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Mobility Practices in Santiago de Chile: The Consequences of Restricted Urban Accessibility

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- not, D. et al. 2001. *Mobilité et grande pauvreté*. Final Report, Agence d'urbanisme pour le développement de l'agglomération lyonnaise – Observatoire Social de Lyon.
- gridge, M.H.J. 1985. Transport, land use of energy interaction. *Urban Studies*, 22, 481–92.
- Ve (International, non Governmental, Permanent, Observatory on Sustainable Mobility in Metropolitan Areas). 2005. *Final Report*, 4th Forum, Venezia, 29–30 September 2005.
- ss, P. 2006. Accessibility, activity participation and location of activities: exploring the links between residential location and travel behaviour. *Urban Studies*, 43 (3), 627–52.
- ss, P., Gunnaroe, P. and Larsen, S. 1995. Travelling distances, modal split and transportation energy in thirty residential areas in Oslo. *Journal of Environmental Planning and Management*, 38, 349–70.
- ss, P. and Jensen, O.O. 2004. Urban structure matters, even in a small town. *Journal of Environmental Planning and Management*, 47, 35–57.
- yman, P.W.G. and Kenworthy, J.R. 1989. *Cities and Automobile Dependence*. Aldershot: Gower Publications.
- sen, S. 2001. *Global Cities*. Princeton: Princeton University Press.
- wanen, T., Dieleman, F.M. and Dijst, M. 2001. Travel behaviour in Dutch monocentric and polycentric urban system. *Journal of Transport Geography*, 9, 173–86.
- , A. 1993. Capabilities and well-being, in *The Quality of Life*, edited by M. Nussbaum and A. Sen. Oxford: Clarendon Press, 30–53.
- id, D. and Marshall, S. 2001. The relationships between urban form and travel patterns: an international review and evaluation. *European Journal of Transport and Infrastructure Research*, 1, 113–41.
- y, J. 2002. Mobility and proximity. *Sociology*, 36 (2), 255–74.

Chapter 8

Mobility Practices in Santiago de Chile: The Consequences of Restricted Urban Accessibility

Paola Jirón

Differentiated mobility refers to the diverse ways people experience urban daily mobility according to gender, life cycle, religion, income, age, ethnicity, or ability, amongst others. Moreover, because social practices remain based on uneven power relations, social differences may exacerbate them and impact the possibilities of accessibility to people, activities and places. This means that for some people, their social characteristics provide them with open passports to access all sorts of domains in urban areas, a form of 'laissez passer' through the city. For others, their social conditions limit their connection, flow and accessibility, leaving them in longer queues, with restricted access and limited possibilities. Under a mobility lens, urban inequality refers to uneven access to practices, relations and places leading to temporary or permanent connections or disconnections in timespace. Therefore, different social conditions expressed in daily mobility practices combined with daily mobility barriers generate a complex web of relations taking place in cities today. However, little is known about the way these relations take place, and this chapter provides further detail in the case of specific residents in Santiago de Chile.¹

Access has been recognized as a major aspect of social exclusion (Cass et al. 2005, Kenyon et al. 2003), and increase in transport is often seen as the main possible solution. A closer look at the practices of daily mobility and the way inequality is experienced reveals that transport can be a major barrier, but that there are also other barriers that need to be overcome. This involves seeing social exclusion as a process as opposed to outcomes. In closer detail and from an urban daily mobility approach, transport systems can sometimes be distinguished as deficient but not necessarily the main barrier of exclusion. This is because mobility entails more than travelling from point A to point B; it involves understanding what occurs in mobility practices, how they occur and what happens prior to and following the practice. Mobility can sometimes be the cause and other times a consequence of uneven social relations, or the manifestation of more profound

¹ Parts of this chapter are based on FONDECYT financed research N° 1090198.

inequalities in urban living. Consequently, within everyday practices of daily mobility, social exclusion can be analysed through the concept of accessibility.

When understood as level of connectivity, Church et al. (2000) point out that accessibility is only one dimension of social exclusion,² and high accessibility does not imply people are able to benefit from it (Church et al. 2000). Thus, to understand how mobility affects social exclusion, adapting Cass et al.'s work (2005), accessibility here is understood as the ability to negotiate space and time to accomplish daily practices, maintain relations and generate the places that people require for social participation. Although it does not capture all the dimensions of social exclusion, this definition provides a deeper comprehension of the implications of being connected or disconnected, of the capacities people have to enter or exit, the consequences of being left out or choosing to stay out or in, thus looking at the types of connections, the times, places and relations.

This chapter argues that urban daily mobility practices are differentiated according to social conditions of gender, income, age, stage in life cycle, amongst others, and this differentiation affects people's accessibility to various aspects of daily living. These differences are enhanced when physical, financial, organizational, temporal, technological and skills-related dimensions of mobility restrict access to practices, relations and places, becoming mobility barriers and generating experiences of inequality. This chapter briefly introduces the discussion on urban inequality from a mobility point of view. It then provides a detailed description of individual daily trajectories in Santiago in terms of access to the specific practices of going to work, analysing how the specific mobility barriers unveil inequality issues related to gender, household responsibilities, income, technology, time and flexibility.

Access to practices, relations and places

The literature on mobility, mainly from transport studies in Europe and the USA provides various measures for accessibility (Miller 1999, Baradaran and Ramjerdi 2001, Hine and Mitchell 2001, Kenyon et al. 2002, Hine and Grieco 2003, Kenyon et al. 2003, Miller 2005a, 2005b, Kenyon 2006, Miller 2006). As such, it is seen as the most 'prevailing measure used by planners and politicians to bolster their everyday propositions' (Baradaran and Ramjerdi 2001: 32). Although most authors agree that there is no universally acknowledged measure of accessibility, and it is often understood in a straightforward way as connectivity either from the supply side or the demand side, Miller (1999) classifies three types of approaches:

2 Kenyon et al. (2002, 2003) suggest nine dimensions of social exclusion that influence lack of mobility: economic, living space, mobility, organized political, personal, personal political, social networks, societal and temporal.

(i) constraints-oriented approach,³ (ii) attraction accessibility measures⁴ and (iii) transport benefits, usually seen as utility maximization⁵ measures.⁶ Most transport models use the latter, calculated in terms of cost benefit, using data intensive models, and measuring it in monetary units of cost. However, according to Axhausen et al. (2002), recent research into the processes by which travellers allocate their time has clearly revealed that this most widely used paradigm, utility maximization, is incomplete in its lack of understanding of the rhythms, routines and habits that make up daily life.

Within the area of transport, travel behaviour research has greatly advanced since Hansons' work (Hanson and Hanson 1980, 1981) which clearly linked travel behaviour with daily travel activity and conceptualized travel as more complex than simple moving from A to B. As suggested by Law (1999), a considerable amount of work has been carried out to explain the relation between travel and gender inequality⁷ as well as disability and transport. Today, the analysis of accessibility is developed mainly through quantitative data, modelling daily life and mobility (Axhausen et al. 2002, Kwan et al. 2003, Kwan and Lee 2003, Miller 2005a, 2005b, 2006, Ohnmacht 2006) using mostly the gravity and opportunities approach based on spatial opportunities available to travellers. Although these analyses are necessary and useful to understand aggregate patterns of travel behaviour, they still lack the understanding of the specificity of the experience of travelling for many groups of people, how it impacts their access to urban benefits and how this practice relates to other aspects of urban living. Therefore, travel behaviour studies would be significantly enhanced if complemented with more detailed research that explored the experiences of daily mobility.

Within the broader social policies literature, accessibility is becoming a key issue in the discussion of inequality and exclusion (Church et al. 2000, Baradaran and Ramjerdi 2001, Hine and Grieco 2003, Kenyon et al. 2003, Lyons 2003, Schönfelder and Axhausen 2003, Cass et al. 2005, Miller 2006). Specifically in the UK, the Social Exclusion Unit (SEU 2003) has defined it as the way people access key services at reasonable cost, in reasonable time and with reasonable ease. Thus accessibility analysis involves not just approaching transport but also the location and delivery of key activities. In this type of analysis, adequate access

3 Based on Hågerstrand (1970) time and space constraints.

4 Based on spatial opportunities available to travellers (Baradaran and Ramjerdi 2001) also known as the gravity and opportunity approach.

5 Based on travel demand modelling, it depends on the groups of alternatives being evaluated and the individual (Baradaran and Ramjerdi 2001) and is measured in monetary units.

6 Baradaran and Ramjerdi (2001) complement these with travel cost (ease with which any land-use activity can be reached from a location using a particular transport system) and composite approaches (which Miller (1999) presents as a composition of constraints and utility based).

7 For a detailed evolution of the study of transport and gender in Western societies see Law (1999).

would involve knowledge of transport as well as the experience of it, trust in its reliability, and having physical and financial access to it.⁸

This way of looking at accessibility has become extremely useful to acknowledge mobility implications of social exclusion, yet it presents some problems, as it is presented as a somewhat top down approach with little consideration of actual practices individuals carry out daily or the way people use mobility for purposes other than transport. Furthermore, it says little about the way people access the network of relations they have, as suggested by Cass et al. (2005). For this, Hine and Grieco (2003) suggest distinguishing between direct and indirect accessibility, where the first refers to 'ability of individuals to plan and undertake journeys by public or private modes subject to time budget and cost' (Hine and Grieco 2003: 300), whereas the second refers to 'the extent to which individuals or groups can rely on neighbours or other support networks to access goods and facilities on their behalf subject to time and financial budgets' (Hine and Grieco 2003: 300). This implies that, a transport-only approach limits the comprehension of inequality in mobility experiences.⁹

Consequently, accessibility analysis here is based on Cass et al.'s approach to access as 'the ability to negotiate space and time to accomplish practices and maintain relations that people take to be necessary for normal social participation' (Cass et al. 2005: 543). The relevant aspect of this definition is negotiation, as it is in the daily intersections in timespace that connection and disconnection are more likely to take place, become a problem or an opportunity and manifest existing inequalities. For this research, however, this definition is expanded to include the way in which individuals and groups negotiate access to practices, relations and places. Place has been added given the importance of mobile place making (Jirón 2010a). Thus access to mobile places becomes an important aspect in urban inequality under the mobility lens, and this, along with access to relations.

In the process of negotiating access, the various ways in which it may be restricted, – for instance by social, physical, economic, or even environmental limitations – indicate that inaccessibility may be related to uneven location of infrastructure or inadequate public transport systems.¹⁰ However, uneven access

8 SEU report Transport and Social Exclusion (February 2003) led to Accessibility Planning becoming embedded in the work of Local Authorities. Accessibility Planning seeks to ensure that there is a clear and more systematic process for identifying and tackling barriers that people face in accessing jobs and key services such as education and healthcare (SETF 2007).

9 Kenyon et al.'s (2003) work is relevant in highlighting the need to look at mobility from a broader point of view to include virtual mobility and not just physical one, i.e. transport.

10 Existing infrastructure affecting frequency, quality and availability of public transport could be seen as a physical boundary inhibiting mobility. During this research, some of the problems detected in Santiago's public transport system included overcrowded, unsafe, insecure and unreliable buses, inconvenient routes, unsafe bus stops, rude drivers,

may also stem from factors such as existing uneven gender relations within the household or society, or cultural barriers that prevent different groups from mixing or encountering each other, amongst others. This implies that social differences such as gender, age, income, ability, religion or ethnicity, may generate differentiated experiences of mobility, which could lead to restricted accessibility. Thus, improving accessibility involves thinking about factors beyond the elimination of physical barriers or the creation of infrastructure, services or housing, as perhaps more transport may have perverse consequences for social exclusion (Shove 2002). It also refers to the need to observe the capacity and possibility of making use of such opportunities in terms of motility.¹¹ Therefore, in this research, both aspects of mobility barriers are relevant: the persons' motility and the existing structures that constrain or enable mobility.

Time geography pioneered in the 1970s and introduced the indissoluble link between time and space. In his elaboration of time space mapping, Hägerstrand (1970) developed the two major constraints to accessibility: time and space, through three types of time space constraints: coupling, capability and authority constraints.¹² However, time and space do not capture fully the complexity of the barriers present in mobility. Church et al. (2000) identified seven dimensions that act as barriers to accessibility: physical, geographical, activities and facilities, economic, time, fear and space. In turn, Cass et al. (2005) have synthesized these into four key dimensions of access: financial, physical, organizational and temporal. Law (1999) also presents skills and technology as mobility barriers.

For this research, accessibility to practices, relations and places is observed according to financial, physical, organizational, temporal, skills and technological barriers. Financial barriers affecting mobility may involve, for instance, the cost of using different modes of transport; physical dimensions may relate to the distance travelled but also the physical aspect or condition of spaces encountered, including roads, sidewalks, bus stops, buses, metros, platforms, bike paths, or and cost of public transport. Many of these issues were part of the diagnosis used to implement a major transformation of Santiago's transport system: Transantiago. The new transport system was in its pilot phase during the time the research was conducted and was implemented fully in February 2007. Although public transport in Santiago has changed since fieldwork was undertaken, many of these mobility issues persist and, in many cases, have been exacerbated.

11 Motility refers to the process in which 'an individual or group takes possession of the realm of possibilities for mobility and build on it to develop personal projects not necessarily transforming it to travel' (Flamm et al. 2006: 168).

12 Coupling constraints define where, when, and for how long individuals can join other individuals, tools and materials in order to produce, consume and transact; capability constraints are those which limit the activities of individuals due to physical (distance) or biological (sleeping, eating) factors; authority constraints refer to a domain or control area where things and events are under the control of certain individuals or groups that set limits on access (requiring payment, invitation, ceremony, fight). These three aggregations of constraints interact (Hägerstrand 1970).

parks, amongst others. Organizational restrictions deal with the multiple activities people carry out on a regular basis in order to coordinate daily living, including shopping, attending health facilities, paying bills, accessing work, etc. Temporal dimensions involve looking at the way day, night, seasons, opening hours, and duration of trips affect mobility decisions. Skills refer to the capacities people have to be able to move in specific ways, for instance knowing how to drive or having a drivers licence, knowing how to change tyres, knowing how to cycle or being able to fix a bicycle, being able and feeling comfortable about riding a motorbike. Technological barriers involve the possibility, capability to use and availability of technology to enhance or facilitate journeys or substitute the need for physical travel, including the Internet or mobile phones. Each of these barriers is altered when looked through individual and group socio cultural conditions, including gender, age, stage of lifecycle, ability or ethnicity.

Sociocultural characteristics are seen as an additional barrier that influence all the above-mentioned mobility barriers and greatly impact the differentiated way mobility is experienced. This set of barriers is presented in Figure 8.1. Inequality in Mobility Framework, to analyse mobility practices, where, for instance, access to travel might be physically impaired if bus stops are not located in convenient sites, but this complication is enhanced for the elderly who have extra difficulty walking, causing them to minimize their use or stop using the specific mode of transport. Similarly, transport availability at specific times may be an issue for most travellers, but as a barrier it becomes particularly difficult when women fear for their own security when travelling alone at night.

Accessibility in itself is neither good nor bad; its evaluation depends on the implications it has on everyday life. Unevenness in accessibility becomes a problem when it is not voluntary, when people lack alternatives, when it is mandatory, when the only options are to remain disconnected or perpetuate unwanted connections. It becomes a problem when greater possession of capitals provides greater disproportionate access, or when structures in society enhance differences, leaving people outside of the benefits of society. Analysing accessibility and how it may lead to involuntary connection or disconnection and uneven social relations within the practice of mobility involves looking at the strategies people use to access and overcome existing barriers. In the strategies for coping, challenging,

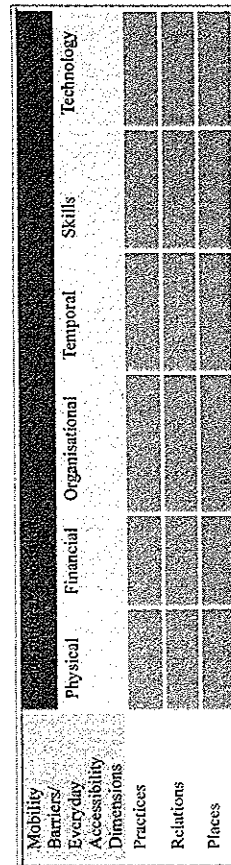


Figure 8.1 Inequality in mobility framework

defying or transgressing existing accessibility barriers, the difficulties households and individuals face are envisaged, but also in these strategies the possibility to negotiate, encounter, exchange or create something completely new can be found. Although many strategies are individual, more often than not, they have household implications, particularly in terms of routine organization or use of time, and they often involve third parties like friends or family. Strategies here will be understood as the set of practices that are implemented to improve or maintain access to timespace, while keeping or improving the volume of capital.

These practices have specific implications in terms of uneven experiences of mobility, where at times socio-cultural conditions are in themselves the major barrier generating such unevenness, while other times uneven access can be attributed to physical, financial, temporal, organizational, technical or skill boundaries that impact different groups in uneven manners. People devise multiple strategies to enable mobility, and perhaps immobility is not the main problem for many, but rather the hardships experienced during mobility practices and the meaning given to these experiences.

The following sections present the results from an ethnographic study carried out in Santiago de Chile, where participants were shadowed during their daily mobility routines.¹³ The first section compares the experiences of two men with different mobility issues which impact on their sense being confined. The next section presents a different type of experience, by young people on the move. Both cases provide insights on the way mobile place confinement and enlargement occur in cities like Santiago today and the possibilities of shifting them.

Roberto and Francisco

Education is a barrier for many urban workers, for some it implies making important sacrifices in terms of the distances travelled and the time spent at work. For other, their limited access to education and home responsibilities only allow them to access certain types of jobs with certain characteristics as will be seen through the cases of Roberto and Francisco.

Roberto

Roberto is 42 years old, married to Cecilia and together they live in an upper-middle-class neighbourhood. At the age of 25 he married and soon after separated. Unlike his wife Cecilia, Roberto never went to University, he is an accountant by trade and his limited access to education greatly hinders his chances of more stable job and better salary. He makes half as much as his wife for child maintenance,

13 The research compared mobility practices of residents living in three different income neighbourhoods located relatively close to one another. For a further detail on the methodology used see Jirón 2007a, 2007b, 2008 and 2010a, 2010b.

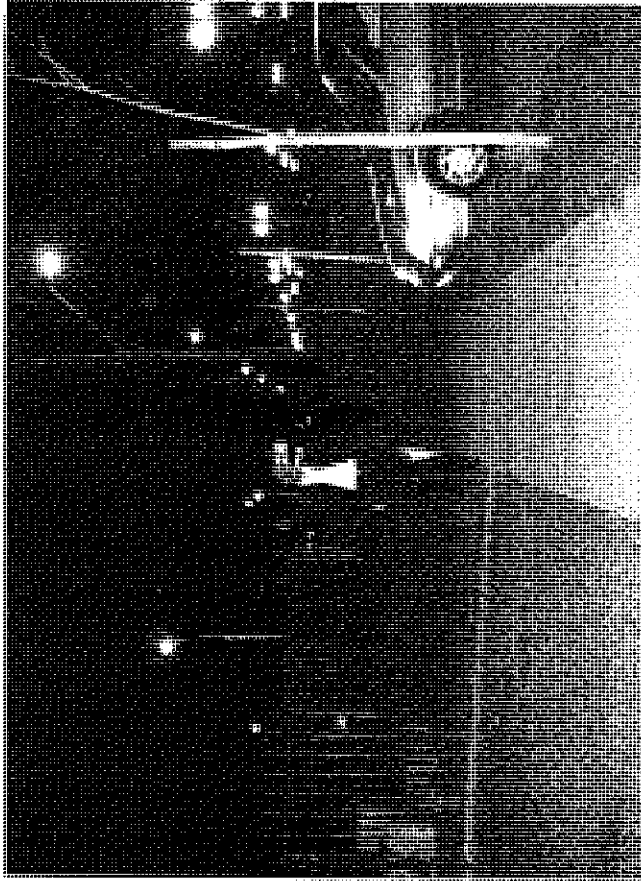


Figure 8.2 Roberto walks to *colectivo* stop

out of which he gives about a third to his ex-wife. In his current job, he acts as the accountant and hopes that after five years there he will be able to get a better job as a proper accountant. He is not overly excited about his job and he works very long hours, including Saturdays. Cecilia demands more time and motivates him to study, but his daily routine does not really allow it. He works in the other side of the city, on the West, close to the airport. The couple only have one car which she uses to get to work, they cannot afford a second one for now. With the newly built highway, this trip would take him about 25 minutes with normal traffic but with the *colectivo*¹⁴/metro/bus ride, it takes him two hours.

His journey starts at 6.40a.m. when he leaves his house walking towards the *colectivo* stand (see Figure 8.2). At this time the queue is short, so he is soon on his way. The drive to Mirador Station is quick and by 7.00a.m. he's already on the metro. By 7.20a.m., after 10 stops he changes line on Baquedano Station, towards the west for 13 stops, rush hour is just starting, so the platforms and wagons are fuller, particularly with people going downtown (see Figure 8.3, Roberto inside the Metro). By 8.00a.m. he's at his final Metro Stop in Pajaritos. While he waits for the bus that will take him to his job, he buys breakfast. At 8.10a.m., the bus which takes him to ENEA, an industrial centre next to the airport, where mainly

14 A fixed rate shared taxi.



Figure 8.3 Roberto inside the Metro

offices and warehouses are located, and by 8.40a.m. he is in his office, and can have breakfast before everyone else arrives. After 9.00a.m. the buses towards and from ENEA reduce their frequency, so there is limited chances of leaving the area unless by car, and the surrounding area is bare and under construction (Figure 8.4, Roberto waits at the bus stop). At 7.30p.m. he is ready to leave his work and walks to the bus stop where other employees from various companies are already waiting. He repeats the same journey back, gets back to the Metro which is still very full, changes at Baquedano, and takes the metro until Mirador Station where he queues for his *colectivo* and gets off a few blocks away from home. By the time he gets home at 9.30p.m., his wife is already there, waiting and ready to warm up some food for him. He gets ready for the next day.

The trips Roberto makes during the day make it difficult for him to actually encounter other people, although the distance travelled is far and the *colectivos* and metro is full, his mind drifts away and is immersed in self reflection, he constantly looks outside, at times enjoying the ride but mostly wishing to be elsewhere. His strategy is along the lines of putting up with the job he has and the travelling situation for the next five years, he is therefore immobile in his mobility.

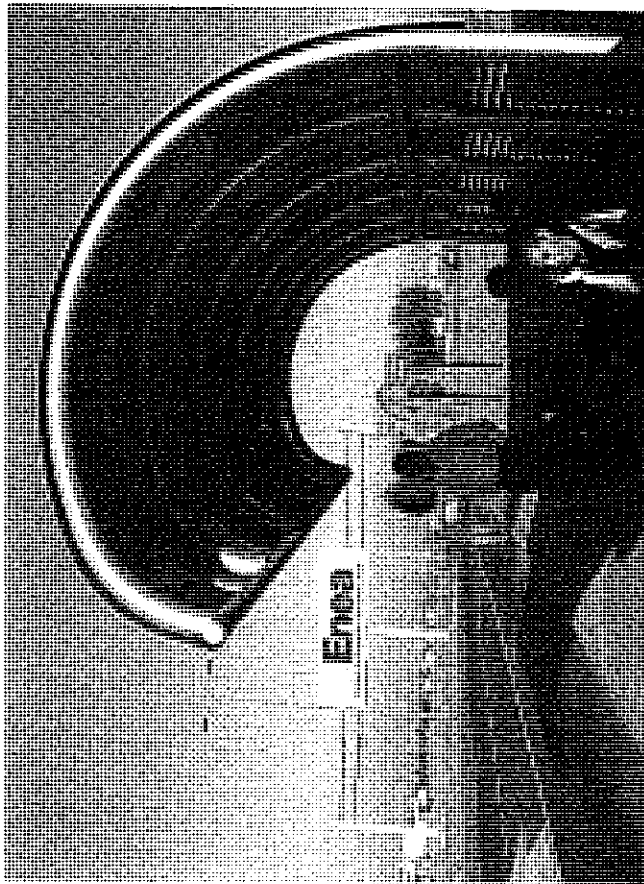


Figure 8.4 Roberto waits at the bus stop

Francisco

Francisco is 42, married to Alejandra and lives in Santa Teresa, a low-income neighbourhood. They have two children, Sandra and Sergio who are 18 and six respectively. They both come from the Concepcion area in the South of Chile, and have been in Santiago for more than 20 years each. He did not finish high school and does not have any technical training. Upon arriving to Santiago he moved around in various jobs, including butcher shops, supermarkets and construction sites and has now been working as a security guard at a very high income gated community close by. He chose this job because his son Sergio has a learning disability, therefore he needs to go to the doctor often, although he goes to school for a few hours a day, he needs constant attention. Francisco works on the night shift and takes care of his son during the day. He says he makes less money than in other jobs he could have, but then he would have to pay for someone to take care of Sergio and the boy would not receive his personalized attention.

He works five nights from 10.00p.m. until 8.00a.m. for 5 days then he gets two days off. Prior to going to work he prepares his lunch box, which usually involves left over dinner, a few sandwiches and a thermos of tea. His route is short, takes him about 20 minutes through the park, a football field, some empty lots, a shanty town and then formal housing (see Figure 8.5) The gated community he works at

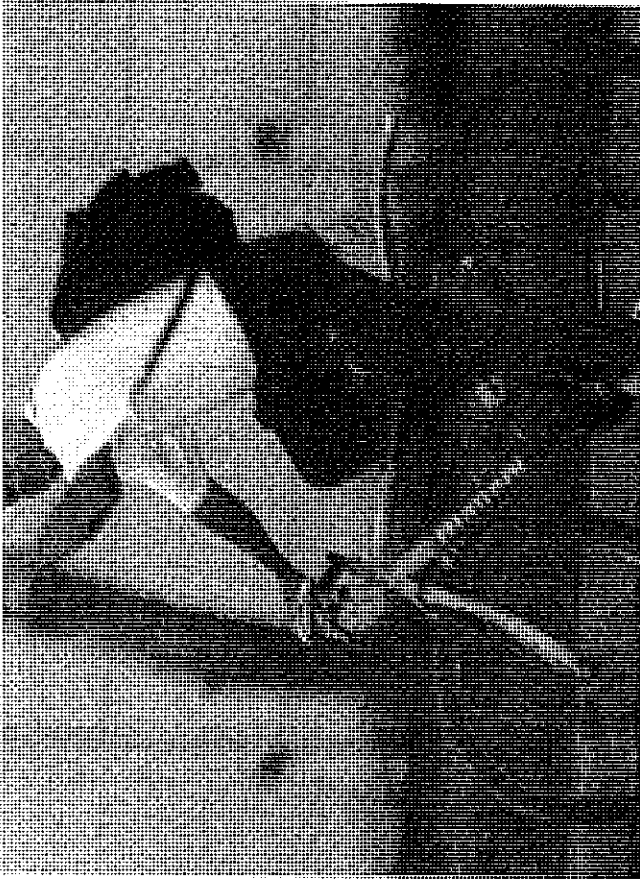


Figure 8.5 Francisco rides bicycle to work

covers a large area; it can be entered from one street and exited on the next. When he comes back in the morning he sleeps until around 11.00a.m., prepares Sergio, feeds him, makes him do his homework and takes him to school at 2.00p.m. on his bicycle to a school relatively close by, about a 20 minutes ride (Figure 8.6). When he comes back he tries to sleep again from 3.00p.m. to 5.00p.m. when he has to go on the bicycle to pick up Sergio who gets out at 5.30p.m. He then prepares his tea time, waters the garden, cleans the house (Figure 8.7) until his wife Alejandra gets home around 7.30p.m., and he goes back to sleep until about 9.30p.m. when he gets ready for work again.

He says he likes riding the bicycle, but it tires him out too taking him there and back, it's two trips plus his weight, 'sometimes I go to the 14th, or the street market on the bicycle, it's tiring ... But I don't take buses or *colectivos*, unless it's necessary ... It's cold at times riding, but I don't really have much choice because I don't have buses going there, I would have to take a *colectivo*, but they are not available at night. So I would have to walk and it could take me over an hour' (Francisco).

His routine is tiring he says, 'it's like I do two shifts, because in the morning I have to watch Sergio, take him to school' (Francisco). This pace is exhausting, and the lack of sleep and physical hardship raises questions about the sustainability of this practice, as Sergio gets bigger and Francisco older.

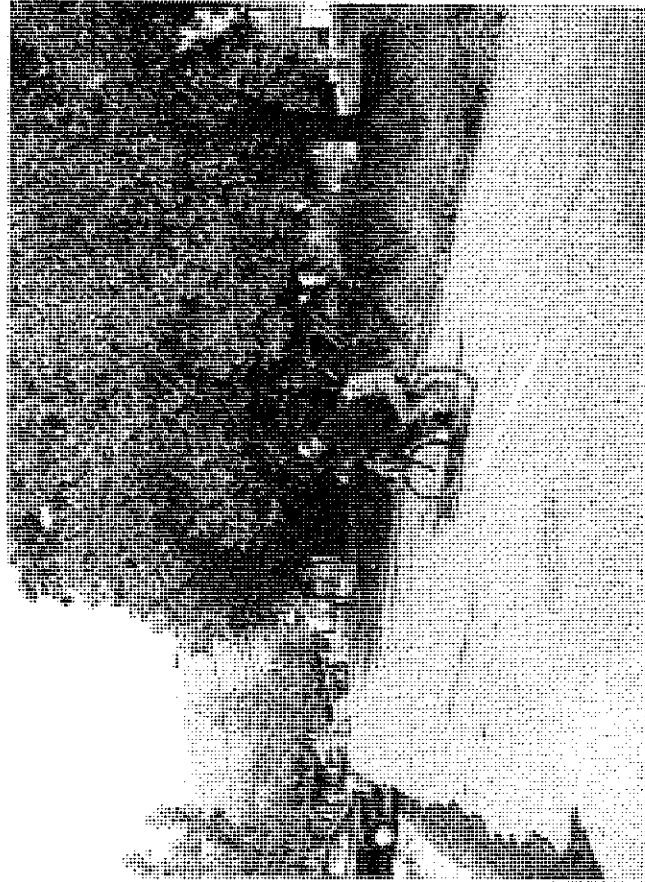


Figure 8.6 Francisco takes Sergio to school

The strategy Francisco's family uses for coping with their child who needs a lot of attention is having one of the parents constantly with him. Alejandra also works cleaning a house close to where he lives, but walking is too far and dangerous for her, so she takes a *colectivo*. She chose to work here as a strategy to be close to home in case of an emergency. The area where she works is very dangerous at night, so she tries coming home early, but it is not always easy. The rigidity of Francisco's job (fixed hours of required presence at night) and Alejandra's daily job, allows this household to be able to take turns taking care of their child. Any other situation would require them to pay for a service that they cannot easily afford. This also allows Francisco to be able to drop him off at school everyday, talk to the teachers, and take him to the doctors as often as is required.

In Roberto's case, he does not have the education level to get a better job, or to the salary to buy himself a car which would make his journey easier, therefore he has to work for long hours in a very distant job, which he does not really enjoy and spends approximately four hours of his day travelling. His possibilities for improving his situation, getting better skills, could be through studying, but given the way night courses work, the times and distances he is required to travel would not allow him to do it and it would be practically impossible given his Saturday shifts. This would also mean even later arrival at home. His strategy is sticking it out for five more years. Roberto is completely disconnected from any possibility



Figure 8.7 Francisco at home

available in the city, since they moved to the new house, he has not been able to enjoy it very much, they do not go out, he barely has time for shopping, or going to *la feria*¹⁵ as he used to, or improving his abilities.

Both men are confined in their mobility experiences. Although one crosses the city daily he is confined on the *colectivo*/metro/bus ride, he looks out the window, but real possibilities of accessing new places are limited. Francisco has to limit the distance travelled in order to make it with his bicycle and be able to carry his son around; he also forgoes a possible better job, in order to be accessible to his child. He is confined within a limited area in the city.

Catalina and Rodrigo

Wanting to do better in life is a shared aspiration amongst those interviewed with children. When asked about what they aspire to in the future, most parents mention their children's success: 'that they become more than me' (Ana). Although the road to a better future is difficult for all, regardless of income, the difficulty of

accessing opportunities vary among various income groups, particularly for the young but also in terms of gender.

Catalina

Catalina is 19; she managed to get a bank loan to go to university to study design, with her father as a bank guarantor. To get the loan she had to push her parents to formalize their separation as her mother had high levels of debt that didn't allow

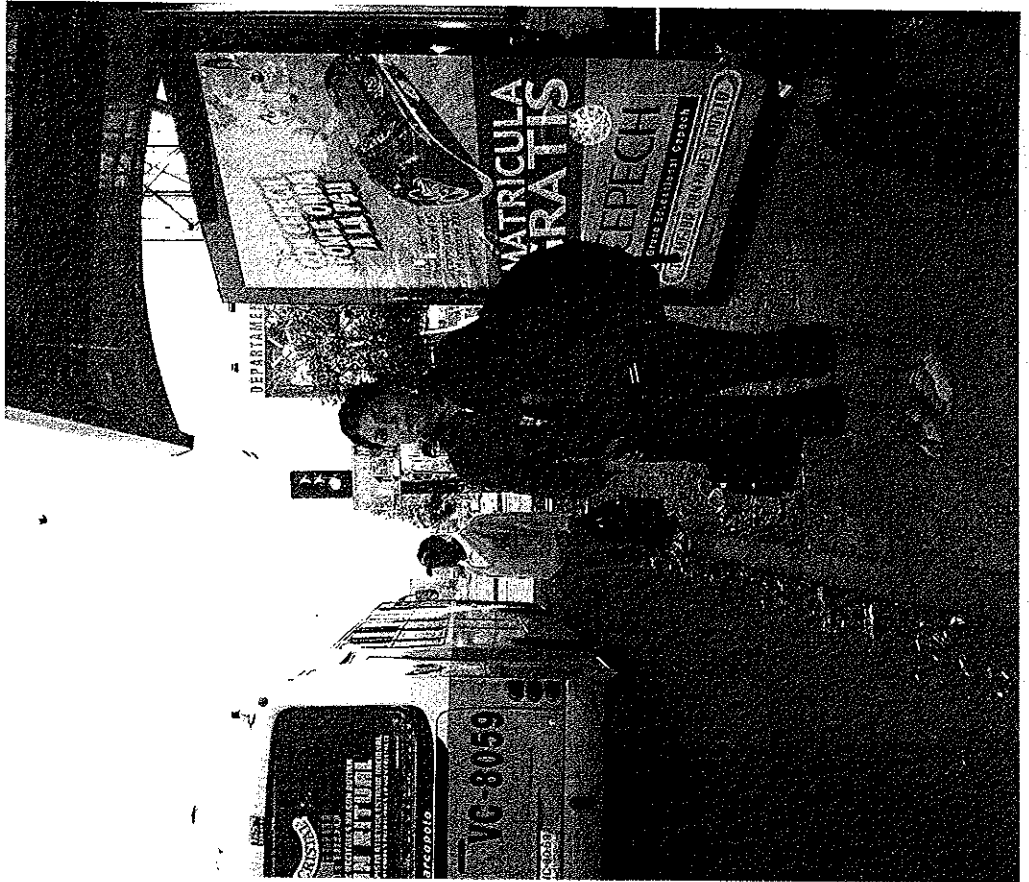


Figure 8.8 Catalina waits at the bus stop



Figure 8.9 Catalina inside the bus

her to become subject of credit. She knows she is having the opportunity of her lifetime, and she's making the best of it. Every evening, before going to bed, she prepares her bags for the next day, which starts around 8.00a.m. She walks for about 20 minutes to catch the bus (Figure 8.8), this is the fastest and most direct route she has found as she noticed that 'the earlier I get up, the later I arrive,

because of traffic and the queues' She also saves money, as she only pays \$240¹⁶ daily on the bus. She struggles on the bus, as many go by before she can actually catch one. Bus drivers don't like students; they pay for half price and take up more room with their big bags. Hers is no exception, and she feels uncomfortable with it, but has to take her materials to school. The ride to school lasts about half an hour, all of it standing and balancing along the way, getting pushed, shoved, squished, fondled, stepped on, stared and yelled at (Figure 8.9). By the time she gets off, she's exhausted. But going there is not half as bad as coming back, the same pushing and shoving, but the experience worsens as she tries to get off, the bus driver does not stop for her, and she has to get off two stops later, after getting through the mass of people, mostly men that take the opportunity to touch her as she squeezes through. She feels embarrassed, scared and frustrated. She then walks home, the walk is up hill, but she takes the same amount of time because she walks fast, it is dark already and the streets are scary for her, she is terrified of stray dogs, and they are all over. She gets home around 7.00p.m. She carries out this routine three times a week, the rest of the time she stays home studying.

She will have to develop strategies to deal with this discomfort, either travelling at different times, with friends or using different modes, but not all these options are suitable for her schedule or budget. She then would either have to limit her places of circulation or become more aggressive in her travel behaviour.

Rodrigo

Rodrigo is also 19, and wants to be a builder to have better opportunities in life. His father Bernardo works in a printing shop and his mother stays at home, occasionally sewing clothes for others, so they cannot help him out with money, but he works in a construction site as a plot outliner and parallel to this he studies at night in an institute downtown. His days start at 6.45a.m. and he walks to work, for about half an hour. He works there until 6.00p.m. but has to make it to the Institute by 7.20p.m. He quickly showers and sets off. He takes a *colectivo* to the Metro that takes him downtown. All in all, it takes him over an hour to get there. The ride is difficult as at that time, traffic going to the Metro is heavy and the Metro itself is full. The hardest moments are when he has to change lines. He arrives a few minutes late, but others do as well.

Classes finish at 10.30p.m., and he does not always make it to the Metro before it shuts down, so he has to take a bus back. The bus does not come often, but at least it is only one bus. By the time he catches it, it is after 11.00p.m., and by the time he gets home, it is after midnight. Daily he spends about \$1,500.¹⁷ He is exhausted and his mother leaves food on the table for him. He eats and goes to sleep, to get up at 6.45a.m. again, and repeat the same routine five days a week.

¹⁶ Approximately 24p.

¹⁷ Approximately £1.50.

Both mobility experiences are difficult, not only because the public transport system is not adequate to the needs of students or less to those working and studying but also due to gender differences. Catalina finds it very difficult travelling on the bus, because of the treatment from the driver and other passengers but also because she does not feel safe travelling on her own. Unlike Rodrigo, she would never travel at night, scared of being mugged or harassed. She is making it work for her though, and she understands that soon she will have to become more aggressive in her behaviour on the bus. Rodrigo feels no threat and travelling at midnight is not a problem for him, whereas Catalina feels unsafe at night and in general, prefers not going out at night. Rodrigo does not see a way out soon, it is only two years he says; his only concern is whether his girlfriend will understand that he does not have time for her. His mobility possibilities are expanding, both physically and educationally.

Conclusions

Issues of access to the benefits being produced by societies such as the Chilean one, require bearing in mind how people use the city instead of imposing ways of using it. The details of the experiences of differentiated mobility in the city are not well known or researched yet, and even less incorporated into urban, transport or housing policy, yet these have daily consequences on people's lives. The differentiated experience of mobility can shed light, first of all, on the need for a better transport system in terms of being affordable, available, accessible, acceptable, comfortable, and safe. It can also lead to better connected infrastructure, improved housing interventions, but also the need to improve access to better working conditions, educational and health services, cultural activities, use of leisure time, and the recognition of the informal economy in operation.

The issues presented in this chapter need to be dealt with within broader social policies than transport ones, and in this context, transport policy must be integrated to social policy. Although public transport accessibility will undoubtedly improve mobility inequalities experienced by some groups and individuals, these inequalities need to be looked at more explicitly. This is because although they are transport-related they are also linked to other areas of daily living including employment, recreation, childcare, household relations, amongst others.

References

- Axhausen, K.W., Zimmermann, A., Schönfelder, S., Rindfuser, G. and Haupt, T. 2002. Observing the rhythms of daily life: a six-week travel diary. *Transportation*, 29(2), 95-124.
- Baradaran, S. and Ramjerdi, F. 2001. Performance of accessibility measures in Europe. *Journal of Transportation and Statistics*, September/December, 31-48.

- Cass, N., Shove, E. and Urry, J. 2005. Social exclusion, mobility and access. *The Sociological Review*, 53(3), 539–55.
- Church, A., Frost, M. and Sullivan, K. 2000. Transport and social exclusion in London. *Transport Policy*, 7(3), 195–205.
- Flamm, M. and Kaufmann, V. 2006. Operationalising the concept of motility: a qualitative study. *Mobilities*, 1(2), 167–89.
- Hägerstrand, T. 1970. What about people in regional science? *Papers in Regional Science*, 24(1), 6–21.
- Hanson, S. and Hanson, P. 1980. Gender and urban activity patterns in Uppsala, Sweden. *Geographical Review*, 70(3), 291–9.
- Hanson, S. and Hanson, P. 1981. The travel-activity patterns of urban residents: dimension and relationships to sociodemographic characteristics. *Economic Geography*, 57(4), 332–47.
- Hine, J. and Grieco, M. 2003. Scatters and clusters in time and space: implications for delivering integrated and inclusive transport. *Transport Policy*, 10, 299–306.
- Hine, J. and Mitchell, F. 2001. Better for everyone? Travel experiences and transport exclusion. *Urban Studies*, 38(2), 319–32.
- Jirón, P. 2007a. Unravelling invisible inequalities in the city through urban daily mobility. The case of Santiago de Chile. *Swiss Journal of Sociology*, 33(1) Special Issue on Space, Mobility and Inequality, 45–68.
- Jirón, P. 2007b. Place making in the context of urban daily mobility practices: actualising time space mapping as a useful methodological tool, in *Sensi/able Spaces – Space, Art and the Environment*, edited by E. Huijibens. Cambridge: Cambridge Scholars Press.
- Jirón, P. 2008. Mobility on the move: examining urban daily mobility practices in Santiago de Chile. London: London School of Economics and Political Science, Department of Geography and Environment. PhD in Urban and Regional Planning, 385.
- Jirón, P. 2010a. Repetition and difference: rhythms and mobile place-making in Santiago de Chile, in *Geographies of Rhythm, Nature, Place, Mobilities and Bodies*, edited by T. Edensor. London: Ashgate, 129–43.
- Jirón, P. 2010b. On becoming la sombra/the shadow, in *Mobile Methods*, edited by M. Büscher, J. Urry and K. Witchger. London: Routledge, 67–99.
- Kenyon, S. 2006a. The 'accessibility diary': discussing a new methodological approach to understand the impact of Internet use upon personal travel and activity participation. *Journal of Transport Geography*, 14, 123–34.
- Kenyon, S. 2006b. Reshaping patterns of mobility and exclusion? The impact of virtual mobility upon accessibility, mobility and social exclusion, in *Mobile Technologies of the City*, edited by M. Sheller and J. Urry. Abingdon: Routledge, 102–20.
- Kenyon, S., Lyons, G. and Rafferty, J. 2002. Transport and social exclusion: investigating the possibility of promoting inclusion through virtual mobility. *Journal of Transport Geography*, 10(3), 207–19.

- Kenyon, S., Lyons, G. and Rafferty, J. 2003. Social exclusion and transport in the UK: a role for virtual accessibility in the alleviation of mobility-related social exclusion. *Journal of Social Policy*, 32(3), 317–38.
- Kwan, M.P., Janelle, D.G. and Goodchild, M.F. 2003. Accessibility in space and time: a theme in spatiality integrated social science. *Journal of Geographical Systems*, 5(1), 1–4.
- Kwan, M.P. and Lee, J. 2003. Geovisualization of human activity patterns using 3D GIS: a time-geographic approach, in *Spatially Integrated Social Science: Examples in Best Practice*, edited by M.F. Goodchild and D.G. Janelle. New York: Oxford University Press.
- Law, R. 1999. Beyond 'women and transport': towards new geographies of gender and daily mobility. *Progress in Human Geography*, 23(4), 567–88.
- Lyons, G. 2003. The introduction of social exclusion into the field of travel behaviour. *Transport Policy*, 10(4), 339–42.
- Miller, H.J. 1999. Measuring space-time accessibility benefits within transportation networks: basic theory and computational procedures. *Geographical Analysis*, 31, 187–212.
- Miller, H.J. 2005a. A measurement theory for time geography. *Geographical Analysis*, 37(1), 17–45.
- Miller, H.J. 2005b. Place-based versus people-based accessibility, in *Access to Destinations*, edited by D. Levinson and K.J. Krizek. Oxford: Elsevier, 63–89.
- Miller, H.J. 2006. Social exclusion in space and time, in *Moving through Nets: The Physical and Social Dimensions of Travel. Selected Papers from the 10th International Conference of Travel Behaviour Research*, edited by K.W. Axhausen. London: Elsevier, 353–80.
- Ohnmacht, T. 2006. Mapping Social Networks in Time and Space. *Arbeitsberichte Verkehr und Raumplanung*. Zurich: IVT, ETH Zurich, 33.
- Schönfelder, S. and Axhausen, K.W. 2003. Activity spaces: measures of social exclusion? *Transport Policy*, 10(4), 273–86.
- SETF. 2007. Context for social exclusion work. [online] Available at: http://www.cabinetoffice.gov.uk/social_exclusion_task_force/context/ [accessed: 7 August 2008].
- Shove, E. 2002. Rushing around: coordination, mobility and inequality. *ESRC Mobile Network Meeting*, London, October.