



**From 'Car-Less' to ' Car-Free' Living: A Social Practice Theory
Perspective on Sustainable Mobility among South Asian Immigrant
Families in Helsingborg.**

Department of Service Studies, Campus Helsingborg, Lund University

By

Iresha Wijesooriya

&

Shanaj Parvin

SMMP40 | 30 Credits

Supervisor: Tullia Jack

Service Management: Master's Thesis

Date of Submission 19/05/2026

Table of Contents

Abstract	4
Acknowledgements	5
1.Introduction	6
2.Literature review	12
2.1 The Grip of Automobility: The Dominant Car-Centered System Shaping Habits and Infrastructure	13
2.2 Forging a New Path: The Realities of Car-Free Living in Sweden	14
2.3 Sustainable Mobility Alternatives in Sweden	15
2.4 The Significance of Social Practice Theory in Practice	16
2.5 Identifying the Research Gap.....	17
3. Theoretical Framework: Social Practice Theory and Car-Free Mobility.....	19
3.1 Formation of Social Practice Theory.	19
3.2 Materials, Meanings, and Competences: The Core Elements of Social Practice Theory.....	21
3.3 Moving beyond the individual choice model.....	24
3.4 Unveiling Car Dependency: Applying Social Practice Theory	24
3.5 Exploring the Growth of Active Travel through the Perspective of SPT	25
4. Methodology	27
4.1 Research design.....	27
4.2 Literature search.....	28
4.3 Research Approach	28
4.4 Research question formation.....	30
4.5 Sample selection.....	31
4.6 Data collection.....	32
4.7 Plan for Data Analysis.....	34
4.8 Ethical considerations	35
5. Findings.....	37
5.1 Demographic data in semi-structured interviews.....	37
5.2 Demographic data in the survey.....	39
5.3 Mobility modes used in the native country	40
Findings related to RQ1,	42
Theme 1: Constraint-driven mobility	42
Theme 2: Car ownership as social status and family convenience	44
Theme 3: Weak environmental meaning of mobility.....	45
Findings related to RQ2,	46
Theme 1: Public transport as the foundation of daily mobility.....	46

Theme 2: Everyday life without a car	47
Theme 3: Daily invisible mobility efforts	49
Findings related to RQ3	50
Theme 1: Aspirations towards future car ownership	50
Theme 2: Emerging mobility preferences	51
6. Discussion of the Findings	54
6.1 Meaning (RQ1)	54
6.1.1 Cultural Norm Implications	54
6.1.2 Economic prudence	56
6.1.3 Limited sustainability awareness	56
6.2 Material conditions and competences (RQ2)	57
6.2.1 Public transport & Active travel.....	57
6.2.2 Constraint - driven mobility	59
6.2.3 Competency Limitations	60
6.3 Future Mobility Aspirations (RQ3).....	61
6.3.1 New Mobility Adaptations	63
7. Conclusion.....	66
Limitations of the study.....	70
Final Remarks	71
Bibliography.....	72
Appendix	80
Appendix 1: Interview Guide.....	80
Appendix 2: Survey Questionnaire	83
Appendix 3: Transcriptions.....	83
Appendix 4: Survey results	83
Appendix 5: Coding and Theme building	83

Abstract

This thesis analyzes how South Asian immigrant families in Helsingborg with children utilize, perceive, and sustain car-free mobility in their lives. It reveals that car-free mobility is not merely the absence of car ownership, but a practice shaped by material conditions, users' competencies, and the meanings they attach to different cultural norms and early practice experience in their daily lives. Through 16 semi-structured interviews and a survey with 65 responses, we sought to understand their current meaning of a car-free life and their plans for the future in Sweden. The study shows that South Asian immigrants are leading car-less lives, not car-free, as their decision is influenced by various constraints rather than voluntary choice. In this study, we adopted a Social Practice perspective to unpack their present and future thinking about voluntarily leading a car-free life.

Further, the findings demonstrate that the meaning of mobility is consistently influenced by immigrants' native country's cultural norms and prior mobility experience. Although there are well-planned cycling paths and many benefits to cycling, most participants, especially women, do not consider using it for daily mobility, even though it would cost less than owning a car. The majority of families have expressed that they plan to become car owners in the future, provided that their living conditions improve. However, they also mention that their travel habits will likely feature a "hybrid travel mode," using both private and public transport according to their preferences and circumstances. We also emphasize the need for further in-depth qualitative and longitudinal research to enhance our understanding of the viability of South Asian immigrant families adopting car-free mobility in Helsingborg, Sweden.

Keywords: Car-Less, Car-free, South Asian immigrants, Sustainable Mobility, Active Travel, Social Practice Theory

Acknowledgements

We would like to express our sincere appreciation to everyone who supported and contributed to the successful completion of this thesis.

First and foremost, we would like to recognize the struggles of all those immigrants from South Asian countries who are trying to build lives away from their parents, relatives, and beloved motherland, to secure a bright future for themselves and their children. We hope this thesis contributes to a deeper understanding of the complexities surrounding everyday mobility and offers insights into the facilities required to adopt and sustain a car-free life, manage family and child responsibilities, and carry out job duties.

We extend our heartfelt gratitude to the interviewees who graciously contributed their time and shared their personal experiences, which played a crucial role in the development of this thesis.

We would like to extend our heartfelt appreciation to our thesis supervisor for her steadfast guidance and invaluable feedback throughout this process. Her continuous support and insightful ideas have played a critical role in our development and success. The expertise and dedication she has demonstrated have significantly shaped the outcome of this thesis.

To our friends and family, we extend our sincere thanks for their encouragement, understanding, and patience during the entire process. Your support gave us the strength and motivation to navigate the challenges of this academic endeavor.

Furthermore, we acknowledge the academic community whose works laid the foundation for our thesis. The existing body of knowledge in the fields of sustainable consumption and social sustainability provided significant insights and perspectives that informed our research.

This thesis would not have been possible without the collective efforts and contributions of all those mentioned above. Thank you for being part of this journey and for your invaluable support.

Thanking you,

Shanaj Parvin

Iresha Wijesooriya

1. Introduction

Being immigrant international students embracing a car-free life in Helsingborg, Sweden, the authors realized that between a step and a second, mobility decides who moves to the destination and who waits. A family can reside in the core of an urban area and still feel remote from relief. Working schedule, school commuting, grocery shopping, freezing rain, visiting relatives, and carrying children or heavy bags can turn mobility into a day-to-day transaction of time, strength, and collaboration. This thesis examines car-free mobility not simply as the absence of a vehicle but as an active engagement influenced by various factors, including schedules, definitions, supportive measures, individual capabilities, and inherent limitations.

The study focuses on Sweden, whose population distribution has been significantly altered by migration. According to Statistics Sweden (2026), there were 2,210,638 foreign-born people in Sweden in 2025, which is a little over 20 percent of the total population. Among foreign-born residents, those born in Asia constituted the largest regional group, accounting for about 8.1% of the total population (Statistics Sweden, 2025). The same source reveals that the foreign-born citizenry is concentrated mostly in working-age groups, especially those aged 25 to 34, which creates mobility that is pivotal to education, care, employment, and social engagement (Statistics Sweden, 2026). Among the population of Helsingborg, 15.2% were born outside Europe (including Asia, Africa, and the Americas), indicating a significant share of residents with non-European origins (Region Skåne, 2025).

Sweden marks a strong position as a global leader in sustainability and possesses a well-developed public transport system. When the focus narrows to Helsingborg, a coastal city in Southern Sweden, the city is actively working to become a “sustainable city” shaped by urban development, community engagement, and environmental policies. In response to the sustainability issue, the EU envisions a climate-neutral continent by 2050 (European Commission, n.d.). Helsingborg's carbon neutrality goal is set for 2035, ahead of Sweden's national target of 2045 (Swedish Environmental Protection Agency, 2025). Helsingborg stad notes that the city must accommodate growth while developing a more sustainable transport system that prioritizes walking, cycling, and public transport (Helsingborgs stad, 2017). Its travel data also indicate decreases in car travel of 1% and increases in public transport and walking for short trips of 4% (Helsingborgs stad, 2023). Helsingborg's population of 152,091 in 2024 suggests that the city needs to plan for transport for a large and growing population

(Helsingborgs stad, 2024). According to Statistics Sweden (2025), the total number of privately owned cars per 1,000 inhabitants in Helsingborg (Code-1283) is 366. So, this creates a paradox between the available sustainable mobility options and their expected long-term use for achieving the sustainability goals.

Andel invånare födda utanför Europa år 2022

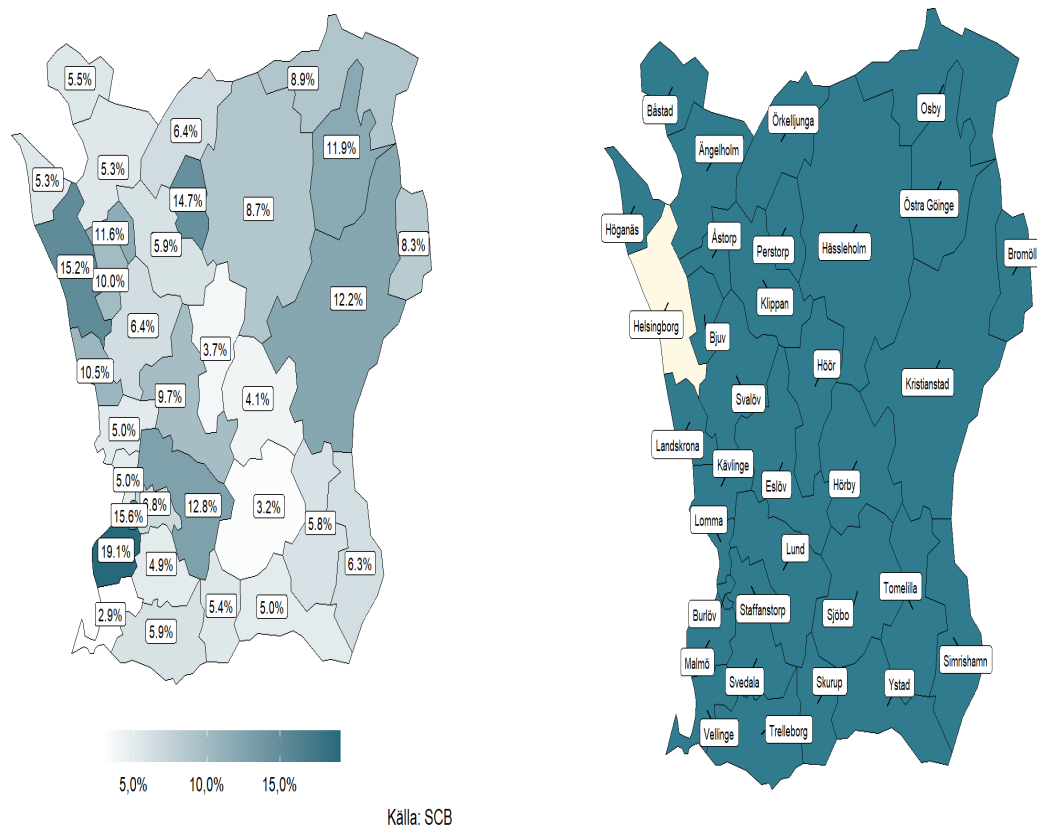


Figure 1: Percentage of foreign-born residents outside Europe. Picture showing 15.2% for Helsingborg

Swedish literature shows that car-free living is possible, but it is never effortless. Lagrell et al. (2018) highlight that car-free families in Gothenburg thrive without a car by relying on local services, flexible schedules, trip chaining, online technology, and social support. In central Gothenburg, 22 percent of nuclear families with children lacked access to a private car, compared with 9 percent citywide, suggesting that car-less ness is not marginal but part of urban everyday life (Lagrell et al., 2018, p. 3).

Lagrell and Gil Solá (2021) also show that car-less households manage different aspects of their lives differently, such as shopping and waste management, which can be managed with local services and minimal car use, while relationships can be more car-dependent and occasionally more difficult to sustain without a car. This is also important for the present

thesis, as immigrant families may be managing more than just their travel. They may also be managing care, time, family, and social relations through the transport system. Stockholm's "A Car-free Year" project demonstrates how car-free living depends heavily on both material and human resources. Hasselqvist et al. (2016) show that families adapted by using electric light vehicles, particularly box bikes for grocery shopping, and other related tasks, along with online shopping, home delivery, winter gear, and careful planning.

This thesis is anchored in social practice theory, as this perspective helps explain mobility as a mixture of meanings, materials, and competences rather than as individual decision-making. These elements are evident in the Swedish car-free literature: families need planning competences, proximity to services, digital platforms, winter clothing, and different transport routines to maintain their car-free lives (Hasselqvist et al., 2016, p. 8; Lagrell & Gil Solá, 2021, p. 2). This thesis can help both theory and practice by examining South Asian immigrant families in Helsingborg. Theoretically, it advances social practice theory by showing how meanings, equipment, and expertise shape everyday mobility. In practice, it can assist Helsingborg in understanding which types of transport services, infrastructure, and everyday support are needed to make car-free mobility feasible and inclusive in the long run (Shafi et al., 2023, p. 23; Welsch et al., 2016, p. 16).

Furthermore, this study is of considerable importance to Helsingborg from both practical and political standpoints. Though, as per Helsingborgs stad (2017, 2024), we see visible action plans toward sustainable city planning, to reach the target, Helsingborg must ensure participation from its immigrants, as they hold a large portion of the population. The purpose of this thesis is to examine one of the portions of the immigrant population that came from South Asia. We would like to find out how South Asian immigrant families in Helsingborg navigate, organize, and sustain car-free mobility in their day-to-day travel, and to assess whether this mode of car-free travel can be sustained as family needs, responsibilities, and life stages evolve. This is significant because car-free mobility is not just a transport decision, but also a practice that is influenced by access to services, household organization, planning competences, and various forms of support (Lagrell et al., 2018, p. 3; Lagrell & Gil Solá, 2021, p. 2; Hasselqvist et al., 2016, p. 5). We would like to argue, in our analysis of the cultural and historical practices associated with South Asian immigrants, that these practices significantly affect people's present behavior, as evidenced in the literature on immigrants in the USA and Australia.

Studies from around the world help to demonstrate that the trends seen in Sweden are not unique. In Offenbach, Germany, Welsch et al. (2018) found immigrants had fewer cars and bicycles per household, were less likely to drive or ride bikes, and relied more heavily on public transport and passenger rides than other residents. Their research also suggests that the regular use of various transportation modes is influenced by immigration status, income, car ownership, household structure, education, and socialization (Welsch et al., 2018, p. 1). A review of European studies also finds that immigrants have lower car ownership, travel less, and use public transport more, while cycling is less common, particularly among women (Assum et al., 2020, p. 55). These studies are useful as they reveal that immigrant mobility is not physical movement. It is also about transport culture, gender, and the extent to which supportive local transport systems accommodate different travel practices.

Studies of the mobility of foreign-born residents in Sweden also indicate uneven access to cars. Lewin et al. (2006) found foreign-born residents had lower rates of driver's license and car ownership than Swedish-born residents, and the difference was particularly greater for women. For obtaining a Swedish driver's license, cost and language were significant factors, suggesting structural rather than individual constraints (Lewin et al., 2006, p. 11). In Sweden, many newcomers from abroad embraced public transport and regularly set out on foot, finding these modes of travel not just practical but essential, even in challenging circumstances (Lewin et al., 2006, p. 76). However, firstly, this report was conducted 20 years ago, and at that time, a small portion of respondents were from South Asia, representing Thailand, India, and China. So South Asian migrant travel is worth paying attention to as they are poised to evolve. One of the most significant studies by Shafi et al. (2023, p. 22) on South Asian immigrants in Australia also indicates that, over time, attitudes towards public transport may become more negative, while the car remains favored. This is important for the current thesis because it suggests the early settlement years could be critical in determining the fate of car-less, sustainable travel. Therefore, this problematization highlights four significant research gaps that guide the research aim and questions for this thesis: a limited attention given to South Asian community perspectives when it comes to car free life, a reliance on quantitative methods when studying these perspectives, to find out their how they perceive the present car free life and lastly, whether they see this car free life viable in future living in Sweden and what government can do for their encouragement and positive attitudes for embracing car free mobility.

To address the previously identified research gaps, we will focus our efforts on the following research questions:

RQ1: How do South Asian immigrant families construct and interpret the meanings of car-free mobility in their everyday travel routines in Helsingborg?

RQ2: How do material conditions and competences shape the everyday car-free mobility practices of South Asian immigrant families in Helsingborg?

RQ3: How do South Asian immigrant families evaluate the future viability of their current car-free mobility practices in relation to anticipated life-course changes and everyday mobility needs in Helsingborg?

This thesis is divided into seven chapters, each addressing a distinct aspect of the overall study. Following this introduction, Chapter 2 provides a review of existing scholarships. It offers insights into the lives of immigrants worldwide and presents findings from prior literature, as well as what is missing in Swedish literature, regarding our chosen South Asian community. This connection is explored further in chapter 3, which introduces the theoretical framework, inspired by Social Practice Theory (SPT), for assessing how they experience car-free mobility in terms of material, competency, and especially the meaning they perceive, shaped by their previous practices and the cultural values they were exposed to from childhood. Chapter 4 presents the method used throughout the research process, considering our limitations and the overall methodology. The findings are presented in Chapter 5 and are informed by the empirical study. Chapter 6 provides a detailed analysis and discussion of the findings, utilizing the theoretical framework and concepts established in the thesis. The thesis concludes in chapter 7 with a summary of the key insights, answers to the research questions, and the study's limitations.

To demonstrate the intricate nature of mobility, this study employs specific mobility-related terminology, which we define here and use consistently throughout the report. At first, “Sustainable mobility” refers to the general term for any environmentally friendly alternative to the private automobile. Further under it, the study utilizes several sub-categories.

“Public transport” refers to shared transit systems provided by a municipality or region, such as buses and trains operated by Skånetrafiken.

In contrast, “active travel” refers to non-motorized, man-powered travel, especially walking and cycling. Further, “car sharing or shared mobility” refers to using a vehicle for a small period of time without the long-term cost of owning a car.

2. Literature review

Migration has reshaped European urban populations, with South Asian immigrant families forming a significant share of the population in countries such as Sweden, Denmark, and the Netherlands. These families often arrive with mobility practices shaped by transport systems in their home countries, where informal transport, walking, and shared mobility are common (Jain, 2013, p. 12). To navigate this complexity, this study reviews scholarly literature on mobility practices in Helsingborg, particularly in Sweden, with a focus on South Asian immigrants, as well as well-studied findings in Europe and elsewhere that can serve as examples for Sweden.

The text begins by exploring research that documents the reasons behind car dependency and its prevalence. It highlights the urgency and importance of this issue and examines how these concepts are reflected in the Swedish context. Although the existing literature primarily focuses on Swedish and European populations, it also presents scenarios that illustrate how families, including immigrant families with children, are dependent on cars. The authors find these insights to be particularly useful. Second, it cross-examines car-free mobility, which refers to intentional daily movement without owning a car, emphasizing sustainable choices and exploring the differing experiences of car-free living across population groups. The chapter then transitions to an analysis of sustainable mobility alternatives, which we can call car-free living and promoting walking, public transportation, and cycling, also assessing the policies and practical realities of using these modes of mobility. Subsequently, the study presents the core theoretical perspective, Social Practice Theory (SPT), which is used to examine the habitual nature of mobility by reviewing prior literature employing SPT. The thesis comprehensively reviews significant research articles on immigrant travel behavior, with a particular focus on Southeast Asian communities in Sweden and across Europe. The authors emphasize that the existing literature on this topic, particularly regarding the experiences of Southeast Asian families in Sweden, remains insufficient. It lacks the necessary depth, timeliness, and targeted insights. Additionally, they cite several studies by scholars in the United States and Australia on South Asian families, highlighting the need for more comprehensive research in this area. This scarcity of studies on immigrants' travel behavior is also acknowledged by Swedish and other European scholars, such as Lewin et al. (2006), Welsch et al. (2018), and Assum et al. (2011). Finally, by integrating relevant, insightful literature, this chapter highlights a research gap necessary for understanding how

South Asian immigrant families perceive and adapt to car-free living in a mid-sized Swedish city, emphasizing the need for qualitative insights.

2.1 The Grip of Automobility: The Dominant Car-Centered System Shaping Habits and Infrastructure

Early scholarship on sustainable mobility focused heavily on understanding "car dependency" to explain why car ownership had become so prevalent (Mattioli et al., 2016, p. 1). A critical review of the literature reveals that this dependency is not merely a matter of individual preference but a systemic lock-in shaped by historical infrastructure, spatial design, and social expectations. In Sweden, between 1950 and 1960, the car fleet expanded rapidly, intertwined with spatial, demographic, and economic developments (Lindgren & Pettersson, 2009, p. 175). Consequently, the car's dominance has been cemented into both the national physical landscape and the cultural psyche. As Strömblad et al. (2022) notes, rising average incomes in Sweden correlate with increased difficulty in living car-free, particularly for men outside major cities. This historical trajectory has cemented the car's role in the national psyche and physical landscape.

A major critical flaw in current sustainable transport planning is its failure to accommodate the complex logistics of family life. Owning at least one car per family is the norm, particularly for families with children, such as multiple daily trips for childcare, school drop-offs, shopping, and extracurricular activities, who find it challenging to manage life without a car, despite good public transportation and existing cycling infrastructure (Hasselqvist et al., 2016, p. 2; Neves & Brand, 2019; Laakso, 2017). Furthermore, Van Eenoo and Boussauw (2023) critically assert that many trips are messy and unpredictable, such as leisure activities, bulk grocery shopping, and caregiving, which remain heavily car-reliant. Additionally, Berg et al. (2015) studied retired individuals who seek the freedom to fulfill family commitments and support their spouses through car-based assistance.

A cross-continental comparison shows that immigrant mobility studies from the US, Australia, and Europe illuminate how car-centric systems amplify migration-related barriers and social inequities, a dimension often underexplored in native automobility research.

In the United States, Blumenberg and Smart (2010) and Hu et al. (2021) show that arrival contexts—housing location, licensing pathways, and service access—shape early travel behavior toward public transit and walking, but these patterns often give way to increased car

use as households attain economic integration. Similarly, studies from Australia by Shafi et al. (2023) and Delbosc and Shafi (2023) focus on South Asian immigrants' travel behaviours also explained the shift toward the norm over time due to increased income, suburban living, and obtaining a driver's license, but they also pointed out the effect on cultural norms associated with immigrants. In Europe, Assum et al. (2011), Lewin et al. (2006), and Welsch et al. (2018) emphasize similar trajectories for all immigrant groups, revealing a layered interaction between material and competency conditions, such as infrastructure, cost, licensing, navigation, language, winter mobility, and meaning norms around safety, independence, and social participation. However, Liao et al. (2025, p. 1) found that foreign-born minorities in Sweden are more likely to visit places frequented by others in their own group, resulting in shorter travel distances, limited mobility, and a tendency to visit locations near their residence. But there is an exception for certain groups of immigrants with mobility impairments from polio, who found they viewed the car as "extra legs," essential for maintaining employment and access to essential services and social activities, as the public transport system was perceived as inadequate and inaccessible (Selander et al., 2019, p. 12).

2.2 Forging a New Path: The Realities of Car-Free Living in Sweden

In contrast to the prevailing culture of automobility, an increasing amount of research investigates the lifestyles and strategies of households that choose to live without a private car. However, a critical review of this scholarship reveals a stark divide between individuals between individuals who are "car-less" because of limitations (like financial difficulties or disabilities) and those who are "car-free" by choice, as the experiences and accessibility strategies of these two groups are quite different (Leppänen, 2024, p. 5; Sattlegger & Rau, 2016, p. 2; Lagrell et al., 2018, p. 219; Kent, 2025, p.1581). This means that interventions are necessary to alter "need to drive" thinking and empower car-free living (Laakso, 2017; Kuss & Nicholas, 2022).

In Sweden, Research on families who choose to live car-free has yielded valuable insights into the challenges and strategies involved in navigating a car-centric society. A foundational qualitative study of car-free families with young children in Gothenburg found that daily life is highly manageable through a combination of deliberate accessibility strategies. These families prioritize living in dense, mixed-use neighborhoods with high proximity to work, schools, and essential services, thereby reducing the need for long-distance travel, reliance on non-car modes, including walking, public transport, and various types of bicycles, such as

cargo bikes for transporting children and goods (Lagrell et al., 2018; Leppänen, 2024). But when talking about car-lessness in Sweden or elsewhere, it is not an absolute or static condition but a fluid and situated practice that evolves with life stages and specific needs (Heisserer & Rau, 2017, p. 580; Lagrell, 2018; Sattlegger & Rau, 2016, p. 4). This fluidity exposes a critical failure in current sustainability narratives, particularly regarding immigrant populations. While immigrants may initially exhibit highly sustainable travel patterns, studies reveal this is largely a product of constraint rather than environmental values. Lewin et al. (2006, p. 57) reveal a strong aspiration for car ownership, with driving being the top choice for men (26%) and a high preference for women (20%). The symbolic meaning of the car can be particularly potent for immigrants, representing not just convenience but also freedom, social status, and successful integration into the new society (Shafi et al., 2022, p. 1264; Welsch et al., 2018, p. 748). Ultimately, there is a fundamental structural tension in Swedish mobility planning. Voluntary car-free living is demonstrably feasible through strategic adaptation, prior practice, and value-driven choices to organize everyday life sustainably (Sattlegger & Rau, 2016, p. 4; Kent, 2024, p. 1586; Lagrell et al., 2018, p. 224).

2.3 Sustainable Mobility Alternatives in Sweden

Swedish transport policy heavily emphasizes the promotion of sustainable alternatives, primarily through significant investments in infrastructure, such as dedicated bike lanes and improved transit services, in cities like Malmö, Gothenburg, Stockholm, and Helsingborg (Jussila Hammes, 2021, p. 1; Koglinn & Rye, 2014, p. 214). However, studies by Van Der Meulen and Mukhtar-Landgren (2021) and Balkmar (2020) found that cycling's popularity in Sweden is not increasing, as the transition to sustainable mobility is contested and faces significant headwinds. Subsequently, Balkmar et al. (2026) suggest that gender, ethnicity, age, poverty, and disability contribute to inequalities in the transport system, highlighting the need for grassroots efforts to promote cycling among disadvantaged populations. The adoption of cycling among immigrant populations in Sweden is particularly complex. Research conducted in disadvantaged and ethnically diverse neighborhoods reveals a significant gap between aspiration and practice. While cycling is often viewed as a practical skill and a desirable mode of transport, it is rarely the mode of choice for adults, especially for women from non-European backgrounds (Balkmar et al., 2025; Welsch et al., 2018; Lewin et al., 2006). The practice is viewed as "typically Swedish," and barriers like limited cycling experience, road safety concerns, and cultural norms around gender and status can

hinder its adoption (Balkmar et al., 2025, p. 12). People from areas where walking and cycling are uncommon can change their travel habits if the environment makes these options appealing, similar to high-income immigrants in the Netherlands (Faber et al., 2025, p.1; Haustein et al., 2020, p.1705)

Furthermore, immigrant women's mobility is often shaped by a "gendered logic of security," in which fears of personal safety, particularly after dark, can severely restrict their use of walking, cycling, and public transport (Batool & Pangbourne, 2024, p.1). The analysis identified four primary categories of barriers affecting walking and cycling: personal factors, social factors, local environmental considerations, and broader environmental influences. These barriers are further shaped by cognitive biases and social norms closely linked to cultural heritage (Batool & Pangbourne, 2024, p. 1).

Rather than viewing active transport merely as a tool for emissions reduction, policymakers must critically leverage its capacity for social inclusion. Unwritten social norms govern and influence the behavior and intentions of individuals or groups towards adopting sustainable mobility practices (Mundaca et al., 2022, p. 12; Rodriguez et al., 2025, p. 4976). For instance, Koglinn & Rye (2014, p. 220) suggest that cycling can actually facilitate greater socialization for immigrants than driving. Similarly, Joelsson et al. (2024) propose that the walking practices can be regarded as 'caringscapes' in Sweden, which can promote both self-care, other-care, and neighborhood-care in disadvantaged neighborhoods. Concurrently, public transport serves as an enabler of rural sustainability and social inclusion by providing access to amenities and essential services, to employment, education, healthcare, and social activities, enhancing their ability to participate in social and economic life (Macuchova & Brandt, 2025, p. 1). Though modern mobility solutions, such as app-based car-sharing, have emerged in Swedish cities, their role remains niche. One study based in Malmö shows it can support a car-free lifestyle by providing occasional access to a vehicle and promoting less driving and private car ownership, yet it has not proven effective as a widespread substitute for private car ownership (Svennevik et al., 2021, p. 7).

2.4 The Significance of Social Practice Theory in Practice

Traditional transport policies often fail because they treat travel as a simple, rational choice made by isolated individuals. In contrast, recent studies informed by social practice theory emphasize the relational nature of mobility practices. According to this framework, mobility

practices are sustained by three interconnected elements. Materials includes roads, buses, bicycles, and fuel systems, physical infrastructure, and equipment. Competencies are the skills and knowledge we have, like knowing how to drive or navigate public transit. Meanings are cultural beliefs and values, such as the idea that a car shows success (Shove, Pantzar & Watson, 2012; Kent, 2021). SPT shifts the focus of inquiry from individuals to the socially shared, routine "practices" that shape everyday life, such as "commuting," "shopping," and "parenting" (Reckwitz, 2002, p. 244). This theoretical lens is highly beneficial for sustainability interventions because it clarifies exactly why giving up a car is so challenging. It is not merely a simple modal switch but requires a complex and often difficult reconfiguration of deeply embedded daily routines. However, SPT reveals that abandoning the car requires a complex, highly disruptive reconfiguration of deeply embedded daily routines across all three elements (Laakso, 2017).

This study posits that Social Practice Theory (SPT) is particularly effective for examining immigrant adaptation. It enables an analysis of how the skills and cultural meanings that immigrants bring from their home country interact—and sometimes conflict—with the material conditions and prevailing practices of their new environment. This approach offers a nuanced framework for understanding their mobility choices, as all these elements are interconnected and must be considered together.

2.5 Identifying the Research Gap

The preceding literature review reveals a significant and compelling research gap at the intersection of car-free living, immigrant experiences, and the context of a mid-sized Swedish city. On the one hand, existing insightful qualitative studies on voluntarily car-free households in Sweden have predominantly focused on native-born, often middle-class, populations in major metropolitan areas like Gothenburg and Stockholm, who are privileged and affluent (Lagrell et al., 2018; Hasselqvist et al., 2016). On the other hand, research on the mobility of Sweden's foreign-born population, while valuable, tends to be either quantitative and broad in scope or narrowly focused on specific barriers like disability or cycling skills, without delving into the holistic lived experience of everyday mobility (Lewin et al., 2006; Balkmar et al., 2025).

Consequently, there is a notable gap in qualitative, in-depth research examining the lived experiences, perceptions, and long-term adaptability of South Asian immigrant families who adopt a car-less lifestyle due to constraints in their lives. The socio-cultural backgrounds and

previous experiences of recently arrived South Asian families in Helsingborg may significantly differ from those of native, privileged native Sweds. Critical factors such as prior travel experiences from their country of origin, the structure of their social networks, language barriers, and their perceptions of and interactions with Swedish transport services remain largely unexplored. This study aims to address this important gap. By employing Social Practice Theory (SPT) as an analytical framework, this research moves beyond simplistic behavioral models to provide a nuanced, grassroots understanding of how families manage their daily routines without a car. Analyzing how these families negotiate the *materials*, *competencies*, and *meanings* of Swedish mobility will yield essential empirical insights. Ultimately, bridging this gap is necessary for the development of inclusive, equitable, and effective sustainable mobility policies that cater to diverse populations in the transition away from automobile dependency.

3. Theoretical Framework: Social Practice Theory and Car-Free Mobility

3.1 Formation of Social Practice Theory.

This study employs Social Practice Theory (SPT) as the primary theoretical framework to investigate the perspectives and adaptations of South Asian immigrant families regarding car-free transportation in Helsingborg, Sweden. This perspective is particularly relevant for mobility studies, as travel behaviors are embedded in social, cultural, and material contexts rather than determined solely by individual decisions. When applied to sustainable consumption, shifting behavior is more than just a decision; social practices theorists recognize that well-intentioned behavior-change goals can be hindered by factors that continually shape social practices (Kennedy et al., 2015).

In practice theory, however, ‘practice’ refers to a practice or practices as a noun. To understand practice theory, it is important to recognize that it represents a particular way of understanding society, treating practices as the fundamental unit of social analysis (Kuijer, 2014, p. 24). Practice theory, rooted in the mid-20th century, has recently gained popularity and been applied to the study of consumption and sustainability. This approach shifts the analytical focus away from atomized products, technologies, and individuals towards an understanding of everyday practices, many of which involve routinized activities (Sahakian & Wilhite, 2014, p. 26). According to Reckwitz (2002), sociological methods of conceptualizing human behavior and its organization take one of three forms: purpose-oriented theories, norm-oriented theories, and cultural theories. Then he positions practice theory as a form of cultural theory.

Social Practice Theory (SPT) is not attributed to a single author but has been developed through the contributions of several key scholars in sociology and social theory. Early foundations were laid by Pierre Bourdieu (1977) through the concept of *habitus* and by Anthony Giddens (1984) with structuration theory, both emphasizing the routinized and socially embedded nature of human action. Though Wittgenstein does not write directly about ‘practices’, his work conveys many of the key features of theories of practice, and Schatzki's (1996) inspirational work on Wittgenstein's location of intelligibility and understanding provides a basis for theorizing practices. Their form of social theory, recently grouped under theories of practice or social practice theory (Kennedy et al., 2015; Kuijer, 2014, p. 3). While early theorists laid the philosophical foundations, Reckwitz (2002)

provided a systematic formulation of practice theory, offering one of the first comprehensive definitions of the theory within sociology and establishing “practice” as the central unit of social analysis (Kuijer, 2014).

Contemporary scholars such as Elizabeth Shove and Marlyne Sahakian have expanded its application to sustainability and everyday practices. A central contribution of SPT is its critique of behavior-oriented frameworks, particularly the Attitude–Behavior–Choice (ABC) model. Shove (2010) argues that such models overemphasize individual responsibility while treating contextual factors as external barriers. This perspective neglects the ways in which infrastructures, institutions, and social norms shape everyday practices. Social practice theories clarify how earlier work on sustainability in the social sciences ignored the routine nature of everyday activities and the relationship between daily actions and broader social contexts (Warde, 2005).

The study's goal is to examine mobility beyond car use versus non-car use, focusing on how daily travel is influenced by routines, skills, responsibilities, and transportation systems among immigrants. Social practice theory is well-suited to this purpose, as the repetitive and interconnected nature of daily activities such as school runs, shopping, and commuting shows that car-free mobility involves multiple actions rather than a single one. Mobility is produced through the combination of interconnected bodily and mental activities, the acquisition of know-how, and the understanding of meanings and desires, rather than through preference alone, which must be maintained over time for a car-free lifestyle to remain feasible (Reckwitz, 2002, p. 249).

Shove et al. (2007) have significantly influenced the development of social practice theory. They built upon the work of earlier scholars such as Reckwitz (2002) and Schatzki (1996) to introduce the concept of three essential elements necessary for performing, adopting, and sustaining a practice. In Figure 2, we can see the summary of the contributions of the aforementioned scholars who have advanced practice theory and later how it relates to immigrants' mobility practices in Helsingborg, Sweden.

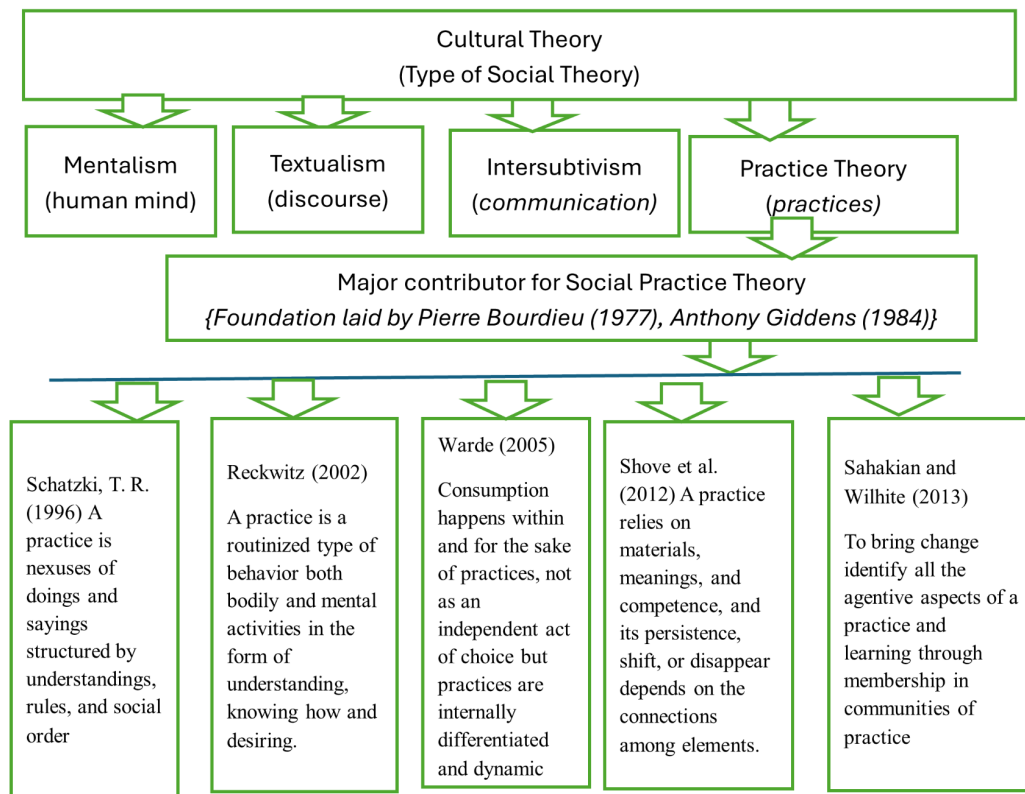


Figure 2. Adopted from (Kuijer, 2014, p.25), the position of practice theory within social theory based on Reckwitz (2002a) and the major contributions of scholars to form Practice theory to Social practice Theory.

3.2 Materials, Meanings, and Competences: The Core Elements of Social Practice Theory

Elizabeth Shove and her colleagues (2012) referred to Reckwitz's (2002, p. 249) in which the authors use “things” and their use with other two aspects that must present to be a practice and Schatzki (1996, p. 115) express not only people, but “objects” as well acquire meaning within practices, considering these things and objects in their research Shove et al. (2007) got their first element ‘Materials’, encompassing objects, infrastructures, tools, hardware, technologies, and the body itself, and the stuff of which objects are made. Likewise, Warde (2005, p. 145) also denotes practices require the appropriation of requisite services, possession of appropriate tools, and devotion (Warde, 2005, p. 145). In mobility, the physical and organizational resources include buses, trains, sidewalks, cycle lanes, winter conditions, digital information, route design, housing location, child-related equipment, and the broader

transport system that enables mobility. In practice theory, materials actively shape family activities, influencing convenience and routine infrastructure.

When defining the second element, which is competences, Shove et. al. (2012) took the notion of Reckwitz's (2002) know-how, background knowledge, and understanding, and Giddens (1984) practical consciousness, deliberately cultivated skill as shared understandings of good or appropriate performance, and listed encompassing skill, know-how, and technique as *competences*. Being able to judge how well someone is doing is not the same as actually having the skills to do the job. Sometimes, this difference really matters (Warde, 2005). Likewise, South Asian immigrants need the know-how to use public transport, read timetables, understand traffic rules, communicate in Swedish, navigate routes, travel with children, cycle safely, and manage weather-related constraints.

Reckwitz (2002) describes the reduction of mental activities, emotions, and motivational knowledge as a single broad element of 'meaning'. Thus, "meanings" in which they include symbolic meanings, ideas, and aspirations. In Schatzki's (1996, p. 89), 'teleoaffective structures' refer to the goals, beliefs, and emotional attachments that guide how we use, maintain, and justify tasks. They dictate *why* a specific practice feels correct. For South Asian immigrant families, the "meaning" of car-free mobility may be economic prudence, religious or cultural discipline, environmental responsibility, temporary necessity, or social limitation.

Kuijer (2014) suggested the terminology of stuff, skills, and images, or, alternatively, materials, competences, and meanings, used by Shove et al. (2012) in sustainable design. For the thesis, the key move is to treat car-free mobility as a practice made up of "stuff" such as buses, sidewalks, cycle lanes, mobility apps, prams, shelters, and home storage arrangements; "skills" such as route planning, timing, using transit systems, cycling with children, and coordinating family travel; and "images" such as safety, convenience, independence, status, care, and what counts as a normal family life. In Figure 3, we see the elements of sustainable mobility needed to sustain the practice.

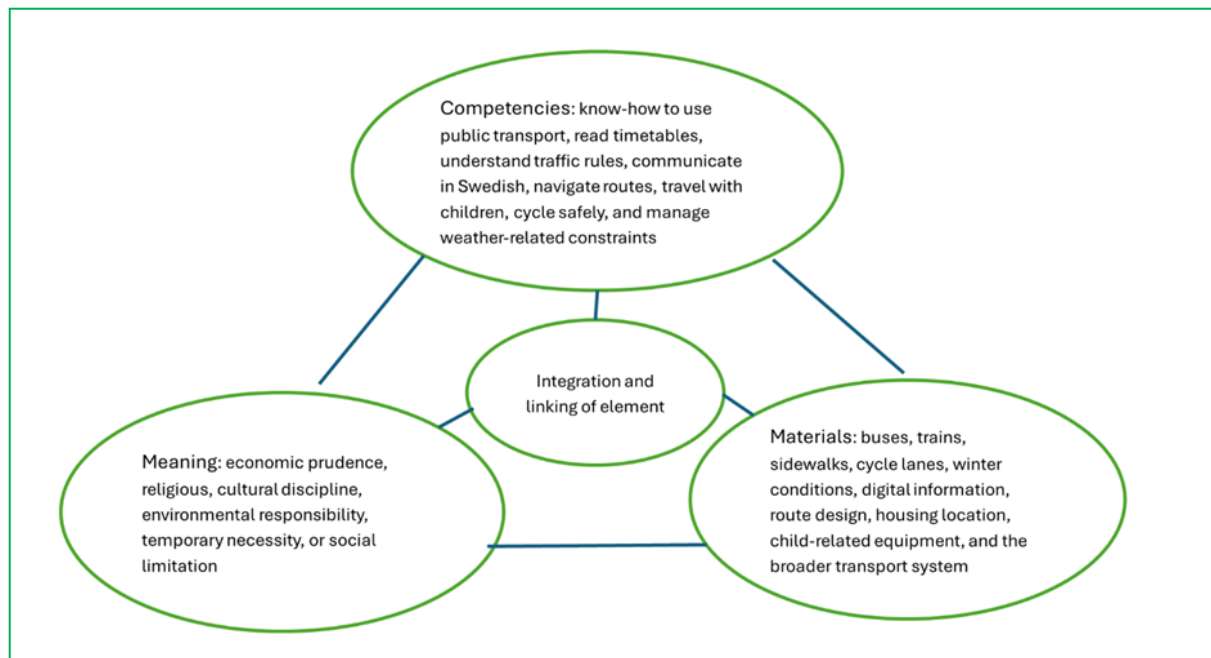


Figure 3. Elements of car-free mobility adapted from Shove et al. (2012), Social Practice Theory

Practices persist when elements are integrated (Shove et al., 2012, p.24). Practices depend on “materials, meanings, and competence,” and they “emerge, persist, shift, and disappear” when the links between those elements are made, sustained, or broken. Materials related to practice can be obsolete, and competencies can lie dormant. Elements of meaning also come and go; owning a car in the West is no longer a sign of social class and distinction (Shove et al., 2012, p.34). Most versions of 'practice theory' suggest that practices are patterns of activity shared by society. The concept of practice encompasses the social norms and routines, along with the competencies, meanings, and materials that practitioners bring together to perform, reproduce, and transform (Watson & Shove, 2023, p. 377).

Sahakian and Wilhite (2014, p. 28) also applied social practice theory to theorize consumption and transform practices with problematic environmental impacts. They argue that a view of agency distributed across three pillars of practice: the body, the material world, and the social world, is fruitful and that it explores learning through membership in communities of practice, where people engage in experiments with or exposure to new practices that changing one pillar alone is not enough, because habits are deeply anchored in the relationship among these three dimensions. This is highly relevant to our thesis because car-free mobility depends on competence, access, and social support simultaneously. South Asian Families may learn how to use buses, how to judge safe walking routes, or how to

manage travel with children through repeated participation in the city. They also argue that learning occurs through participation in new practices, such as bicycle training, where people acquire practical knowledge through doing and interacting with others also emphasize that practices are shaped through bodily and socially situated learning, and that awareness-building alone is usually insufficient to change behavior because practices are lived in material and social contexts (Sahakian & Wilhite, 2014, p. 30).

3.3 Moving beyond the individual choice model

Shove's critique of the ABC model provides a more robust structural foundation for understanding climate and sustainability policy. She contends that this framework often places excessive emphasis on individual attitudes, behaviors, and choices, thereby framing the challenge of achieving change primarily as a matter of persuading individuals to make better decisions (Shove, 2010, p. 1274). This approach overlooks the important context in which behavior occurs, highlighting that it is embedded within broader systems encompassing infrastructure, institutions, markets, and societal conventions (Shove, 2010, p. 1278). For this thesis, that point is crucial because South Asian immigrant families do not make mobility decisions in a neutral environment. They live inside a city shaped by transport infrastructure, housing patterns, school locations, climate, norms around car use, and the organization of daily life. Practice theory helps explain these tensions better than a behavior-change model does.

3.4 Unveiling Car Dependency: Applying Social Practice Theory

Research on mobility shows that car dependence arises from a combination of social and physical factors, enabling policymakers to introduce alternatives to reduce dependence. These factors include available transportation options, how important people view these options, and the skills they have to use them (Rau & Matern, 2024; Van Eeno & Boussauw, 2023). In the foundational works of John Urry (2004) the concept of "system of automobility" is explored in which societal structures—ranging from land-use patterns to cultural norms—are centered on the car. This framework views automobility as a complex social system that fosters car dependency, making it difficult for individuals or societies to perform daily activities without a private vehicle (Mattioli et al., 2020, p. 56). This is crucial for this thesis since families of South Asian immigrants do not make mobility choices in an unbiased setting. They reside in a transportation system focused on cars, which influences their access

to housing, school commuting, job travel, and societal norms regarding what constitutes typical mobility (Urry, 2004). This statement clarifies why car-free living can be practical in certain circumstances, yet may present challenges in others. This is often the case even when families have a strong appreciation for, or are accustomed to, such a lifestyle.

In the framework proposed by Shove et al. (2012), Materials are essential to practice, and studies show that removing a car and related objects can severely impact the ability to perform specific activities. Some practices, such as taking children to school by bike, may be viewed negatively, people might view this as risky behavior or "bad parenting." There can also be a clash between how certain travel methods are perceived and the image of the destination's activities. For example, cycling can be viewed as a lower-class activity that does not match with having a middle-class job (Anantharaman, 2017, p.865). The authors find that the same approach can be applied to this thesis to understand immigrants' perceptions and to adopt alternatives.

Laakso's (2017, p. 141), intervention study using practice theory, effectively encouraged individuals to explore alternative modes of transportation. Participants developed new skills and embraced different perspectives on mobility. The outcome of the experiment can be considered successful, as it resulted in the purchase of only one new car and an increase in walking and cycling among participants. Following this example, South Asian immigrants in Helsingborg can also be motivated to move to more sustainable mobility practices.

3.5 Exploring the Growth of Active Travel through the Perspective of SPT

To promote sustainable mobility, Active Travel such as walking and cycling, among South immigrants, a grassroots initiative is essential. Through the lens of SPT, we can understand how political and material infrastructural impacts, a lack of competencies among immigrants, and cultural imaginaries shape who can become cyclists (Balkmar et al., 2026, p. 14). People tend to be reluctant to engage in mobility tasks in various ways, as they lack competencies such as cycling, which helps explain the importance of car use (Mattioli et al., 2016, p. 59). Faber et al. (2025) conducted a study in the Netherlands on high-income immigrants, concluding that cultural contexts and social norms, supportive social networks, and normalization are also important in encouraging walking and cycling. People who have grown up and lived in places with little tradition of walking and cycling can change their

travel behavior if the environment, both physical and social, makes walking and cycling favorable.

This is directly relevant to the thesis because it suggests that immigrant travel behavior is not static. It develops through time, through social networks, and through changing understandings of what makes transport convenient, normal, or desirable. For South Asian immigrant families in Helsingborg, this means that current car-free living may reflect both present constraints and accumulated socialization from earlier mobility experiences. It may also change as families settle more deeply, have children, move house, or adapt to Swedish transport norms.

A critical feature of practice theory is that analysis does not focus on the lives and habits of individual practitioners or on the materials integral to their conduct, but rather on practices and how they emerge, change, and connect (Shove et al., 2012). This is also why this thesis should not treat South Asian immigrant mobility as an abstract category. Mobility practices are shaped by migration histories, social environments, family values, and the local transport system. In the Swedish context, these influences may be especially important as immigrant families navigate both the norms of their countries of origin and the expectations of urban mobility in Sweden. Social practice theory is well-suited to analyzing that interaction because it can account for the interplay among culture, infrastructure, and household routines.

The theoretical claim of the thesis is therefore straightforward. South Asian immigrant families do not simply choose car-free mobility. They assemble it through everyday routines, practical competences, care relations, and local infrastructures, all within a powerful automobility system that shapes what feels normal, possible, and necessary (Reckwitz, 2002; Shove, 2010; Watson & Shove, 2022). This framework makes it possible to analyze present car-free life, the meanings families attach to it, the conditions that support or constrain it, and the likelihood that it can remain viable as family needs and life circumstances change.

4. Methodology

This chapter presents the research approach, design, and methods used to examine the mobility practices of South Asian immigrant families in Helsingborg with children who do not own cars. Furthermore, it includes the sampling strategies, data collection process, and analytical procedures used in the study, which together help answer the research questions while upholding ethical considerations.

While we were searching for a suitable area of research for the thesis, one assignment was done in the study area of sustainable consumption under the topic of “An Intervention study in reducing car dependency within immigrant student families in Helsingborg” by one of the thesis partners, and the other partner was a participant in the same. As both of us were interested in sustainability, we were drawn to the topic of “Climate change and carbon emissions” during the preliminary stage of our research. We identified it as a topic that every single person needs to support and address for the betterment of mankind and the safeguarding of the environment. Furthermore, this ignited our enthusiasm to pursue our thesis on “mobility practices without cars”.

Also, as immigrant students from South Asia, we observed that most South Asian families in Helsingborg with kids navigate their daily mobility without cars. This awareness helped us identify the research focus. Even though our own standpoint was vital, as South Asian immigrant students with families from the same background as the selected group, we strictly maintained reflexivity throughout our study (Clark et al., 2021).

Furthermore, the study is grounded in a social constructivist standpoint, in which knowledge of mobility is not fixed but socially produced through lived experiences and ongoing interactions. (Clark et al., 2021; Silverman, 2007). In short, this approach highlights the meanings and subjective interpretations of the participants about their daily mobility without cars.

4.1 Research design

This study seeks to gain detailed insights into current daily car-free mobility practices and their long-term adaptability. The empirical work was designed using an exploratory approach. Cultural norms, family responsibilities, and engagement with transport services shape mobility practices and perceptions of sustainability. This approach emphasizes

participants' interpretations of mobility and the negotiation of meanings in daily life (Silverman, 2007; Whatmore et al., 2003).

Narrowing down, we determined the research focus to be “daily mobility without cars and its adaptability”. As discussed by Booth et al. (2008), we believe that our sphere of interest would yield previously unknown information within our broad subject area. Accordingly, to identify comprehensive trends in immigrant mobility patterns, the relevant supporting literature was first gathered and reviewed. Also, these articles were assessed for relevance to our research by reading the abstracts and skimming the introductions and conclusions. Furthermore, we ensured the gradual discourse on the topic by broadening our sources to include publications from 2004 to 2026. Accordingly, information was gathered on early foundational work, its growth, and special focus topic areas related to automobility, immigrants' travel patterns, and transport sustainability. But the theory-related articles and books were chosen based on the theoretical relevance rather than the publication year.

4.2 Literature search

The official search engine of Lund University, “Finn,” was used to collect information for the literature review. In addition, we were attentive to the frequency of others' citations (citation index), especially on “Google Scholar,” a search engine for scholarly journals and books (Booth et al., 2008). It helped us understand how influential the specific literature is in our selected area of research. Furthermore, we maintained a continuous literature search throughout our study, using different wordings or terms we encountered in the literature.

The aim of the literature review was to examine disparities in prior research and identify gaps in the area of interest. Accordingly, the literature search was conducted using key terms such as car dependency, travel behavior, life without cars, sustainable travel modes, South Asian immigrants, culture and attitude, Social Practice Theory, etc. Although prior literature has provided useful examinations of lived experiences and long-term adaptability to living without cars, few in-depth studies have specifically examined South Asian immigrant families with children living in Australia and the USA. On the other hand, though, we found various types of articles on immigrants and natives in Sweden, but not based on Helsingborg.

4.3 Research Approach

The study employed a mixed-method approach comprising two data collection methods: one qualitative and one quantitative, enabling more nuanced interpretations of immigrants' car-less lifestyles. Primarily, using a qualitative data collection method, semi-structured interviews with immigrant families were conducted to gather detailed information about participants' lived experiences and daily mobility practices without a car, thereby enabling deeper insights (Clark et al., 2021). Semi-structured interviews provided greater flexibility, aligning with the research focus. Even though an interview guide with comprehensible questions was used, interviews were conducted flexibly, and additional probing questions were asked to follow up on the interviewee's replies. But we ensured that all questions in the interview guide were asked, as this is beneficial for analysis and comparison across participants. As this study is a joint effort of two partners, using semi-structured interviews allowed greater consistency in the interviewing style (Clark et al., 2021). The interviews were conducted in English only, in person, with the interviewees at their residence, at the university, or at the thesis partners' residence. With the participants' verbal consent, the interviews were recorded. The authors gave them information about the subject of study. To expedite analysis, the "sunet scribe" software was used for transcription. To ensure the accuracy of the interview transcriptions, manual corrections were made by listening to the voice recordings and identifying any voice recognition errors. In some instances, some notes were taken as the interviewees continued to reflect on important aspects of the topic after we switched off the recording equipment. We continued analyzing the interviews from the very beginning to identify potential themes, which helped us discuss them in later interviews (Clark et al., 2021).

Further, under the quantitative approach, a structured survey questionnaire, similar in content to the semi-structured interviews, was used to identify broader patterns in household characteristics and respondents' mobility behavior. Accordingly, using multiple data-collection techniques enhances the study's value by strengthening the validity of the findings through data triangulation (Clark et al., 2021).

The theoretical approach of this thesis focuses on everyday mobility practices. Therefore, "social practice theory," which envisions everyday interactive activities among materials, meanings, and competencies, served as the guiding framework for the construction of the research questions, interview guide, and survey questionnaire. This approach highlights how mobility is constrained and driven by factors such as cultural values, physical infrastructure, and personal competencies (Whatmore et al., 2003).

Further, Social Practice Theory (SPT) was used not only as the foundation for the methodology but also as a key concept in the analysis. In other words, as “social practice theory” envisions everyday interactive activities among materials, meanings, and competencies. SPT was used in the data collection to gain nuanced empirical insights from the primary data. Further, SPT identifies and explains immigrant mobility through everyday habits, cultural norms, and shared experiences rather than treating it simply as personal or individual decisions.

Mainly, this SPT theory was used to formulate two of the three research questions targeting the meanings that South Asian immigrants create, and the second research question focused on the material and competencies that shape their mobility. Accordingly, in addition to the basic information, data were gathered for research question 01 on “mobility meaning” by formulating questions around cultural meanings, values, and interpretations. Then the subsequent questions covered mobility-related topics and the competencies South Asian Immigrants should possess to achieve viable daily mobility without cars, such as weather impacts, satisfaction with available infrastructure, and even cycling skills and digital competencies.

In addition to the SPT, the final research question was formulated regarding sustainability aspects, future mobility intentions, and adaptations. Further, the same social practice theory framework was used to map the survey questionnaire.

Developing both a semi-structured interview guide and the survey questionnaire followed the same theoretical framework, aiming to gather deep insights and a broader data sample from both qualitative and quantitative methods. For the survey, Likert-scale evaluations and multiple -choice selections were used to measure certain SPT elements. For instance, respondents rated the effects of weather conditions on mobility, accessibility, and availability of public transport options, as well as satisfaction with digital mobility applications.

4.4 Research question formation

Accordingly, our aim was to gain a clear understanding of how such families lead lives without cars, the travel difficulties they face daily, the extra support they require to maintain this lifestyle, and their future aspirations.

Along with the thesis's aim, research questions were developed on social practice theory (meanings, materials, and competences) and a sustainability focus on the long-term

adaptability of car-free life. Consequently, we formulated the following research questions to collect information highly relevant to our field of research.

RQ1: How do South Asian immigrant families construct and interpret the meanings of car-free mobility in their everyday travel routines in Helsingborg?

RQ2: How do material conditions and competences shape the everyday car-free mobility practices of South Asian immigrant families in Helsingborg?

RQ3: How do South Asian immigrant families evaluate the future viability of their current car-free mobility practices in relation to anticipated life-course changes and everyday mobility needs in Helsingborg?

Accordingly, we were interested in how South Asian immigrant families with children understand the new transport system in Sweden, what materials and skills they need to develop, and whether they will continue to live without a car.

4.5 Sample selection

The study involved participants from Helsingborg municipality, a mid-sized Swedish city known for its extensive public transport system, pedestrian areas, and cycling infrastructure. The selection of this city provides an ideal and strategic context for exploring car-free mobility practices among immigrant families. Because the geographical location brings coastal conditions and the harsh winter winds that create physical difficulties in traveling without cars. Ultimately, it will require full effort, deliberate planning, and adaptation to the city's scheduled transport system. As noted by Booth et al. (2008), understanding and awareness of the environment in which the study occurs enhances data analysis, allowing for a more accurate explanation of real-life scenarios.

To ensure high relevance to the research questions, participants in the target population were required to meet strict inclusion criteria such as, (1) Identify as “South Asian immigrant” (country of origin to be India, Sri Lanka, Bangladesh, Pakistan, Afghanistan, Nepal, etc), (2) Live “without a car” at the time of the study, (3) Live in Helsingborg with a long-term expectation to stay in Sweden and (4) Be a parent of least one child in the family. These demarcations were chosen deliberately because South Asian society is a region with deep cultural norms related to mobility. Many South Asian countries relate car ownership to social status. Further, they identify public transport, walking, and cycling as travel modes that are

mostly considered as “low-income group travel methods”. So, migrating such native thinking to Helsingborg would create a “huge shift in mobility” in their lives, as the city promotes more sustainable mobility options through public transport, walking, and cycling. Further, life is very different for people with kids than for those who are single, and it also brings experiences related to parental responsibilities and family logistics. Mobility is influenced by various activities, such as school drop-offs, carrying heavy grocery bags for multiple family members, and particularly managing strollers in different weather conditions. Additionally, expectations about long-term living in Sweden were considered, as their life-course intentions may directly affect their future travel choices and overall sustainability. Accordingly, fulfillment of the criteria and voluntary participation were considered when selecting respondents for both interviews and surveys.

As Silverman (2007) states, purposive sampling is often used in qualitative research because it ensures that participants have predetermined characteristics and life experiences related to the research topic. Accordingly, participants who met the preset criteria were recruited through the thesis partners' social contacts, workplace contacts, and visits to grocery shops frequented by South Asian immigrants. Further, some participants were contacted through the references of previous interviewees, resulting in a snowball sampling method. In line with Clark et al. (2021), this method was efficient in recruiting participants from the target group, as it is difficult to find individuals who meet the set criteria.

4.6 Data collection

As a result of the dual-sampling strategy, the sample included 16 participants from semi-structured interviews (Table 1) and 65 respondents from the survey. Further, the time period during which the interviews and survey were conducted ranged from the beginning of March 2026 to the end of April 2026. The interviews were carried out either at interviewees' residences, interviewers' residences, or at Helsingborg Campus, at the convenience of the participants. The interview discussion ranges from 15 minutes to 1 hour. After two pilot interviews (Interviewee 01 and 02), revisions to the interview guide were executed by adding several new questions. Even though all the questions in the interview guide were covered in the discussion with probing questions, which yielded rich data, some interviews were limited in duration by participants' speech tempo, resulting in interviews shorter than the recommended minimum interview duration of one hour. In some instances, some notes were

taken as the interviewees continued to reflect on important aspects of the topic after we switched off the recording equipment.

In line with Silverman, D. (2007), the above-mentioned sample size for the interviews was determined based on data saturation, which was reached when no new insights emerged.

Participant	Interview date	Place of Interview	Length of Interview
Interviewee 1	28/02/2026	Interviewees' Residence	00:15:37
Interviewee 2	04/03/2026	Interviewers Residence	00:30:17
Interviewee 3	05/03/2026	Interviewers Residence	00:27:02
Interviewee 4	05/03/2026	Interviewers Residence	00:45:34
Interviewee 5	09/03/2026	Interviewees' Residence	01:02:45
Interviewee 6	10/03/2026	Helsingborg Campus	00:58:21
Interviewee 7	11/03/2026	Interviewees' Residence	01:08:00
Interviewee 8	11/03/2026	Interviewees' Residence	01:00:26
Interviewee 9	11/04/2026	Interviewees' Residence	01:00:02
Interviewee 10	24/03/2026	Interviewees' Residence	00:40:17
Interviewee 11	28/03/2026	Interviewers Residence	01:03:29
Interviewee 12	29/03/2026	Helsingborg Campus	00:37:24
Interviewee 13	30/03/2026	Interviewees' Residence	00:35:19
Interviewee 14	01/04/2026	Helsingborg Campus	01:00:46
Interviewee 15	12/04/2026	Interviewees' Residence	00:38:00
Interviewee 16	17/04/2026	Interviewees' Residence	00:49:20

Table 1. Participants' interview details

To protect participants' privacy, data collection was conducted anonymously. The interviews were conducted face-to-face and audio-recorded with the participants' permission.

4.7 Plan for Data Analysis

All the interviews were analyzed using thematic analysis, with the six-phase framework proposed by Braun and Clarke (Clark et al, 2021), as it allows for the identification of recurring patterns in respondents' experiences. Accordingly, steps of (1) Familiarization with the data, (2) Generating initial codes, (3) Searching for themes, (4) Reviewing themes, (5) Defining and naming themes, and (6) Producing the report were carried out subsequently. First of all, to encourage analysis, the recorded interviews were transcribed using the “Sunetscribe” software of Lund University. To ensure the accuracy of the interview transcriptions, manual corrections were made when voice recognition errors were detected by listening to the voice recordings.

We continued analyzing the interviews from the very beginning to identify potential themes, which helped us discuss them in later interviews (Clark et al., 2021). Also, repeatedly reading the transcriptions helped code the key concepts and thereby identify common themes.

The most relevant quotations from interviewee conversations were extracted and coded, along with an analytical memo, which made the findings more comprehensive in the final stage of the discussion. Accordingly, eight themes were considered important and relevant under the previously established three research questions. Table No. 2 below shows these finalized themes with the suitable coding.

Then, social practice theory was used to interpret the coded data and to inductively derive the relevant themes. The data collected in the survey questionnaire were analyzed using descriptive statistics, including frequencies, percentages, and pie charts.

RQ1 Meaning - Interpretation of mobility without cars	
Theme	Coding
Theme 1: Constraint -driven mobility	1. Financial constraints 2. Structural barriers
Theme 2: Car ownership as social status and family convenience	1. Cultural influence 2. Parental responsibilities
Theme 3: Weak Environmental meaning of mobility	1. Insufficient sustainable awareness

RQ2 Material & competencies – enablers of mobility without cars	
Theme	Coding
Theme 1: Public transport as the foundation of daily mobility	1. Service attributes of Public transport 2. Current infrastructure
Theme 2: Everyday life without a car	1. Environmental conditions (weather) 2. Unmet Service expectations
Theme 3: Daily invisible mobility efforts	1. Lack of cycling skills 2. Digital technology applications 3. Social Collaboration

RQ3 Future Viability – future mobility aspirations and trends	
Theme	Coding
Theme 1: Aspirations towards future car ownership	1. Parental responsibilities 2. Future life course changes 3. Time efficiency
Theme 2 Emerging mobility preferences	1. Cycling/ walking 2. Hybrid travel modes

Table 2: Theme building

4.8 Ethical considerations

Ethical considerations were taken into account throughout the research process. Every participant was notified about the purpose of the study, voluntary participation, and their right to withdraw at any moment. All collected data was anonymized, and personal information was removed to ensure confidentiality. Data was stored securely and accessed only by thesis partners and assigned supervisors.

Furthermore, we were vigilant in asking detailed questions about personal information (e.g., income, health concerns) and cultural norms. Further, as the interview participants were not native English speakers, we, as the researchers, used simplified language in the interviews and explained certain questions in detail as needed. Also, we always maintained due respect

for the participants and allowed them to skip questions if they felt uncomfortable, creating a stress-free environment in this academic setting.

Not only that, but we also reached our survey participants through our Lund University student email account, and we presented the Lund University Identity card whenever required by the interview participants. Also, while collecting survey responses by visiting grocery shops frequented by South Asians, we obtained permission from the shop owners in advance.

5. Findings

5.1 Demographic data in semi-structured interviews

The study sample included 16 interviews with family residents in Helsingborg (Table 3) who had migrated from South Asian countries, including Bangladesh, Sri Lanka, India, and Pakistan. It showed a relatively balanced gender distribution, with slightly more female participants (Female interviewees: 09; Male interviewees: 07). The interviewees' occupations span a wide range, including IT-related professions, warehouse operations, architecture, culinary work, janitorial services, and teaching. Further, their partners were also generally employed in technical services, warehouse operations, homemaking, and janitorial services. All participants had at least one child at the time of the study, thereby meeting the study's inclusion criteria. The duration of residence for these small family units varied significantly, ranging from 1.5 to over 10 years. So, it indicated relatively recent immigrants as well as more established dwellers. As a whole, this composition indicated a very diverse group in terms of occupation and length of residence in Helsingborg, offering varied perspectives on mobility experiences.

Participant	Gender	Native Country	Profession of Interviewee	Profession of the partner	No of Kids	No of years in Helsingborg
Interviewee 1	Male	Bangladesh	Software Engineer	Homemaker	1	2.10 Years
Interviewee 2	Female	Sri Lanka	Warehouse Associate	Janitor	1	1.5 Years
Interviewee 3	Male	India	IT consultant	-	1	6 Years
Interviewee 4	Female	Sri Lanka	Warehouse Associate/ Waitress	Chef	1	5 Years

Interviewee 5	Female	India	Architect	Mechanical Engineer	1	4 Years
Interviewee 6	Male	India	Product Manager	-	1	4 Years
Interviewee 7	Female	Sri Lanka	Janitor	Warehouse Associate/ Rider	1	More than 5 Years
Interviewee 8	Female	Sri Lanka	Waitress	Warehouse Associate	2	5 Years
Interviewee 9	Female	Sri Lanka	Warehouse Associate	Automotive Technician	2	4 Years
Interviewee 10	Male	Sri Lanka	Housekeepi ng Associate/ Warehouse Associate	Warehouse Associate	2	1.5 Years
Interviewee 11	Male	Bangladesh	IT Professional	-	1	3 Years
Interviewee 12	Male	India	Test Automation Engineer	-	1	10 Years
Interviewee 13	Female	Pakistan	Housekeepi ng Supervisor	Sous Chef	2	4 Years
Interviewee 14	Male	India	IT Consultant	Homemaker	1	10 Years
Interviewee 15	Female	Pakistan	Teaching Assistant	Automotive Service Technician	1	6 Years

Interviewee 16	Female	Bangladesh	Chef	Homemaker	1	9 Years
-------------------	--------	------------	------	-----------	---	---------

Table 3. Interviewee Demographic Data

5.2 Demographic data in the survey

The survey data comprised 65 respondents, of whom the majority were female (64.6%). 47.7% of the respondents were in the 35-44 age group, whereas 21.5% were in the 45-54 age group. The native country of the participants (Figure 4) included more nations, resulting in the survey data being richer than in the semi-structured interviews, covering the majority from Sri Lanka (36.9%), Bangladesh (20%), and a few contributions from Afghanistan (12.3%) and Nepal (1.6%) respondents.

Native Country
65 responses

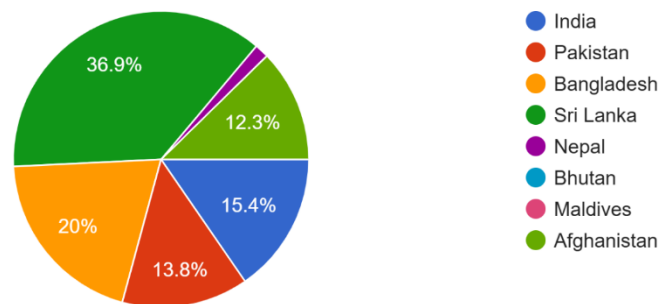


Figure 4. Native country of survey participants

Regarding participants' duration of residence in Helsingborg, Sweden (Figure 5), 47.7% of respondents fell into the 1-3-year category. Accordingly, more than half of the participants had lived in the residence for more than 4 years, providing comprehensive mobility experiences while living without a car.

Living Sweden for
65 responses

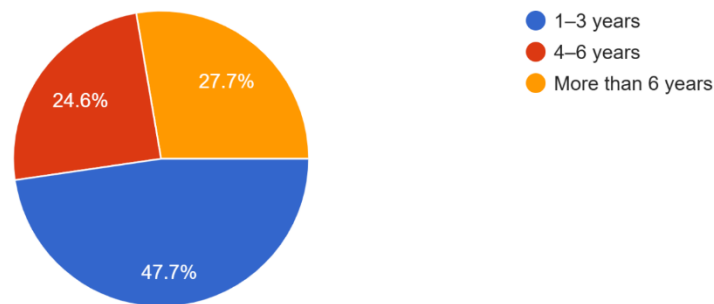


Figure 5. Duration of residence in Sweden

Further, 36.9% of the respondents (24) were employed in the service sector, 20% (13) were students, and other participants engaged in various professions related to IT, Healthcare, education, manufacturing, and self-employment. The survey participants also had at least one child (47.7%), whereas some participants (9.2%) had 3 or more children. Also, 55.4% of the children were in the 0-5 age group, providing nuanced insights into the experiences of parents who live car-free with small kids for the study. Further, all the interview participants and survey respondents intend to live in Sweden permanently in the long run.

5.3 Mobility modes used in the native country

As our study focuses on living without cars in Helsingborg, we also wanted essential awareness of the transport modes used by both interviewees (Table 4) and survey participants (Figure 6) in their home countries.

Participant	Native Country	Mobility modes used in native country		
		Public Transport	Private car	Other modes
Interviewee 1	Bangladesh	Yes (Bus)	No	Three Wheelers
Interviewee 2	Sri Lanka	No	No	Motor Bike
Interviewee 3	India	No	yes	Motor Bike

Interviewee 4	Sri Lanka	Yes (Bus)	No	No
Interviewee 5	India	No	No	Rented cars
Interviewee 6	India	Rarely	Yes	No
Interviewee 7	Sri Lanka	Yes (Bus)	Yes	No
Interviewee 8	Sri Lanka	Yes (Bus)	Yes	No
Interviewee 9	Sri Lanka	Yes (Bus)	Yes	No
Interviewee 10	Sri Lanka	Yes (Bus/Train)	Yes	Motor Bike/Bicycle
Interviewee 11	Bangladesh	Yes	No	Motor Bike
Interviewee 12	India	Yes	No	Motor Bike
Interviewee 13	Pakistan	No	Yes	Rickshaw
Interviewee 14	India	Yes (Bus/Train)	No	Motor Bike
Interviewee 15	Pakistan	No	Yes	Rickshaw
Interviewee 16	Bangladesh	No	No	Rickshaw

Table 4. Interviewees' mobility modes used in their native country

Transportation modes you used in your Home country (Select all that apply)
65 responses

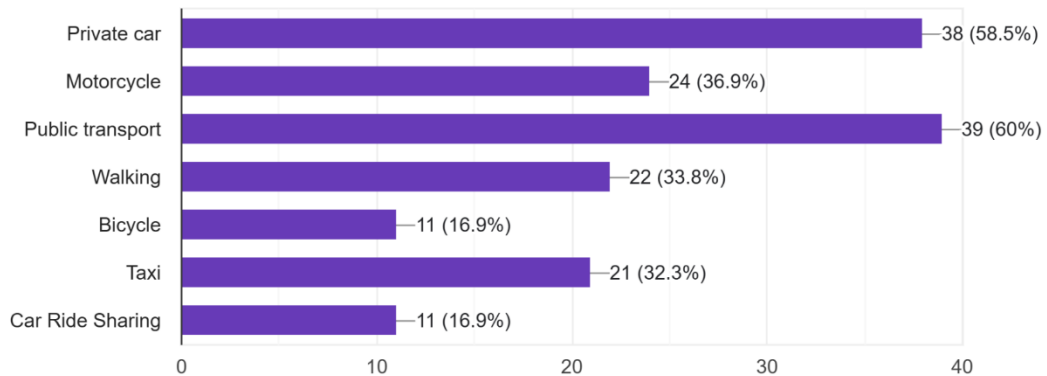


Figure 6. Survey participants’ mobility modes used in their native country

Accordingly, the interviewees relied heavily on public transport, especially buses, and, in some cases, trains, along with modes such as motorbikes, three-wheelers, and rickshaws. Private car usage was also visible, but with a diverse pattern. Further, the survey results (n=65) highlighted multimodal mobility in the native countries, primarily via public transport and private cars, with complementary modes such as motorbikes, walking, and three-wheelers. Further, it represented a small portion related to cycling (16.9%).

Henceforth, findings are presented in response to the three research questions, with eight main themes supported by evidence from survey results and interviewee quotations.

Findings related to RQ1,

Theme 1: Constraint-driven mobility

This theme explains how South Asian immigrant families with children embrace car-free mobility as their everyday mode of transportation, with several difficulties. Although the study participants currently live without a car, survey findings indicated that they maintain this lifestyle primarily due to financial and structural constraints, including cost-related factors and the lack of a Swedish driving license. This “low financial capability” was a crucial and noticeable factor affecting their current mobility. Several interviewees identified “cost consciousness” as dominant and significant after migration to a new country and emphasized that, due to financial priorities, they intentionally avoided purchasing a car. They

discussed it as “car purchasing as a choice beyond their preferred spending capacity”. For instance, Interviewee 06 expressed it as,

“I don’t see a really grave need of buying a car...it’s very important to have savings and have less expenses as possible and cars a really big expense in my opinion”.

Further, he discussed financial prudence, explicitly noting how economic conditions could affect the family's financial capacity amid a car purchase decision, while highlighting the importance of maintaining savings and reducing household expenses.

“Considering the economy right now, it’s very important that we keep our finances as low as possible, so I really do not want to buy a car and increase our expenses unnecessarily”.

Further, Interviewee 10 pointed out that the institutional constraints in obtaining a Swedish driving license are a process full of challenges, which indirectly discouraged purchasing a car.

“To buy a vehicle, of course to drive a vehicle we should have the driving license...I came to know that it is a little bit harder and it’s very tough here and so buying a vehicle is not the only solution for me”.

However, it is worth mentioning that some of the interviewees also commented that living without a car brings some “Freedom” to their life due to problems such as parking hassle, rules and regulations, fines, and winter-related driving concerns. Interviewee 7 explained this novel perception as,

“I actually consider it as a more of a freedom because i know people who have cars they have lots of tensions regarding many things”

Accordingly, the findings highlighted that the current mobility patterns of South Asian immigrant families in Helsingborg are more fluid and situational, shaped more by constraints than by a deliberate decision to live without a car in the initial stage of their lives.

Theme 2: Car ownership as social status and family convenience

The survey findings also reveal that the majority of participants wish to obtain car ownership in the future when they achieve financial stability for reasons such as convenience, parental responsibilities, and life course changes. Furthermore, this future intention is influenced by the cultural norms and beliefs related to “car ownership” inherited from the native country (Figure 7).

Owning a car is associated with social status
65 responses

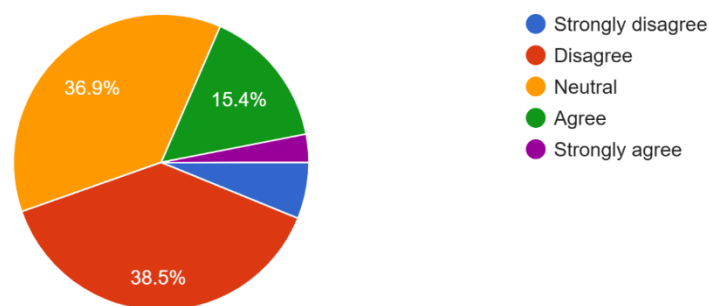


Figure 7: Car ownership as a measure of social status

Many interview participants confirmed that car ownership in home countries is an indicator of social progress and life success. For instance, interviewee 10 expressed it as,

“many people they wish to have a car to maintain their social status. Because I think most of the Asians they like to have a car as a to show off their family status or whatever”

Still, some interviewees noted that although car ownership symbolizes social status in the native country, in Sweden it is not considered a “prestige” status. Interviewee 16, who has lived in Sweden for about nine years, identifies it as a mode of convenience as follows.

“In Bangladesh, a car is a very powerful symbol of success and high social status. But here in Sweden, it seems more practical, a tool for convenience.”

Conversely, some interviewees, such as interviewee 10, recognized living without a car as a “hassle-free” lifestyle. Rather than owning a car, he prefers to spend time with his family while traveling on public transport.

“So I can even cannot enjoy with my family because I have to concentrate all the way until the destination.”

However, the study findings show that, alongside life changes, many South Asian immigrant families tend to acquire car ownership, with native-country cultural influences that symbolize social status.

Theme 3: Weak environmental meaning of mobility

The study also unveiled that insufficient sustainability education in participants’ native countries affects the practice of established sustainable mobility. The survey responses also showed inconsistent patterns in environmental awareness in daily travel behavior. For instance, only 4.6% of survey respondents admitted to living without a car by choice for environmental reasons. Furthermore, the majority of survey respondents reported that they consider environmental sustainability when selecting transport options, and that the existing sustainability practices in Sweden have influenced their lifestyle without a car; still, surprisingly, very few consider it a solid factor in future car purchase decisions (Figure 8)

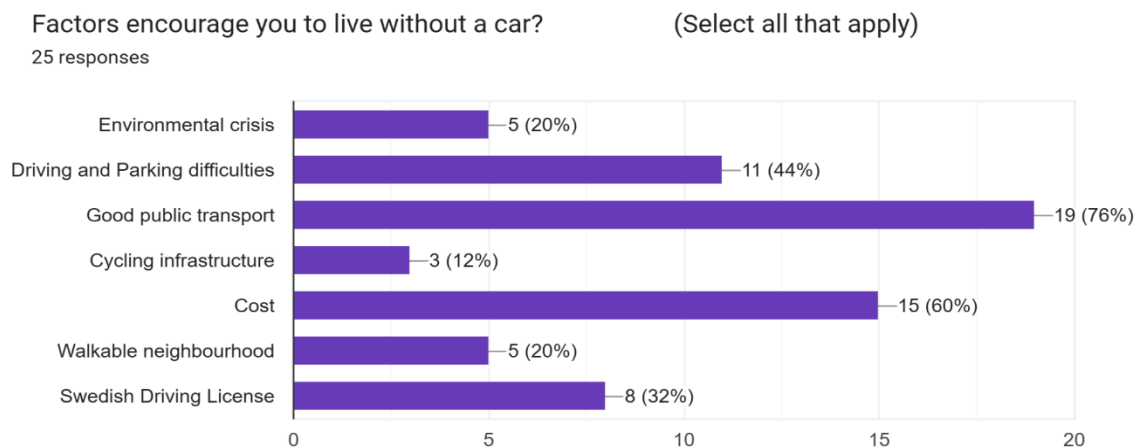


Figure 8: Factors encourage to live without a car

Similarly, interview respondents often emphasized only day-to-day sustainable practices, such as sorting garbage and saving electricity. Regarding sustainable mobility choices, many showed a lack of awareness, which was influenced by their native country. Interviewee 10 highlights this fact as,

“in our countries actually sometime we were not being considering much more about the environment factors because we didn't have any sophisticated the public transport methods which are very much affordable and available.”

All in all, the findings on sustainable mobility transport reveal a significant need for awareness of such travel practices and choices among South Asian Immigrant families.

Findings related to RQ2,

Theme 1: Public transport as the foundation of daily mobility

The survey data further showed strong dependence on public transport modes such as trains and buses, and “walking” as a supportive travel selection enabling everyday mobility (Figure 9).

Transportation modes using in Helsingborg, Sweden (Select all that apply)

65 responses

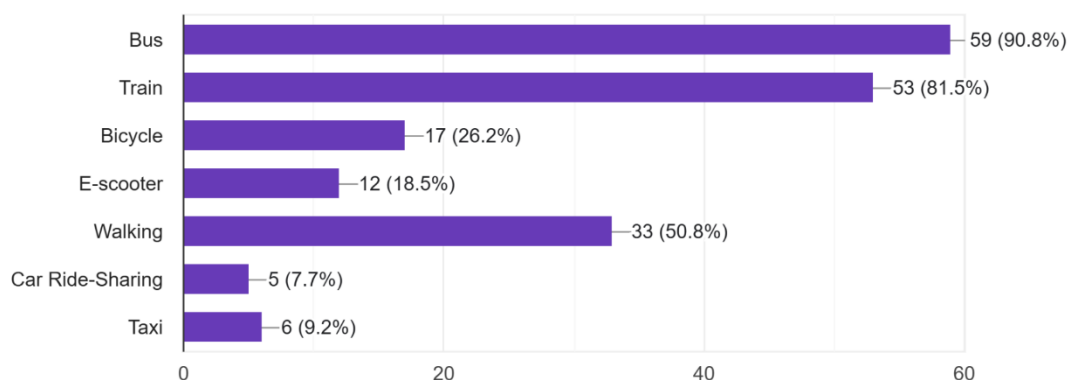


Figure 9: Transport modes currently use in Helsingborg

Additionally, the majority of the respondents reported that they could reach a public transport stop within 10 minutes, indicating strong accessibility. The interview participants also compared Sweden's well-developed transport system with that of their native country. They explain the better connectivity across most routes, the accessibility of transport stops, and the availability of clean buses and trains. Interviewee 06 explains his perceptions as follows.

“ it's a very contrasting difference if you compare it to compared with the infrastructure in my country and infrastructure here in Sweden ”

Participants emphasized the reliability of public transport as a major factor that empowers car-free living. Interviewee 05 expressed it as,

“The trains and the buses are really on time and most of the time it is very easy for me to select those options and take them for my day-to-day life.....it changed my mindset to have a car-free lifestyle.

Furthermore, many interview participants pointed out that the Swedes' dislike of rear seating arrangements on trains and buses was considered impolite. But, later, these South Asian Immigrants have understood that it is a part of Swedish culture and they do not mingle with unfamiliar persons as Asians do. Interviewee 2 described this experience as follows.

“ most the horrible thing is I could see here is um the Swedish peoples are not sitting next to the some others even in a even a public transport. They always try to keep try to be lonely and be separate actually we didn't know about that at the time of coming to Sweden and we used to sit what the seats are available we just sit down... so that is a very disappointed thing ...”

Accordingly, it reveals that, in most cases, the mobility of these South Asian families is limited to major modes of transport, even though cycling infrastructure is currently available.

Theme 2: Everyday life without a car

Even though the selected group of respondents strove to maintain a lifestyle without cars, due to family responsibilities, especially with kids, the survey results showed that 69.8% found it difficult to manage childcare and school drop-off without a car. Additionally, it is remarkable that only 20% of respondents selected “manageable” with seasonal weather conditions, while the majority identified it as a major barrier to daily core activities of life (Figure 10).

Weather conditions (rain, snow, winter) make daily travel without a car
65 responses

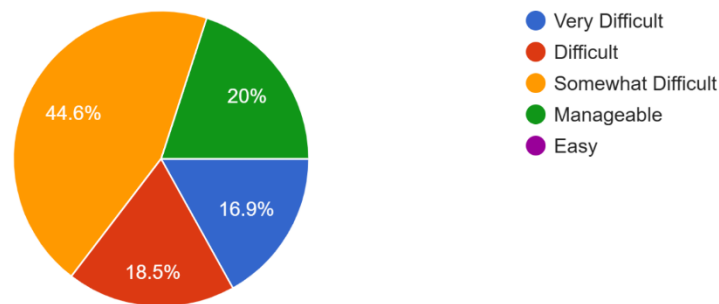


Figure 10 : Effect of weather conditions towards car-free mobility

Similarly, many interviewees commented that, even though rainy conditions were manageable, daily mobility was severely affected without a car in winter and hindered by time constraints and safety concerns. Interviewee 04 revealed her situation in winter as,

“Actually it strongly affects my mobility because.....in winter season it’s really difficult...the surface is very slippery....if I take 10 minutes for my walk earlier, now in winter season I have to take like 20 minutes or 30 minutes.....sometimes the trains are delayed or cancelled because of these snow storms.”

Mostly due to parental responsibilities, the interviewees faced winter conditions that were both challenging and appealing. Following is how interviewee 03 explained his negative experience.

“Winter is problematic.....especially when there is heavy snow..... I can manage cold, not a big problem... but for my family and kids it's problematic.”

Additionally, the survey data indicated dissatisfaction with the performance of the public transport system, despite respondents using it daily. For example, the majority of the survey respondents disagreed with the question that public transport helps families with their daily activities efficiently. On the other hand, Interviewees also highlighted the reliability of public transport when living without a car. Specifically, they discussed technical issues related to trains, such as frequent delays and cancellations. These situations have caused service quality concerns to the South Asian families, and for many to direct to car ownership. For instance, interviewee 11 expressed this situation as,

“Overall, I feel we need a car. Okay to make life a bit more easier since it's not fully helpful for you to use public transportation conveniently.”

However, amid these challenges, 66.2% of survey respondents rated access to schools, hospitals, and workplaces as “manageable” without a car, reflecting the accessibility of urban service destinations relative to their residential location. Even the interview respondents specifically mentioned the significance of walkable accessibility. For instance, interviewee 16 presented her ideas with proximity to the everyday essential destinations as follows,

“So for us, the essential places have been accessible. But you have to be lucky to live in the right location.”

Indeed, regarding daily mobility without a car, all participants highlight the importance of not only material existence but also access to it at the right time to make living smooth.

Theme 3: Daily invisible mobility efforts

In addition to the materials mentioned above, the study revealed daily mental and physical efforts, often unseen, undertaken by South Asian immigrant families. In other words, these hidden struggles involve mobility practices that require collaboration, flexible decision-making, and familiarity with technology, rather than merely relying on public transport.

Further, the survey data indicate the widespread acceptance of digital route-planning technologies. Specifically, 95.3% of respondents rated the Skånetrafiken app based on their satisfaction with digital mobility applications as “Good”, “Very Good”, or “Excellent”. Also, every interviewee's life story shows how they gradually became familiar with the new transport system and related digital mobility technologies, without any prior similar experience in their native country. For instance, interviewee 15 described how digital mobility tools improved her confidence, highlighting the importance of adaptive skills for independent mobility among mothers of young children.

“In my country Pakistan, we don't have such apps like Skånetrafiken....after coming here in the beginning it was difficult but later it was super easy. This app is full of information.....it gives information about each stop we take until our destination and even if there are delays, they provide information on other options.”

Also, the participants discussed the shift from cash-based to digital payment systems, particularly regarding mobility, which they encountered in their new country as immigrants. Interviewee 02 expressed this new experience and adaptation as follows.

“We can purchase tickets through the app....we normally use coins in Sri Lanka, but here it is very easy to use the app. That is a very good facility for a better life.”

Additionally, the survey findings indicated that mobility coordination efforts were integrated into household responsibilities. It is reported that mobility responsibilities are shared “always” or “often” equally among husband and wife. Even the interviewees expressed that they share the travel responsibilities for kids among parents, managing their work schedules.

Importantly, these efforts highlight the need for deliberate adaptation to the required competencies in the existing environments, whether technological, mental, or physical, in order to engage in mobility with prevailing infrastructure.

Findings related to RQ3

Theme 1: Aspirations towards future car ownership

The study revealed that although the interview respondents currently manage their daily mobility without cars, their future intention is to become car owners, along with improved visa status and financial stability. However, among the survey respondents, 37.5% (out of 64 responses) would remain car-free, while the majority would purchase a car and also use public transport. The figure (11) below reveals the number of situations where respondents consider it necessary to own a car. Parental responsibilities, family growth, job requirements, and the need to transport heavy, bulky items home are significant factors that lead to becoming car owners.

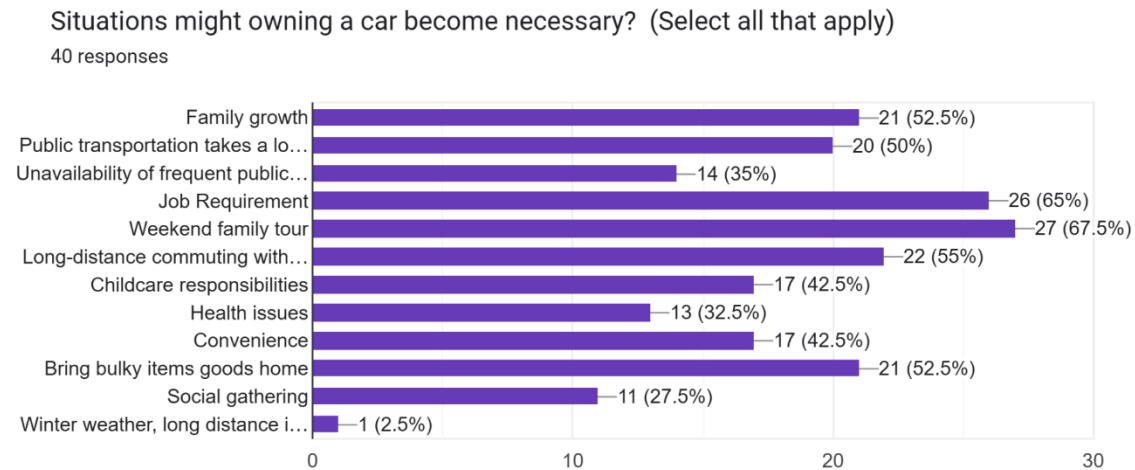


Figure 11: Situations where owning a car is necessary

Similarly, interview discussions revealed the importance of owning a car for accomplishing parental responsibilities related to family growth and family leisure time.

Interviewee 11 explained it, highlighting the flexibility of owning a car and as a sign of “good parenting” as follows.

“Life situation, especially for the recreational purpose.... on weekends to move somewhere, where not only depending on the public transportation. We could go somewhere some undiscovered and quiet places where most of the people it's not a public destination.”

At the same time, some interviewees highlighted the importance of service integration and last-mile accessibility. It signaled that the unavailability of sufficient transport connectivity may influence future decisions about car use. As per the interviewee 10,

“But for an example if we consider about some factories or the some places where we are working which are little far away than the main stop points of the main public transport, so then we feel that little bit comfortability because in some places it takes too much time to travel from the main bus stop or the train stop to the workplace.”

Theme 2: Emerging mobility preferences

Survey findings showed that a very small number of residents use “cycling” as a mode of transport and thus remain far from current practice, even though infrastructure, such as

cycling paths, is available. Similarly, many of the female interview participants shared their views on cycling in their native country as follows. The interviewee 15's expressions revealed the impact of the norms and beliefs associated with this active travel mode in the native country as follows.

“Actually I don't know how to ride bicycles. In our culture girls are not riding bicycles also in our country bicycles are mostly used by low income people”

Interviewee 16 also shared similar ideas as below.

“I have never learned to ride a bicycle properly. In Bangladesh, it's not very common for adult women in the city to cycle. It is often seen as something for men or for those who cannot afford anything else.”

However, the majority of survey respondents who do not currently use cycling for mobility would like to do so in the future (Figure 12).

If you are not using bicycle, are you willing to use it in the future
60 responses

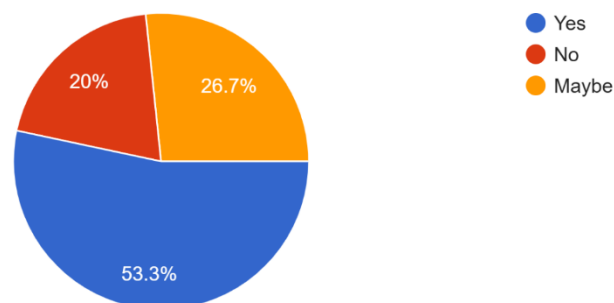


Figure: 12 Willingness to use Cycling in the future

In addition, many survey respondents included “walking” in their daily routines. For instance, 50.8% of respondents currently reported “walking” as a regular mode of transport while 63.1% (41 respondents) prefer walking for grocery activities, while 67.7% (44 respondents) walk for park or leisure activities.

Furthermore, all interview participants who were accustomed to modes of transport other than walking in their home countries have come to associate “walking” with their daily lives after migration. Even many participants identify “walking” not only as a mode of auxiliary

transport but also as a value addition to life in health concerns reflecting emotional and practical life choices over time. For instance, interviewee 5 explains it, creating a new facet of this active travel mode as follows.

“Walking gives us exercise and it is good for health...we feel more active when we walk instead of using a car.”

In summary, the findings revealed that the families of study participants lived without cars largely due to economic constraints and settlement priorities following migration, rather than by personal choice. The study also highlighted that existing public transportation services, walkable access to daily destinations, and digital mobility tools facilitated everyday travel. However, challenges arose from winter weather conditions and the responsibilities of parenthood. As a whole, this illustrates the right combination of all elements of materials, meaning, and competencies of the users, supporting the existence of the practices in the long run and vice versa. Subsequently, this is why a significant majority of participants expressed a desire to become car owners in the future, driven by the convenience of car ownership and cultural norms in their countries of origin, where possessing a car is often associated with social status. Overall, the findings indicate that the mobility of immigrant families without cars is shaped by a blend of cultural, economic, and infrastructural factors.

6. Discussion of the Findings

In the previous chapter, we presented the study participants' lived experiences related to car-less mobility in Helsingborg. In this chapter, we explain the empirical findings from interviews and survey questionnaires administered to South Asian Immigrant families in relation to our theoretical framework, specifically Social Practice Theory (SPT), and to the existing literature in the field.

Those findings show that car-less living is not only an “*everyday decision*” made related to mobility. But it is a more complex choice and a collection of changing practices shaped by existing mobility material conditions, culturally rooted meanings, and competencies related to mobility acquired over time after migrating to Sweden from their South Asian native countries. These observations harmonize with the theoretical standpoint that mobility practices are not purely the outcome of individual decisions but are shaped by the society we live in.

First and foremost, it is worth mentioning that the target group of our study, South Asian immigrant families, currently live without a car mainly due to constraints, which makes them more aptly described as “car-less” than “car-free” (Sattlegger & Rau, 2016; Lagrell et al., 2018).

The analysis in this chapter begins by exploring the meanings that South Asian immigrant families attribute to leading a car-less life. Second, we will explain what material conditions make car-less living feasible or infeasible, and the skills these families use to live without a car in their everyday lives. Finally, we will examine the potential of these families to sustain non-car lifestyles and the probabilities of transitioning to car ownership. Furthermore, this discussion will continue alongside the established research questions.

6.1 Meaning (RQ1)

6.1.1 Cultural Norm Implications

The focus on South Asian immigrants allows us to study the impact of social and cultural norms on travel behavior, as they live in the same mobility culture as the native population. But they have also been exposed to other social and cultural influences from their country of origin and previous countries they lived in (Haustein et al., 2020). This results in greater flexibility in travel habits and practices, which, in turn, might contribute to changes in

mobility and adaptation. Recognizing the influence of habits is essential for understanding climate policy acceptance, as studies show that habits and past behaviors shape personal values and attitudes. (Linder et al., 2025, p. 671). For instance, most of our study participants have used public transport and several other auxiliary modes for their daily travel in their native countries, which in turn supports their adaptation to the public transport system in the initial stage after migration to Sweden.

However, most of our study participants confirmed that they will become car owners in the future when they achieve life stability. This aligns with Assum et al. (2011), who explain that many of the immigrants had access to a car and their own driving license in the native country, and after migration, they also think of the same lifestyle whenever they achieve an established life, irrespective of the existing sustainable mobility modes they use currently in the host country. Furthermore, they are less likely to maintain travel behavior using energy-efficient transport modes in the future once they obtain a driving license. Conversely, several interview participants expressed a desire to remain car-free voluntarily, while a few would purchase environmentally friendly vehicles if supporting services are available at their residences.

Also, research from Asia highlights that a “very high-status value” is placed on car ownership, and people with higher education or in respectable occupations tend to purchase cars (Shafi et al., 2022; Anantharaman, 2017). Similarly, the majority of study participants still agree that car ownership represents “social status” and is shaped by the cultural influences of their home country. However, some participants are “neutral” or “strongly disagree” with this concept, believing car ownership is merely a convenience.

At the same time, Hamidi and Zhao's (2020, p. 16) study on promoting sustainable travel behavior emphasizes that for a genuine shift to sustainable travel to happen, communities must cultivate a positive attitude toward sustainable modes of transportation. It is also crucial to address obstacles such as long travel times, insufficient cycling infrastructure, and limited access to public transportation. Simply, this situation shows that it would become more challenging to achieve sustainable mobility integrations with immigrants. According to the study's findings, even though the Helsingborg municipality has undertaken many sustainable mobility measures, such as building sustainable infrastructure (cycling/walking paths) and setting a carbon neutrality goal, the extent of adaptation to these measures is limited among immigrants. So, it highlights that the authorities must address the mobility concerns of

immigrants, such as flexibility, parental responsibilities, culture-related travel choices, and environmental sustainability concerns, rather than preparing a single solution for everyone.

To address this situation, researchers such as Lewin et al. (2006) suggest that the Swedish Migration Board provide immigrants with information on traffic behavior and rules upon arrival, as it is the first authority they contact. Furthermore, they propose that this information be provided in several languages, rather than not only in Swedish. In addition, they suggest that traffic education should be made compulsory in the Swedish for Immigrants (SFI) classes. Furthermore, it also aligns with Laakso (2017), who argues that sustainable mobility shifts require behavioral changes rather than economic incentives.

6.1.2 Economic prudence

On the other hand, the study findings indicate that although mobility is constrained by various factors, it does not always lead to negative consequences. Rather than that, many participants have adapted to their daily routines step by step by learning new things and managing their lives effectively. Further, many study participants discussed the positive aspects of living without a car, such as using active travel modes, like walking, to maintain healthy lifestyles; saving money by reducing car purchase, fuel, parking, and maintenance costs; and enjoying family time while using public transport. These findings also align with the study by Berg et al. (2015), in which participants found car dependency “inconvenient” and selected “walking and cycling” as modes of transport for pleasure, to save money, and for better health. However, the study participants lack adaptation to cycling, which is considered “typically Swedish”, even with well-established cycling paths in Helsingborg.

6.1.3 Limited sustainability awareness

Further, it is remarkable that although study participants live without cars, this was not deliberately considered a major factor in preserving environmental sustainability. Instead, life without a car has emerged as a by-product of the constraints they faced in daily mobility choices. So, it sheds light on the findings of Lagrell et al. (2018) in a contradictory way. In his observations, voluntary car-free households in Sweden were considered supportive of environmental sustainability. But in our findings, environmental considerations arise from constraint-driven adaptation of mobility choices. Even one interviewee said he would not buy electric vehicles because there are limited recharging facilities in his apartment. So, it shows that people value comfort over environmental concerns when making mobility choices.

Hamidi and Zhao (2020) highlighted that the dimensions of attitude, skills, and access play a crucial role in shaping individuals' travel behavior and their preferences for transportation modes, such as public transport, bicycles, or cars, irrespective of the context. This also aligns with study findings that many female interviewees who are unfamiliar with cycling consent to future cycling adaptation if proper guidance and support are provided, regardless of the anchored cultural impacts. In contrast, according to the male interviewees, even though they are skilled, unfortunately, they use cycling only as a leisure activity rather than as a supportive daily travel mode.

With reference to sustainability achievement, although most interviewees have actively engaged in it since migrating to Sweden through recycling and waste management, they still have little knowledge or awareness of sustainable mobility. It is evident that this was due to the strong influence and misalignment with considerations such as native culture, prior practices, a lack of sustainable practices in their native countries, and demographic factors (Shafi et al., 2022).

6.2 Material conditions and competences (RQ2)

6.2.1 Public transport & Active travel

In the early stages after migration, study participants perceived public transport as an alternative to driving and as a material part of their daily mobility, but later it became routine. Further, many interview participants explained that in the initial few days, it was difficult for them to adapt to the new transport system and the digital applications, which they later became familiar with. Moreover, some reported receiving support from friends to become accustomed to this transport system and digital mobility apps. To illustrate, the article by Assum et al. (2011) provides an example: they explain that many individuals received support from relatives and friends upon their initial arrival in the foreign country, and over time, they gradually learned to navigate the public transportation system.

All study participants advocated that current public transport was also a major factor, alongside financial and structural constraints, that encouraged living without a car. In other words, it facilitated South Asian immigrants' greater social inclusion and reduced car dependence, which aligns with several existing academic papers by Macuchova & Brandt (2025) and Hamidi & Zhao (2020). Further, many participants admitted that, even though random delays and cancellations occur on public transportation, they are satisfied with the

service quality, which leads them to use it more often (Mugion et al., 2017, p. 1566). However, offering new insight, a few participants emphasized several incidents in which they felt discriminated against, which ought to be considered in the Swedish transport system. Moreover, while discussing flexibility, family growth, and parental responsibilities, many participants found it difficult, prompting them to recognize the need for car ownership (Rau & Matern, 2024; Sarkheyli & Sarkheyli, 2026).

Existing literature by Brand et al. (2021) highlights that active travel (walking and cycling as transport modes) is the most sustainable and low-carbon form of mobility. Further, they explain that even replacing several car trips with bicycle trips has a significant effect in reducing emissions. Even though the importance of active travel modes for environmental sustainability is well recognized, the study findings indicate that the majority of interview and survey respondents use “walking” as a short-distance travel mode, especially for grocery shopping, leisure activities, and school drop-offs. It aligns with the policy implications highlighted by Brand et al. (2021) as the fundamentals behind “15-minute city” urban design and land-use policies. In line with this, many interviewees highlighted the proximity to daily destinations and emphasized the residence's ideal location, whereas some were frustrated by the hilly area in which their residence was located. Further, from a Social Practice theory perspective, access to major locations in daily life increases the use of active travel modes, adding “meaning” to sustainable travel choices and the utilization of existing eco-friendly mobility infrastructure.

On the other hand, although all participants noted the well-planned cycling infrastructure available in Helsingborg, only a few actively use bicycles for daily commuting. Rather, many male interviewees use cycling for leisure in the summer. The reason for this behavior may be that they mentioned their home countries lacked dedicated cycling infrastructure, making them unfamiliar with cycling as a mode of transport. Another reason, particularly among female interviewees, was their perspective on the cultural influences around cycling. For example, in their home countries, cycling was often associated with low social status and not considered an acceptable mode of transport for women. So, it highlights that immigrants' cultural norms play a key role in setting preferences or restrictions and choices, especially on cycling, when controlling for selected demographic factors - women (Haustein et al., 2019; Welsch et al., 2018; Febar et al, 2025). Effectively shifting mobility behaviors involves more than financial incentives; it requires implementing integrated policies that also aim to reshape cultural narratives about accessibility and automobile use. (Schultheiss & Kaufmann, 2025).

However, many study participants, mainly women, agreed they would cycle in the future if the necessary support were provided. Thus, promoting cycling among female immigrants addresses both their functional and emotional needs. Another study in the Netherlands by Faber et al. (2025), which relates to the Swedish perspective, emphasizes strong socialization. Their findings demonstrate that walking and cycling behavior can change significantly due to built-environment facilitators, supportive social networks, and the normalization of walking and cycling as modes of transport. So, as suggested by Balkmar et al.(2025), in order to promote active travel modes like cycling, the background should be established with accessibility to materials, learn and build up competencies, and even to overcome mythical cultural barriers and to find out the true meaning of active travel modes towards sustainable mobility choices. So, it is obvious that if the major elements of social practice theory are achieved together, then these active travel modes can be promoted.

Further, regarding the study findings, participants commented that although rainy weather is manageable, harsh winter conditions pose significant challenges to their daily mobility as non-car users. Even though some interviewees preferred a car in winter, others preferred not to own one due to maintenance requirements and the risks of driving in winter. Instead, they valued wearing several layers of clothing and waiting at the nearest bus stop. Further, while many interview participants valued snow cleaning on the pedestrian and cycling paths, the finding regarding a survey respondent's suggestion for bus stops with doors to keep warm during winter is worth mentioning. Also, within the Social Practice Theory, these weather conditions represent a material constraint influencing the daily non-car mobility options.

6.2.2 Constraint - driven mobility

When reviewing the interviewees' expressions and survey data, financial difficulties emerge as a major reason for South Asian immigrant families to live without a car. It also becomes the most recurring factor in most interviews, especially when they describe the early settlement period after migrating to Sweden. This resonated closely with the insights provided by Lewin et al. (2006), which indicate immigrants have a lower car ownership rate in the early stages of life after migrating to a new country due to financial difficulties and employment instability. Furthermore, financial constraints directly affect people's purchasing power, including their ability to purchase cars, maintain them, obtain a driving license, and so on. So, from the perspective of Social Practice Theory (SPT), financial difficulties, which are material constraints that directly affect one's competencies, deprive people of the ability to

gather the resources that shape sustainable mobility practices, such as bicycles and other mobility resources.

Conversely, several participants in the study believe that the prices of monthly or daily tickets are relatively high given their income levels. They strongly emphasized the need for policy adjustments, advocating discounted family tickets for parents with kids. Moreover, they highlighted how this sustainable daily mobility practice is viable and becomes a more convenient choice than a burden through material and financial interventions. Furthermore, in the interview, parents raised the need for sufficient space for strollers in trains and buses. They shared the emotional toll and the messiness of the daily commute due to this primary logistical challenge. Through that, they unveiled a different reality that needs attention under the material constraints of public transport.

Accordingly, the “visible carless life” of South Asian immigrant families is more volatile, meaning they have become car-less users due to material constraints. At the same time, this discovery also supports the discussion in Sattlegger and Rau (2016) about classifying “car-free” as “car-less,” emphasizing that their mobility choice is driven more by necessity than by a voluntary decision.

6.2.3 Competency Limitations

Another point that the participants frequently highlighted is the difficulty of obtaining the Swedish Driving license. They often described it as an expensive, time-consuming, and demanding process, and it affected their living without a car. So, this study finds that structural barriers affect immigrants’ access to mobility and strengthens the findings of Lewin et al. (2006) that immigrants acquire fewer driving licenses than natives, which directly affects their mobility freedom. When we consider it from the perspective of Social Practice Theory, it represents a portion of competencies. It is true that without the required skills and recognition, individuals cannot drive in their daily lives. So, it clearly highlights how rules, regulations, and structures affect daily mobility decisions. Rather, this competency constraint supports promoting car-less living, using other active travel modes, and using public transport in daily life. Kuss and Nicholas (2022) also proposed to impose congestion charge, Traffic control, limited traffic zone to prevent car use. Also, competencies are not isolated, as they shape which materials people can gather and what meanings they attach to mobility options. Accordingly, car-free mobility is produced through the interactions of resources, skills, and social meanings rather than any single factor alone.

6.3 Future Mobility Aspirations (RQ3)

The findings disclose that mobility practices among South Asian immigrant family participants were sustainable in the early stages, soon after migration, due to constraint-driven non-car mobility choices. However, its future viability depends on whether their living standards improve; the findings forecast some transitions towards car use alongside other hybrid mobility options. Even many of the participants are dreaming of purchasing a car once they become financially stable and have a stable visa status. This also aligns closely with the findings of Lewin et al. (2006) regarding immigrants' future aspirations for car ownership, even though they currently rely on public transport.

As explained by Assum et al. (2011), despite lower car access among immigrants, attitudes toward car travel seem more favorable among certain immigrant groups than among the domestically born. Especially bicycle riding, but also public transport, appear to be regarded as inferior forms of transport, at least by certain immigrant groups. This attitude, combined with improved economic standards among immigrants over time, may easily lead to high car access among immigrants and, consequently, less sustainable travel. In line with this, survey participants identified the need for long-distance family trips as a major reason to own a car in the future, while interview participants cited flexibility, family growth, and distance requirements due to job and residence changes.

Further, through car ownership, immigrants symbolize social status, convenience, and success in life, which in turn brings them long-term aspirations regarding vehicle ownership. Research indicates that Asian immigrant groups generally demonstrate a greater degree of assimilation into automobile culture compared to other immigrant groups. (Hu, 2017). Our findings align with a broader body of literature showing that cultural norms and expectations can translate into different travel preferences and behaviors and can change sharply after migration. Shafi et al. (2022) show that South Asian immigrants often arrive with transport meanings shaped by home-country hierarchies, where car ownership can signal status, adulthood, and success, but those meanings begin to shift once migrants enter a different transport culture and different everyday expectations.

A pattern is evident in interviews: one participant contrasted the symbolic value of a car in the home country with the lower social status associated with cars in Sweden, while another described car-free living as a form of freedom from having to clear snow, change winter tires, and pay parking fines. The survey data reinforce that this is not only a cultural norm but also

a contextual one, because winter conditions and train cancellations are reported as serious barriers to everyday mobility.

But the future car-ownership decision is fueled by the daily, slight but emotionally heavy feelings they encounter and the meanings they gradually gather while being car-less in their daily lives. For instance, the interviews and survey revealed that immigrants face common constraints, such as harsh weather conditions with small kids, low bus frequency and long wait times, especially on weekends, and limited transport coverage to their workplaces in early mornings and late nights when using public transport, including buses and trains. Similarly, Curtis et al. (2018) define these constraints as latent demand, meaning activities and travel that are desired but unrealized due to insufficient coverage, poor service levels, and lengthy detours. They ask for a holistic public transport investment strategy, as a 'one-size-fits-all' approach can not eradicate the constraints of public transport.

Further, the participants explained how family growth, employment changes, and moving homes affect shifts in mobility options and the associated demands. Even Neves & Brand (2019) discuss how family transportation needs necessitate car ownership. Further, the study by Clark et al. (2016) points out that people tend to stick to the same way of getting to work, such as driving, walking, or taking the bus, and make it a habit. They also discuss how people change the way they commute along with major life changes. “Distance to work” plays a big role, and if the distance becomes short (less than 3 miles), people tend to walk and cycle. Moreover, the availability of high-quality public transport makes people more likely to stop using cars. Also, the researchers point out that attitudes usually come before changes in behavior. For instance, it has been found that people who are more environmentally conscious are more likely to switch away from driving. Further, as Linder et al. (2024) find, to gain support for climate policies, changes in everyday habits, especially around car use, are more effective than changing opinions. Similarly, Social Practice Theory also holds that life transitions entail different meanings, materials, and competencies that may lead to changes in existing practices.

Also, in line with the findings of Svennevik et al. (2021) on the supplementary role shared mobility systems play in car-free lifestyles, participants prefer hybrid mobility options. So, from a Social Practice Theory perspective, these hybrid options demonstrate adaptation to new materials and competencies, and even the discovery of new meanings in them, as they are used in daily routines. For instance, many participants who were bound to their “own

cars” in their home country for all travel have shifted to multiple modes of transport after migrating to Sweden. Simply, they have “managed” reaching habitual destinations, displaying a remarkable life transition related to mobility. Hamidi and Zhao (2020) emphasize the importance of focusing on three dimensions of mobility: attitudes, skills, and access. They advocate for fostering a positive attitude toward sustainable travel modes, developing cycling skills, and creating a supportive environment. This holistic approach is essential for implementing effective policy designs that promote lasting behavioral changes.

6.3.1 New Mobility Adaptations

Participants also shared their experiences of adaptation to the Swedish transportation context. They explained that they had to learn the well-structured public transport system after migrating to Sweden. Many explained that the lack of well-developed, structured public transport in their home countries required them to acquire new skills and competencies. Further, this finding is similar to Jain’s (2011) insights that immigrants become flexible in adapting to structured systems in European cities. Most studies on immigrants in the USA, Australia, and Europe have found that, on average, immigrants drive less and use other modes more than their native-born counterparts, but that travel behavior tends to assimilate toward the norm over time (Lewin et al., 2006; Shafi et al., 2022).

Aligning with Lagrell et al. (2018) findings that car-less families rely on “support from social networks in managing everyday life”, another important aspect of our study is the use of social networking to meet mobility requirements among friends and neighbors who own cars for daily travel. It shows that these collective mobility practices are mostly socially embedded rather than simply remaining as individual efforts. Further, around this ride-sharing, people tend to grow trust, friendship, and care for each other. Also, most of our interviewees like Skane trafikens ticket-sharing feature and would like to have such facilities more often, since a monthly bus ticket can be shared only 15 times. They share their ticket with their immigrant family friends. Within the Social Practice Theory, these practices support the sharing of competencies and the extension of material access for non-car owners to overcome short-term mobility difficulties.

Further, the survey findings demonstrate that transportation decisions are significantly influenced by factors beyond cost and convenience; family life considerations also play a critical role. Respondents consistently identified train cancellations, limited evening services, and challenges related to transporting children or goods as considerable obstacles to relying

on public transport without a personal vehicle. All these discoveries reveal that the study participants' car-free living is sustained through the collection of several competencies they purposefully employed in their daily lives, such as time management, social networking for mobility aids, and multi-mode and adaptive transport strategies. So, it suggests that the availability of facilities, support, and guidance towards sustainable travel options could promote car-free living among immigrants.

However, Faber et al (2025) express that various transport researchers argue that the prevalence of active travel mode use in European countries cannot be understood solely by looking at urban design and the provision of dedicated walking and cycling infrastructure, as cultural contexts and social norms are found to be at least as important in encouraging walking and cycling among citizens. This is why there is a growing interest among transport researchers for socialization factors in studies of behavioral change. These studies are based on the premise that travel behavior is strongly influenced by social norms regarding particular behaviors transmitted by social agents, such as the media, peers, and family.

Through the lens of Social Practice Theory, this adaptation reflects developing competencies, such as planning routes, using digital travel apps, and understanding transport schedules. Even though immigrants display different orientations towards the host country's mobility culture, over time these adaptations become daily routines, turning some occasional, short-term learnings into established practices. But sometimes we are also finding that because of cultural differences and previous experience, though the material like the cycling infrastructure is present in Helsingborg, and also most male participants have the skill or competency of riding a bicycle, still they are not cycling for their daily requirements because of one missing element that is a positive meaning toward cycling. So, we can see that our findings also support the social practice theory: to constitute a sustainable cycling practice, the active integration of materials, competence, and meaning is mandatory, as these are interdependent.

According to Social Practice Theory (SPT), mobility represents more than an individual travel choice. Rather, it results from a successful combination of three core elements: meaning, material, and competence. When viewed through a theoretical lens, it provides a holistic explanation of how these South Asian Immigrant families currently live “car-less” rather than “car-free”. In short, the study's findings highlight that the current mobility practices of South Asian Immigrant families are neither stable nor purely voluntary. Instead,

it is changeable, with an improved life course and a product of constraint-driven adaptation. From Sweden's perspective, using public transport, walking, and cycling can be seen as aligning with sustainable mobility and fulfilling citizens' duty to achieve climate-neutral goals. But the study's findings highlight that South Asian Immigrants identify it as a means of saving money. Furthermore, it demonstrates that this mobility selection is strongly influenced by the cultural norms and beliefs of the native country. It shows that these immigrants hang signs on cars as symbols that carry socially defined meanings, such as status, success, prestige, and even good parenting. Further, other travel modes, such as public transport, walking, and cycling, that are used instead of car use are identified as poor life achievement failures and as low social status. In that sense, they place very little value on sustainability in mobility choices. Similarly, cycling brings a negative value influence from their own native cultures, especially for women. As the meaning of sustainable travel is tied to financial constraints, it is highly fragile amid changes in their life status and financial achievements.

Further, social practice theory highlights that materials should smoothly support mobility users in their daily lives. Even though the study highlights many available material resources that Helsingborg offers to South Asian Immigrant families, it also points out many hindrances to their smooth flow. Specifically, study participants point out a lack of spaces for strollers, inadequate facilities for harsh winter conditions, and disruptions in public transportation. Furthermore, although the study participants demonstrated high competence in navigating digital technology, they still lacked effective time management and the ability to handle delays. For instance, even though Helsingborg has provided well-structured bike lanes, people still cannot use them due to a lack of competencies. If it were possible, people could still use them as alternatives to public transport.

As a whole, social practice theory points out that for a “practice” to be viable, all three parts of meaning, material, and competencies should be integrated together. The absence of at least one element may undermine the practice's viability. So, in the lens of the study participants, this integration is incomplete. For instance, they are too attached to cultural beliefs, face enormous difficulties in unfamiliar weather conditions, and even lack competencies such as cycling skills. Consequently, their future aspirations shift towards “hybrid travel modes” to align with anchored mobility meanings and address material and competence-related requirements.

7. Conclusion

This study examined how South Asian families in Helsingborg understand and practice car-less mobility in their daily lives. Using Social Practice Theory (SPT) and thematic analysis, data from 16 semi-structured interviews and 65 survey responses were analyzed to interpret their lived experiences in a car-less community. Through detailed findings, analysis, and discussion, we address our research questions and provide insights into the dimensions of the theoretical framework.

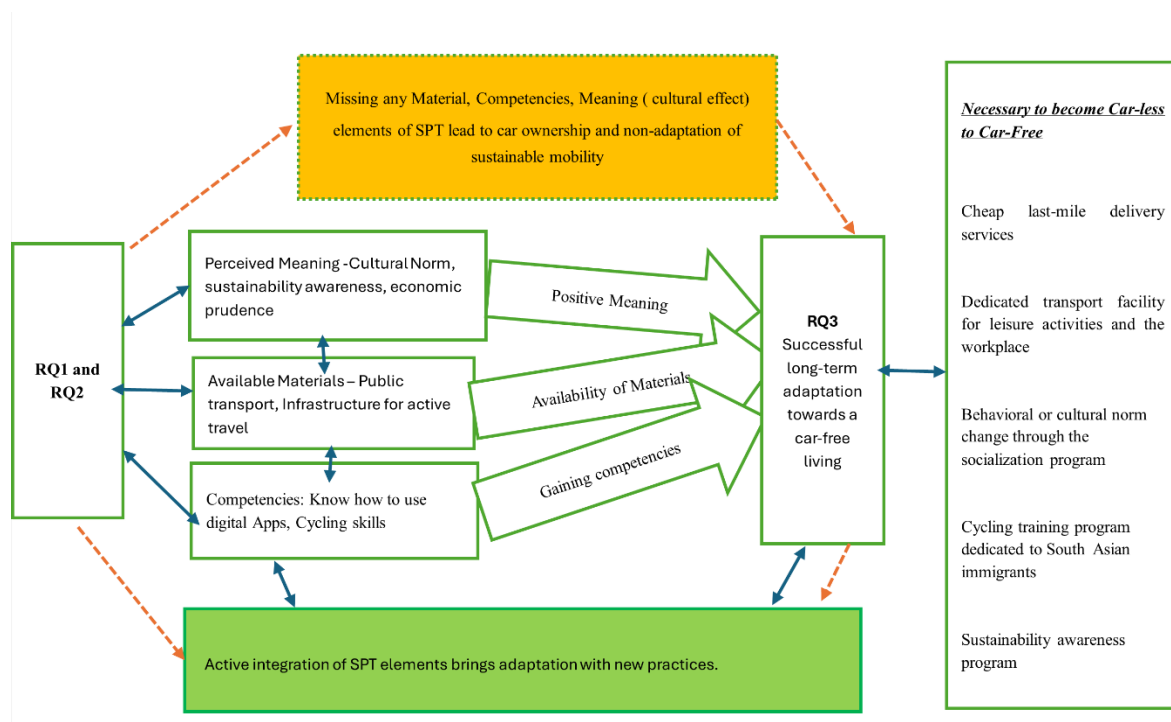


Figure 13: Bridging the empirical insights with the RQs and aligning with the Social Practice theory. Adopting Active Travel or public transport seems infeasible without factors, such as a positive Attitude toward cycling, which is necessary alongside cycling infrastructure. The dashed lines showing all three elements are necessary to embrace sustainable mobility options.

This thesis examines current perceptions of the South Asian immigrants' living in Helsingborg, Sweden, regarding various sustainable modes of mobility, as addressed in RQ1. The findings of the study highlight the presence of culturally biased perspectives with less sustainable consideration regarding car-less mobility among South Asian immigrant families. In the countries of origin of these South Asian immigrants, cars symbolize social status, autonomy, and freedom. In those countries, owning a car was a “necessity” and a major “achievement” of life. But after moving to Helsingborg, Sweden, due to financial constraints

and difficulties obtaining a Swedish driving license, they embraced well-planned public transport and later found it more comfortable than in their native country. Basically, it was not only a private mobility decision but also a socially normalized way of living in Helsingborg. It is more of a constraint-driven travel choice than a voluntary decision focused on environmental sustainability. Few survey participants also indicate environmental considerations related to car-less living. Furthermore, the same participants, while living in Helsingborg, gradually recognize the positive aspects of car-free mobility, such as financial savings from not owning a car and avoiding car maintenance, as well as health benefits. Many of them valued engaging in active travel modes such as walking and cycling in the future. But even at present, like many Swedish families, they could have used a bicycle to drop off and pick up their children at school, however absence of this practice shows that they need motivation to adopt environmentally friendly mobility. Some cultural misinterpretations regarding restrictions on women's cycling in their native countries were also encountered.

Moving on to RQ2 as a whole, according to participants, Helsingborg city provides the environment for non-car travel. The study participants from South Asian immigrant families identify the city as a well-planned area with separate pedestrian and cycling paths, nearby walkable facilities such as schools, grocery shops, and healthcare, and well-established public transport. In participants' view, even though these facilities do not completely satisfy them still they feel the public transport is better than their native country.

But seasonally, the available material conditions are affected by adverse weather, such as winter, making it hard for participants to be car-less. Ice and snowstorms affect the public transport as well as active travel modes such as walking and cycling, making everyday travel more difficult. Participants described having to walk more slowly, dress in layers, wait in bad weather with kids outside for public transport, and even reorganize travel due to weather-related bus and train cancellations. Participants shared that even informal community networks of workplace friends who owned cars empower occasional, everyday car-less mobility. Accordingly, it shows that material conditions actively shape mobility with favourable weather condition.

In addition to material conditions, another important factor in a car-less life is the competencies that immigrants' families must develop to manage daily travel smoothly. Almost all the interview participants were unfamiliar with digital travel apps in their native

country, as they used physical cash for traveling. But after moving to Helsingborg, Sweden, they found that becoming familiar with the Skåne trafiken app was a major competency they needed immediately. Actually, it was not only the app but also being car-less; these families with kids in strollers must align with public transport schedules, plan with buffer time, manage digital ticketing, and even combine different modes of travel. All these activities also require a different kind of competency that is new to them in this host environment. Even though participants continually develop competencies in digital literacy, time management, and route planning, sustaining car-less living is hindered when these competencies are misaligned. For instance, it is challenging with small kids, bulky-heavy items, and longer trips beyond the city limits.

Regarding RQ3, the findings highlight the instability of participants' car-less status over the long run, as most of them dream of owning a private car once they achieve a stable life, including family growth, a stable income, permanent employment, and secure visa status. Also, sometimes many families expect to use hybrid travel modes in the future, using a car for long-distance travel, family outings, or other flexible situations, while public transport is the main mode for daily routines. This again indicates that South Asian immigrants are prioritizing car ownership, driven by cultural norms and prior experience, over environmental considerations, even though Helsingborg has good public transport and well-planned cycling infrastructure. Social practice theory can also be related to the fact that, because of a missing “positive meaning” element, immigrants are not practicing car-less mobility.

In terms of practical implications, based on the findings of our thesis, we suggest that the development and investment in a sustainable mobility program could be guided by more real-life practices that immigrant parents need to perform in their daily lives. Although these findings cannot be entirely generalized, they could serve as a starting point. Helsingborg can start pilot projects considering new immigrant families, such as international students with their families, as well as many skilled professionals who migrate such as IT personnels, doctors, and engineers, because they are relatively well-paid and have the ability to buy a car and manage other costs. Firstly, the study suggests that Helsingborg should strengthen winter mobility support for families, for example, by introducing a school bus or seasonal shuttle service during harsh weather and train cancellations, as these situations often necessitate car use. Interviews highlight that winter conditions complicate walking, especially with children, while survey data indicate that train cancellations significantly impact family mobility. Secondly, the municipality and transport actors should expand free or low-cost cycling

training for immigrants, with a special focus on women. The early study shows that many immigrants learn to use public transport and cycle through practice. Women face stronger cultural and skill-related barriers, but show interest in cycling courses if offered. Thirdly, bicycle access support such as subsidized bicycle purchases, second-hand bicycle campaigns, and rental or community bicycle schemes can be introduced so that new users do not have to make a high initial investment. This is especially relevant because the findings suggest that cycling can be a practical, healthy, and affordable mode, but one that requires both access and confidence to use regularly. Fourth, the Helsingborg community should organize socialization programs focused on cycling, dedicated to women-only cycling groups, mobility mentoring, and community-based mobility introduction sessions, because the interview evidence shows that many participants learned transport routines through family, friends, language courses, and repeated use rather than through formal instruction alone. Fifth, one of the most demanding aspects of today's society is that we should educate people who lack, or have little intention of, embracing sustainable living. Sustainable mobility education could be integrated into SFI (Swedish For Immigrants) and other arrival services for newly arrived immigrants. A free and mandatory mobility module could teach cycling, safe walking, using public transport, winter travel, and the environmental benefits of sustainable transport. Sixth, given South Asian immigrants' financial constraints, Skåne Trafiken may reduce ticket prices, introduce loyalty passes, offer family-oriented transport packages for weekend travel, and provide frequent bus service to remote areas for work-related travel. Survey data show that family growth, job needs, and convenience heavily influence mobility choices. Interviews reveal that families often require practical solutions for shopping, long trips, and traveling with children. The authors, as immigrants, would like to see these programs taken by the Helsingborg community so that sustainable mobility programs are not only kept in file and or as a vision, but also gain their achievement by bringing all the South Asian immigrants who need this support to lead a car-less life with family and children.

Limitations of the study

Even though the study provides valuable insights into car-free mobility, it is also important to acknowledge its limitations. The focus of our study was limited to a specific demographic, namely South Asian families residing in Helsingborg. Additionally, we were unable to gather insights from other nations, such as Bhutan and the Maldives. These constraints may affect the generalizability of our findings.

Another limitation is that the study focuses solely on the household perspective, while the perceptions of the municipality, transport providers, and other travel-related institutions are not considered. The data collection in our study was limited by time constraints; a longitudinal study would be more comprehensive and would allow comparison across different immigrant groups to better understand sustainable mobility choices.

Also, because the study was conducted entirely in English, there was a communication barrier, as the target group was immigrants who are mostly fluent in their mother tongue rather than in English. The academic requirement stipulating that semi-structured interviews last at least 60 minutes proved quite challenging for participants. Consequently, several families chose to decline participation, despite their willingness to engage with the subject matter. Although we conducted a survey with participants who do not have a car, as the survey was also shared with other participants, we found that two participants reported having a car, which reduced our total number of participants.

Further, as both thesis partners are South Asian immigrants, there is a possibility of researcher bias. Even though this background helped us build trust and openness during the interview process, our personal perspectives and experiences may have influenced how we interpreted interviewees' responses. So, we continuously reflected on our own opinions to ensure they did not influence the analysis. Finally, the authors acknowledge that there is room for improvement in the quality of professional interviewing, particularly in areas such as asking probing questions and eliciting deeper insights.

Final Remarks

In conclusion, this thesis argues that the car-free mobility of South Asian immigrant families in Helsingborg is not fully grounded in sustainable mobility principles; instead, it is a temporary practice shaped by various constraints, cultural norms, and past travel experiences, and therefore should be called car-less. Additionally, this mode of transportation is susceptible to changes in response to immigrants' future aspirations. To promote sustainable mobility among South Asian immigrants in Helsingborg, it is crucial to incorporate all three fundamental elements of social practice theory. This highlights a significant gap between Helsingborg municipality's existing sustainability mobility goals and the experiences of immigrants growing populations. To address the mobility challenges faced by the immigrant community, particularly those with children, a broader approach is needed to improve car-free experiences.

Bibliography

- Anantharaman, M. (2017). Elite and ethical. *Journal of Consumer Culture*, 17(3), 864.
<https://doi.org/10.1177/1469540516634412>
- Assum, T., Panian, T., Pfaffenbichler, P., Christiaens, J., Nordbakke, S., Davoody, H., & Wixey, S. (2011). *Immigrants in Europe, their travel behaviour and possibilities for energy efficient travel*.
- Balkmar, D. (2020). Cycling politics. *Applied Mobilities*, 5(3), 324.
<https://doi.org/10.1080/23800127.2020.1723385>
- Balkmar, D., Henriksson, M., & Joelsson, T. (2025). Cycling Motilities. *Active Travel Studies*, 5(1), 1-16. <https://doi.org/10.16997/ats.1590>
- Balkmar, D., Sandström, L., Esteves, A., Fonseca, M. L., Holman, A., Popusoi, S., & Pugliese, F. (2026). Commoning Cycling. *ACCTING: AdvanCing behavioural Change Through an INclusive Green deal Transportation Research Record*.
<https://doi.org/10.1177/03611981261429871>
- Batool, Z., & Pangbourne, K. (2024). Visualising active travel with Pakistani heritage families in Bradford, UK – Photovoice as a tool for change. *Journal of Transport Geography*, 117, N.PAG. <https://doi.org/10.1016/j.jtrangeo.2024.103902>
- Berg, J., Levin, L., Abramsson, M., & Hagberg, J. (2015). “I want complete freedom”. *European Transport Research Review: An Open Access Journal*, 7(4), 1.
<https://doi.org/10.1007/s12544-015-0180-6>
- Blumenberg, E., & Smart, M. (2010). Getting by with a little help from my friends...and family. *Transportation: Planning - Policy - Research - Practice*, 37(3), 429-446.
<https://doi.org/10.1007/s11116-010-9262-4>
- Booth, W. C., Colomb, G. G., & Williams, J. M. (2008). *The craft of research*. University Presses Marketing [distributor].
- Bourdieu, P. (1977). The economics of linguistic exchanges. *Social Science Information*, 16(6), 645. <https://doi.org/10.1177/053901847701600601>

- Brand, C., Dons, E., Anaya-Boig, E., Avila-Palencia, I., Clark, A., de Nazelle, A., . . . Int Panis, L. (2021). The climate change mitigation effects of daily active travel in cities. *Transportation Research, Part D: Transport and Environment*, 93, . <https://doi.org/10.1016/j.trd.2021.102764>
- Clark, B., Chatterjee, K., & Melia, S. Changes to commute mode. *Transportation Research Part A: Policy and Practice*, 89, 89. <https://doi.org/10.1016/j.tra.2016.05.005>
- Clark, Tom, Bryman, Alan, Foster, Lian & Sloan, Luke (2021). Bryman's social research methods. 6th edition. Oxford: Oxford University Press [704 p. ISBN 9780198796053]
- Curtis, C., Ellder, E., & Scheurer, J. Public transport accessibility tools matter. *Case Studies on Transport Policy*, 7(1), 96. <https://doi.org/10.1016/j.cstp.2018.12.003>
- Delbosc, A., & Shafi, R. (2023). What do we know about immigrants' travel behaviour? A systematic literature review and proposed conceptual framework. *Transport reviews*, 43(5), 914-934.
- Faber, K., Kingham, S., Conrow, L., & van Lierop, D. (2025). Exploring active travel behaviour of high-income immigrants in the Netherlands throughout the life course. *Transportation: Planning - Policy - Research - Practice*, 1-36. <https://doi.org/10.1007/s11116-025-10591-z>
- Giddens, A. (1984). *The constitution of society. outline of the theory of structuration*. Polity Press.
- Hamidi, Z., Zhao, C., & Lund University, F. o. E. (2020). Shaping sustainable travel behaviour. *Transportation Research Part D: Transport and Environment*, 88, . <https://doi.org/10.1016/j.trd.2020.102566>
- Hasselqvist, H., Hesselgren, M., Bogdan, C., & Kaye, J. (2016). Challenging the car norm. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (pp. 1300-1311). <https://doi.org/10.1145/2858036.2858468>
- Haustein, S., Kroesen, M., & Mulalic, I. (2020). Cycling culture and socialisation. *Transportation: Planning - Policy - Research - Practice*, 47(4), 1689-1709. <https://doi.org/10.1007/s11116-019-09978-6>

- Helsingborgs stad. (2017). *SCB:s medborgarundersökning – hösten 2017*.
<https://media.helsingborg.se/uploads/networks/1/2017/12/medborgarunders-rapport-helsingborg-2017.pdf>
- Helsingborgs stad. (2023). *Trafikåret 2022: En sammanställning av trafikutvecklingen 2022 i Helsingborg*. Stadsbyggnadsförvaltningen.
https://media.helsingborg.se/uploads/networks/1/2023/09/trafikaret-2022_slutversion.pdf
- Helsingborgs stad. (2024). *Trafikåret 2023: En sammanställning av trafikutvecklingen 2023 i Helsingborg*. Stadsbyggnadsförvaltningen.
<https://media.helsingborg.se/uploads/networks/1/2024/05/trafikaret-2023-slutversion-inkl-bilaga.pdf>
- Helsingborgs stad. (2025). *Trafikåret 2024: En sammanfattning av trafikårets utveckling från 2023 till 2024*. Stadsbyggnadsförvaltningen.
<https://media.helsingborg.se/uploads/networks/1/2025/05/trafikaret-2024-sammanfattning.pdf>
- Hu, L. (2017). Changing travel behavior of Asian immigrants in the U.S. *Transportation Research Part A: Policy and Practice*, 106, 248-260.
<https://doi.org/10.1016/j.tra.2017.09.019>
- Hu, L., Klein, N. J., & Smart, M. (2021). Comparing immigrant commute travel adaptation across and within racial/ethnic groups. *Transport Policy*, 110, 112.
<https://doi.org/10.1016/j.tranpol.2021.05.024>
- Jain, A. (2013). Sustainable urban mobility in southern Asia. *unpublished regional study prepared for the Global Report on Human Settlements*.
- Joelsson, T., Balkmar, D., & Henriksson, M. (2024). Mobile caringscapes. Walking as an infrastructure of care in disadvantaged neighbourhoods in Sweden. *Mobilities*, 20(1), 1-17. <https://doi.org/10.1080/17450101.2024.2371598>
- Jussila Hammes, J. (2021). Steering cities towards a sustainable transport system in Norway and Sweden. *Case Studies on Transport Policy*, 9(1), 241.
<https://doi.org/10.1016/j.cstp.2020.12.006>
- Kuijer, L. (2014). Implications of social practice theory for sustainable design. *Delft University of Technology*.

- Kent, J. L. (2025). The car-free journey to, and through, parenthood. *Transportation: Planning - Policy - Research - Practice*, 52(4), 1569-1592. <https://doi.org/10.1007/s11116-024-10466-9>
- Kennedy, E. H., Cohen, M. J., & Krogman, N. T. (2015). Social practice theories and research on sustainable consumption. In E. H. Kennedy, M. J. Cohen, & N. T. Krogman (Eds.), *Putting sustainability into practice: Applications and advances in research on sustainable consumption* (pp. 3–22). Edward Elgar Publishing.
- Koglin, T., & Rye, T. (2014). The marginalisation of bicycling in Modernist urban transport planning. *Journal of Transport & Health*, 1(4), 214. <https://doi.org/10.1016/j.jth.2014.09.006>
- Kuss, P., Nicholas, K. A., & Lund University, F. o. S. S. (2022). A dozen effective interventions to reduce car use in European cities. *Case Studies on Transport Policy*, 10(3), 1494. <https://doi.org/10.1016/j.cstp.2022.02.001>
- Laakso, S. (2017). Giving up cars - the impact of a mobility experiment on carbon emissions and everyday routines. *Journal of Cleaner Production*, 169, 135. <https://doi.org/10.1016/j.jclepro.2017.03.035>
- Lagrell, E., Thulin, E., & Vilhelmson, B. (2018). Accessibility strategies beyond the private car: A study of voluntarily car-less families with young children in Gothenburg. *Journal of Transport Geography*, 72, 218-227.
- Lagrell, E., & Gil Sola, A. (2021). Car use of the car-less in Sweden: Everyday life conditions for reducing car dependence. *Sustainability*, 13(18), 10250.
- Leppänen, E. (2024). The Everyday Travel of Voluntarily Car-less People. Exploring Shared Mobility Services as an Accessibility Strategy.
- Lewin, C., Gustafsson, S., & Nyberg, J. (2006). *Utlandsföddas mobilitet och resvanor i svensk trafikmiljö*. Statens väg-och transportforskningsinstitut.
- Liao, Y., Gil, J., Yeh, S., Pereira, R. H., & Alessandretti, L. (2025). The effect of limited mobility on the experienced segregation of foreign-born minorities. *npj Sustainable Mobility and Transport*, 2(1), 29.

- Lindgren, E., & Pettersson, T. (2009). Two sides of the same coin? Private car ownership in Sweden and Norway since 1950. *Scandinavian Economic History Review*, 57(2), 172-190.
- Linder, N., Sörqvist, P., Lindvall, D., Jagers, S., & Barthel, S. (2025). It would feel weird to not drive my car! Exploring the role of habits in public policy acceptance of carbon taxations. *Ambio: A Journal of Environment and Society*, 54(4), 670-679. <https://doi.org/10.1007/s13280-024-02115-3>
- Macuchova, Z., & Brandt, D. (2025). Public transport provision and social sustainability in Sweden. *Geografiska Annaler Series B: Human Geography*, 107(3), 307. <https://doi.org/10.1080/04353684.2024.2347242>
- Mattioli, G., Anable, J., & Vrotsou, K. (2016). Car dependent practices. *Transportation Research Part A*, 89, 56. <https://doi.org/10.1016/j.tra.2016.04.010>
- Meulen, J. v. d., & Mukhtar-Landgren, D. (2021). Deconstructing accessibility: Discursive barriers for increased cycling in Sweden. *Mobilities*, 16(4), 493-508. <https://doi.org/10.1080/17450101.2021.1902240>
- Mugion, R. G., Toni, M., Raharjo, H., Di Pietro, L., & Sebathu, S. P. (2018). Does the service quality of urban public transport enhance sustainable mobility? *Journal of Cleaner Production*, 174, 1566. <https://doi.org/10.1016/j.jclepro.2017.11.052>
- Mundaca, L., Román-Collado, R., & Cansino, J. M. (2022). Assessing the impacts of social norms on low-carbon mobility options. *Energy Policy*, 162, N.PAG. <https://doi.org/10.1016/j.enpol.2022.112814>
- Neves, A., & Brand, C. (2019). Assessing the potential for carbon emissions savings from replacing short car trips with walking and cycling using a mixed GPS-travel diary approach. *Transportation Research Part A: Policy and Practice*, 123, 130-146.
- Reckwitz, A. (2002). Toward a Theory of Social Practices. *European Journal of Social Theory*, 5(2), 243. <https://doi.org/10.1177/13684310222225432>
- Region Skåne. (2025). *Kommunrapport Helsingborg*. https://filer.skane.se/kommunrapporter/Kommunrapport_Helsingborg.html

- Rodriguez-Canales, E. S., Frasca, P., & Kibangou, A. Y. (2025). *Dynamics of Cycling Adoption*. <https://doi.org/10.1109/CDC57313.2025.11312240>
- Rau, H., & Matern, A. (2024). Mobility practices in a changing climate. *Mobilities*, 19(5), 869. <https://doi.org/10.1080/17450101.2024.2389846>
- Sahakian, M., & Wilhite, H. (2014). Making practice theory practicable. *Journal of Consumer Culture*, 14(1), 25. <https://doi.org/https://dx.doi.org/10.1177/1469540513505607>
- Schatzki, T. R. (1996). *Social Practices*. <https://doi.org/10.1017/CBO9780511527470>
- Sarkheyli, E., & Sarkheyli, A. (2026). “I care about transport sustainability, but i have children”. *Travel Behaviour & Society*, 42, 1-10. <https://doi.org/10.1016/j.tbs.2025.101155>
- Shove, E., M. Watson, M. Hand and J. Ingram (2007) *The Design of Everyday Life*. Oxford: Berg.
- Shove, E. (2010). Beyond the ABC. *Environment & Planning A*, 42(6), 1273. <https://doi.org/10.1068/a42282>
- Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice. everyday life and how it changes*. SAGE.
- Sattlegger, L., & Rau, H. (2016). Car-lessness in a car-centric world: A reconstructive approach to qualitative mobility biographies research. *Journal of transport geography*, 53, 22-31.
- Selander, H., Santos Tavares Silva, I., Kjellgren, F., & S. Sunnerhagen, K. (2019). “The car is my extra legs”—Experiences of outdoor mobility amongst immigrants in Sweden with late effects of polio. *Plos one*, 14(10), e0224685.
- Shafi, R., Delbosc, A., & Rose, G. (2023). The role of culture and evolving attitudes in travel behaviour assimilation among south asian immigrants in Melbourne, Australia. *Transportation*, 50(4), 1261-1287.

- Silverman, D. (2007). *A very short, fairly interesting and reasonably cheap book about qualitative research*. SAGE.
- Swedish Environmental Protection Agency. (2025). *Sweden's Climate Act and Climate Policy Framework*. <https://www.naturvardsverket.se/en/topics/climate-transition/sveriges-klimatarbete/swedens-climate-act-and-climate-policy-framework/>
- Statistics Sweden. (2025). *Sweden's population in summary 1960–2025*. SCB. <https://www.scb.se/en/finding-statistics/statistics-by-subject-area/population-and-living-conditions/population-composition-and-development/population-statistics/pong/tables-and-graphs/swedens-population-in-summary-1960-2025/>
- Statistics Sweden. (2025). *Population by country of birth, age and sex in 2025*. Statistikdatabasen SCB. https://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START_BE_BE0101_BE0101E/FodelslandArKCKM/
- Strömblad, E., Hiselius, L. W., Rosqvist, L. S., & Svensson, H. (2022). Characteristics of everyday leisure trips by car in Sweden: Implications for sustainability measures. *Promet - Traffic & Transportation*, 34(4), 657-672. <https://doi.org/10.7307/ptt.v34i4.4039>
- Svennevik, E. M., Dijk, M., & Arnfalk, P. (2021). How do new mobility practices emerge? A comparative analysis of car-sharing in cities in Norway, Sweden and the Netherlands. *Energy Research & Social Science*, 82, 102305. <https://doi.org/10.1016/j.erss.2021.102305>
- Urry, J. (2004). The 'System' of Automobility. *Theory, Culture & Society*, 21(4/5), 25. <https://doi.org/10.1177/0263276404046059>
- Van Eenoo, E., & Boussauw, K. (2023). “That's not feasible without a car”: An exploration of car-dependent practices. *Transport policy*, 144, 1-10.
- Van Der Meulen, J., & Mukhtar-Landgren, D. (2021). Deconstructing accessibility – discursive barriers for increased cycling in Sweden. *Mobilities*, 16(4), 493. <https://doi.org/10.1080/17450101.2021.1902240>

- Watson, M., & Shove, E. (2023). How infrastructures and practices shape each other. *Sociological Research Online*, 28(2), 373–387. <https://doi.org/10.1177/13607804211055495>
- Welsch, J., Conrad, K., & Wittowsky, D. (2018). Exploring immigrants travel behaviour: empirical findings from Offenbach am Main, Germany. *Transportation*, 45(3), 733–750.
- Warde, A. (2005). Consumption and Theories of Practice. *Journal of Consumer Culture*, 5(2), 131. <https://doi.org/10.1177/1469540505053090>
- Whatmore, Sarah, Pryke, M. & Rose, G. (Eds.). (2003). *Using Social Theory: Thinking Through Research*. Thousand Oaks: Sage. [196 p. ISBN 0761943773]

Appendix

Appendix 1: Interview Guide

Semi-Structured Interview Guide

Before we get started, thank you for participating in this interview. We greatly appreciate your opinions and life experiences, which will benefit our study. This interview is part of our study to gain further insights and explore new aspects regarding how South Asian Immigrant families perceive current car-free mobility and long-term adaptability in Helsingborg, Sweden. You have the freedom to decline participation at any moment or to decline any questions you don't feel comfortable answering. The interview is intended to be anonymous, and all efforts have been made to ensure so. The data collected will be used only for our project and accessed only by our research group members and our teachers. The data will be stored securely, and the aggregated data will be retained until our course is graded. It will not be shared, published, or distributed in any way other than our research project.

Section A: Background & Context (Warm-up Questions)

1. Can you tell me a little about your family and how long you have lived in Helsingborg? (children's age)
2. Are you considering settling here in the future?
3. Can you tell me about your profession? How far is your workplace?
4. Living here without a car, is it voluntary or due to any constraints like Swedish driving license, affordability, etc.?
5. What kinds of transport did you use in your home country? Is it public transport or a private car? (social status)

Section B: Everyday Mobility Practices

6. Could you describe all the daily routine tasks you and your family need to do outside the home? (Grocery, school, work, daycare)
7. What kind of weekend trips does your family usually take? (Do you use any car-sharing options)

Section C: Practice Conditions – Meanings, Materials & Competences, skills, and knowledge

8. What transport options do you mainly rely on in daily life?
9. What about riding bicycles? Do you have cycling skills? Would you like to learn to cycle in the future?
10. What's your opinion or experience about using the Skane trafican app, online ticket purchase, and the ticket sharing feature (easy or difficult)? Do they add value to the public transport service?
11. How did you learn to plan routes, manage time, or deal with delays? Any experience you can share?
12. When it comes to daily trips like school drop-offs, shopping, or hospital appointments, who is responsible for transportation? (husband /wife/both/any other elders)
13. How do you find childcare responsibilities? Is it difficult or easy to deal with without a car?
14. Do you feel that transport services, schools, hospitals, and workplaces work well together for families living without a car?
15. Are these institutions easy to access from your home? (Are they far or nearby?)
16. How do weather conditions, such as winter or rain, affect your daily mobility?
17. Have you experienced any discrimination while using public transportation? By another passenger, driver, or ticket checker?
18. So, what is your overall opinion of the transport infrastructure in Helsingborg Can you please share your experiences?
19. You live here without a car. How would you describe this experience compared to your home country?
20. Do you think “not having a car” relates to “social status”? Sustainability Awareness (Non-Judgmental)
21. When choosing how to travel, what factors are more important for you?

22. Have you noticed that environmental sustainability is discussed and practiced more widely in Sweden than in your native country? (renewable energy use or recycling)
23. Does this influence your thinking nowadays?

Future Mobility Viability

24. If your job status and visa status change positively, will you still continue life here without a car?

For Positive Answer

25. What are the factors encouraging you to choose a car-free life?

For a negative answer,

26. What are the situations or reasons where owning a car might become necessary?
27. Do you consider cost, parking hassle, getting a driving license, highway driving, rules, and regulations?
28. Do you have any suggestions for Skane Tra ican as a service provider or for the Swedish government to support families who live without a car?

Section F: Closing

Is there anything about your daily mobility experience that we haven't discussed but that you consider important to share?

Appendix 2: Survey Questionnaire

Appendix 3: Transcriptions

Appendix 4: Survey results

Appendix 5: Coding and Theme building