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# Questioning mobility ideals – the value of proximity for residents in socially deprived urban areas in Sweden

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## ABSTRACT

Despite discourses of contemporary high-mobility, a life characterised by high mobility is in sharp contrast to many people's experiences and personal preferences. Previous research has shown that mobility and transport opportunities are unevenly distributed in society. The paper explores how young unemployed people and low-skilled care workers in two Swedish urban municipalities prefer to travel less and stay local rather than undergoing time-consuming and expensive public transport trips. The results show that various temporal and spatial restrictions are significant regarding the extent to which public transport can cater for mobility needs, and that transport opportunities are part of an individual's opportunity to be socially included. The results indicate that other policy areas, such as the labour market policy and the public health policy, are equally important for social inclusion.

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## Introduction

In contemporary society, mobility is central in daily life and part of people's identity-making (Jensen 2009). To be mobile has been given a normative, positive ascription which permeates the everyday life of individuals as well as planning ideals. However, a life characterised by high mobility is in sharp contrast to many people's experiences and opportunities. Mobility can be experienced as burdensome or difficult to realise. Previous research has shown that mobility and transport opportunities are unevenly distributed in society. Poorer people travel less and have less access to public transport and individual transport modes (Lucas 2012). The consequences of poor access to transport options are limited opportunities to participate in everyday activities such as work, studies and leisure activities, with decreased well-being and quality of life as further consequences. Poor access to transport options in combination with disadvantaged social circumstances (unemployment, housing shortage, poor health, etc.) increases the risk of social exclusion (Lucas 2012).

Sweden and other Nordic countries have differed from many other European countries in their policies for housing and public transportation, with their tradition of *state welfare capitalism* (Esping-Andersen 1990) and a functionalist physical planning system (Grundström and Molina 2016). Consequently, most of the Swedish housing areas built in the 1960s and 1970s are connected to public transport services (train stations and bus networks). The growing participation of private firms in urban development has created more market-driven development, in housing and in public transportation (Grander 2018; Olsson 2018). Furthermore, Sweden and other industrial countries in the global north have embraced discourses of hypermobility (Cohen and Gössling 2015; Richardson

and Jensen 2000). This discourse guides decisions about which transport infrastructures to prioritise and policy recommendations concerning how far people should be expected to travel for employment (Essebo and Baeten 2012).

However, many Swedes tend to live localised lives, commuting on average 35 kms or 20 minutes in each direction (Transport Analysis 2015). The mismatch between the Swedish public discourse on what is needed for urban economic development and what households and individuals consider desirable to organise everyday life has previously been a topic of concern in feminist geography and transport research (Scholten and Joëlsson 2019), which has criticised the politics of the hypermobility discourse for treating the individual as atomistic. Rather, people's social relations are highly intertwined and co-dependent.

Sweden is one of the OECD countries with the most rapid development of income gaps. The uneven income distribution in Sweden is also highly spatial, where households in some of the Million Programme housing areas built in the 1960s and 1970s are the most vulnerable to deprivation. Based on the growing economic and spatial gaps, it is relevant to explore the potential risks of transport-related social exclusion that low-income households face. A study less centred on analysing the accessibility of the public transport system and more centred on embodied mobility experiences has the potential to provide important new insights for the growing literature on the role of public transport in the reduction of spatially induced social exclusion. This paper explores the mobility strategies of young unemployed people and low-skilled care workers in two Swedish municipalities. We ask if local public transport provision and regional connectivity is a concern for the residents of low-income communities in Swedish metropolitan areas and, if not, what are implications of this for theories of mobility/motility and future urban planning strategies?

First, we provide a conceptual framing for the study, based upon a review of the relevant literature pertaining to transport-related social exclusion, mobility/motility and time-geography. The methods, including the case study locations, are then presented. The subsequent sections present the empirical findings based on individual interviews and focus groups. The paper concludes with a discussion of the results in relation to previous research, and suggestions for further research are offered.

## Literature review

To explore individual mobility strategies and access to public transport, we make use of three concepts from mobilities studies: i) transport-related social exclusion, ii) motility, and iii) time-geography. A literature review was conducted to assess the knowledge gaps that the study aims to address. Searches were made in the Scopus database with the following keywords (combined and Boolean): transport, mobility, motility, time-geography, social exclusion, social capital, social justice, public transport and qualitative methods, Sweden and Scandinavia. The overview mainly concerns research conducted in the global north.

### ***Transport-related social exclusion: from transport as a social policy problem towards desired mobility***

The UK Government's focus on social exclusion (Social Exclusion Unit 2003), where spatial dissonance and the lack of access to transport were identified as key drivers in transport-related social exclusion, was an important starting point for a line of studies investigating these issues (Currie et al. 2010; Lucas 2004, 2006, 2012; Jones and Lucas 2012; Preston and Rajé 2007; Rajé 2003). Early work within the field situated lack of transportation as a social policy problem (Lucas 2004) and identified specific urban districts where low-income households were overrepresented (Hine and Mitchell 2000; Pickup and Giuliano 2005). This strand of research suggests that transport-related social exclusion is primarily a structural problem, which occurs due to a lack of, or inappropriate, public

policies and service planning. The need for more systematic and integrated analysis of land use planning for transport, housing and services has since continued to be investigated and researched (Carneiro et al. 2019; Hani 2016; Neutens et al. 2014; Pucci et al. 2019).

The numbers of case studies of transport-related social exclusion have grown significantly over the years, and include different urban settings such as London (Cuthill et al. 2019; Priya and Uteng 2009; Preston and Rajé 2007), Toronto (Allen and Farber 2020), and Portland, USA (Lubitow, Rainer, and Bassett et al. 2017) and increasingly developing cities, such as Buenos Aires (Pucci et al. 2019), Mexico City (Mejía-Dorantes and Villagrán 2020), and Hong Kong (Tao et al. 2020), while in the Swedish context, Rokem and Vaughan (2019) have identified that the design and layout of the public transport infrastructure is a contributing factor to social segregation between the immigrants and native Swedish population, despite the social infrastructures provided by the government. The retreat of welfare state interventions in Sweden, where public service becomes centralised, with increased distances to everyday destinations, further disfavours vulnerable groups of poor households, especially single-parent households and women in fear of violence (Adeel, Yeh, and Zhang et al. 2016; Andersson 2005; Lubitow, Abelson, and Carpenter et al. 2020; Turdalieva and Edling 2018).

Despite the many examples of case studies with rich empirical accounts, the theoretical understanding of transport-related transport exclusion is still evolving (Schwanen et al. 2015).

Shove (2002) and Cass, Shove, and Urry et al. (2005) argue that case studies have overlooked the social practices and embodied experiences of individuals, as their capability to coordinate everyday activities using the infrastructure is an integral component of transport poverty and social exclusion (Shove 2002, p. 3). It is for this reason that we next interrogate the mobilities literature and concepts of personal motility to frame our study.

### ***Motility: abilities and preconditions for being mobile***

Literature on mobility and transportation presents a contextualised understanding of preconditions for being mobile. Kaufmann's (2002) key theoretical concept of 'motility' – understood as the *potential* for mobility – is of special interest as it sheds light on how both mobility opportunities and personal capabilities to appropriate them are unequally distributed across different social groups and physical spaces (see also Flamm and Kaufmann 2006). The application of the motility concept has been used in a large number of empirical studies to understand migration (Gill, Caletrio, and Mason 2011; Ofer 2017; Torkington 2012), identity (Arp Fallov, Jørgensen, and Knudsen 2013) and gender (Akyelken, 2013; Turdalieva and Edling 2018; Scholten and Joelsson 2019). It has also been used in relation to different modes of travel, e.g. biking (Aldred 2015), and is applied in developing methodologies (Flamm and Kaufmann 2006; Tyfield and Blok 2016).

Kaufmann emphasises that both structure and agency are important in the realisation and non-realisation of mobility outcomes. The concept of motility is organised around three key components – i) access, ii) skills, and iii) cognitive appropriation. *Access* includes the range of (transport) options available to the individual at a given time and place, and on what conditions (prices, schedules); *skills* refers to the individual's acquired knowledge and organisational capacity to plan activities (adapt to changes, information search); *cognitive appropriation* concerns how the individual makes use (or not) of these two resources to deliver their mobility outcomes. To transform motility into actual travel might not be desirable at a given point in time, but the potential to travel is important for how the individual can choose, plan and participate in everyday life activities.

The literature points to the fact that motility capital can become a scarce and contested resource, where power relations can result in, for example, racialised mobility spaces (Kellerman 2012, p. 175). This can contribute to the systematic social exclusion and reduced well-being of certain individuals in situated space-time geographies (Nordbakke and Schwanen et al. 2015; Stjernborg, Wretstrand, and Tesfahuney et al. 2015; Ureta 2008). However, the concept of motility is fluid and is subject to several competing understandings (Kellerman 2012, p. 173). While the mobility literature helps us to

understand certain aspects of individual mobility, the time-geography perspective allows a focus on everyday activities, and on how time and space can further enable or hinder mobility.

### ***Time-geography: bridging distances and managing space-time restrictions***

The fundamental idea of the time-geographic approach holds that people are obliged to perform certain activities such as work, studies and leisure activities, which are fixed in time and space (Ellegård 2019; Hägerstrand 1970). Activities are limited by restrictions on different levels: i) capacity restrictions (basic needs, access to tools and knowledge); ii) coupling restrictions (the social and material contexts, coordination among people, material artefacts, and iii) the physical environment and authority restrictions (laws, regulations and norms in society that restrict access to certain places). A 24-hour day sets a limit for how long and when and where activities can be implemented and how far people can travel. The transport mode is crucial for how fast they can travel and thus how many activities can be managed during a day. The possibility to participate in activities in time and space can be understood through the space-time prism, which delimits what places can be physically reached by an individual from specific locations during a given interval of time (Lenntorp 1976).

Several studies have used the time-geographical approach to identify the various factors that shape people's daily mobility including the influence of different socio-economic and demographic configurations (Berg 2016). Some studies have specifically looked at mobility activities in relation to household structure (Delclòs-Alió and Miralles-Guasch 2018; Schwanen, Ettema, and Timmermans et al. 2007).

Other studies have shown that capacity constraints affect daily mobility and accessibility. Old age, disabilities or physical constraints influence the capability to move around as well as the speed at which the individual can move. Gharebaghi and Mostafavi (2018) highlight how wheelchair users and people with limited physical capabilities suffer more from time constraints due to obstructive urban environmental characteristics. Schwanen and de Jong (2008) have explored the juggling of work and care-related responsibilities among parents with small children. Women and men have different responsibilities and cope with coupling constraints differently. This relationship is also influenced by land use, socio-demographics and access to means of transport.

A few studies have investigated more structural factors within the built environment, such as activity locations and the related travel time to access them for different socio-demographic groups (Susilo and Dijst 2010; Fan and Khattak 2008). The physical design of urban places is a facilitator for how people can combine work with other responsibilities and activities without travelling far and without motorised vehicles. Smaller activity spaces enable more use of local opportunities and more neighbourhood interaction.

The literature review lays the groundwork for the analytical framing of this study. In the next section we will describe how we combined the different perspectives to make sense of individual mobility among residents in deprived urban areas.

### ***Analytical framework***

In sum, the literature review illustrates the relations between individual capabilities and the built environment. Living conditions form the individual's motility (the capacity to be mobile) and create specific restrictions and resources, which influence the risk of transport-related social exclusion (see Figure 1.) We will explore to what extent people's *motilities* align (or not) with the design and delivery of the public transport services. Here, available *resources*, *capacities* and *restrictions* influence individual time-space geographies. The figure visualises the overlaps and separations between the three theoretically driven and empirically studied bodies of work reviewed.

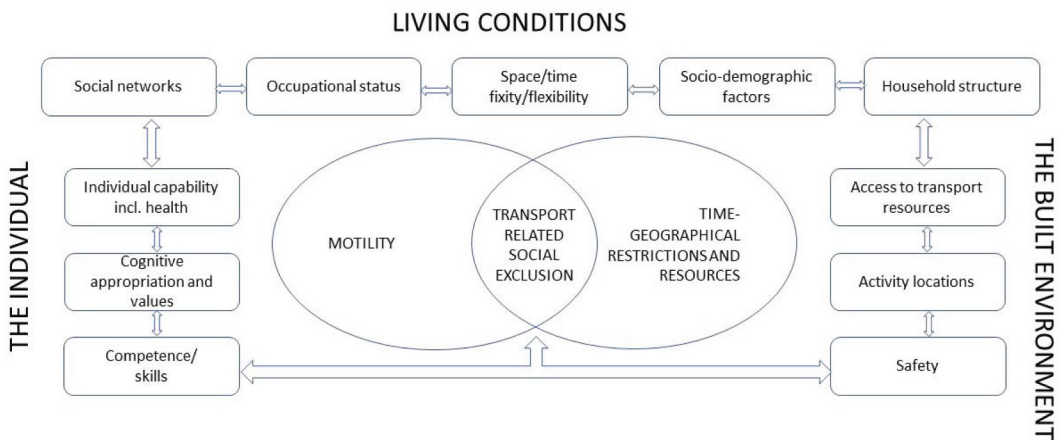


Figure 1.

## Methods and context

The study adopted a qualitative mixed-method approach, involving seven focus groups and nine individual interviews, with a total of 41 individuals (33 women, eight men) across two case study areas in metropolitan Sweden. These locations constitute the social context in which the participants navigate.

### Case study locations

The research was conducted in two residential areas (see appendix) in the northern parts of Botkyrka municipality, south of Stockholm, and in Angered, a district in the city of Gothenburg. Both case study areas are characterised as deprived based on socio-economic statistics, crime-rate, drug abuse levels and multi-ethnic population. They are defined as high-risk zones by the national police, due to problems ‘that to a large extent require joint efforts from several societal actors’ (Nationella Operativa Avdelningen 2017). The existing problems legitimise special efforts for social integration policies and security measures in terms of surveillance. To integrate both places and people into society, enlarged functional regions for work and housing, and increased commuting and mobility are policy tools that are recommended. In this respect accessible and functional transportation becomes essential.

To highlight areas as high-risk zones labels both the places and their population as deviant in relation to the Swedish society (Birk 2017). However, this is a contested ‘truth’, where it can be argued that the focus should be directed towards the neo-liberalised and weakened welfare state (Birk 2017) and restructuring of the labour market (Wacquant 2016), rather than towards individuals. The northern parts of Botkyrka have approximately 38,000 inhabitants. The residential areas were largely built as part of the Million Programme. The most common form of housing in *Alby* and *Fittja* is rental multi-family housing, while in *Hallunda/Norsborg* the most common is tenant co-operative multi-family housing. The areas were planned according to a rational planning ideal centrally located along the subway line. The train takes approximately 36 minutes to arrive in Stockholm city. The areas are also served by several bus lines and commuter trains. Even though the car is the most common mode of travel in northern Botkyrka and in the municipality, access to both car and bicycle is lowest in northern Botkyrka compared to other areas in the municipality and compared to Sweden at large. Public transport is the second most common method of travel, and bicycle the least common. The educational level and the number of employed persons aged 20–64 are lower in northern Botkyrka

than in the municipality and Sweden as a whole. The number of residents of foreign origin is higher in northern Botkyrka compared to the municipality and to Sweden.

Angered is situated in north-eastern Gothenburg, with approximately 53,000 inhabitants. The Million-Programme-built housing stock consists mostly of multi-family rental housing (69 per cent), and the remainder of villas and tenant co-operative multi-family housing. Angered is a mixed city district, surrounded by forests and agricultural areas. The most common transport mode in Angered is the car. The area was built according to the previously mentioned rationalist planning ideal where walking and biking paths are separated from the road infrastructure. While allowing traffic security, this creates an unsafe and isolated environment for pedestrians and cyclists, with long distances to bus stops. From Angered to the city centre of Gothenburg it takes about 20 minutes by tram. Buses are also available.

### ***Data collection: participants, methods and analysis***

The data consist of focus group interviews and individual interviews. The participants were between 17 and 62 years old and either unemployed or students at high school or university or employed in low-skilled jobs. The participants represent different life phases, with different responsibilities and space-time restrictions related to adult life (child, housework and work commitments). They were recruited via employment agencies, a social support network for young people and from among employees at two homes for the elderly. Supervisors at the employment agencies invited job seekers to participate as part of a job-seeking programme. Managers at the homes for the elderly invited employees to take part in the interviews.

Initially, two focus groups were conducted at the same employment agency in Botkyrka (Focus Groups 1 and 2), two focus groups at an employment agency in Angered (Focus Groups 3 and 4), and two at a local network group with young people in Angered (Focus Groups 5 and 6). The participants were initially given the task of creating mind maps of their path from home to the place where the interview took place in order to stimulate thoughts about places, transport and experiences of the urban environments they usually visited. They were also invited to join a second focus group a few weeks later. Six of them participated on both occasions. Focus Group 7 was conducted with three individuals who worked at a care home for the elderly in a suburb in Botkyrka municipality, about 15 minutes' walking distance from a commuter train station. One interview was carried out at the same care home for the elderly with a woman who worked as a coordinator. Individual interviews were carried out with eight people who worked as care assistants at a care home for the elderly in a newly built area peripherally located in Botkyrka municipality. None of them lived in the area, and they were often dependent on public transport to get to work.

A semi-structured interview guide was used in all the interviews and included questions about the experiences of the areas in which they lived, their use and experiences of public transport, transportation supply, commuting, and transport costs. The focus groups were in most cases led by three researchers, lasted for two hours and were digitally recorded with the approval of the informants and then transcribed verbatim. Individual interviews with eight care assistants were carried out during their coffee break and thus were a little shorter at 15–20 minutes long. They were not digitally recorded; instead careful notes were kept. The interview with the coordinator lasted for 40 minutes and was digitally recorded with the approval of the informant and then transcribed verbatim. One to two researchers conducted the individual interviews.

In accordance with ethical guidelines for good research practice, the informants were informed about the aim of the study and what the interviews would be used for, and were told that their participation was voluntary and they could discontinue it whenever they liked. They were guaranteed anonymity.

The analysis took a qualitative content analysis approach (e.g. Patton 2002). The authors initially read the transcripts, categorised the texts systematically and then condensed them into themes that answered the research questions. The next phase identified statements that could be interpreted as

space-time restrictions, access, skills and cognitive appropriations, according to the time-geographical approach and the motility framing.

When deciding how to portray the material, we did not want to lose the complexity and the richness of the informants' stories. Creating *mobility types* serves this purpose, since it is an analytical device for visualising the essence of a material, while at the same time considering the context in which the informants are located (c.f. Kesselring 2006;; Julsrud 2014). We identified four mobility types in the material. The mobility types were constructed from several informants' accounts of everyday life, including problems and experiences as well as daily travel, in low-income areas. They reflect different types of time-space constraints and mobility strategies as well as outcomes in terms of mobility/motility that we identified in the material. They are examples of how people talk, think and express themselves according to transport policy, social policy and the time we live in. One mobility type does not fully correspond to one informant, but rather to the essence of different kinds of reasoning related to the hypermobility discourse. Before presenting the mobility types, the overall findings are introduced.

## Key finding

The analysis emphasises differences in terms of individual space-time restrictions, labour market positions, social and professional networks, aspirations towards future occupations and life stages. While all informants are low-skilled in terms of education, some of them are in their late teens or early twenties and are still in the process of deciding whether they want to pursue higher education or other careers, to stay in their neighbourhood or move. To apply for a desirable job elsewhere is seldom deemed attractive, since they do not want to move. A young woman who had just finished school summarises this tendency: 'Even if I would get to work with trucks, I would never leave; I would not leave my family for a job, I'm afraid.'

The younger informants live at home with parents or siblings or, more rarely, by themselves. The employed informants are generally older and have families with children. Some of them have grown-up children and live by themselves or with partners.

A majority of the informants are highly mobile in the sense that they are able to travel when and where they need and desire. Most of them use public transport as their main mode of transport. They generally have a good set of skills that make it possible to appropriate the available transport options (knowledge of bus/tram/light rail schedules, payment schemes, the surrounding areas, etc.). While the public transport system provides a high level of access, the informants experience a generally poor level of performance. Many of the low-skilled workers state that buses and trains in their neighbourhoods are often worn out. 'They are scruffy and old, and they do not feel fresh,' a woman says. The younger informants talk about aggressive bus drivers and a feeling of not being welcome on board. In one of the focus groups in Botkyrka, the informants shared stories about being suspected of freeriding by the bus drivers. One of the informants explains that s/he always buys a ticket, but it does not matter: 'Because the driver always thinks it is fake and I have to prove it is not.' Similar stories about violent encounters on buses and trams were shared in the Angered focus groups. Some stress that these events take place all over Gothenburg, and not only where they live. This reflects a notion that their neighbourhoods are not more violent than others.

Space-time restrictions, often connected to working hours and public transport provision, imply dependency on public transport in order to manage everyday life among the low-skilled workers. Long commuting hours mean little time for family or leisure. A woman in shift work who has a long commuting time says: 'When should I sleep? I don't have time to sleep.' For low-skilled workers whose everyday life is characterised by proximity, with workplace and residence in the same area, the negative effects of space-time restrictions are less evident. The unemployed informants report very few restrictions in relation to mobility.

In some cases, lack of economic resources affects the unemployed informants' ability to travel. However, many informants have their public transport passes paid for by the social care office. Lack of activities shapes their mobility; some rarely leave home except for weekly visits to the



unemployment office. Others spend time with friends and have an active social life despite their lack of employment.

Many express positive attitudes towards their neighbourhoods. Even if they are conscious of and express concern about high crime rates and violence, they also feel a sense of belonging and enjoy a wide social network. This was especially true for the focus groups conducted with young unemployed people, both in Botkyrka and Angered. In the focus group and interviews with low-skilled workers, more concerns were raised about safety issues. Many of the informants avoid going out at night and feel more secure during daytime. Some of the unemployed informants, in particular young women, are also reluctant to use public transport at night-time and prefer to get a lift from parents, friends, or other social contacts. Very few have a driving licence, but those who do tend to use this asset to avoid public transport. One of the few informants with a driving licence decided to stop using public transport when she started working at a care home for the elderly with insufficient public transport provision. She had previous experiences of harassment at the bus stop, with men asking her 'how much she cost'. A younger woman says that she feels safer with the driving licence. 'My mum lets me stay out later now because she knows that I am safe, that I'm not on the tram at night.'

The overall results show that social prerequisites affect people's motility and space-time use and restrict or widen their mobility options. This has consequences for the informants' risk of social exclusion. To investigate this in more detail, we now present the four identified mobility types.

## **Mobility types**

### ***Type 1: Space-time flexibility, narrow activity-prism***

Cawil, 24, lives in Hammarkullen in one of the buildings in the department complex. He lives with his sister who is a few years older than him. They arrived together from Somalia six years ago. The rest of the family still lives there. He is in a job-seeking programme for unemployed young people in Angered. To receive a monthly allowance he must see an adviser once a week, and he frequently attends activities that the programme offers. He takes the bus to the unemployment centre. The programme pays for a monthly public transit ticket, but he must buy it first and receive reimbursement later. It is a big cost for him, and he is often worried that he will not get the money back, which would make it difficult to get by financially. If he did not have the ticket, he would probably walk more. He knows how to avoid paying and has friends who always freeride. He can tell by the looks from the bus drivers that people like him are expected to freeride.

There is a bus stop only a few minutes' walk from his home. The bus takes him to the centre in Angered, where he changes buses. The second bus takes two minutes but drops him off very close to the centre. If he chooses to walk, it takes him 10 minutes. There are allocated spaces for pedestrians everywhere in Angered, and he does not consider the traffic to be unsafe, but he does not like walking, since he finds it is more relaxing to sit on the bus and listen to music or talk to friends on the phone.

Cawil has a licence to operate forklifts and has had occasional jobs at warehouses, but it is hard to get something regular. He finds it difficult to search for jobs; it is challenging for him to write applications and to attend interviews. He lacks basic knowledge in Swedish and finds it hard to improve his language skills, since he is not used to studying. Most of his time is spent at home, but he meets friends regularly, often at their homes. Sometimes they hang out in the city centre. Some of his friends have cars, and they often drive around the city together. He appreciates that in Hammarkullen he always finds someone to talk to if he goes out. There are plenty of places to hang out, such as outside the grocery store, the football field, or the tram station. He knows almost everyone and knows which people to avoid. Cawil knows that the neighbourhood can be rough, but since he avoids conflicts, this does not bother him much. However, sometimes sirens wake him up at night. Cawil does not plan to leave Hammarkullen. Sometimes he imagines himself having a car of his own and driving to friends outside of Gothenburg, but since he does not have a driving licence and cannot afford to obtain one soon, he thinks of this as a dream rather than a plan.

The mobility type that Cawil represents is defined as *space-time flexibility with a narrow activity-prism*. It is characterised by inertness due to Cawil's limited cognitive appropriation. He has access to public transport (service, schedules according to his needs, and a monthly ticket as part of his social benefits). His skills in terms of local knowledge and the ability to read bus schedules and use apps are high, but he does not have any strategies to change his overall situation, even though he has adopted coping strategies, such as having an active social life. His cognitive appropriation collides with his lack of language knowledge and minimal experience of studying. He values proximity, since in the local area he can rely on a network of friends.

### **Type 2: Space-time flexibility, wide activity-prism**

Irem, 20, lives with her mother in a terraced house in a newly established neighbourhood in the north part of Angered. She finished school a year ago and has not been working or studying since then. She does not describe herself as unemployed, but rather that she's on a break from school. Her plan is to study to be a doctor in a couple of years. She wants to study abroad and have the opportunity to leave Gothenburg and to see the world. She has lived in Angered for her whole life. Her mother emigrated from Iraq before she was born. They have recently moved to the new area because they wanted to get away from Hammarkullen, their previous location.

She describes her old neighbourhood as a 'low class' area, where most of the buildings are run down and in need of renovation. No one clears the snow from the streets, and the rubbish management does not work, with a lot of rubbish ending up in the streets. Even if the neighbourhood has always been in a bad state, Irem has felt at home. Almost all her friends live there, and they have attended school together since they were little. More recently, Irem and her mother have noticed how criminals are starting to take over the neighbourhood. Criminal gangs and shootings are common, and drug dealing is seen in the neighbourhood day and night. Even though nothing has happened to Irem, it does not feel safe to live there anymore.

Since she finished school, Irem does not have any regular daily activities. She has a lot of free time that is usually spent with friends. They visit shopping centres or cinemas or hang out in the city centre. Irem obtained her driving licence a few months ago, and she can use her mother's car. Her mother pays for petrol, so she can afford to drive almost daily. She justifies her frequent car use by referring to how she previously always used public transport. 'I'm tired of spending time waiting for the bus, I have done that all my life,' she reasons.

Since she obtained her driving licence, she spends more evenings away from home. Her mother does not approve of Irem using the tram or travelling by bus late at night. It is regarded as normal for the parents of young girls in the neighbourhood to keep them inside at night; it is interpreted as a way of caring about their safety and reputation. Now, if they drive, she and her friends can do what they like in the evenings. It is important for Irem that her friends know that she can give them a lift anytime. She understands that many girls are worried about assaults, especially at tram stations when it is dark outside.

Like Cawil, Irem's mobility is characterised by space-time flexibility, but her activity-prism is wider and more aspirational. This mobility type is therefore defined as *Space-time flexibility, wide activity-prism*. She lives an active life even though she does not work. Her driving licence gives her access to activity-rooms that previously have been limited for her due to gender roles and experiences and attitudes towards safety. The way she reasons about the future points to cognitive appropriation that includes a mobile lifestyle. She has support from home, both financial and emotional, which strengthens her ability to appropriate space.

### **Type 3: Temporally and space-time restricted, wide activity-room**

Waris is 36 and lives in an apartment in one of the estates in the northern part of Botkyrka with her husband and three children, who are all at school or in day care. She has lived in Sweden for 10 years and previously emigrated from Somalia. Her children were born in Sweden. Her skills in Swedish are low but she can make herself understood. She feels at home and generally safe in her

neighbourhood and has a social network with friends from the Somali community. Since she can manage nearly all of her daily errands on foot in the vicinity, she seldom leaves the neighbourhood.

Her weekly trips to a mosque in a nearby neighbourhood are an exception. She travels there with her family by car. Waris does not have a driving licence or a bicycle. There is one car in the household, and her husband drives. Waris works part-time at a care home for the elderly in the municipality, nine kilometres from her home. She goes there by public transport and describes her daily commuting as burdensome. On average, her daily trip to work takes 1.5 hours. At weekends and at night, it takes longer due to restrictions in the bus schedule.

To get to work she first takes a bus from a bus stop located within five minutes' walking distance from home. The bus ride takes about 15 minutes and takes her to the commuter train station. The commuter train leaves every 15 minutes during peak hours. Her destination is only one stop away. She then waits for the next bus that will take her to another station, where she changes onto another bus. Depending on the time and day of the week, she waits for 20–60 minutes. On occasion the bus does not show up. To walk takes approximately 40 minutes at a fast pace. Since her work is very physically strenuous, she does not want to start the day with a hard, stressful walk. Also, when it is dark outside, she feels unsafe walking on her own. The surrounding areas are desolate, with very few people on the move. The bus ride takes approximately 10 minutes. If she is lucky, one of her colleagues can drive her from work to the commuter train station.

At weekends, it is nearly impossible to get home from work, so her husband picks her up in their car. For Waris, working part-time is not optional. She would like to work more because of the salary. However, since her work trips take three hours or more a day, this is not a viable option. With three small children in the household, caring for them and the household is time-consuming. To work part-time is a strategy that allows her to manage everyday life. However, she has little time for herself and she does not get enough sleep or rest.

The mobility type that Waris represents is defined as *space-temporal fixity in a wide activity-space*. This mobility type is defined by dissatisfaction, mainly because access to public transport is limited due to schedules and services. Her cognitive appropriation is limited, too, due to lack of language skills and education. Access to other mobility options is limited because of her lack of skills and lack of a driving licence. This leads to public transport dependency and a higher degree of space-temporal fixity. Lack of language skills limits her employment options and enhances public transport dependency. Except for everyday commuting, she is not mobile and values proximity.

#### ***Type 4: Temporally and space-time restricted, locally oriented***

Lotta, 52, lives in Tumba. She is an ethnic Swede who moved here from another part of the Stockholm region with her partner in her early 20s and has lived in the municipality of Botkyrka ever since. Over the years, they have lived in different apartments, but some years ago the couple decided to buy a small terraced house. They have two daughters who both study at university and have moved out of the family home. She describes Tumba as a good place to live. She appreciates that it is close to everything she needs in her daily life. There are some grocery stores within walking distance and a shopping centre with different shops and cafes. Lotta visits the local swimming pool and library regularly.

During the summer, she sometimes goes into the city to attend bigger outdoor events. Apart from this, she seldom travels outside her neighbourhood. At weekends, she likes to visit some of the large shopping areas nearby. She is not planning to move away. In general, Lotta feels safe and would not describe her neighbourhood as violent, even though she knows that the media reports crimes almost daily. She has no experience of violence herself. She does not go out at night if she can avoid it. At night, public spaces like the bus stops or the commuter train stations are full of young people in gangs. It feels unpleasant to sit in the bus station when people are drunk and are having loud arguments.

Lotta works as a full-time care worker. It takes her 20 minutes to walk from home to her workplace. When she starts work early or late, or when it is cold and snowing or raining, she takes the local bus. The workplace is only two stops away, a 10-minute ride. It takes her five minutes to walk to the bus stop. Taking the bus to work does not save her any time, but she still regards the trip as less stressful than walking. She is satisfied to live close to work and cannot imagine working anywhere more distant. She does not want to rely on public transport for all her work trips. The bus is often late, which annoys Lotta, who thinks it reflects an attitude that areas outside central Stockholm are less important. When she visits Stockholm, the buses look newer and less worn out. She pays the same amount for her monthly ticket as those she says get a better service, which she thinks is unfair. She finds the monthly ticket expensive, but since she uses buses regularly for her work trips, she buys it anyway. In her free time, Lotta sometimes takes her bicycle to the many green areas close to her home. She has not considered cycling to work. She does not like cycling in traffic since she regards herself as an inexperienced cyclist.

Lotta represents a mobility type we define as *temporally and space-time restricted but locally oriented*. This mobility type is characterised by satisfaction because a general control over mobility options is enhanced by a high level of cognitive appropriation. Lotta has good access to public transport with services that connect to her workplace. Her language skills and work experience mean that she has access to a broad labour market within elderly care, and she can choose a workplace close to home. Representations of an unsafe and criminal environment shape her motility, which can be related to cognitive appropriation. An abundance of local services nearby, as well as cultural institutions and nature, contribute to a strong local identity. She values proximity and does not aspire to achieve a higher degree of mobility.

The mobility types and their characteristics are summarised in [Figure 2](#).

<p><b>1. Space-time flexibility, narrow activity-prism:</b></p> <ul style="list-style-type: none"> <li>• Good access to public transport</li> <li>• Limited cognitive appropriation</li> <li>• Values proximity</li> <li>• Inert</li> </ul>	<p><b>2. Space-time flexibility, wide activity-prism:</b></p> <ul style="list-style-type: none"> <li>• Good access to public transport</li> <li>• Elaborate cognitive appropriation</li> <li>• Values mobility</li> <li>• Aspirational</li> </ul>
<p><b>3. Temporally and space-time restricted, wide activity room:</b></p> <ul style="list-style-type: none"> <li>• Limited access to public transport</li> <li>• Limited cognitive appropriation</li> <li>• Values proximity</li> <li>• Dissatisfied</li> </ul>	<p><b>4. Temporally and space-time restricted, locally oriented</b></p> <ul style="list-style-type: none"> <li>• Good access to public transport</li> <li>• Elaborate cognitive appropriation</li> <li>• Values proximity</li> <li>• Satisfied</li> </ul>

**Figure 2.** Mobility types among resident in deprived urban areas in Sweden.

## Discussion

In this study, we have asked whether mobility, accessibility, and public transport provision are concerns for residents in low-income communities in Swedish urban areas, and the implications for transport policy. Surprisingly, we did not identify transport poverty in the sense that it is

highlighted in the international literature. The study areas are relatively well supplied by public transport, which is a result of the Swedish planning model characterised by a tradition of providing suburbs with services, housing and transport. For the young people interviewed, public transport is a resource for meeting friends, studying and participating in job-seeking programmes. The unemployed young informants' daily mobility and motility is characterised by space-time flexibility, which can be explained by the fact that they have few daily responsibilities. They have an abundance of free time and can therefore decide when to travel. Consequences of limited travel options are not as considerable as for those who have many commitments in everyday life that bind them in time and place, such as being at work at a certain time or picking up the children from school. The results complement previous research by Schwanen, Kwan, and Ren et al. (2008), which shows that the personal and geographical background of the individual matters for variations in the degree of space-time fixity, as well as when, where and with whom activities take place.

Although public transport is considered an important resource, the costs of transport are a heavy burden for many with limited financial resources, especially for the young informants who have neither a job nor educational studies. According to Bondemark (2020), people on lower incomes are less likely to possess a monthly travel card. Thus, they reinforce their low liquidity by refraining from making the necessary investments in travel cards, which exemplifies how social disadvantage influences transport disadvantage.

The young informants in our study share both their life phase and their position in the labour market and have access to the same public transport supply, but the overall characteristics of their mobility types, 'inert' and 'aspirational', differ. These differences shed light on the value of using motility as an analytical lens. While given the same or similar access to infrastructures, Irem and Cawil have different sets of skills in relation to language, capacity to study and social networks. These differences influence how able they are to achieve mobility. This points to agency based on individual capacity. To be young and unemployed in a low-income housing area does not automatically lead to social exclusion, nor to transport poverty. Therefore, it is important to be cautious when talking about these groups as homogeneous, and rather to focus on how individual capacity could be supported and developed.

As mentioned, traditional Swedish planning ideals support access to public transport in urban areas, and the overall high provision enables daily mobility according to the informants' needs and desires. This is true if the daily mobility is required within the local area. We have found that longer commuting distances lead to conflicts, where accessibility is questioned, with undesired outcomes such as exhaustion and the necessity for individuals to limit themselves to part-time work. This is reflected in the mobility type 'temporally and space-time restricted, wide activity-room'. Interestingly, regional and inter-regional commuting is prescribed in Swedish policy discourse, where job opportunities for low-skilled workers at risk of unemployment are regarded as one of the benefits. To be employed is an important aspect of social inclusion (Lucas 2012). At the same time, our results suggest that long commuting hours in combination with deficits in public transport provision lead to transport exclusion. These outcomes have also been shown to be evident from previous research (Mattioli et al. 2018).

In contrast, the mobility type 'temporally and space-time restricted, locally oriented' points to how proximity in everyday life results in overall satisfaction. Many of the young informants do not strive for mobility per se, or regard increased or longer journeys, either for leisure or paid work, as automatically leading to a qualitatively improved life. Lindgren and Lundahl (2010) found that young Swedes perceive mobility as positive and desirable, but express resistance towards urbanisation, career thinking and materialism, which influences the choice to stay local. We have also found that residential mobility, expressed in the mobility type 'space-time flexibility – wide activity-prism', is a mobility strategy that connects to living in socially deprived areas. However, those in our material who have adopted this strategy have not moved far, and they still feel an affinity to their previous neighbourhoods. In this sense, place boundness and proximity are important values. Even though

they live in an area that is exposed to crime and violence, the individuals defend their neighbourhood and state that they will not move.

In this sense, their view on mobility differs from contemporary understandings of hypermobility as idealistic and desirable (Cohen and Gössling 2015). Contrasting mobility types, i.e. locally oriented versus wide activity-prism, were also found in Allen and Hollingworth's (2013) study of young people's aspirations towards work in the knowledge economy. This study shows how place, social class, and family capital shape social and geographical mobility, concluding that to raise young people's aspirations to work in the knowledge economy and creative sector it is necessary to provide more work opportunities. We suggest that future research explores the relationship between mobility, access to transport, and employment opportunities.

## Conclusions

By using Kaufmann's concept of motility (Kaufmann 2002) together with the time-geographical approach, this study shows there is a complex relationship among access to transport, individual abilities to deal with life situations, and societal living conditions, which constitute aspects of transport-related social exclusion. The overall results show that various temporal and spatial restrictions have an influence on the extent to which public transport can cater for mobility needs, and that transport opportunities promote social inclusion. However, other policy areas are equally important, such as housing, the labour market, public health, and infrastructure planning.

One important conclusion is that living in socially deprived areas does not imply unique experiences or strategies for mobility. However, factors related to the social characteristics of these areas, namely low income and low education, affect the adoption of mobility strategies. These factors, combined with a lack of knowledge of the Swedish language, prevent or make it even more difficult for people to obtain a driving licence, or buy a car, or move closer to work and school. Public transport is often a vital resource enabling citizens to participate in and integrate into wider society. We can conclude that a systematic approach is needed to monitor and evaluate how different social groups are included in public transport planning, and which groups are favoured or disadvantaged by different policy goals, planning strategies and physical interventions.

Finally, a methodological reflection is that we have not included informants who are experiencing social exclusion, i.e. people who do not speak Swedish and who are not in job-seeking programmes, nor socially active. Thus, even though we have not identified transport poverty in our material, this might be a reality in the studied areas, and in rural areas of Sweden. The difficulties of recruiting vulnerable groups in research are well documented and affect how we understand and describe transport poverty and social exclusion.

The results of this study call into question current discourses of high mobility and increased regional labour market mobility. We present experiences of people whose working opportunities do not benefit from bridging regional borders. Rather, mobility among residents in deprived urban areas is managed to allow individuals to stay local and to overcome the problem of distance by adapting to fixed public transport timetables. It can be assumed that there are significant differences in the social construction of mobility between privileged and less privileged areas in Sweden, which we suggest could motivate further research. Here, the mobility types could serve as an inspiration in comparative studies. Such research could explore the extent of accessibility gaps between socio-economic groups in Sweden. Finally, the study is an important contribution to urban policy and planning as it contextualises the importance of geographical proximity among people in socially disadvantaged areas who have limited access to the labour market. Knowledge of their proximity ideal is an important complement to planners' established ideas based on expert knowledge. From a justice and environmental perspective, this is a group whose mobility patterns should be encouraged and favoured, since they already travel sustainably. If social inclusion is to be regarded as important, to be able to live and work locally should be an important goal for policy.

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## Appendix

**Table 1.** Number of participants in focus groups and interviews, their ages and occupations.

Focus groups	No	Ages	Unemployed	Students	Employed
1 Employment agency Botkyrka	5 (3 W, 2 M)	18–26	5	0	0
2 Employment agency Botkyrka	6 (5 W, 1 M)	19–24	6	0	0
3 Employment agency Angered	6 (3 W, 2 M)	17–26	6	0	0
4 Employment agency Angered	3 (1 W, 2 M)	19–24	2	1	0
5 Network Angered	11 (10 W, 1 M)	17–24	1	7	3 (assistant nurse; nanny; manufacturing worker)
6 Network Angered	4 (3 W, 1 M)	18–51	1	0	2 (assistant nurse; social worker)
7 Senior housing Angered	3 (2 W, 1 M)	42–58	0	0	3 (assistant nurses)
Individual interviews at a senior housing	9	19–62	0	0	9 (assistant nurses; administrator)