

“I used to cycle all the time” – Cycling Practices Across the Life-Course Among Individuals in Low-Income Occupations in Sweden

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Abstract

Cycling can broaden individuals' mobility options and reduce the economic burdens associated with more expensive modes of transport. Active mobility offers clear health benefits, but access to and engagement in such activities are not equally distributed across socio-economic groups. This study contributes to the ongoing debate on how socio-economic factors shape active mobility by examining cycling through a social lens. Drawing on in-depth interviews with cyclists and non-cyclists, the study analyses the mobility biographies of Swedish individuals in low-income occupations. The findings explain why individuals in low-income occupations cycle less than more affluent groups. While research participants often view cycling positively, actual engagement is influenced by life circumstances and how individuals interpret these changing conditions. Key barriers include rigid work schedules (particularly early or late shifts), safety concerns in low-income neighbourhoods, and physical exhaustion from demanding jobs. Experiences of bicycle theft and vandalism also play a role in shaping cycling practices. These issues are seldom highlighted in research or policy discussions on how to support cycling. The study contributes to mobility research by showing that cycling practices are shaped not only by access to infrastructure and individual preferences but also by broader social, economic, and cultural factors. It emphasizes the need to consider life-course dynamics and working conditions when promoting cycling among low-income populations.

Keywords

cycling; low-income occupations; mobility biographies; qualitative approach; active travel

JEL Codes

I14; D63; Z13; R41



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JEL: I14 – Health and Inequality; D63 – Equity, Justice, Inequality, and Other Normative Criteria and Measurement; Z13 – Economic Sociology; Economic Anthropology; Social and Economic Stratification; R41 – Transportation: Demand, Supply, and Congestion; Travel Time; Safety and Accidents; Transportation Noise

1. Introduction

The higher income you have in Sweden, the more likely is it that you live a longer life (Hagen et al., 2025). More unexpectedly, the mortality gap between the richest and the poorest has widened, despite historical reductions in income inequality and increases in social spending. In fact, today, richer people in Sweden live ten years longer than poorer people do (Hagen et al., 2025). This pattern is well-established in other national contexts as well (WHO, 2025). Differences in lifestyle explains the gap. When it comes to deaths that can be prevented by lifestyle improvements, higher income-groups smoke less, consume less alcohol and engage more in physical activity than low-income groups do. Hagen and colleagues (2025) conclude that high-income groups are more successful in adopting behavioural changes that improve health. The capacity to make healthy choices, like engaging in active mobility, is shaped by living conditions connected to social status. Socio-economic status (SES) is related to work-related stress connected to low salaries and unsafe employment, and a lack of protective psychosocial resources like social networks (Kristenson, 2017). This makes low-income groups more vulnerable to feelings of hopelessness and despair, and depression, which in turn affect their capacity to make healthy lifestyle choices. At the same time, people with low SES but with high physical activity report better health and well-being than people with high SES but with low physical activity (Johansson, 2019). This study aims to contribute to the discussion of making active mobility choices through an exploration of cycling through a social lens. More specifically, it analyses the mobility biographies of Swedish individuals in low-income occupations to understand constraints, and motivations behind cycling and non-cycling practices. While there are studies that investigate the links between low-income groups and cycling, they tend to focus on income rather than occupation (Tortosa et al., 2022:219), which means that this study fills an important research gap. Furthermore, the contributes to the ongoing debate opportunities for promoting equitable cycling policies.

1.1 Previous research

Cycling is a form of physical activity that benefits health, but where the uptake varies with SES as well as factors like gender, education, age, and location (Buehler and Pucher, 2021; Lam, 2022; Hamidi, 2023). In geographical contexts where cycling volumes are high (i.e. Northern Europe) the differences are not that tangible, while in low-cycling countries such as USA and Australia low-income groups, women, and the oldest groups in the population, tend to cycle less (Buehler and Pucher, 2021; Prati, 2018; Aldred et al., 2016). Previous research on cycling and SES present a complex and sometimes contradictory picture of the conditions that influence cycling. For example, in an international review of cycling and sociodemographic disadvantage, Tortosa et al. (2022) report that in some geographical contexts cycling is more common in affluent groups (e.g. England, Australia and Canada),

while in other contexts cycling is more common among poorer groups (i.e., the U.S. and South America). These differences can be explained by levels of transport disadvantage but also where low-income groups live (urban or peri-urban areas). Thus, cycling uptake has a geographic component, where travel distances shape mobility patterns (ibid.). In a German study, Hudde (2022) shows that people with higher education cycles more regardless of income, a finding that is also supported by evidence from an American study (Buehler et al., 2020). This phenomenon can partly be explained by the cultural status of cycling as something healthy and eco-friendly, values that an educated middle-class wants to identify with (Hudde, 2024; Waitt and Buchanan, 2023).

Focusing on active mobility in low SES neighbourhoods, there are studies that indicate that norms and a “weak” cycling culture can explain why these groups tend not to engage in active travel. Perceptions of unsafety and fear of violence and criminality in such neighbourhoods also shape mobility practices (Balkmar et al, 2025). A Swedish study reports that adolescents living in high SES neighbourhoods tend to bike or walk to school to a higher extent than adolescents in low SES neighbourhoods (Buli et al 2022), which points to that it might be a mix of social norms, living conditions and perception of safety and the built environment that shape cycling practices (Nyström et al., 2023; Balkmar et al., 2025). Low SES neighbourhoods are often populated by ethnic minorities which indicates that both income and ethnic background are important factors when understanding cycling habits in Northern Europe (Haustein et al., 2020; Jahanshahi et al. 2023). Ethnic minority groups can need support in the form of cycling-training. Immigrant women have been specifically targeted in research and practice (Enderle, 2025; van der Kloof, 2022).

To summarize, health benefits from active mobility are well established in research, but access to and engagement in such activity is not equally distributed across socio-economic groups. Nevertheless, the relationships are multifaceted and indicate that individual agency plays a meaningful role in shaping health-related behaviours. This calls for a better understanding of what shapes such agency (Waitt and Buchanan, 2023).

Beside the health benefits of active mobility, supporting cycling can also have a significant impact on the liveability of cities, since bicycles compared to cars offer mobility without pollution and noise and demand less urban space (Valentini et al., 2023; Pucher and Buehler, 2017). Cycling can also broaden individuals’ mobility options and reduce the economic burden associated with more expensive modes of transport, such as cars or public transit (Hamidi, 2023). Cycling thus supports a sustainability agenda, both from a social and ecological perspective. This is also an argument for the relevance to investigate the

individual factors that shape cycling practices, and how they relate to SES, which this paper do.

2. A social approach to mobility and cycling

Urban planner Caren Levy (2013) argues, in the context of mobility and travel choices, that the notion of travel choices today often is based on an implicit notion that individual decision-making is made in a social vacuum. Techniques that are used in traffic planning, such as mobility management campaigning and “nudging”—for example campaigns that inform about the benefits of active travel—Levy claims, risk divert attention away from structural inequalities, making individuals the problem when they make “wrong choices”. Similar critique has been made by other scholars (i.e. Cupples and Ridley, 2008; Shove, 2010; Kent, 2022). A growing field of research that takes a social approach to cycling aims to move away from individualistic explanations of travel behaviour, acknowledging structural aspects such as the built environment, social relations, but also norms and culture (i.e., Aldred, 2010; Aldred and Jungnickel, 2014; Larsen, 2017; Cass and Faulconbridge, 2017; Cox, 2019; Spinney, 2020; Spotswood et al, 2015; Hamidi, 2023; Ravensbergen et al., 2024; Balkmar et al., 2025). These studies use labels as a “social practice approach”, or a “mobility/motility framework” to describe their approaches. There are of course theoretical and methodological differences, but also essential similarities. An important takeaway of this body of work is that everyday mobility is closely entangled with everyday life which means that the precondition for cycling is shaped by the surrounding environment which includes available infrastructure, distances to cover, working hours, etc, which in turn is shaped by political processes and reflect uneven power relations). The social environment also matters, where the mobility needs of family members, norms about how to travel, and car-centric planning paradigm influence not only modal choice but the way mobility is perceived (McLaren, 2018; Kent, 2025; Ravensbergen et al., 2020). Furthermore, this line of research also highlight that cycling must not be understood as one specific practice, but rather a heterogeneous set of practices connected to different purposes and meanings that develops in different contexts. In line with this, it is important to distinguish between leisure or sport cycling, commute cycling and utility cycling (Cox, 2019).

When reviewing studies that analyse cycling from a social perspective, several gaps become apparent. With some exceptions (i.e. Enderle, 2025; Balkmar et al., 2025; Nyström et al, 2023), these studies tend to focus on middle class cyclists, excluding the experiences of low-income groups. Furthermore, studies tend to focus on current cyclists, while less attention has been given to those who do not cycle today. This study thus contributes to the mobility studies literature.

2.1 Mobility biographies: cycling from a life course perspective

In Section 1.1, we concluded that research on cycling and SES emphasizes how cultural and social background, as well as education, significantly influence the likelihood of taking up cycling. Building on these findings, a “mobility biography” approach offers an appealing framework for our study.

The concept of mobility biographies is based on the idea that travel habits and perceptions of mobility evolve throughout life as individuals pass through different life stages, each with varying conditions for being mobile (Lanzendorf, 2003; Müggenburg et al., 2015; Berg, 2016). Over the course of a lifetime, individual circumstances change alongside social and cultural understandings and political contexts. Life trajectories shift in complex and non-linear ways; although many people experience similar phases, no two lives are identical. A person’s biography develops through an interplay between personal experiences and broader social patterns and processes. Applying a mobility biographies approach, the aim is to make visible how the social, the material, and the biographical dimensions are manifested in everyday mobility practices—or in the absence of certain practices. This approach explicitly recognises the social conditions that shape individual’s mobility behaviour and acknowledge how social norms exert a significant influence on mobility practices (Rau et al, 2020; Sattlegger and Rau, 2016).

Within the mobility biography literature, there are some studies that have been particularly influential in shaping our understanding of cycling. In a Polish urban context, Nowakowski (2023) studied experienced cyclists that currently use cycling as their main mode of transport. Even so, many of them had given up cycling in parts of their lives, for instance when they changed jobs, or started to study, or became a parent. These events can be understood as mobility milestones (Sattlegger and Rau, 2016). Nowakowski points out that cycling earlier in life makes it easier for individuals to adopt cycling later, even if circumstances during the life course have led to less cycling during parts of adulthood. Bonham and Wilson (2012), who have interviewed women in urban Australia who have taken up cycling as adults, draw similar conclusions. Both Nowakowski and Bonham and Wilson note that individuals that are used to physical activity, and have cycled for recreational purposes, can easily imagine using the bicycle for utility purposes. Interestingly, Bonham and Wilson noted a difference between women with a higher education that are career oriented, and women without high level careers. While the women that were oriented towards a high-end career preferred fitness and recreational cycling, regardless of where they lived, the women without a high-level career rather engaged in utility cycling journeys (to work, local shops, care facilities etc.). These women tended to live in inner suburbs or did not have

domestic responsibilities. Having children seems to be a point in life where women stop cycling, Bonham and Wilson conclude.

Building on the lessons from previous studies, this study specifically highlights some specific analytical concepts: mobility biography, mobility milestone, social practice and motility.

Together these concepts make it possible to analytically understand how mobility practices including cycling change over the life course, and how individuals relate to changes depends on circumstances connected to surrounding space, social networks, norms and ideals as well as the individual's capacity for being mobile.

Table 1. Analytical concepts

Concept	Definition	Key references
Mobility biography	Building on the assumption that certain moments in an individual's life change mobility characteristics to an important degree, a mobility biography is the total of an individual's longitudinal trajectories in the mobility domain.	Lanzendorf, 2003; Müggenburg et al., 2015
Mobility milestone	Mobility related events that have short and/or long-term effects on daily travel practices (e.g., getting a driver licence, change of residential area)	Sattlegger and Rau, 2016
Social practice	A social practice is the successful configuration of material (e.g., infrastructure, vehicle), meaning (e.g., the notion of cycling as healthy, or boring, uncool etc.) and competence (e.g., being able to cycle).	Shove et al., 2012; Kent, 2022
Motility	Motility is the potential for mobility. To realise travel, the individual need access (transport options available), skills (knowledge and capacity) and appropriation (how the individual make use of resources).	Kaufmann, 2002; Flamm and Kauffmann, 2006

3. Methodology: in depth-interviews with individuals in low-income occupations

This study builds on in depth-interviews with cyclists and non-cyclist in low-income occupations. In this section we introduce the local context the research participants are situated in as well as specifics concerning the interview study, such as recruitment strategy, the sample, themes for the interviews and analytical approach.

3.1 Study context

The study is situated in Sweden, where the conditions for urban cycling can be described as fairly good, with comparatively safe and effective cycling infrastructure and networks. There are however local disparities where lacking infrastructure create barriers. Despite this, traffic is still dominated by motor vehicles. The condition for cycling is less favourable when it comes to weather and climate due to long periods of snow and rain during winter and fall. The cycling uptake (9% of modal share) is not at the high end, but comparable to other Northern European countries. The Netherlands (28%) and Denmark (14%) have particularly high cycling levels, while the United States, Australia and Canada as well as the United Kingdom are at the low end (0.6-1.7%). In general, cycling uptake is much higher in most European countries and in Japan, compared to North America and Australia (Buehler and Pucher, 2021).

More specifically, the study is based in an urban area in eastern Sweden and includes the two largest cities in the region, Norrköping and Linköping. Data from a 2023 travel survey from the studied region (Region Östergötland, 2023) show that 16% of the trips are made by bicycle, while most of the trips (57%) are made by car. Public transport constitutes 10% of the trips. The gender differences when it comes to cycling are small. The oldest part of the population (65+) cycles the least (9%), and the youngest age group in the survey (16-24 years), cycles the most (27%). It should be noted that the studied area hosts a two-campus university, and cycling is generally associated with students. This might be reflected in the fact that in the largest city in the region, where the main parts of the university are located (Linköping), 26% of the trips are made by bike, while in the second largest city (Norrköping) only 12% of the trips are made by bike. While Linköping is associated with the university as well as a university hospital and large workplaces for engineers, Norrköping municipality is a post-industrial city with, in comparison, a low-educated population with higher rates of unemployment. In the travel survey, there is no data on income and cycling. However, groups with higher education report higher levels of cycling compared to groups without higher education. In the travel survey, 88% of the studied households state that they have access to one or more bicycles, and 81% have access to a fossil-fuelled car (ibid.).

3.2 Semi-structured interviews

The study was conducted during the winter and spring of 2024 and 2025 and involved 21 semi-structured, in-depth interviews. Its primary focus was on cycling and SES, which is commonly understood as comprising three dimensions: income, occupation, and educational attainment (Oakes & Rossi, 2003).

This study concentrated on the occupational dimension and sought to include both men and women employed in low-income occupations. Recruitment strategies involved advertisements on social media. Individuals who expressed interest were invited to complete a short questionnaire providing information on gender, age, and occupation. Those working in occupations identified by Statistics Sweden (2024) as among the lowest paid were invited to participate.

In addition, two occupational groups were approached through their workplaces: bus drivers (a male-dominated occupation) and cleaners (a female-dominated occupation). Although bus drivers are not among the lowest-paid occupations, their average monthly salaries are well below the national average. The decision to recruit participants based on occupation rather than individual or household income reflects the study's interest in how work conditions shape mobility practices. Low-income occupations are often characterized by rigid schedules, inconvenient working hours, and physically demanding tasks. Most of the occupations represented in the study share these characteristics, including the bus driving occupation. Furthermore, these occupations generally do not require higher education, a factor previously identified as relevant to cycling frequency (see Section 1.1).

We included both cyclists and non-cyclist in the study in order to understand reasons for taking up/not taking up, maintaining, or breaking with cycling practices. The aim of the interviews was to gain insight into people's practices, strategies, priorities, beliefs, conditions and driving forces when it comes to cycling relative to other forms of travel.

We interviewed seven men and fourteen women, ranging in age from 21–64 years. In general, the men were older than the women. All participants, except for one who was on disability pension but volunteered part-time in a charity shop, were employed in low-income occupations. Our intention was to interview both cyclists and non-cyclists, to capture a wide range of experiences, arguments, conditions, norms and beliefs. All participants had learnt to cycle at some point during childhood. All except one lived in eastern Sweden. One participant, a female bus driver, lived in a more rural area in another part of Sweden. With a few exceptions, the participants had access to a fairly good cycling infrastructure that connected their home to their workplace or to a commuter train station.

Table 1. Study participants

Name*	Age	Gender	Occupation	Cycling frequency**
Isabelle	21	Female	Waitress	Regular
Emma	23	Female	Shop assistant/student	Regular
Ingrid	23	Female	Nursing assistant	Infrequent
Jessika	33	Female	Bus driver	Infrequent
Anna	33	Female	Cleaner	Infrequent
Sofie	35	Female	Teacher assistant	Occasaional
Louise	40	Female	Manager in industrial kitchen	Infrequent
Karin	41	Female	Bus driver	Infrequent
Sara	42	Female	Cleaner	Regular
Hanna	43	Female	Child care worker	Regular
Tobias	44	Male	Waiter	Regular
Nermin	49	Male	Bus driver	Infrequent
Omar	51	Male	Bus driver	Infrequent
Linda	52	Female	Child care worker	Regular
Milan	54	Male	Vehicle technician	Occasional
Matti	56	Male	Bus driver	Regular
Erika	58	Female	Shop assistant	Regular
Jonas	59	Male	Bus driver	Regular
Erik	60	Male	Bus driver	Infrequent
Katrin	62	Female	Seamstress	Regular
Camilla	64	Female	Charity shop assistant/retired	Occasional

*To ensure participant anonymity, pseudonyms have been used. These pseudonyms were chosen to reflect, as closely as possible, the participants' age, gender, and ethnic background, without revealing their actual identities.

**Similar to Pentenrieder et. al (2025), we define cycling frequency as “regular frequencies refer to daily and weekly practices, occasional frequencies to monthly practices and infrequent frequencies to practices less frequent than monthly (Ibid., 2025:8).

The interviews followed a thematic interview guide and lasted 30–40 minutes. They were conducted face-to-face at a facility chosen by the participants (19 participants), often their workplace or at a café or in their home, or online (2 participants). The interviews were recorded and then transcribed by a professional transcription service. Two interviews were transcribed by an online service (Teams). Prior to the interviews, the participants were informed about the aim of the study and the terms of their participation. They gave their consent to participate.

The interview guide incorporated ideas from mobility biographies research, social practice theory and the mobility/motility framework. It covered three themes: 1) conditions for cycling today (living arrangements, travel habits, work situations, cycling infrastructure), 2) cycling history (learning to cycle and becoming a cyclist, cycling in birth family, during childhood and adolescence) and 3) cycling culture (attitudes, preferences and practices among friends, family, community and colleagues). Inspired by Lindberg et al (2024), in the work of producing the interview guide, each question was coded with a keyword to make sure that the questions covered the overall theoretical themes, and to visualize what kind of knowledge the questions intended to produce. Some examples of key words are access, norm, corporeality, culture, mobility milestone, ability, habit. These key words were then used when coding the transcribed interviews, as a basis for analysis.

3.3 Analysis

The analysis followed a thematic approach to qualitative material (Clarke et al., 2022; Braun and Clarke 2019), where we used the above-mentioned keywords, informed by our analytical approach, to code the transcribed interviews. The transcriptions were coded using MaxQDA, a program for qualitative data analysis, and then analysed by the authors, both individually and in group. As a result of the analysis, we have distinguished four mobility biographies that portray mobility and cycling as integral parts of the overall life course. These biographies are based on the narratives shared by four of the study participants during the interviews. Our aim in portraying the interview material through mobility biographies has been to provide detailed accounts of how individual mobility practices have changed over time, with the relationship to cycling serving as the main storyline driving the portraits. The biographies do not provide a complete picture of the participants' lives – they are based solely on the information shared in the interviews.

The biographies depict two individuals who have cycled on an everyday basis throughout their lives, one individual who has not engaged in cycling in her adult life, and one individual who has cycled throughout her life but has recently given up commuting by bicycle.

These biographies have been singled out because they represent different aspects of cycling across the life course that are relevant to understand connections between cycling and low-income occupations. They have also been chosen because they, in different ways, resonate with the overarching themes identified during the analytical process. In the results section, the biographies depict mobility over the life course. They also serve as a point of departure for discussing the overall themes that we identified in the material, and in the result section they are contrasted with elements from the other interviews.

4. Results

The findings provide explanation to why individuals in low-income occupations cycle less than more affluent groups which will be explored in the following. The results also mirror previous research concerning cycling practices and behaviour. For the participants, cycling is established as a meaningful everyday practice for those who view the conditions for cycling as favourable, which is when the distance to work from home is perceived as manageable, when the infrastructure is in place and when the cyclist sees cycling as something enjoyable, healthy and effective. Some of the participants, often the same individuals who commutes by bicycle, also enjoy cycling for leisure. In this sense, the practice of cycling can, in line with social practice theory, be described as a successful configuration of meaning, material and competence (Shove et al., 2012; Cox, 2019). However, how individuals make sense of 'favourable conditions' varies a great deal. Those who have long-established cycling practices 'put up' with what others describe as barriers to cycling, such as tough weather conditions, heavy traffic and quite long distances to cover. The main difference from our study compared to more middle-class oriented cycling research, is that working conditions, working hours and the perception of unsafe living environments, shape cycling practices.

In general, both cyclists and non-cyclists share a positive image of cycling, and cyclists. Some participants describe cycling as "not for them" but still talk of cycling as something overall positive. Some, that do not engage in cycling today, express that they want to start cycling, or take up cycling again, when their circumstances allow for it. There are some examples of individuals who have given up cycling because of a move, or a change of job, but still see themselves as positive towards cycling. For some, this is viewed as a loss. The practice of cycling is thus connected to changing life conditions, where a move or change of workplace can be described as a "mobility milestone" that alter individual mobility (Sattlegger and Rau, 2016).

An interesting finding is that many have an established cycling culture from an early age. Their parents have taught them to cycle, and they in turn have taught their children to ride a bicycle. For many, childhood, the teenage years and early adulthood are described as periods when they primarily cycled, both for leisure and utility. These periods are often described as positive.

In the following sections we will explore these themes in more detail, with a departure from the mobility biographies of four participants: Anna, Jessica, Camilla and Tobias.

4.1 Anna – working hours shape mobility practices

Anna, 33, lives in Linköping and works as a cleaner.

She rents an apartment in a neighbourhood where she enjoys living—despite its proximity to what is considered a vulnerable area. Due to safety concerns in her neighbourhood and surrounding areas, she chooses not to bike to work. Her job starts very early, around five in the morning, so getting enough sleep and returning home quickly after a tiring shift is important to her. Instead, since she owns a car, she drives.

Anna notes that many people in her neighbourhood do bike, but she has the option to drive—and so she does. She believes many others think the same way, including her friends. Most of her close colleagues also drive, although in other teams at her workplace, cycling is more common. Still, she says biking isn't seen as strange or unusual. There was a time when Anna biked as part of her job, cleaning facilities that were spread out. The employer provided the bikes, and it worked well.

She has worked at the same workplace for over ten years. Her mother, who also works in cleaning services, helped Anna get her current job, and now they work at the same place. Her mother also drives to work, as she lives outside the city and biking would take about an hour and a half.

The cycling infrastructure in Linköping is good, but for Anna, the route options are problematic. She would either have to bike through an unsafe area or take a long detour, making cycling feel neither suitable nor appealing. She avoids the vulnerable area altogether when it's dark, as it's known for drug activity, crime, and even shootings. If she's been out late, she opts for the bus or a taxi to avoid walking through the area she finds unsafe.

Anna grew up in the countryside, with a two-kilometre ride to the bus stop. As a child, she biked a lot—along with her siblings. Her parents drove. At 15, she got a moped, and by 18, a driver's license. That's when she stopped biking. She remembers that when she used to bike to the bus stop, she couldn't leave her bike there—it would get stolen or vandalized. Instead, she parked it at a friend's house and walked the rest of the way. There wasn't much for young people to do in her area, and for some, destroying bikes became a kind of pastime.

Anna owns a bike, but it's been sitting in storage and likely needs repairs. The last time she used it was three years ago, when she and a friend biked to a party. Anna doesn't see herself starting to bike again. Maybe if she lived in a better neighbourhood, closer to work. But she's considering buying an electric scooter. That way, she could avoid paying for parking at work. There are many rental e-scooters available in her area, and they're commonly used. She finds them convenient, though a bit tiring to stand on for long periods. Her commute would take about half an hour, so she's unsure if it would be a good fit.

In Anna's mobility biography there are several interesting elements that stand out. While she cycled as a child, her upbringing in the countryside with long commuting distances and lacking access to attractive public transport, seems to have socialised her into a motorized lifestyle, which she has stuck to even if she lives in an urban area today. Her working

conditions and early schedule play a role in her keeping to her car-oriented identity and affects her view of the possibilities for cycling.

Low-income occupations are often characterized by rigid schedules, with little room for flexibility, and they frequently require early or late work hours outside of standard business hour. Anna starts working as early as five in the mornings. The interviewed bus drivers also worked early or late shifts and must go to or from work during nighttime. Jessika, one of the bus drivers rhetorically asks, “should I start biking at 4.32 in September”. “This is holding me back from cycling”, she continues. A schedule that implies early or late starts are familiar for the persons employed in restaurants, and in the care sector too. This affected the possibility to cycle in different ways. First, to cycle early mornings, or late at night, when it’s dark can be perceived as unsafe, especially for women, as Anna’s biography illustrates. This is also true for people that live in low-income neighbourhoods, where fear of violent encounters is more present. Furthermore, to sleep in as long as possible is also more important for those that work early shifts. Some also experience their work as physically heavy and interpret cycling as too demanding considering this. Some of the participants engages in cycling despite of early mornings or late-night shifts and describe the bicycle as safer and more convenient than walking or using public transport (which also demands a walk to the bus stop).

Reflecting on security and safety issues appears to be gendered. Male participants tended not to reflect on safety (see Tobias’s biography, in Section 4.4).

Anna mentions that she has experienced bicycle theft and vandalism. In the interviews, bicycle theft was a common experience. How such thefts affect individuals varies. For some, it can be a traumatising experience where your personal integrity has been compromised, such as for Matti, a bus driver in his fifties whose cargo bike was stolen while he and his daughter visited the local swimming pool. For others, a theft is not described as dramatic, but part of the experience of being a cyclist. Jonas, another bus driver, tells us that he has lost many bicycles over the years. This however does not refrain him from cycling on an everyday basis, both for leisure and for utility.

Many had strategies for avoiding theft, such as not leaving your cycle unattended outside, or getting extra locks. Even if getting your bicycle stolen is not per se connected to low-income earners, this group can be more vulnerable to thefts due to less economic resources to replace the cycle, or they can be more exposed to crime due to living in low-income areas (Eriksson et al., 2022). If you cannot afford to buy a new bicycle this can mean that you give up cycling, for a longer or shorter period. One bus driver, Nermin, did not start cycling again after his bus got stolen. He is one of the participants that did not have childhood memories of cycling, and his origin family did not cycle. This could be interpreted as Nermin did not have

a strong cycling culture to fall back on when the circumstances for cycling changed. Instead, he walks to work or takes the bus or commuter train when he needs to.

4.2 Jessika – does not identify as a cyclist

Jessika is a 33-year-old female bus driver. She lives alone in an apartment she owns in Norrköping. She describes the bus driving professions as steady and always in demand. It runs in the family: both her parents and an uncle have worked in the same profession. In her free time, she enjoys working out, traveling, and going to live music shows.

Jessika grew up in a small rural town outside Norrköping. Her father drove buses and her mother worked in a factory. The family wasn't very active. Outdoor activities weren't part of their lifestyle. She remembers seeing her dad on a bike once—it felt strangely out of character. Her whole family, she says, is car oriented.

Jessika works in both Linköping and Norrköping. Depending on her schedule, she drives or takes public transport to work. Early mornings make her uneasy, so she avoids walking then. In Norrköping, she sometimes rents an electric scooter, which feel fast and safe—especially at night. Many of her colleague's bike to work for exercise and to save money, especially since parking for cars is limited.

Jessika don't enjoy cycling. Apart from spinning classes, she avoids it. Every summer she plans to start biking, but it never happens. Her old bike isn't great, and she finds cycling inconvenient. It requires planning—rain gear, storage, knowing routes and where to park. Experienced cyclists seem to manage effortlessly, but Jessika worries about arriving sweaty at work or having her bike stolen.

Swedish weather doesn't help. She doesn't want to be caught in a snowstorm or downpour and finds it strange that others put up with it. Occasionally, she bikes with her boyfriend, who's into fitness, though he's not keen on cycling either. If she can avoid biking, she will. In respect to cycling, she sees herself as lazy. The car, she says, is more practical—“like a handbag” - where she can store everything.

Jessika feels awkward on a bike. She's not confident and finds it a bit embarrassing to cycle. She thinks drivers look down on cyclists. Her view is shaped by her job—she sees traffic daily and believes many cyclists behave recklessly, while drivers often ignore them. She's witnessed accidents and knows how vulnerable cyclists can be.

As a child, biking was a natural way to get around with friends. But even then, she felt slower than others. As a teenager, she became “too cool” for biking, and after getting her driver's license, she stopped altogether, except for a period when she did not own a car. During this period, she had to park her bicycle in the cellar of her apartment building which was difficult and perhaps shaped her view about cycling in general. Despite her negative experiences, she remembers her first bikes fondly.

Jessika says that if she bought a better bike, she might start cycling more. It could be convenient in the city and save her parking fees. But for now, biking feels more like a challenge than a choice.

In Jessika's mobility biography there are several elements that stand out as interesting. First of all, it's an illustrative example of how cycling requires certain skills. How Jessika refers to the planning cycling requires is an example of how a lack of practical experience creates uncertainty towards the practice in itself and works as a barrier. She imagines different scenarios where she would need special equipment to be able to cycle comfortably. It is also apparent that Jessika feels ambivalence towards both cycling and cyclists in general and have attached certain attributes to cycling based on negative experiences from when she was growing up. These are based on the notion that both her and her family did not live up the ideas about an active and sporty lifestyle. Even though Jessika today enjoys working out and being active, her attitude towards cycling remains.

As reflected in Jessika's biography, as well as in other interviews, there seem to be norms connected to cycling that suggest that cycling is understood as something people that value health and an active lifestyle engage in. They are described as “sporty”, “fitness freak/nerd”, “eager beaver”, “health nut” [SWE: hurtbulle]. Some also emphasize that a healthy lifestyle is associated with practices that the middle class engages in. Katrin, 62, for instance, has worked as a seamstress at a workplace where both workers and engineers were present. She experienced that there was a difference in attitudes toward cycling, with the engineers appearing more ‘thoughtful’, and in Katrins mind, could plan ahead and therefore saw health benefits of cycling. The workers, “us on the floor”, were more here and now, which meant that they commuted by car. Katrin finds it hard to explain why she reasons like this and calls her ideas “silly”. Similarly, Linda, 52, works at a nursery, and has noted that the parents of the children, who are urban and well-educated, tend to cycle to the nursery. She emphasizes that she does not believe that cycling practices are connected to occupancy, but rather to “how you are as a person” and attach values such as a concern for the environment and a healthy lifestyle to people who cycle. Linda is an experienced cyclist which she connects to her part-time work schedule that does not demand very early start hours, and the fact that she can work in ordinary clothes that stand the wear and tear of cycling. Describing people that do not cycle as lazy is reoccurring in the interviews. Some call themselves lazy, even though taking up cycling would be difficult for several reasons, connected to for instance long distances or early workhours.

The younger participants tend to describe cycling as something for sporty people with an interest in health. They highlighted the bodily aspects of cycling, such as sweatiness and heavy breathing, as something negative and “disgusting”, as Ingrid, a 23-year-old nurse says. Ingrid prefers an electric scooter, even if she can imagine buying a bicycle in the future. She regards renting a scooter as a cheap alternative to buying a bicycle. For young people, electric scooters seem like a viable alternative to cycling. This is something that the bus driver Nermin also reflects upon but regarding to his children. His teenage son who used to cycle now prefers the family’s electric scooter. An advantage of the scooter, Nermin emphasises, is that it is easier to store in the apartment than a bike is. Louise, who works in food service in elderly care, has bought her son an electric scooter on his request. She sometimes uses her son’s scooter to buy groceries.

4.3 Camilla – forced to give up everyday cycling

Camilla is 64 years old and lives alone in a small town outside Linköping. She is retired due to a work-related injury but work part-time in a charity shop. She likes to spend her free time with her children, grandchildren, and her cat.

She describes herself as “not very active” during the winter months, but when summer arrives, she enjoys being outdoors and cycling. Although she used to cycle everywhere, she now relies on the bus to get to work, as the distance – about 15 kilometres - is too great for biking. She doesn’t particularly like taking the bus, especially since the connections are infrequent and the walk from the bus stop to her workplace is long. While the bike paths in her living area are well-lit and pleasant, winter maintenance is lacking compared to the city, where snow clearing was more reliable.

Camilla owns two bicycles: a women’s model that’s heavy but of good quality, and a lightweight racing bike from the 1980s—a relic from the days when she participated in cycling races. These days, she cycles mainly for leisure and errands, staying within her local area or exploring nearby nature trails. She maintains her bikes herself and has passed on her love of cycling to her family. Her son is an avid cyclist who also competes in races, and her grandchildren enjoy biking too.

Six years ago, Camilla moved to be closer to her daughter, who was concerned about the safety of Camilla’s previous neighbourhood. Her daughter has since moved away, leaving Camilla feeling a bit lonely and isolated. She observes how many people in her new area cycle—to the store, to preschool, and to school. She admires how parents teach their children to bike and sees it as a valuable skill.

Camilla grew up in central Linköping. Her mother was a homemaker who later worked in home care, and her father ran a car scrapyard. Cycling was a way of life for her family—her mother biked everywhere until the age of 90, and her sister was also a dedicated cyclist. Her father, however, never cycled; Camilla can’t even picture him on a bike. She recalls that in the 1960s and 70s, everyone cycled—it was simply how people got around. Being driven, like children are today, was unheard of.

Throughout her career in healthcare, Camilla remained active. She worked in home care and often cycled between clients, even in harsh weather. “If there was a snowstorm, I carried my bike to work so I could ride it home,” she says. Her workplace had different types of employees: the “cycling enthusiasts” like herself, and those who refused to bike, opting for private cars even without fuel compensation. Some were dependent on bus. Camilla described the cyclists as more energetic and committed, often taking on the longer routes, and found the motorists a bit lazy.

Camilla dreams of moving back into the city, where she could return to her cycling lifestyle. “If I move back to town,” she says, “I’ll cycle everywhere again. I never want to take the bus again.”

Camilla’s biography shows that even if a person finds cycling meaningful, has established cycling practices that are based in growing up in an environment that supports cycling culture, life changing events can alter established mobility practices. When Camilla moved from her previous residential area, a disadvantaged neighbourhood, her possibilities to cycle changed drastically. She still enjoys cycling for leisure, but the distance to work is now too long to cover by bike. Instead, Camilla is forced to commute by bus. There are other participants that have moved and changed mobility practices as an effect, even though they don’t describe the move as negative. Louise, for example, now lives outside Linköping, and is commuting by car on an everyday basis, and have done so since she got a driving licence. She has fond memories of living in the city, especially that she used to bike to work together with colleagues. In this sense, she misses cycling, even if she is happy with her living arrangements. Being positive about cycling, she tries to support her colleagues at work to

start cycling. She describes many as car dependent, or as “lazy persons” [SWE: latmaskar], even though they, according to Louise, have every possibility to cycle. Louise specifically points out to them how much money they can save by cycling instead of commuting by car.

In Camilla's biography, bus dependency is described as something negative. But for Camilla who cannot afford to commute by car, public transport is her only option. Overall, the possibility of saving money by cycling is seldom mentioned in the interviews. Louise's arguments of how cycling saves money is rare. Emma, 23, is an exception. She cycles to work at a clothing shop, to save money. She would prefer to go to work, and school, as she studies part time, by car, but thinks parking is too expensive. As mentioned, Ingrid, who also is one of the younger participants, says that she would like to buy a bicycle, but regard it as too expensive. Instead, she pays a monthly fee to rent e-scooters.

4.4 Tobias – the everyday life revolves around children's activities

Tobias, 44, works as a waiter and lives with his wife and three children in a terraced house on the outskirts of Linköping. He grew up in a small town in a nearby county, with a mother who worked in childcare and a father who was a welder. He has one brother.

Cycling has been a constant throughout Tobias's life. He learned to ride a bike at the age of six and began cycling to school at ten. He has continued cycling ever since. His mother also cycled frequently, as she disliked driving despite having a driver's license. His father carpooled to work in another city, about 30 minutes away by car, but occasionally tried commuting by bike. Tobias describes cycling as a normal part of life in his childhood home. There was no public transport in his hometown, so cycling was the only option for getting around if you didn't drive.

Tobias attended a hotel and restaurant program in high school and chose to become a waiter because he enjoyed socializing with guests. In his early years as a waiter, he worked in Linköping and commuted by train. At the time, he had a girlfriend in Linköping and used her bicycle to get to work when staying at her place. For a while, he also had a “commuter bike” stationed at the train station in Linköping, which he used to cycle from the station to work. He recalls this as convenient, although bicycle thefts at the station were common.

Today, with children of various ages at home, much of his spare time is spent driving them to different activities. He and his wife are not comfortable letting the younger children bike to school or activities on their own, as they live near a busy road. Tobias is also involved in his son's football team as a coach. Since the family lives on the outskirts of town, these activities require car trips. On weekends, there are competitions and matches that the children need to be driven to.

At times, Tobias is also active in social dancing, both as an instructor and a dancer. He finds it necessary to use the car for all these activities. Because the car is his main mode during his free time, he finds it important to commute to work by bike. This is partly to ensure the car is available for his wife, who works from home. He works hours when the car is often needed, typically between 15:00 and 23:30. But Tobias also enjoys the exercise that cycling provides. Another important reason for biking is that he doesn't have to worry about parking or pay for it. With the bike, he doesn't need to coordinate his work hours with public transport schedules.

Tobias appreciates the flexibility that cycling offers. His workplace is located 8 km from his home. He can park his bike close to the restaurant, although bike thefts are a concern. He finds the cycling infrastructure generally good, although some parts of the road are not properly cleared of snow, which can lead to accidents in snowy or icy conditions. However, this does not affect his decision to bike to work. He cycles year-round, regardless of the weather. According to Tobias, he will most likely continue cycling as he does today in the future.

The last mobility biography shed light on how caring responsibilities shape travel habits, which is an occurring theme in mobility literature (cf. McLaren, 2018; Schwanen, 2011; Kent, 2025). To have children is something that is associated with car-based mobility which Tobias biography illustrates. His everyday life is centred around the activities of his children and takes a lot of his leisure time. This can be explained by different aspects that concern both material conditions and meaning attached to parenthood. The leisure activities that Tobias and his family are engaged in are dispersed in space, which means that the car is vital to cover necessary distances in a sufficient time. Furthermore, the perception of the surrounding traffic as dangerous support the belief that the children must be chauffeured by car. Furthermore, notions of modern parenthood, where to enable children to engage in meaningful activities and an active lifestyle probably plays a role in how Tobias organise his everyday life. The car is seen as a key to support children's development, even if not meaningful per se (Hesselgren and Ihström, 2026). This is an illustration how mobility practices are shaped by norms about a good life (Berg and Henriksson, 2020).

Tobias biography is similar to how Sofie, a teacher assistant, describe her everyday life as a single mother. For her, the car is essential to manage everyday life and especially 'the school run' (Greed, 2019). She enjoys taking the car to work because it is a space where she can relax, drink coffee and listen to music, something other forms of mobility cannot offer her. She also enjoys walking in her free time and during lunch breaks and emphasizes how walking is more relaxing for her than cycling is. Even so, she supports her daughter that cycles to school "and everywhere". While car-based mobility is an integrated part of family life for Tobias and Sofie, cycling can take such a role. Both Milan and Matti shares stories about family outings with bicycles. Matti and his partner have bought a cargo bike to be able to conduct errands and chauffeur their daughter on an everyday basis.

The fact that Tobias is car dependent to a high degree, makes it important for him that he can commute to work by bike. Even if this decision partly has to do with the fact that the family car is needed at home when he is working, Tobias shares a strong commitment to cycling. This can be explained by the fact that has bicycled throughout his life, from childhood to adulthood, under varying conditions. His biography illustrates a cyclist that is so used to this practice, and finds it so meaningful, that he puts off with difficult cycling conditions. In comparison with many of the participants, Tobias also works inconvenient hours and must cycle when it's dark outside. This reflects gendered notions of safety, and its well-known in the literature that women express more concern about safety issues (Keel et al., 2025), see also Section 4.1.

5. Concluding discussion

This study has explored why individuals in low-income occupations cycle less than more affluent groups, despite Sweden's relatively good cycling infrastructure and despite cycling being relatively cost-effective relative to car or public transport. Drawing on 21 in-depth interviews with both cyclists and non-cyclists in two urban municipalities in eastern Sweden, we have analysed the social aspects of cycling through the lens of mobility biographies.

The findings show that cycling is often viewed positively—even by non-cyclists—but actual engagement in cycling is shaped by life circumstances and how individuals interpret changing conditions. This relates to motility (potential mobility), and specifically how individuals make use of and understand their mobility options (appropriation). Many participants cycled during childhood and early adulthood, but changes in work, housing, or family life often disrupted these habits and can be viewed as mobility milestones that shapes cycling practices. Key barriers include rigid work schedules (especially early or late shifts), safety concerns in low-income neighbourhoods, and physical exhaustion from demanding jobs. Bicycle thefts and vandalism also emerged as significant themes. These topics are seldom highlighted in discussions about how to support cycling, neither in research nor in practice.

The study also shows that social norms and identity play a role in shaping cycling practices. Cycling is often associated with health-conscious, educated, and “sporty” individuals, which can alienate those who do not identify with these traits. These norms seem to be shaped by understandings of classed identities (c.f. Hudde, 2023; Waitt and Buchanan, 2023; Balkmar et al. 2025). Younger participants especially expressed discomfort with the physical aspects of cycling, preferring electric scooters as a more socially acceptable and convenient alternative.

The study raises important questions for future research. The young participants in the study seem to be influenced by ideas about cycling as something unattractive, where ideals about cleanliness and a fresh appearance seem to be guiding. In parallel, we can see a steady cross-national decline of active transport among the younger groups (Masoumi et al 2020). The participants in our study have, with few exceptions, been introduced to cycling at an early age and have experienced periods in their life when cycling was normal and widespread, which seem to be a key to take up cycling later in life (Nowakowski, 2023). How mobility practices, ideas and habits change over time when the younger generation that stopped cycling grow up is a suggested theme for future studies.

5.1 Limitations

This study is one of few qualitative studies that focus on the cycling practices, norms and ideas of individuals in low-income occupations. It should however be noted that the participants in this study all work and have steady, albeit not high, income. They do not seem to suffer from any significant mental or physical ill health. Even if they work in low-income professions, there are no apparent signs of serious disadvantage or social exclusion. If we had focused on low-income earners, and included for instance unemployed individuals, the results would have been different. Even if there are results in the study that points to specific circumstances that shape the prerequisites for cycling in low-income groups, to in depth understand the relationship between cycling and SES, and to investigate what social resources that is needed to adopt cycling, the more vulnerable groups also need to be considered and included in research. There are however challenges in recruiting disadvantaged groups, both for large-scale surveys and interview studies, which calls for methodological innovation. This study provides examples of themes or sets of questions that can be included in studies that continue to investigate the links between cycling, or other activities that support health and wellbeing, and SES. Such studied needs to consider both structural issues such as time-pressure following rigid work schedules, safety concerns and infrastructure (cf. Roy et al., 2004), but also how these factors correlate to perceived health and wellbeing, economical constraints and social networks (Kristensen, 2017).

5.2 Policy relevance

The study has relevance for policy. It can be used as a starting point for discussions about transport measures that target low-income groups. A general premise is that cycling or transport cannot be viewed as an isolated policy area but should be related to social policy programs that supports inclusion and wellbeing, beyond travel (cf. Henriksson et al., 2021). When it comes to transport-related measures, a starting point would be to ensure that available cycling infrastructure is safe, open and well-lit, also in vulnerable areas. Safe bicycle parking in connection to both residential areas and workplaces are also vital. Cycling training courses and bike-kitchens have good effect both for supporting cycling competence and norms, but also to support the social ties and networks in local communities (cf. Schwanen and Nixon, 2020). Bicycles that are well-suited for everyday commuting, such as e-bikes or cargo bikes, are expensive and to purchase such vehicles is a big investment for those with scarce economic resources. This group is also more vulnerable for bicycle thefts or vandalism. Subsidized bicycle programs (including insurances) for people in low-income occupations, either through employers or via government support, can also be a policy that promotes cycling among low-income earners.

To summarize, this study contributes to mobility research by highlighting how cycling practices are shaped not only by infrastructure and individual preferences, but also by broader social, economic, and cultural factors. It emphasizes the need to consider life-course dynamics and working conditions when promoting cycling for low-income populations.

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