al. 2003; Gil Solá, 2013). These differences further raises questions of why these patterns are shaped the way they are? And what would happen if men began travelling more like women, or the other way around?

In the past, transport planning was defined as inheriting a gender-blind approach, simply being regarded as a physical measure with no need to consider the different characteristics between women and men (Law, 1999). Recent research proves that gender is one of the aspects with greatest influence on travel behaviour. As men long have been responsible for infrastructure and transport planning, there is no surprise that investments and future developments have been shaped according to men's values more than women's (Simićević, Milosavljević & Djoric 2016). This became apparent in governmental and academic research in the 1990s (Polk 2003), which led Sweden, as the first country in the world, to establish a gender equality objective within transport planning in 2001. This was subsequently integrated with the existing sustainability objectives that together enable the development of a sustainable transportation system, where social, environmental and economic considerations are included (Regeringen, 2008).

Contemporary travel patterns around the globe show that we in general don't travel in a sustainable way. Carbon emissions put a lot of pressure on the environment, accidents and congestion leads to increased levels of economic resources, and not to mention the social effects of noise, unsafe conditions and a stressful environment (Gålmark, 2012). Fundamentally, sustainable transportation options should be promoted to more extensively encourage such increased travel instead, with the intention to alleviate these impacts. In order to facilitate that development, it is vital to investigate the notions and usage concerning transport activity and how travel behaviour differs between individuals to further align it with political transportation policies as well as

future development to the infrastructure system (Beirão & Cabral (2007)).

Therefore, it becomes paramount to broaden the research and not solely analyse the statistics of how many men or women respectively that use each transportation mode, but to more deeply focus on the reasons for each individual travel behaviour to be able to comprehend what factors that shape our mobility. In that respect, incentives are raised for investigating these issues in practice to obtain greater knowledge of the usage and opinions of public transport, but more importantly, to explore its relationship with gender equality and how this could be developed further. As all counties and regions in Sweden follow the same guidelines and national objectives, it could be argued that these display similar plans regarding their infrastructure development as well as displaying similar travel patterns to one another. Nevertheless, each county still inherit their own characteristics and prerequisites, which is why the intention with this study is to increase the knowledge of the underlying reasons with individual travel behaviour and how it may differ between men and women. In order to do so, one specific case will be enlightened. The case studied will be the county of Västerbotten, to in a direct and qualitative approach explore if there are distinctive gender differences concerning the notions of public transport. If distinctive variations would be acknowledged, the prospect would then be to facilitate these issues and develop public transport to make it equally attractive, convenient and accessible for all and thus in accordance with both women and men's needs.

## **1.2 Aim**

The aim of this thesis is to explore bus travellers own experiences and opinions regarding public transport in Västerbotten County. In relation, to assess in what way gender is a relevant aspect to consider in order to attain a sustainable and equally attractive and accessible transportation mode for both men and women.

Research questions are as follows:

- I. How can public transport be accessible and sustainable from a gender perspective considering previous research?
- II What notions and perceptions do men and women have regarding public transport in Västerbotten and how do they differ from each other?
- III In what way can public transport be developed towards a sustainable and gender equal system by considering the current notions and experiences that bus travellers have in Västerbotten?

### **1.3 Delimitations and geographical context**

The geographical context for this thesis is Västerbotten county, which includes 15 municipalities being Umeå, Nordmaling, Robertsfors, Skellefteå, Bjurholm, Vännäs, Vindeln, Norsjö, Åsele, Lycksele, Malå, Dorotea, Vilhelmina, Storuman and Sorsele. Västerbotten County was chosen as a research area because of its proximity to Umeå University. Furthermore, as the thesis is in collaboration with Kollektivtrafikmyndigheten at Region Västerbotten, it was practical to choose Västerbotten due to their influence in the region, as well as it facilitated by finding respondents being close to Umeå. As the study is conducted in Umeå, most of the empirical findings will be in relation to Umeå municipality but empirical results from Vindeln, Vännäs, Storuman, Skellefteå and Robertsfors will also be presented. These results will further be incorporated in a regional context as to outline how the empirical findings can be included in regional future development. In addition, the thesis is delimited within transport planning to solely focus on public transportation. Other transportation measures are mentioned throughout the thesis in order to place public transport within aspects such as mode choice, accessibility and sustainability. However, the current notions and future development regarding sustainability and gender equality will be related to public transport. To further delimit the study, only buses will be of relevance to easier interpret how public transport can be developed on both a local and a regional level. Since there are more significant gender differences regarding use and attitude with buses than with trains, buses were therefore a suitable focus for this thesis.

### **1.4 Design of thesis**

The thesis is designed as following: next, in chapter two referred to as “Previous Studies”, various concepts within physical planning are presented such as issues of mobility, traditional and yet current notions of accessibility, different aspects of sustainability as well as individuals choice of transportation. This further includes highlighting the paradigm of gender equality related with this concepts and how it is, and can be, embedded in transportation planning. The next section, chapter three, outlines an account of the methodology applied to this study that covers the empirical sources and findings. Furthermore is the “Background” section presented in chapter four that emphasises on the characteristics of public transport associated to Västerbotten County and its transportation objectives. Chapter five thereby commences of the results of the study, incorporating bus traveller’s own experiences regarding public transport in Västerbotten. The remainder of the thesis is interpreted with a concluding discussion that draws parallel remarks of the result section in relation with the scholarly research and literature presented in previous chapters.



## 2. PREVIOUS STUDIES

The following section contains different theoretical points of departure that has been undertaken in previous studies. To begin with, concepts such as mobility and accessibility are presented to give a broader understanding of the forces that shape human movement and foster structures that leads to gender inequalities. This is further supported by an outline of the definition of sustainability and how it can be included in the transportation system, in order to present the conditions in which individual travel is conducted. The last two sections that follow, more explicitly include gender aspects to contemplate how gender relations are embedded in the previously mentioned concepts and thus play an abiding role in terms of how future transportation system should be developed.

### 2.1 Mobility

The concept of mobility is multifaceted but can yet be defined as 'the ease of movement', which entail the movement of individuals, goods and information (Sager, 2006). Most mobility research therefore distinguishes that mobility is not simply about distance covered, as the 'potential to be mobile' further induces the understanding concerning mobilities impact on society (Freudendal & Pedersen, 2009). The 'potential' mobility can be regarded as a form of insurance, as people often want other transportation measures available than the ones they actually use. Mobility is hence created in some form of space, which ultimately circles around overcoming certain barriers such as distance, movement and costs. (Sager, 2006). In relation, mobility can be divided into two strands, social and geographical mobility. Social mobility is defined by the social interactions between individuals that conditionally depend on variables such as class and professions. Through education, social ties and occupation, the social mobility between individuals might have distinctive variations. The geographical mobility on the other hand, refers to the physical movement of people with commuting, travel and leisure activities. Moreover, this form of mobility is dependent on the physical structure as well as people's ability to use different modes of transportation (Frändberg, Thulin & Vilhelmsson, 2005). Mobility thus cover a wide range of fields and further enables numerous possibilities in our modern world that we somewhat take for granted (Freudendal & Pedersen, 2009).

Hanson (2010) argues that individual mobility is something that covers many different aspects. This includes all interactions between household, community and the larger society, which subsequently means that mobility cannot be considered without incorporating social, cultural and geographical contexts. Furthermore, Hanson (2010) continues this analysis of mobility by contemplating how processes of mobility can be fixed in gender relations, in comparison with how gendered processes can emphasize and change daily mobility patterns. This means that one question to address is how mobility shapes gender, whereas the latter aims at answering how gender shapes mobility. The research focusing on how mobility shapes gender rather emphasises on the neglect of mobility, according to Hanson (2010) and she

claims that mobility is only regarded in generalised terms such as public/private sphere or constraint vs. freedom. This is due to mobility being rooted in traditional gender ideologies by relating femininity to the private sphere, home and thereby a constrained mobility, and simultaneously by equating masculinity with the public sphere, urban spaces and extensive mobility. Contrasted to this research is the one addressing how gender shapes mobility that mainly focuses on measuring mobility in great detail, whilst neglecting the complexities of gender. This, as Hanson (2010) articulates, has been done by simply identifying mobility in large quantitative contexts by more or less ignoring social and cultural implications that centres on the actual experiences and the diverse aspects of mobility. In order to fully understand how gender comes to shape mobility, it is vital to recognise the various travel patterns between women and men and further acknowledge how these patterns can be a reflection of women and men's position in society (Gil Solá, 2013).

## **2.2 Accessibility**

Accessibility as a term has a variety of different notions depending on its meaning and context, which is why defining it theoretically, is a rather complex matter. It can be described as the potential for reaching certain locations where a variety of activities are available (Haugen, 2012). On another note, Handy (2002) stresses the importance that accessibility is something that is 'easily approached'. Geurs & van Wee (2004) instead identifies accessibility as reaching land-use activities from a location using a certain transport system. Overall, even as these descriptions vary from one another, a common trait among them when defining accessibility is the ease with which people can obtain required activity (Hanson, 2009). These are to some extent based on one of the first definitions on the concept being "the potential for opportunities for interaction" (Hansen, 1959:73). That provides two different angles of accessibility, one contemplating how two nodes in a network are related to one another, in general terms – reaching a destination from a starting point, and the second one concerns itself with how one node is related to other nodes on a given area. This can be described as relative vs. integral accessibility (Larsson, Elldér & Vilhelmsson, 2014). It is essentially about accommodating the ability of an individual or group to gain access in relation to something or someone and this can take many different shapes in terms of behaviours and actions. Traditionally, access to specific locations only accounted for the geographical distance, whereas today accessibility rather refers to distance measured in time (Bergman & Gustafsson, 2008). This means that the time consumed for reaching a certain activity is more significant than the actual geographical distance (Gil Solá, 2013).

Accessibility thereby encompasses potential capacities that can be manifested in different ways, depending on what demands of access are made and to what degree something or someone is expected to be accessible. Through that, accessibility can be voluntary and yet involuntary (Bergman & Gustafsson, 2008). In relation, it can also exert as a social indicator in numerous policies, if social and economic opportunities are presented for individuals. This implies a diverse access of crucial sources, such as jobs, health and social activities, that

furthermore are influenced by the level of accessibility in a spatially differentiated way (Geurs & van Wee, 2004). In that sense, accessibility thus encompasses aspects such as transportation, spatial design and mobility behaviour, which all aim to direct future development towards sustainable solutions (Haugen, 2012).

## **2.3 Sustainability**

The debate around environmental issues and sustainable development was introduced at the first international environmental conference in 1972 and was later established as a world known concept when the Brundtland Commission report was released in 1987. Since then, much global attention has been given to the concept of 'sustainability' and 'sustainable development', which further has encouraged planning authorities to employ its principles in urban and rural settings. Sustainability inherits a comprehensive view as it includes ecology, economy and aspirations to uphold social interests. The work on sustainability is further related to gender aspects in terms of differences in daily mobility patterns and everyday behaviour between men and women, as those aspects further outline how the work on sustainability should be developed (Goldman & Gorham, 2006).

As mentioned in the Brundtland Commission report (World Commission on environment and development, 1987:16), sustainability can be defined as "meeting the needs of the present without compromising the needs and interests of future generations". Moreover, these needs encompass a variety of objectives that together combine environmental wellbeing, human development and economic improvement. These three dimensions should further be seen as equally relevant when aiming for sustainable development. However, Colantonio & Dixon (2011) discusses the dilemma of identifying the relationship between the three as well as separating them from each other. Subsequently, this has somewhat led to social sustainability being less emphasised in many policy indications, as ecological and economic effects are often easier to define. For instance, carbon emissions are most commonly related to ecological issues, even as its impact on human health is severe. Aspects such as security that categorises as social sustainability have to some extent traditionally been more neglected in policies, which further show the inequalities within sustainability measures as security is more often related to women's issues. Therefore, when efforts for ecological sustainability are made, social affects must also be considered and vice versa whilst including economical perspectives (Grieco, 2015).

To more profoundly describe social sustainability, one could refer to Polése & Strens (2000) definition. They articulate that it is welfare that is closely linked to a well-balanced development of the civil society that further creates an environment of cultural and social groups that encourages social integration, equity and equality. This means that social justice is a condition for social sustainability that additionally shall reduce social exclusion. Economic sustainability rather refers to the importance of seeing economy as a tool to reach sustainable development, where the main outline is the coping of scarce resources while including social and ecological aspects in the economy. It is not

essentially about economic growth, as it should also involve sustainable investments regarding social and environmental interests (Hedenfelt, 2013). Ecological sustainability on the contrary incorporates the health of the earth's ecosystem, atmosphere, water and air. The overall objective is that resources ought not to be consumed at a faster rate than they can be reproduced. This is further acknowledged by principles and policies that promote alternative fuels, prevent emissions and encourage the use of environmental friendly transport (Wheeler, 2013).

## 2.4 Sustainable transport

Transport is a fundamental asset in our society and is in many ways closely related to economic growth as well as the opportunity for social activities. Yet, the negative impacts that transport generates are causing pressure on the environment and on human health, which calls for urgent actions to reshape transportation systems (Dobranskyte-Niskota et al. 2009). Motor vehicle travel is therefore usually by default assumed to be unsustainable due to its resource consumption and harm to the environment. However, Litman (2016) argues that this is a controversial perspective because of the many benefits that are linked to transport and that extensive motorised travel can be sustainable if it adopts technological enhancements in vehicle and infrastructure designs. Overall this means that transport systems should acquire environmental protection, promote economic growth while including social development aspects. Through that, sustainable transportation principles, mostly intended for public transport, have been developed in order to easier implement the three dimensions of sustainability. The first principle is *do no harm*, which means not making changes to a site that will damage the surrounding environment and projects should thereby be developed to regenerate ecosystems by implementing sustainable design whilst mitigating pollution. Another principle is defined as *design with nature and culture*, which reflects an idea of designing in accordance with economic, environmental and cultural conditions by adapting to both a local and global context. *Provide systems as intergenerational equity* aims at providing current and future generations of sustainability with regenerative systems and resources whilst including a system of equity and community cohesion. Next is referred to as *health and safety*, which means that transport systems should be shaped and operated with respect to physical and mental health and enhance the safety and quality of life within transport. *Individual responsibility* is described as everyone having a responsibility to obtain sustainable choices in terms of personal mobility and consumption. Following is *economic viability*, which means that transport systems should be cost effective, operated efficiently and reflect the true social, economic and environmental costs (Litman, 2016).

## 2.5 Transport in relation to gender equality

To obtain gender equal travel it is essential that both women and men have the same prerequisites regarding all aspects of travel, meaning the influence to shape their trip in accordance with range in the labour market and in what way its accessibility strains everyday activities. In that sense, mobility differences

between women and men is not in itself a problem, as argued by Gil Solá (2013) as long as both groups are not limited in their possibilities.

To incorporate gender issues in physical planning requires an acknowledgment of gender differences within the public space. Altogether, the spatial structure of urban and rural environments can be argued to reflect and amplify the separation of what is considered feminine as well as masculine. Therefore it is essential to work to eliminate these differences and mitigate this gender separation within planning objectives (Gil Solá, 2013). The goals on gender equality and sustainable development have gained a growing attention within transportation policies in Sweden where the overall aim is that the transportation sector shall promote increased access to mobility. Meanwhile, sustainable development objectives aim at decreasing the environmental impacts of travel, which altogether means supporting reductions in mobility. Polk (2003) argues that these can be regarded as two different opposing political goals, which consequently mean that they must work in an interrelated and complimentary approach, in order to move towards an equitable and yet sustainable transport system. This requires an approach beyond merely individual changes, as Gil Solá, (2013) claims, as structural modifications are equally essential. Gil Solá further states that gender equality policies must implicate a change in power relations between women and men in public space, which first and foremost refers to places in which transportation is embedded. This includes actions regarding a modal shift towards public transportation and increasing safety in unsafe conditions but more radical actions are needed as well.

According to Gil Solá (2013), one of the deep-rooted inequalities is the fact that women and men's values and experiences about mobility and accessibility is not given equal space, which thereby leads to local and regional activities more often being shaped after masculine norms. Subsequently, activities and the spatial structure should therefore be adjusted to change the power relations between genders, by allowing a working process in which all gender notions are considered (Gil Solá, 2013). Trivector Traffic (2010) further supports the notion on changing power relations, while emphasising that merely including both men and women by default does not generate an equal system, both within the planning process and in the public space. In environments such as the transportation sector that traditionally have been dominated by men, there is a tendency that gender issues are present but yet detached from the rest of the planning. In that sense, insufficient gender equality matters are harder to detect, as both women and gender issues are present but not as apparent as other issues within planning (Trivector Traffic, 2010).

## **2.6 Travel patterns of women and men**

The number of trips, the physical distance and the time consumed for each trip, are all aspects to account for when assessing individual mobility. Yet, as different information is provided with these aspects separately, they still hold an interconnected relationship. Therefore, in order to describe women and men's

travel pattern and to distinguish between them, it is vital to include these aspects to detect variations such as distance, frequency and mode choice (Krantz, 1999). 'Gendered mobilities' is typically referred to the variations between men and women's accessibility, economic resources and daily activities that further mirrors how much and why they travel in a certain manner (Frändberg & Vilhelmsson, 2011). Additionally, these gender differences in travel patterns show no inconsistency throughout several empirical research results, which indicates that women and men obtain similar travel patterns around the globe (Simićević, Milosavljević & Djoric 2016). Observed in various research is that men use cars to a higher degree than women, while women more frequently use public transport (Polk, 2003: Matthies, Kuhn, & Klöckner, 2002: Elias, Newmark & Shiftan, 2008). Overall, men tend to travel more than women as well as travel farther distances. Men also spend more time for travel, even though women have a more complex travel pattern. This entails that women make more trips for household purposes with shopping and escorting children during one and the same trip, while men more singularly do business and work-related travels (Simićević, Milosavljević & Djoric 2016).

Even as worldwide empirical findings display similar characteristics of men and women's travel behaviour, there are some distinctions between countries regarding number of travels and mode choice. Sweden is no excuse from these characteristics, even though the differences between men and women's travel patterns are not as distinctive as in many other less industrialized countries. A Swedish example of this is a study by Trivector Traffic in 2011 (Gålmark, 2012), which showed that men use their car 48 % of all their trips, while women only use their car 34 % of their trips. In comparison, women use public transport 15 % of their trips and men about 7 % for buses and almost the same as women for trains. To further view the division of trips in more detail Trafikanalys (2015) conducted a study in 2014 that identifies regional and intersectional variations in the use of public transport. Those results showed that the use of public transport has increased in the last couple of years and is steadily increasing on a national level in Sweden. The most frequent users are youngsters from ages 6-17, using public transport for 20 % of their total trips, which further entails almost no differences between boys and girls. The second most frequent users are women from ages 18-64, 17 % of total number of trips, followed by men in the same age, which conducts 9 % of their trips on public transport. People from ages 65 and over are the least frequent users, where only 5 % of their trips constitute of public transport. Furthermore, public transport has been proven to be most significant for school and work-related trips, which is the category that is most increasing, now comprising of about 20 % of all total trips accounted on all individuals in Sweden. For leisure and recreational activities, public transport is used about 5 % of all trips. On a regional level, public transport is used about three to four times more in greater urban areas, even though the biggest increase has been noted to be in some smaller regions both in south and north of Sweden. Overall, distinctive variations between men and women's number of trips with public transport are visible, even as the variations are larger in lesser urban areas (Trafikanalys, 2015).

## **2.7 Mode choice**

### **2.7.1 Geographical and economic factors**

As indicated earlier, people have different travel behaviour and there are notable differences between men and women. These differences are rooted in the choices that we make, what possibilities we have and thereby also embedded in various societal impacts. Modal choice can be described as a relationship between individual factors and surrounding factors, which are dependent on aspects such as accessibility, attitudes and behavioural routines (Lindelöw, 2009). These aspects have been undertaken in various studies in which scholars such as Gil Solá (2013) and Krantz (1999) attempt to explain the differences between men and women's travel pattern. Gender is a contributing factor to the division in the labour market, which hence leads to men and women's jobs being spatially separated (Gil Solá, 2013). Men, to a higher degree, choose workplaces that are farther away from their home and that more often are located in peripheral areas. This can be explained by the fact that more men than women work in industrial jobs in rural settings and women more often work in central locations (Matthies, Kuhn & Klöckner, 2002). Women have been shown to be keener on choosing a job closer to home to easier facilitate household errands. Furthermore, "female workplaces" have traditionally been more geographically scattered, which makes it easier for women to find work within their home neighbourhood (Gil Solá, 2013). As a consequence, men are partly more inclined and somewhat required to take the car because of the more restricted access to public transport in rural areas. Geographical factors could thereby contribute to the division of use in transportation modes (Berg & Karresand, 2015).

Yet, women generally have a lower income than men and therefore inherit a more restricted access to cars, which conclusively means that economic factors are of importance as well (Krantz, 1999). In that sense, the combination between geographical and economical factors presents an opposed perspective on women's mode choice. As women have a more restricted access to cars, they are more forced to use public transport. Moreover, their higher mobility in central locations might not be a result of occupational choice, but possibly because of having to choose activities close to home where public transport is available. (Berg & Karresand, 2015).

### **2.7.2 Social, cultural and psychological factors**

Even as all forms of transportation are designed for travel and movement, they still comprise of different symbolic values that are developed through societal norms that are related to each purpose and each user. Throughout history, men have been the sole provider of the family and thereby also the sole user of the car. Cars being culturally rooted that way, along with being associated with freedom, power, control, speed and technical components show a closer connection to the masculine identity and could therefore be argued not to be gender-neutral (Hjorthol, 1998). In relation, our upbringing has an impact on how we view modal use as studies show that the father of a family remains the

most frequent driver, even if a household shares or have two separate cars (Krantz, 1999). Men are therefore more socially inclined to use cars in their future and also express a greater general interest in automobility. However, both men and women acknowledges cars as expensive and unsafe, but women more so than men. In addition, men are more willing than women to spend money on owning, driving and repairing the car, which also could help explain men's higher car usage (Polk, 1998). The attitude distinctions towards cars could somewhat be explained by the fact that cars nowadays bear two separate cultural meanings. For one, it is seen as a necessary means for transport and on the other hand, it is portrayed as a luxurious hobby. Men have higher tendencies to see the car as a hobby whereas women rather consider the functional use, but also more commonly have a negative attitude towards cars in general (Simićević, Milosavljević & Djoric 2016).

Several studies show that women, to a higher extent than men, express environmental concerns (Polk, 2003; Matthies, Kuhn & Klöckner, 2002; Tyrinopoulos & Antoniou, 2012). Amongst environmental friendly behaviour, such as recycling and consumption reduction, the willingness to reduce one's car usage and make a modal shift has been proven to be one of the most difficult. Either having a positive or negative attitude towards car restrictions dependent on own car habits and environmental awareness could outline an explanation. As women less frequently use cars for transportation, the modal shift towards more environmentally benign measures could be easier for women, as the transition is not as extensive (Polk, 2004). A result of this could be women's higher usage in public transport, as they feel more obligated to behave in an environmentally friendly way (Simićević, Milosavljević & Djoric 2016).

Yet, even as there are distinctions between the social and psychological factors between men and women regarding mode choice, it is also important to not solely perceive them as homogenous. The intersectionalities within the group of women and the group of men must further be acknowledged. For instance, young single women are the ones most likely to make a modal shift towards environmental stable solutions, whilst women with children are the group most opposed to car restrictions. Younger men are also more inclined to use public transport over cars than older men, which in some studies have been proven to be more an economical concern than environmental. Older men, either with or without kids, are the group most in favour for cars. This is mostly related to driving becoming a force of habit over the years than anything else and is therefore also the group least eager to compare cars to other transportation alternatives (Levy, 2013).

Considering more profoundly social and psychological factors, it is not merely about understanding the reasons for choosing a certain travel mode, but also the understanding of how individuals perceive their own quality of life and well-being in relation to transport. Overall, the evaluations of the transport sector has most commonly been based on cost-benefit analyses, but nowadays social scientists are rather stressing the importance of happiness as it is somewhat claimed to be "the ultimate goal in life". In other words, hedonism focuses solely on the individual's own satisfaction by paying less regard to external factors such



as economic and environmental. In order to incorporate such way of thinking within the transportation sector, it is vital to understand the anticipated happiness of travellers and what would make them perceive their own well-being at its greatest (Duarte et al. 2010).

### **2.7.3 Reliability and supply in transportation**

Different modes of transportation also carries different embedded characteristics such as physical appearance, level of safety, esthetically pleasing and privacy vs. non-privacy. It is generally known that the preference for cars lies within its flexibility and self-control whereas public transport is about choosing an environmental, economical and perhaps even social alternative (Ellaway et al, 2003). In order to improve the sustainable transportation options and promote such behaviour, it is vital that the characteristics of cars are transferred into the public transport system with increased flexibility and quality, meanwhile as the environmental benefits from public transport are adopted within automobiles. All these characteristics within the various transportation modes have further been proven to affect people's attitude, loyalty and use (Currie & Wallis, 2008). Imaz et al (2015) found in their study regarding the use of public transport that people generally have a low tolerance to overcrowding but also to moderate levels of crowding. Furthermore, their study showed that men are in general more sensitive to delays and that high frequency of delayed travels results in lacking confidence in that service and thereby also a mitigated use in that same mode. People are in general, as Imaz et al. (2015) argues, more reluctant to use public transport with degrading quality and the three aspects that seems to be valued highest among travellers are punctuality, frequency and few transits. In relation, Sandow & Westin (2006) articulates the importance of travel time, by stating that we nowadays reach a more extensive geographical distance, even though the trips encompass the same amount of time. Diab et al. (2017) supports their findings and further stresses that travel time is the single most substantial factor for recommending public transportation to others. Our expected outcome of a trip in terms of travel time is thus increasing, which could partly explain the reluctance of modes with lesser punctuality (Diab et al. 2017).

According to Kottenhoff, Andersson & Gibrand (2009), the most important feature for maintaining an attractive public transport system is high frequency. In their study of Bus Rapid Transit, they observed that high frequency in number of buses or trains, increases the use of public transport, for both men and women. When public transport frequency is less than ten minutes apart, Kottenhoff, Andersson & Gibrand (2009) claim that people disregard the notion of what exact time the bus or train leaves, as the wait will not be as extensive anyway. Moreover, the costs for using public transport did not appear to affect people's usage, when compared to other factors within public transport and not compared to other modes such as cars, meaning that travel time and quality were of higher relevance (Imaz, 2015).

## **3. METHOD**

### **3.1 Methodology**

The methodological section of this paper outlines the research approach and study design that has been applied to this particular study. Departing from the aim, this study will be based on qualitative research method. Qualitative method further induces a theoretical knowledge position that is usually described as interpretative, which means stressing the understanding of the social environment of how participants in certain constellations interpret this reality (Bryman, 2013). That type of research thus provides greater freedom in understanding individual behaviour and decision-making processes and how social conduct are shaped by human connections (Denscombe, 2009). It thereby delimits findings of statistical measures and rather produces findings from everyday settings where the 'phenomenon of interest evolve naturally' (Patton, 2001:39). Conclusively, this will be the case of this particular thesis.

### **3.2 Research approach**

The primary data in this study were obtained during interviews where the purpose was to attain individuals' subjective opinions, preferences and experiences regarding their use and notions of public transport in Västerbotten County. As the main focus of the interviews reflect in-depth knowledge on views and personal opinions, it is essential that the interviews be customised accordingly whilst enabling subtle details and nuances to be captured. In that respect, it is considered that the most suitable data collection method for this study were semi-structured in-depth interviews (see appendix 1). This means preparing certain themes and questions related to the topic while the questions remain open as the respondent has the possibility of answering in several ways (Bryman, 2013). That further made the interviews flexible in this study concerning the order of the questions and also by adding questions that seemed relevant. This approach also allowed the researcher to clarify uncertainties as well as assist in interpreting difficult questions, in order to ensure a correct comprehensive view of the responses in relation to the interview questions (Denscombe, 2009).

In addition, academic articles and journals were retrieved, in which previous studies on sustainability, accessibility, mobility and gender equality outlined the fundamental sources. Moreover, literature on planning and political objectives has been used to gain further knowledge on various planning principles and how they are incorporated in transport planning. Relevant research on the public transport in Västerbotten was further analysed by including planning policy documents and reports based on the specific political guidelines within Västerbotten and its transportation system.

### 3.3 Interview design

The primary data for this study is in-depth interviews and in total 15 interviews were conducted which comprised of eight women and seven men of ages between 24-72 years. The sampling method for finding these respondents was carried out in two ways. First, a public announcement on Kollektivtrafikmyndighetens web page and on Länstrafikens home page were made as this thesis is in collaboration with Kollektivtrafikmyndigheten. The announcement asked people living within Västerbotten County to take part in a study that aims at gathering information on how to develop public transport in a more sustainable and yet gender equal way. The reason for including respondents found via the Internet was to allow for extensive in-depth interviews to take part, where the interviews could be planned and scheduled ahead. Accurate results are more easily obtained if the interviews take place in a calm, quiet environment where there is sufficient time at disposal and the respondents can give extensive answers (Bryman, 2013). Altogether were eight interviews pre-scheduled from the public announcement and the interviews varied between 25-50 minutes.

In addition to that, respondents were approached on local and regional buses, the city centre as well as on parking lots to attain a wide spectrum of people both in terms of gender and age, but also in regard to their choice of transport and prerequisites. People on local and regional buses were asked to participate in an interview during their commute. As these interviews were held in the environment being evaluated, the surroundings may stimulate different ideas and opinions from the respondents, other than those from the pre-scheduled interviews. Additionally, conducting interviews on parking lots further acknowledged those who assumable use cars for transportation and thereby induces insight in their mode choice and their opinions of public transport in relation to cars. Finally, interviews within the city centre were made as a complimentary approach where the choice of respondents was randomly selected. Overall, seven interviews were carried out in the field, out of which three interviews were conducted on buses, two in a parking garage and two in the city centre. As part of the aim with interviewing people on buses was to gather a wide-ranging view on public transport, interviews were divided on different buses in different directions, which conclusively led to interviews being conducted on the bus to Robertsfors, to Vindelns and on a local bus within Umeå city. All of these interviews were generally shorter than the pre-scheduled ones and took between 10-25 minutes. The interviews were conducted in Swedish to easier facilitate for the respondents in their native language.

Table 1 and 2 describe the characteristics of the respondents. They feature the number of women and men that was interviewed, their age, whether or not they own a car and how often they use public transport. These were chosen to be included to display the diverse characteristics of each respondent that shows a wide array of people. Furthermore, to easier comprehend the answers and speculations given by the respondents while knowing their prerequisites and choices for transportation alternatives.

Table 1. Display of the respondents from the pre-scheduled interviews

<b>Respondent</b>	<b>Female/Male</b>	<b>Age</b>	<b>Car ownership</b>	<b>Frequency in bus use</b>
1	F	28	Yes	Sometimes
2	M	58	Yes	Often
3	F	56	No	Everyday
4	F	25	Yes	Sometimes
5	M	27	Yes	Sometimes
6	F	72	No	Often
7	F	53	No	Everyday
8	M	38	Yes	Sometimes

Table 2. Display of the respondents found on buses and in the city centre

<b>Respondent</b>	<b>Female/Male</b>	<b>Age</b>	<b>Car ownership</b>	<b>Frequency in bus use</b>
9	F	55	Yes	Often
10	M	65	Yes	Sometimes
11	F	24	No	Everyday
12	M	33	Yes	Rarely
13	M	42	Yes	Never
14	F	29	Yes	Sometimes
15	M	31	No	Often

### 3.4 Thematic coding analysis

The next step after conducting all interviews was to analyse the collected material, which required the material to first be transcribed and then translated into English by the author. For this study, thematic coding analysis was chosen. In general terms it is described as a value based method to organise and synthesise data. It means creating an index of central themes and subthemes that is reoccurring throughout the material. The identified themes are retrieved from careful reading of the transcribed interviews, which then are compiled into a data framework set. This approach was suitable for this study to easier manage the material by subdividing it into categories that outlines all respondents and the central themes. It is thereby important to be aware of certain aspects within the material such as repetitions, meaning how frequently certain themes are mentioned. It is also important to be aware of metaphors and analogies, which entails how the participants choose to reflect their thoughts and stories, as well as to similarities and differences, meaning how the respondents discuss a theme and how it further can differ or be deemed similar to one another (Bryman, 2013).

In this research five categories of themes have been identified and they are as follows: Convenience and accessibility, Comfort interior design and use, Travel time and frequency, Reliability and information, and Environment, health and safety. The themes were identified by viewing the text in an analytical approach by recognising relevant ideas and various descriptions of phenomenon given of transportation experiences. Both by being aware of words and phrases that re-occurred throughout the interviews as they thereby can be argued to be of importance to the respondents, but moreover to recognise in what contexts these words and phrases were used to more easily interpret what that experience actually entails. Furthermore, it was essential to acknowledge phrases and to analyse how they transitioned with the preceding or onto the following statement, in order to comprehend its relevance in the text.

### **3.5 Method discussion**

#### ***3.5.1 Interview strategy***

Qualitative method in the form of interviews was a suitable approach for this study, as it gained deep insight into people's thoughts and opinions regarding the use of transportation modes. The interviews were conducted via two different strategies, which both opted for limitations and weaknesses but at the same time for advantages and possibilities. The pre-scheduled interviews were generally easier as there was room for more questions, the respondent was prepared and had more time at disposal to think through their answers. Opposed to these interviews, the ones carried out in the city centre and on buses were more complicated in terms of finding participants and having enough time with them to ask all relevant questions. Nevertheless, once people were informed of the study and had agreed to participate, quite extensive answers and arguments were given from almost all respondents.

Considering the choice of respondents, it could be argued that those who signed up for the interview via the public announcement could lead to bias results, as it is for one, not a complete random selection of people, and for the other, it most likely include those who already are familiar with public transport and are active on such websites. Although, after all interviews had been carried out, it became apparent that including those who are familiar with public transport and use it on a regular basis, allows for much more extensive answers to be given on questions regarding future development and what actions are necessary for various dilemmas. Interviewing those who use public transport less frequently or never, provides interesting results in terms of understanding why people neglect that as a transportation mode, however, it limits the understanding of what aspects within public transport they wish to change. Perhaps because they are not as aware of the current functions of public transport or have not given it much thought since they rarely use it in their day-to-day activities. In that sense, including respondents that are familiar with public transport might be beneficial for all current and future bus travellers as perhaps they are more equipped to discuss its functions and problems. At the same time, those who opt for other transportation modes rather than public transport can provide new insight into

understanding why and perhaps give new incitements on how to develop public transport in an equal way and thereby be appealing to everyone. Conclusively, both interview strategies were reckoned necessary for this particular study.

### **3.5.2 Ethical considerations**

Conducting interviews requires certain ethical considerations. During this research it was essential to meticulously explain the purpose and process of the study to the participants in order to create reliability between all parties. The respondents were also made aware that their participation is voluntary and they so fourth have the right to terminate their participation. To easier facilitate the collected material, all interviews were recorded after receiving consent from the respondents, while ensuring that this material will not be shared and their anonymity will remain intact by handling the results confidentially. It was also vital to consider the consequences of all respondents participating and thus aim to protect their integrity. All collected material were thereby analysed confidentially and were not made publically available to external parties until the research process was completed as suggested by Denscombe (2009). Some of the respondents asked to take part of the transcribed material and the completed results, which was shared with them on request.

As Kollektivtrafikmyndigheten collaborated throughout this study, they have somewhat influenced the study in terms of what questions to be asked during the interviews and in the finding of respondents. However, as the interviews were semi-structured and mostly centred around specific themes rather than specific questions, the discussions during the interviews were more or less steered in the direction that suited each respondent, depending on their answers. Therefore, it became relatively easy to keep free from any pre-conceptions of the results.

## 4. BACKGROUND

### 4.1 Public transport - and why promote it

Public transport can be defined as publically offering accessible mobility over urban and rural areas, with its principal aim to transport a large number of people (Currie & Wallis, 2008). The political goals regarding public transport is that it shall steadily be adapting to energy efficient solutions, further promote walking and biking in relation to public transport as well as enable communications for people with disabilities and promote gender equality (Näringsdepartementet, 2013). Public transport is further essential from an accessibility perspective in terms of offering mobility to those without a driver's license, without a car and those who have a shared car in a household with multiple people. Through that, public transport also promotes to equalise the differences in mobility between different classes in society, as lower classes are generally more dependent on public transport than the upper class. Moreover, as buses and trains can contain large number of people, they are thus more efficient in terms of space consumption, as moving and parked cars consume vast geographical spaces that further limit other services and physical structures. The capacity within public transport is further higher than in cars. An average road can generally transport 900 people per hour if all of them were to use cars, opposed to buses that can carry approximately 2000 people an hour. Trains can thus transport 20 000 people per hour (Holmberg, 2008).

An efficient system of public transport is relying on people having access to bus stops or train stations. Its main task is thereby to offer accessibility to jobs, schools, social activities and amenities, simultaneously as trying to offer short travel lengths while covering a comprehensive geographical area. In order to do so, it is vital to create an integrated system (Svenska Kommunförbundet, 2004). This is something that is a relative new approach as traditionally – the public transport systems was separated, where each system was meant to cater to one specific groups needs, for instance elderly people. However, this system proved to be more confusing than efficient, and nowadays both research and practised proposals agrees on the benefits of an integrated system. This includes high passability, high quality, good connections and safe solutions with adjacent traffic. As single transport networks have difficulties with satisfying all travel needs, different traffic solutions must therefore cooperate to sustain all demands in an integrated system (Holmberg, 2008). To further promote this approach, it is essential that public transport is concentrated within high mobility areas, which implies places where the majority of people are mobile. Nonetheless, as one route cannot efficiently cover all areas, there is a need to incorporate transits between routes. Transit intersections are where two links of a travel chain are combined, referred to as seamless mobility. It is further where there is a change for the traveller in terms of route, mode, travel-length and price setting and therefore plays a big part in the traveller's perceived experience (SKL et al. 2007). In that sense, transits are somewhat a sacrifice that takes energy and is preferably avoided in many cases. According to SKL et al. (2007), most people

value transits twice as bothering as the travel-length itself. For pedestrians, the walking distance between transit intersections should not surpass 600 meters and the distance to one's nearest bus stop should not be more than 400 meters (Bjerkemo & Serder, 2011).

Many planners and scholars argue for the many benefits with public transport, regarding environmental, economical and social sustainability. Several studies, as mentioned earlier, now recognises that the use of public transport is not solely homogenous, but is encompassed by various intersectionalities and different behaviour. These studies further stress the extensive positive outcome of environmental, economical and social aspects by incorporating a gender perspective within planning. One such example is a Swedish study done in 2011 (Gålmark, 2012), which identifies that men's travel behaviour burdens the environment as well as the economy. Men use their cars for half of all their trips while women only use cars for about a third of their trips. What would then happen if men began travelling more like women? Calculated for a town with a couple of hundred thousands inhabitants, instead of cars comprising half of all the vehicles on the roads, cars would only take up a third. The space consumption of moving vehicles would decrease with approximately 12 % and for parked vehicles about 14 %. Spaces worth up to 800 millions could thereby be released and used for other societal purposes. Furthermore the carbon emissions would decrease with about 30 % annually, and the noise would be mitigated with about 1 decibel. Altogether, reduced negative impacts on the environment and in terms of number of accidents and noise that are related to car traffic could save about 300 million Swedish crowns a year (Gålmark, 2012).

## **4.2 Political objectives and policies**

One of the difficulties with integrating gender equality within transportation planning has traditionally been the absence of national governmental objectives that clearly specifies the work on a local and regional level. Sweden, however, was the first country in the world in 1994 to establish a gender equality objective. The definition on the objective was that women and men shall have the same power to shape the society and their lives, regarding economic equality, equal power to influence decision-making processes and equal share in the division of household chores (Faith-Ell & Levin, 2013). Seven years later, in 2001, this objective was developed by integrating a gender perspective within transportation planning as well. The reason behind this governmental decision was the noticeable differences between women and men's needs and conditions within the transportation sector, and furthermore the low number of women within transportation planning. It is further essential that this objective is contemplated in alignment with the transportation objectives on an increasing transport quality, safe traffic, decent environment and a positive regional development (Trivector Traffic, 2010). The objective on gender equality was thus articulated as follows (author's translation):



*“The aim of this objective is to create a gender equal transport system, where the transport system is shaped according to both women and men’s transport needs. Women and men shall be given the same opportunities to influence its establishment, formation and management and their values shall be given equal place.”* (Regeringen, 2008, Prop 2008/09:93, s 27: Trivector Traffic, 2010, s 1).

The essential outline is the importance of creating an accessible transportation system, in which both women and men’s needs should be considered. As a result, this objective must be integrated in such way that decisions, norms and division of resources within the transport sector are all shaped by a gender equality perspective. The common goal is that gender integration should lead to changes that consequently increase equality. In 2009, the government revised the objectives to further include a long-term sustainable vision for all citizens within the transportation sector (Trivector Traffic, 2010).

### **4.3 Public transport in Västerbotten**

Västerbotten county is the second geographically largest county in Sweden and encompass approximately 217 000 inhabitants. Its biggest urban region is Umeå municipality with about 122 000 inhabitants (Umeå Kommun, 2017). A study conducted by Umeå Kommun (2015) in 2014, showed that not even 50 % of the citizens travel environmentally sustainable, which according to Umeå Kommun is by public transport, biking or walking. In general, living within the urban region of Umeå, one has approximately 7 km to travel to work and living outside the urban areas means having a distance of about 19 km. Nevertheless, 54 % of the total population within the urban region has 5 km or less to travel from either work or school. This means that Umeå municipality’s ambition of having 55 % of its population choosing to travel environmentally sustainable could be achieved, however, that positive development is moving to slowly. Cars are used in 80 % of the trips that are 3,7 km or longer. For trips that are shorter than 3,7 km, public transport, walking or bicycling are used 63 % of them. All trips combined shows that cars are used 60 % of all trips whereas public transport stands for 7 % and the rest are made up by biking and walking. These variations in modal use are further dependent on age and gender. In cases where a trip is shorter than 3,7 km and the traveller is over 34 years old, cars are used in 55 % of the cases and buses about 5 %. People younger than 34, with a trip encompassing a distance of under 3,7 km, tend to use cars 25 % of all times and buses 8 %. Furthermore, 62 % of all men travel by cars whereas the equivalent number for women is 44 % (Umeå Kommun, 2015).

## 5. RESULTS

The following chapter outlines the results of the interview process. From the thematic coding analysis five themes have been identified as most frequently mentioned by the respondents and these are: Convenience and accessibility, Comfort, interior design and use, Travel time and frequency, Reliability and information and Environment, health and safety. These themes will so forth be described more profoundly and exemplified with quotes from the respondents. Some quotes transcend more than one theme, but have chosen to be related to one specific theme due to what the author deemed relevant. As the focus of this study is gender related questions within public transport, gender topics and issues concerning women and men have therefore been chosen to pervade all of the five identified themes, in order to show the relevance of gender in all different aspects of public transport. At the end of each theme, a short paragraph summarises what gender related issues that have been brought up by the respondents, to more easily convey the results from a gender perspective and show the correlation between the respondents' discussions.

### 5.1 Convenience and accessibility

Whether the choice of transportation mode is convenient, accessible, simple and practical seemed paramount by many of the respondents when deciding on how to travel. However, there appeared to be a disagreement on whether the public transport system was accessible or not and to what extent cars are more convenient. Some were pleased with the buses in Västerbotten, which ultimately seemed to depend on the transport systems proximity and by having used public transport over a long period of time to make it into a force of habit. Respondent 7 was one of them, who talked about the flexibility of public transport and why she prefers it to cars. She stated that she herself did not own a car but that she never felt to miss it either as owning a car only comes with more responsibility and more to handle. To just be able to sit and relax on a bus, without having to care about finding parking, de-ice your windshields and staying focused while driving, was much more convenient for her.

Some other respondents had similar statements of buses being convenient, where they discussed the flexibility of public transport nowadays as buses go wherever they need to go and since bus stops are located close to their home. Respondent 1 more specifically discussed both advantages and disadvantages with public transport in relation to using a car and talked about that different situations are easier with a certain transportation mode and that she therefore want access to both. She said:

*"I basically use public transport when I'm going far away like to another city and then it feels more relaxing not having to drive by yourself. Or, when I'm in the city centre cause then it's unnecessary to take the car for such a short distance. So, I pretty much take the car when it's a distance that's in between those two. There is within this distance that it's convenient to have a car, like if you're going outside*

*town in the countryside for a hike or skiing or something.” (Respondent 1.)*

Most of the respondents that use buses on a regular basis within Västerbotten were those who commuted to and from work. In general, respondents were happy with the arrangement as it was their own choice, they thought it was convenient and none of them wished to travel differently. Although, the reasons for regarding public transport as convenient varied and one respondent expressed that bus was actually the only option for her:

*“I mean yes.... Since we only have one car within the family, we have to share that one. And my husband he works in Vännäs so he takes the car everyday because of that, so that’s why I take the bus to work. Well actually, I take two buses cause I have to change at Vasaplan but sometimes I can stay on the same bus so that’s nice.” (Respondent 9.)*

Not everyone thought public transport had been or is convenient for their work commute, and there were descriptions of difficulties if choosing to travel by bus. One respondent that were interviewed on the bus talked about his previous experiences with the public transport system when he had been working and said the following:

*“Now I just retired but back in the days I use to work in Ersmark and I mean, hardly no buses went there so it never even came up whether we all should take the bus to work. None of us did that. But now when I am retired and I need to travel within the city I take the bus sometimes. It is actually quite nice.” (Respondent 10.)*

A few other respondents had similar opinions and therefore choose to take their car to work and other activities. Respondent 5 claimed that he preferred cars for transport as it facilitates his daily routine in terms of flexibility and what he can bring in terms of luggage. Further as it minimises his total walking distance. If one use public transport, he said, one by default have to walk an additional distance to bus stops, whereas cars more directly take you from “door to door”. He stated that if public transport could be as convenient as in that sense, he would consider it as an alternative more often.

Even as most respondents discussed convenience in relation to physical accessibility and proximity of transportation modes, other types of convenience aspects were also mentioned. For instance, prices seemed to be a relevant factor for a few of the respondents on the issue of one perceiving public transport accessible or not, even though most emphasised that prices are not the most important factor for choosing public transport. One frequent bus user, Respondent 2, discussed the price setting of buses in relation to cars and he said that if two people are travelling together, it is more convenient to take the car of economic reasons as the bus tickets otherwise exceeds the total price of gas. However, he further claimed that he thought that they price for one person is reasonable, but that the system ought to be upgraded to make it beneficial for a couple or a family to travel via public transport together.

Those who did not use public transport on a daily basis and also owned a car

seemed in general to think that the bus tickets were too expensive, because they more frequently bought single bus tickets instead of having a monthly or an annual bus card. Respondent 11 on the contrary discussed the economic benefits of using public transport over cars and she said:

*“Yeah I mean, my boyfriend he just bought a car. We live together but he bought it from his own savings cause he always wanted to get a car when he got his first job, which he has now so... I mean, technically I don’t think we need a car cause we live so close to everything in the city. But I calculated that taking the bus is cheaper so I’m going to continue doing that”.* (Respondent 11.)

### **5.1.1 Convenience and accessibility in relation to gender equality**

To place convenience and accessibility in the context of gender equality, several quotes from this section show some distinct correlation. As for one, those respondents who more often claimed to perceive public transport as convenient over cars were in most cases women. For instance, Respondent 7 talked about how she prefers buses because of its simplicity, Respondent 11 said she prefers public transport because it is cheaper and Respondent 1 said she uses buses in most of the cases, except when going a certain distance out of the city. On a similar note, Respondent 9 said that she shared a car with her husband, but that the car was more or less by default meant solely for him, even though they both had equal access to public transport to and from their work. In comparison, one other respondent said that public transport had never been an option for him as a working commute, because of his workplace being so geographically segregated and none of his colleagues even discussed the idea of buses. Respondent 5 also claimed that cars are more convenient for his daily routine and that buses would have to adopt more of the features that cars have, if he were to change his travel behaviour. Altogether in this theme, there appeared to be a trend of women more so than men perceiving public transport as convenient and preferred it to cars. Examples were also given of men declining public transport because of its lesser convenience.

## **5.2 Comfort, interior design and use**

The interior design and the comfort of buses were much debated throughout almost every interview. Various aspects and factors were brought to attention concerning the issues of the current design, structure and use, where several respondents expressed similar opinions. Most of the respondents said that they were unsatisfied with the current comfort on buses and wished to see a more modern bus fleet. One respondent expressed his discontent and said:

*“I’m a pretty large man and I honestly feel that I don’t fit in those small seats that they have here on buses, so I don’t feel that public transport is that accessible for me. So I stopped riding buses almost completely now cause there’s no point in travelling uncomfortably, my car has everything I need instead.”* (Respondent 12.)

Several other respondents expressed similar concerns, where the distribution and structure of seats seemed to be an issue. One trend among the respondents

was that men, elderly and those using public transport frequently expected and also wanted to get seats on buses to a higher extent, but claimed that this was particularly a struggle during rush hours. Some of the respondents also complained about those seats being faced backwards, as it opted for lack of space between passengers as well as not being able to see the screen that displays the upcoming bus stops. In comparison, some of the younger respondents, mostly women, and some of those who seldom use public transport said that they occasionally experienced crowding but that they were not that bothered about getting a seat or not and sometimes chose to stand out of practical reasons. Respondent 4 was one of them to elaborate on this and said she often chooses to stand to avoid the hassle of getting out of your seat if it is crowded and if you have someone sitting next to you to avoid disturbing them. She emphasised that since her bus rides usually lasts around 10-15 minutes, she does not feel the need to sit during such short trips. However, she thus argued that there are to few areas to actually stand on, in compared to those who have seats. One suggestion she proposed was to re-build the interior design with perhaps more places to stand in the front of the bus and distribute more seats in the back instead.

Overcrowding did not seem to be a problem during most hours of the day, besides rush hours, and about half of the respondents stated that other passengers did not bother them or inflict any trouble per se. Nonetheless, Respondent 2 explained the difficulty with not having your own private sphere on buses as he sometimes is required to have work-related phone conversations and then are forced to do it out in the open. He further expressed a wish that the interior should be designed differently, by installing individual booths or some other form of compartmentalising that could benefit different types of needs.

On another note regarding comfort, Respondent 13 instead directed his criticism towards other passengers and talked about how they had disrupted his comfort on buses completely. He mentioned that on several occasions, on the same bus within Umeå city, other passengers had disturbed him and his daughter to the point that he does not wish to use public transport anymore. More specifically, he mentioned drunk people during the daytime, older men that approach his 11-year old daughter and that this has escalated over the years to make him lose control over these situations. As a consequence, they only take their car now together instead.

A few other concerns were also raised regarding the comfort for travellers on public transport, even if they were expressed in a different manner than Respondent 13 did. Respondent 4 said that she herself did not experience much discomfort but she had noticed something that she wanted to enlighten:

*“If you think about baby strollers and wheelchairs for instance, how are they received on buses, really? I think more attention should be paid there. Because it feels like, first the mother has to get the stroller on-board with a manual ramp that she has to hassle with, then go up to the front and pay...and same with people in wheel-chairs. And I mean, who help them if they need assistance? That should be designed differently I think, with some automatic device, better structure and*

*better service*". (Respondent 4).

Respondent 4 was not alone in professing difficulties or concerns with baby strollers. In fact, some other respondents discussed the discomfort for mothers with strollers and how the interior design often failed in facilitating mothers and that more space ought to be provided for such equipment. This further led to discussions of who in general use public transport more often and thus are more inclined to either face discomfort regularly or perhaps be subject to discomfort for others. More specifically, when asked if respondents thought that more men or women use public transport in Västerbotten, about half of the respondents believed it was evenly distributed between the genders, whereas the other half believed it to be more women. Two of the respondents commented:

*"I think it's more women on buses, based on the trips that I do at least. And I think I most rarely see men between 40-60 years old actually".* (Respondent 3).

*"With younger people, I think it's the same amount of women and men, like with students. But with middle-aged people like myself, it's more women. Both from what I've seen but also what I've heard from people that I know, that the women I know they take the bus and men they drive their car".* (Respondent 7).

Similarly, when respondents were asked how they felt regarding a possible uneven distribution between women and men on public transport, some of the respondents stated it to not be a problem. Yet, a few others discussed the level of comfort they sometimes experience depending on their fellow passengers. For instance, Respondent 14 said that it sometimes feels unsafe to travel home at night with bus from work, but since there are mostly women on buses at that time, she still feel comfortable to continue doing so.

As many of the respondents believes the comfort and interior design is insufficient, and thereby lack certain appeal and accessibility to all groups in society, it is essential to consider other alternatives within public transport in order to compensate for certain deficient aspects. One respondent specifically argued for this as he claimed that in order to attract more bus travellers, the time spent on buses must be valuable. People should have the option to be active and productive and use the travel time for something else to make the trip more meaningful. He thus stated:

*"As for me, I have paid work hours now on the bus and I see public transport now as my second, or technically, as my main office. So for me, it is essential that internet access work, which it usually does but sometimes it doesn't. And also when I travel for several hours, I wish there were places where I could relax more and perhaps lie down. But I think the main thing to focus on is to digitalise the trip even further. And also, I read a study that said that young people were much more inclined to use public transport if they could be active on the internet with social media and so on. "* (Respondent 2).

### **5.2.1 Comfort, interior design and use in relation to gender equality**

As for the comfort, the ideas on the interior design and the discussions on who actually uses public transport, some of the comments had some parallel remarks with gender issues. The current comfort and the interior seemed to be a problem for most respondents, one way or the other. Some of the male respondents highlighted problems that were related to their work environment on buses and that the physical structure was not built for their individual needs. Respondent 13 also talked about how other passengers, especially men, had made him stop riding buses altogether and that he lost his control over the situation. These notions, of wanting transportation measures to be more individually adapted and thereby mimic car characteristics whilst maintaining a sense of control, are somewhat more linked with masculinity. On the other hand, some of the women, particularly younger women, showed different priorities as they said that getting a seat was not their main concern and that they sometimes felt “in the way” of other passengers and therefore often chose to stand. Likewise, as some respondents talked about mothers with baby strollers, none of the respondents mentioned fathers with baby strollers and whether or not men were experiencing these sorts of situations and possibly discomfort on buses, which further can be considered as a non-equal gender standpoint. Overall, both men and women seemed to have different priorities in this study, as male respondents debated more around their personal space, control and an adjusted interior design for them, whereas women more often discussed other passengers both in relation to themselves but also in relation to the interior design.

### **5.3 Travel time and frequency**

Travel time and frequency of buses were two elements during the interviews that were most re-occurring and specifically mentioned as very important features for attaining an attractive public transport system. Many respondents argued that without reasonable travel time and buses going very often, one immediately starts to view public transport as complicated and that it takes a lot of energy to plan your trips. Respondent 1 mentioned that travel time is the most important element and further compared it to previously mentioned themes. She said that comfort is naturally important as well but if that were one’s highest priority, one would not take the bus, as it is by default less comfortable than a car or a bike. The length of each trip is therefore much more essential, according to her, where the biggest priority should be to minimise the travel time to that of which it would take to use your car, to make it worth your while.

On the contrary, there were some of the respondents who claimed that the travel time itself did not affect their trips extensively as it usually was a matter of minutes. Yet, a few emphasised that even the fewest minutes can make a vast difference and severely increase one’s travel time. One such comment was made from Respondent 2, where he explained that having connecting trips, meaning having to change buses during a trip, has caused him problems at several occasions. The problem he specifically referred to was as he has a monthly bus card, there is no single ticket that specifically tells the drivers where he is going

and when he has to change buses. Consequently, if he is late with the first bus, he is very likely to miss his connecting bus, compared to if he had a single ticket that would register him on all buses and the drivers would know to wait for him. By that he thought that the system should be more coordinated, both if you change between companies but also when changing between travel mode.

The importance of frequency of buses on the other hand, was something that most respondents agreed on and especially for those using public transport on a regular basis. Throughout several interviews, respondents mentioned that since most buses in Umeå nowadays run on a ten-minute interval, one is not even required to look at the timetable for most of the time. However, this is not the case for all routes in the city, which so forth received some criticism from a few of the respondents. One of the respondents that talked specifically about this stated that frequency of buses is important for his day-to-day activities:

*“What’s crucial is that buses go continuously. For instance, often it feels like you either take a bus that gets you there too early, or you take a bus that gets you there too late. But if it would go often, it wouldn’t be this big planning process every time you want to transport yourself, almost similar to taking your car. Because now it’s like, ok if we take the bus, from where does it leave? Which bus do we take? When?”* (Respondent 5).

Another interesting perspective on why buses shall run frequently and regularly was brought up by Respondent 11, where she debated around the fact that it can increase safety:

*“But sometimes when you’re waiting for the bus, at bus stops you know, it doesn’t feel... Or I mean, as a woman you don’t always feel so secure when you’re out at night. So that’s why I think it’s really important that the buses go often, so you don’t have to stand there and wait alone for a long time.”* (Respondent 11).

### **5.3.1 Travel time and frequency in relation to gender equality**

Travel time and frequency was as earlier mentioned very much debated as the most important feature, which almost all of the respondents agreed upon. Both female and male respondents discussed in a similar manner, which to some extent can be argued that these factors are of equal relevance in order to sustain and develop these features to create an attractive public transport system for both men and women. Still, some variations in their reply is notable, for instance Respondent 5 discussed why frequency of buses is important for him to not make travelling by bus a such more complicating process than choosing your car. In relation, a female respondent instead discussed the level of personal safety and why frequency of buses is essential because of that. Even if one could state that travel time and frequency is important for every traveller, it is thus imperative to consider the intersectionalities between each traveller in order to strive towards a gender equal system. Moreover to acknowledge the deep-rooted reasons for why one chooses to prioritise these factors and more specifically why men and women discuss these issues differently from each other, as in this example when a man highlights the difficulty of buses in relation to cars,



whereas a woman rather talks about safety towards other people.

## 5.4 Reliability and information

When speaking of one's reliability towards public transport in Västerbotten, most respondents stated that they in general could rely on buses being punctual and being able to transport them from one location to another. Yet, some of the respondents indicated that the current system is too confusing from time to time and that it lacks certain coordination between passengers, drivers and planners. One such specific example was given by Respondent 3 who described why she could no longer depend on her daily bus route as the drivers sometimes drive another way. She explained how she, among others, take the early morning bus at 05:30 from Öst på Stan but that the buses does not always come as they sometimes choose a different route and therefore misses her bus stop. She further said that she personally has confronted the drivers about this and the reply she got was that they themselves do not even know why they do this and does not have a schedule for it. As a result, because she no longer trusts the system, she usually walks to Vasaplan and takes the bus from there instead, as she cannot risk being late for work.

Other respondents shared similar experiences as well, where one frequent bus user said that she felt she does not fully trust the public transport system in terms of being given accurate information, and on time:

*“Once we had some oil leakage with the bus, and we had to get off and then we were told that an extra instated bus would come to pick us up but no bus ever came. And then another time, we sat for hours waiting on a bus that were planned to leave at 17:15 from Lycksele but it never showed. Then at 19:30, the next scheduled bus came so we got on that. And then, we got a message on our phones and computers, saying that the 17:15 bus had been cancelled. But then we were already on the 19:30 bus, so what good did that information do? It should have come much sooner.” (Respondent 6).*

Most respondents agreed that the absence of information is an obvious problem and that this was the main reason for not relying on the system to fulfil its purpose. Respondent 8 further professed why this had affected his attitude towards public transport and said:

*“I find that it's often a sense of ‘oh we missed two buses, so let's skip to send the next one as well’, just so they don't fall behind on their schedule even further. And sure, it makes sense I guess, but then you should be notified of this. It should pop up a message on one of those digital screens at the bus stops, saying that the next bus is cancelled. Or perhaps, some sort of system to make you track the bus via GPS and see exactly where it is. I don't know, but now I hardly ever take the bus anymore, and especially not when I have a specific appointment to get to, cause I can't rely on it.” (Respondent 8).*

Some of the respondents emphasised that the digital screens situated at bus stops are in need for an upgrade and that they all too often are defective. They all

had similar observations, which were expressed in relation to each other's comments. It was pointed out that the screens at Vasaplan keeps changing and that it is difficult to determine what information is actually supposed to be provided. Many interpret the screens nowadays to count down the minutes until the next bus leaves instead of displaying the current time. Nevertheless, several complained that this usually does not correspond with the timetable at all and that they sometimes display the current time anyway. This made several of the respondents doubt the entire system as it is difficult to decide whether or not it is worth to wait for the bus at all.

Furthermore, the digital screens were not the only technical device to receive critique during the interviews. Few declared the bus app to be fully functioning in terms of providing information and being able to find what one is searching for. For instance, this was mentioned by Respondent 1 who had some ideas of how the app could be developed to better be adjusted for everyone:

*"This app, I'm not really friends with it. For instance, if I know where I'm going, like a certain neighbourhood or area, but I don't know the name of the bus stop, how do I find that out? That's the kind of thing one doesn't know if you're new in Umeå. So I feel like the app is constructed for those who already know their way around. It should be some form of map that displays all areas along with each bus stop. I think that would make it easier for everyone, and perhaps more people would take the bus then." (Respondent 1).*

#### **5.4.1 Reliability and information in relation to gender equality**

To reconnect this theme of reliability and information with gender equality is not as apparent as some of the other themes. Here, both men and women agree on the unreliable system and have both experienced situations of being provided with deficient information. Yet, drawing from the quotes, Respondent 8 stands out from the others as he says that not being able to rely on the system has made him almost completely stop using public transport. Several others talked during the interviews about similar experiences, such as Respondent 1 and Respondent 6, however they both stated that nothing they had experienced could make them stop travelling by bus, as none of their experiences were that severe. This shows some tendencies of the different attitude and behaviour that men and women can have towards public transport, as a man in this case became reluctant towards public transport completely, whereas the women "settled" with it being that way, even though they were not happy with it. It therefore is essential to enlighten these observations in order to fully comprehend its consequences on the system in its entirety.

### **5.5 Environment, health and safety**

None of the respondents stated that environment and health issues were their main reason for choosing public transport. Although, these issues were fairly often mentioned when discussing the benefits of buses and many claimed these effects to be an additional bonus. When asked what they believe to be good with

public transport, many respondents replied by stating that it was good for the environment and that if one has the opportunity to use public transport, it is the better alternative. Some stated that one should try to use your car as little as you can, even though it is difficult to carry out in practise. One of the respondents who further talked about the environmental aspects, also stated that he believed that simply considering the public transport system as environmentally friendly is not enough motivation for choosing it as a transportation alternative:

*“The environmental aspect for sure, I mean, that’s the biggest point with using public transport. Although I don’t think that’s what attracts people. It must somehow be convenient and fun to travel environmentally friendly as well “* (Respondent 15).

Most people might not consider health aspects to be an essential part of public transport as it does not require much physical activity. Yet, two respondents talked specifically around the subject and thus described how they found that their personal physical health could be, or is already enhanced by using public transport. Respondent 8 discussed how he likes to use his physical capacity and therefore prefers biking in most cases. However, when he has to travel quite far, he likes to have the opportunity to combine biking with bus riding as to bike to a certain bus stop then leave his bike there. More specifically, he said that he prefers if one is allowed to bring their bike onto buses, but that he found that difficult to do here in Västerbotten as he sensed that it neither was allowed or was considered frowned upon. Another respondent also talked about his physical capacity in relation to public transport and said:

*“It’s good for the environment obviously, but what most people don’t think about is that it is actually good for your health too. More and more studies show that everyday exercise from walking to and from places are much more beneficial for your health than just going to the gym a couple times a week. So I discovered, using my pedometer, that those days that I take the bus, I walk much longer distances by default since I have to walk to and between bus stops, which doesn’t happen when I take my car cause then I just park right outside. “* (Respondent 2).

In relation to health, there were discussions on the subject of safety, both in terms of safety in traffic but also towards other passengers and drivers. During the interviews, the majority said that they felt relatively safe and did not perceive public transport in Västerbotten as an unsafe transportation mode. However, a few respondents commented upon some unsafe situations they had encountered. One of them was Respondent 7 who talked about how crowded buses can be, which she considered unsafe as most passengers therefore have to stand. She had asked one of the bus drivers that told her that they are allowed to have 54 standing passengers and 46 seated passengers. From that reply, she has started to question whether or not buses are a safe transportation mode, by having that many standing passengers.

Respondent 11 on the other hand, rather highlighted the unsafe conditions that can occur between passengers as opposed to traffic safety, and shared one of her experiences:

*“Sometimes when you go by bus at night, there is a lot of fuss and sometimes even fights or just people acting immature and loud. I don’t know if they have cameras on the bus and I guess it’s difficult for the driver to see....but I’ve seen people doing all kinds of bad things to each other, which kind of make you feel exposed and not so secure.” (Respondent 11).*

### **5.5.1 Environment, health and safety in relation to gender equality**

As for the last theme, Environment, health and safety was also comparable with a gender perspective. Both environmental and health issues were raised from both men and women, yet, their discussions varied from one another. Environmental issues were more or less stated as an obvious reason for why public transport should be promoted, however, a male respondent still stressed that something more is needed in order to attract travellers. Likewise, two other respondents emphasised the vitality of being able to combine health and exercise with public transport. In comparison, most of the women out of the respondents seemed more willing to agree that one should choose public transport due to environmental issues, without none of them stating that it should be combined with anything else in order to make it attractive. For the safety aspects, most of the respondents to comment upon that were also women, who had considered both unsafe traffic situations as well as safety towards other passengers. Conclusively, there seemed to be a tendency among these respondents, that men more often argued that public transport should have more to offer to make one less reluctant to use it, whereas women seemed in general more satisfied with the current system except regarding safety issues.

## 6. CONCLUDING DISCUSSION

### 6.1 Public transport in Västerbotten with a gender perspective

In this study, the aim has been to investigate in what way gender equality is relevant to consider in order to attain and develop the public transport system. This has been carried out through an empirical study, in which bus travellers own notions and perceptions has been the sole focus. More specifically, it has been vital to identify the distinctions between women and men's perceptions and behaviour and how they perceive public transport differently from each other, to more fully comprehend how the system can be developed according to both women and men's needs. To instead view and understand public transport in relation to gender issues on a national or global level, it is essential to include the first research question of the study, regarding how public transport can be accessible and sustainable from a gender perspective. This matter is something that rather quickly became apparent during the interview process, as the respondents' answers correlate with much of what has been mentioned in the previous studies chapter. To begin with, the concept of mobility easily transcends into this study due to the interrelationship of transporting people from one location to another. Yet, what specifically draws attention in this case is individual mobility, as much of the study focuses on individualistic behaviour towards public transport. In this regard, Hanson (2010) discusses how individual mobility is embedded with gender relations and how it further must incorporate a social, cultural and geographical context. This somewhat relates to the general discussions during the interviews, when respondents debated around their mode choice, which all more or less, depend on social, psychological or geographical factors being rooted in masculine or feminine norms. Also, when discussing mobility and accessibility in the same context, Gil Solá (2013) states local and regional activities are more often shaped after masculine norms, due to men and women's values not being given equal space, which is why a study such as this one, becomes paramount to consider.

To more specifically focus on the respondent's answers and discussions, several parallel remarks can be drawn with the previous studies chapter. As Simićević, Milosavljević & Djoric (2016) says, men and women have very similar travel patterns around the globe, with men using cars to a higher degree and do more trips, whilst women more often use public transport and have a more complex travel pattern with escorting children and shopping. In this study, even if the respondents are too few to represent a total population, Västerbotten County appears not to be an exception of this research. For instance, when discussing the respondents daily travel behaviour, some of the female respondents stated that they use public transport on a daily basis and often mentioned that they were in no need of a car. On the contrary, some of the male respondents either claimed cars to be of greater convenience or claimed that public transport lacks certain qualities that they find necessary to use it as a transportation mode. Likewise, when discussing who actually uses public transport the most, about

half of the respondents believed it to be more women than men, which is a logical reasoning as according to Umeå Kommun (2015) men use cars 62 % of their trips and women 44 % of their trips, which naturally would mean that women use environmental friendly transportation modes more often in Västerbotten County. Also, as mentioned by Simićević, Milosavljević & Djoric (2016) earlier, women tend to travel more often with kids, which further can be related to the quotes made by several of the respondents, when saying how they often see mothers with baby strollers on the bus. What is interesting about these statements is that none of the respondents were asked specifically on this matter as no such question was composed in the questionnaire. Instead, these respondents by default mentioned 'mothers with baby strollers' when talking about discomfort on public transport for passengers, which goes to show that there might be some correlation with the academic research. As none of the respondents mentioned fathers with baby strollers makes it further interesting from a gender perspective, both in the sense that passengers might not perceive these type of constellation of a father and a child to be a part of everyday bus trips, or not believing men to experience this type of discomfort at all.

On a similar note, specifically regarding men's travel behaviour, Respondent 10, a man in his 60s, talked about how he during his working years had worked outside the city in a more remote industrial location where he solely was dependent on his car. This transcends with the notion that Matthies, Kuhn & Klöckner (2002) and Berg & Karresand (2015) discusses, that men are to some extent more acquired to use cars for transport, due to this more limited access to public transport in peripheral areas where men more often than women work. In relation to this, Gil Solá (2013) states that women more often work in central locations and closer to home in order to facilitate household errands, which is comparable to what Respondent 9 conveyed about her life. She mentioned how her husband works outside the city and that their shared car is therefore almost solely meant for him, even with them living rather close to both bus and train connections that could just as easily be his choice of transport as well. During this interview, and perhaps more particularly this discussion, it became evident how certain travel behaviour can be a result of just a force of habit by clinging to the notion that "this is how it has always been", without contemplating and reflecting over if other transportation alternatives could be a better solution. With this travel behaviour, he by default has access to their shared car, even as his job is barely a 30-minute single train ride away. Perhaps this is due to what Krantz (1999) and Polk (1998) attests, when claiming that men are more inclined to use cars because of their upbringing where cars are much more socially and culturally identified with masculinity. And perhaps it is also related to men being generally more willing to spend money on cars (Polk, 1998), in which Respondent 11 expressed that she felt reluctant to share her boyfriend's car, as she knew that public transport was cheaper. In that sense, there might be some tendencies of Krantz (1999) statement to be accurate in empirical research, regarding that men usually remains the sole user of a car, even if a household shares a car, based on what those female respondents talked about. Thus, these statements combined, further answers the second research question regarding what different notions women and men have towards public transport.

## 6.2 How can public transport be developed?

In order to more easily comprehend what ought to and needs to be developed with public transport, it becomes paramount to consider what the respondents discussed around the current public transport system and what they believe either to be fully functioning compared to more deficient solutions. For one, most of the respondents seemed to value an efficient travel time as the most important asset, which in relation to what Imaz et al. (2015) and Diab et al. (2017) state, is what people in general believe to be most essential. Furthermore, having no longer than a ten-minute interval of buses was also deemed relevant for many during the interviews, for considering public transport to be flexible, which supports the findings from Kottenhoff, Andersson & Gibrand (2009) regarding their study on Bus Rapid Transit. Contrasted to this, Imaz et al (2015) and Krantz (1999) both argues that economic factors are of lesser importance and is seldom the single reason for neglecting public transport entirely, which further corresponds with much of what the respondents discussed as none of them mentioned economic factors as the most important for them.

With this information in mind, perhaps it is simple to know what assets to develop further in order to attain a sustainable and attractive public transport system. Even as almost all of the respondents easily attested to either travel time or frequency being the most important, there was still a general more abstract notion and concern that exceeded above all of these “obvious” factors. This almost only became apparent by the way the respondents discussed around issues, perhaps subconsciously, which made it clear that “simple” factors such as reducing the total travel time is not enough for either the bus travellers or to create an attractive and sustainable system. One of the respondents talked more explicitly on this matter than the others as he said that in order to attract more bus travellers, the time spent on buses must be valuable. This is a rather interesting statement as it somewhat corresponds with what Duarte et al. (2010) argues, when discussing hedonism and how people perceive their own well-being. In many ways, it seems easy to regard public transport as just physical means of transportation, but much of the academic research and the way the respondents discussed, show that personal happiness and quality of life can be much valued as an important part of a bus ride experience. Most of the respondents talked about their personal experiences in relation to the themes of comfort, convenience and reliability rather than discussing how these factors affect people in general, which can be argued to be a result of these factors having an impact on a personal level for the respondents. In a way, this could help explain why perhaps many of the respondents did not claim environmental or economical factors to be the most important, as they are probably more seen as external factors which does not have an immediate affect on one’s personal well-being and satisfaction. Therefore, in order to develop an attractive public transport system in Västerbotten which inherits a sustainable and gender equal approach, it seems vital to focus more on the travellers themselves by identifying individual needs and how each bus trip can be made more valuable. To more profoundly consider ways in which the interior can be designed differently to opt for activities and for travellers to be productive if they wish to be and in comparison, develop possibilities to have a calm and relaxing bus commute. This

of course will compose many conflicting interests and is probably easier to develop on long-trip buses than those in the city centre. Nevertheless, it seems that in this day and age, with people having many options and alternatives to choose between and with people constantly compares and evaluates what is most valuable and worth their while, that public transport and other environmental friendly options must be made more interesting, more fun and more pleasing. Still, aspects such as travel time, frequency and convenience should not be neglected in any way, but in terms of developing these perhaps it is fundamental to consider how men and women perceive these differently and start to address whether or not public transport is equally accessible for both men and women, and if not, what actions are needed to work on such a strategy.

The current transportation objectives that today guidelines Västerbotten in its transport development are based on the national governmental objectives which in many ways focuses on sustainability principles. As noted earlier by Grieco (2015) regarding the concept of sustainability, is that social sustainability has usually been less emphasised as environmental issues have often been easier to define. However, the definition of social sustainability, shortly phrased, is to create welfare that encourages social integration, equity and equality, which is what Västerbotten County should further aim to incorporate on a larger scale in its transportation plans. Today, only a small fraction of Kollektivtrafikmyndighetens future development plans mentions gender inequality as an issue in the transport sector, with no real implications on how this issue shall be dealt with or how a process shall be carried out to promote gender equality. One inspiration could be to draw examples from the sustainable transport principles that Litman (2016) discusses on how to provide systems as intergenerational equity or the importance of health in terms of quality of life. Moreover to be inspired by Gil Solá (2013) when she mentions that not only is individual changes needed, as structural changes are equally important. Conclusively, the statistics from Umeå Kommun (2015) and this study show that there are tendencies for gender inequality within public transport in Västerbotten. Because as Gil Sola (2013) claims, the relationship between sustainability and gender equality is receiving more attention, yet, it is likely that this attention is happening to slowly and that it therefore is essential to work more efficiently on such structural changes in the transport sector and provide such issues more space in future plans. Perhaps then, we can begin to see changes in mode choice, a reshaping of cultural and social values linked to each transportation alternative and with men beginning to travel more like women.

### **6.3 Future studies**

To continue on this topic and more deeply investigate public transport in relation to gender equality, it would be interesting to view geographical differences to see what role geography plays in terms of how we view our transportation alternatives, mostly in relation to bigger city compared to smaller rural areas. Further, to research on different modes of public transport by doing a comparative study between buses and trains and examine if, and why men and women have different notions concerning each of these transport options.



## REFERENCES

Beirão, G & Cabral, J. S. (2007). Understanding attitudes towards public transport and private car: A qualitative study. *Transport policy*, 14(6), 478-489.

Berg, J., & Karresand, H. (2015). Är bilberoende och tidsbrist ett hinder för ökat kollektivtrafikresande?: En kvalitativ aktivitetsbaserad studie. *Mistra Urban Futures Reports* 2015:07

Bergman, A., & Gustafson, P. (2008). Tjänsteresor, tillgänglighet och relationen mellan arbete och familjeliv. *Arbetsmarknad & arbetsliv*, 14(2), 11-28.

Bjerkemo, S.-A. & Serder, B. (2011). *Så Blir Bra Bytespunkter Bättre*, Lund.

Bryman, A (2013) *Samhällsvetenskapliga metoder*. Upplaga 2:4. Malmö: Liber AB

Colantonio, A., & Dixon, T. (2011). *Urban regeneration and social sustainability: Best practice from European cities*. John Wiley & Sons.

Currie, G., & Wallis, I. (2008). Effective ways to grow urban bus markets—a synthesis of evidence. *Journal of Transport Geography*, 16(6), 419-429.

Diab, E., van Lierop, D., & El-Geneidy, A. (2017). Recommending transit: Disentangling users' willingness to recommend transit and their intended continued use. *Travel Behaviour and Society*, 6, 1-9.

Denscombe, M. (2009). *Forskningshandboken – för småskaliga forskningsprojekt inom samhällsvetenskapen*. Lund: Studentlitteratur.

Dobranskyte-Niskota, A. Perujo, A. Jesinghaus, J & Jensen, P (2009) Indicators to assess sustainability of transport activities. Part 2: Measurement and evaluation of transport sustainability in the EU27. European Commission & Institute for environmental and sustainability.

Duarte, A., Garcia, C., Giannarakis, G., Limão, S., Polydoropoulou, A., & Litinas, N. (2010). New approaches in transportation planning: happiness and transport economics. *Netnomics*, 11(1), 5-32.

Elias, W, G. L. Newmark, and Y. Shiftan (2008). "Gender and Travel Behaviour in Two Arab Communities in Israel." *Transportation Research Record: Journal of the Transportation Research Board* 2967: 75–83

Ellaway, A., Macintyre, S., Hiscock, R., & Kearns, A. (2003). In the driving seat: psychosocial benefits from private motor vehicle transport compared to public transport. *Transportation Research Part F: Traffic Psychology and Behaviour*, 6(3), 217-231.

Faith-Ell, C & Levin, L. (2013). *Kön i trafiken: Jämställdhet i kommunal*

transportplanering. Sveriges kommuner och landsting. Tryckt: LTAB

Freudendal-Pedersen, M. (2009). *Mobility in daily life: between freedom and unfreedom*. Ashgate Publishing, Ltd..

Frändberg, L., Thulin, E. & Vilhelmson, B. (2005) *Rörlighetens omvandling. Om resor och virtuell kommunikation – mönster, drivkrafter, gränser*. Studentlitteratur, Lund

Frändberg, L., & Vilhelmson, B. (2011). More or less travel: personal mobility trends in the Swedish population focusing gender and cohort. *Journal of Transport Geography*, 19(6), 1235-1244.

Geurs, K. T., & Van Wee, B. (2004). Accessibility evaluation of land-use and transport strategies: review and research directions. *Journal of Transport geography*, 12(2), 127-140.

Gil Solá A. (2013) På väg mot jämställda arbetsresor: vardagens mobilitet i förändring och förhandling, Göteborg: Institutionen för ekonomi och samhälle, Avdelningen för kulturgeografi, Handelshögskolan vid Göteborgs universitet.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *Qualitative Report*, 8(4), 597-607

Goldman, T., & Gorham, R. (2006). Sustainable urban transport: Four innovative directions. *Technology in society*, 28(1), 261-273.

Grieco, M. (2015). Social sustainability and urban mobility: shifting to a socially responsible pro-poor perspective. *Social Responsibility Journal*, 11(1), 82-97.

Gålmark, L (2012) Så blir kollektivtrafiken jämställd, Jämställ NU  
<http://www.jamstall.nu/praktiska-exempel/samhallsplanering/sa-blir-kollektivtrafiken-jamstalld/> - Accessed 2017-01-23

Handy, S. L. (2002). Accessibility-vs. mobility-enhancing strategies for addressing automobile dependence in the US. Institute of Transportation Studies.

Hansen, W.G. (1959). How accessibility shapes land use. *Journal of American Institute of Planners* 25 (1), 73–76.

Hanson, S. (2009) Accessibility. In: Gregory, D., Johnston, R., Pratt, G., Watts, M.J. & Whatmore, S. (eds.) *The dictionary of human geography*. Wiley-Blackwell, Chichester

Hanson, S. (2010). Gender and mobility: new approaches for informing sustainability. *Gender, Place & Culture*, 17(1), 5-23.

Haugen, K. (2012). *The accessibility paradox: Everyday geographies of proximity*,

*distance and mobility* (Doctoral dissertation, Umeå universitet).

Hedenfelt, E. (2013) Hållbarhetsanalys av städer och stadsutveckling Ett integrerat perspektiv på staden som ett socioekologiskt, komplext system. Malmö: MAIPUS.

Hjorthol, R. (1998). Hverdagslivets reiser. En analyse av kvinners og menns daglige reiser i Oslo. TØI rapport 391/1998. Oslo: Transportøkonomisk institutt.

Holmberg, B. Kollektivtrafik. I Hydén, C (2008) *Trafiken i den hållbara staden* Lund: Studentlitteratur AB

Imaz, A., Habib, K. M. N., Shalaby, A., & Idris, A. O. (2015). Investigating the factors affecting transit user loyalty. *Public Transport*, 7(1), 39-60.

Krantz, L. G. (1999). *Rörlighetens mångfald och förändring. Befolkningens dagliga resande i Sverige 1978 och 1956*. Göteborgs Universitet: Department of human and economic geography

Kottenhoff, K., Andersson, P-G. & Gibrand, M. (2009). Bus Rapid Transit – kunskapssammanställning med identifiering av forskningsfrågor, Stockholm; Trivector Traffic AB.

Larsson, A., Elldér, E., & Vilhelmson, B. (2014). Geografisk tillgänglighet. Working papers in Human Geography 2014:01. Göteborgs Universitet: Department of Economy and Society

Law, R. (1999). Beyond 'women and transport': towards new geographies of gender and daily mobility. *Progress in human geography*, 23(4), 567-588.

Levy, C. (2013). Travel choice reframed: "deep distribution" and gender in urban transport. *Environment and Urbanization*, 0956247813477810.

Lindelöw, D. (2009). Strategier för ett ökat gående och cyklande - en litteraturstudie om olika faktorerers betydelse. Bulletin 249. Lunds Universitet, Tekniska högskolan i Lund: Institutionen för teknik och samhälle

Litman, T (2016) Well measured – developing indicators for sustainable and livable transport planning. Victoria Transport Policy Institute

Matthies, E., Kuhn, S., & Klöckner, C. A. (2002). Travel mode choice of women: the result of limitation, ecological norm, or weak habit?. *Environment and behavior*, 34(2), 163-177.

Näringsdepartementet, (2013). Regeringen.se.  
<http://www.regeringen.se/sb/d/18128/a/229619> - Accessed 2017-03-04

Patton, M. Q. (2001). Qualitative evaluation and research methods (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Polèse, M., & Stren, R. E. (2000). *The social sustainability of cities: Diversity and the management of change*. University of Toronto Press.

Polk, M. (1998). Gendered mobility. A Study of Women's and Men's Relations to Automobility in Sweden. Humanekologiska skrifter 17. Göteborg: Institutionen för tvärvetenskapliga studier av människans villkor, Göteborgs universitet.

Polk, M. (2003). Are women potentially more accommodating than men to a sustainable transportation system in Sweden?. *Transportation Research Part D: Transport and Environment*, 8(2), 75-95.

Polk, M. (2004). The influence of gender on daily car use and on willingness to reduce car use in Sweden. *Journal of Transport Geography*, 12(3), 185-195.

Regeringen (2008) Mål för framtidens resor och transporter. Proposition 2008/09:93

Sager, T. (2006) Freedom as mobility: implications of the distinction between actual and potential travelling. *Mobilities* 1:3, 465-488

Sandow, E., & Westin, K. (2006). Vill människor pendla längre. *TRUM Rapport*, 1.

Simićević, J, Milosavljević, N., & Djoric, V. (2016). Gender differences in travel behaviour and willingness to adopt sustainable behaviour. *Transportation Planning and Technology*, 39(5), 527-537.

SKL, Vägverket, Banverket & Boverket, (2007). TRAST-Trafiken i den Attraktiva Staden - Underlag, utgåva 2, u.o.: u.n.

Svenska kommunförbundet; Vägverket; Boverket; Banverket (2004). *Trafik för en attraktiv stad*. Stockholm: Elanders Berlings AB

Trafikanalys TRAFANA (2015) Kollektivtrafikens utveckling – en analys av den nationella statistiken. Rapport 2015:15

Trivector Traffic (2010) Jämställdhet i infrastrukturplaneringen – en utvärdering. Rapport 2010:38, version 2.0

Tyrinopoulos, Y., & Antoniou, C. (2013). Factors affecting modal choice in urban mobility. *European Transport Research Review*, 5(1), 27-39.

Umeå Kommun (2015) Hur långt har Umeåborna till jobbet? Utredningar och rapporter från övergripande planering nr 11

Umeå Kommun (2017) Fakta om Umeå Kommun  
<http://www.umea.se/umeakommun/kommunochpolitik/faktaomkommunen.4.bbd1b101a585d704800061691.html> - Accessed 2017-02-22

Wheeler, S. M. (2013). *Planning for sustainability: creating livable, equitable and ecological communities*. Routledge.

Winter, G. (2000). A comparative discussion of the notion of validity in qualitative and quantitative research. *The Qualitative Report*, 4(3&4).

World Commission on environment and development. (1987). Towards sustainable development. In Wheeler (Red.), *Sustainable urban development reader* (s. 146-150). Hoboken: Taylor and Francis.

# Appendix 1

## Semi-structured interview guide

- Where do you live? In which areas in Västerbotten do you travel between?
- How do you travel? What transportation mode do you use? Why?
- Does your choice of transportation differ from what activity you are doing? What activities do you go to with either car/bus? Why/why not?
- Do you feel limited in your choice of transportation? Would you want to travel differently (if you could)? Why/why not?
- What do you think of the current public transport system in Västerbotten? Does it correspond with your needs? Why/why not? How could it be developed to easier fit your needs?
- How was your latest bus experience? Elaborate
- What is “good” with public transport? What is “bad” with public transport?
- Has anything happened on public transport here in Västerbotten that you think is “out of the ordinary”? Follow up questions: Bad experiences, good experiences?
- What factors within public transport do you think is the most important for you to get the best possible bus ride experience? Why those?
- Who do you think uses public transport the most? For whom is public transport equipped/constructed for? Why do you think that?
- Are there any actions and/or developments with public transport that could make you choose it as a transportation mode more often? What are they? Why those?