



Exploring Social Mobilities: Narratives of Walking and Driving in Auckland, New Zealand

Author(s): Catherine E. Bean, Robin Kearns and Damian Collins

Source: *Urban Studies*, DECEMBER 2008, Vol. 45, No. 13 (DECEMBER 2008), pp. 2829-2848

Published by: Sage Publications, Ltd.

Stable URL: <https://www.jstor.org/stable/43198411>

REFERENCES

Linked references are available on JSTOR for this article:

https://www.jstor.org/stable/43198411?seq=1&cid=pdf-reference#references_tab_contents

You may need to log in to JSTOR to access the linked references.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



Sage Publications, Ltd. is collaborating with JSTOR to digitize, preserve and extend access to *Urban Studies*

JSTOR

Exploring Social Mobilities: Narratives of Walking and Driving in Auckland, New Zealand

Catherine E. Bean, Robin Kearns and Damian Collins

[Paper first received, August 2006; in final form, November 2007]

Abstract

Recent studies have discussed the important role of the automobile in shaping contemporary urban social life. This research used a series of focus groups in Auckland, New Zealand, to illuminate the complex social attitudes and values associated with walking as well as driving. While the car is the dominant transport mode in Auckland, the shortcomings as well as the benefits of automobile use and dependence are well known. Moreover, while walking is often difficult in this urban environment, it continues to be perceived as a potentially useful and appropriate means of transport, and as an important and valued social practice. The paper's findings suggest that the positive perceptions of walking, as a facilitator of health and social life, could be built upon by policy-makers to encourage a greater use of this active form of travel.

Introduction

As the most basic form of mobility, walking has become increasingly marginalised in many Western cities as traffic congestion and automobile-oriented design have driven walkers from the streets (Frank *et al.*, 2004; Giles-Corti and Donovan, 2003; Saelens *et al.*, 2003). This situation exacerbates reliance on the private motor vehicle for everyday activities. Yet there is growing concern about the unsustainability of urban

environments and a related acknowledgement of the need to reduce vehicle dependence and encourage active travel, which most obviously encompasses walking but also includes cycling.

Various social problems are attributed to increased automobile dependency in cities, including social exclusion for those without access to a car, and a loss of community and street life (Hine and Mitchell, 2003; Sheller, 2004; Sheller and Urry, 2000; Southworth, 2003). These problems are accompanied by

Catherine E. Bean and **Robin Kearns** are in the School of Geography, Geology and Environmental Science, The University of Auckland, Private Bag 92019, Auckland, 1001, New Zealand. E-mails: r.kearns@auckland.ac.nz, cathybean@yahoo.co.nz.

Damian Collins is in the Department of Earth and Atmospheric Sciences, University of Alberta, Edmonton, Alberta, Canada. E-mail: damian.collins@ualberta.ca.

0042-0980 Print/1360-063X Online
© 2008 Urban Studies Journal Limited
DOI: 10.1177/0042098008098208

public health concerns such as automobile accidents (Feyer and Langley, 2000; Tobias and Turley, 2005) and the disease burden associated with declining physical activity and increasing obesity (for example, Mackett *et al.*, 2005). It is generally agreed that, if our cities are to have improved environmental and social conditions, a larger proportion of local travel needs to take the form of walking and cycling.

This said, car use is now fundamentally embedded in everyday social relations and brings with it many benefits. By way of example, Maxwell (2001) has shown that the use of a car can be an expression of help, care or love for others. More generally, cars are associated with 'enjoying' a social life, promising the ability to travel (almost) anywhere, at any time. The social importance and value of the car stem, in large part, from auto-oriented urban design and the associated dispersion of land uses, which frequently make car ownership and use necessary, or at least strongly beneficial.

Recognition of the environmental and social costs of car use have prompted efforts to reform land use patterns in order to make urban environments less car dependent and more oriented towards walking, cycling and public transit. These efforts include the new urbanism, compact city, smart growth, transit-oriented development and urban villages movements, all of which promote some combination of concentrated development, interconnected streets, mixed land uses and proximity to public transport nodes. These approaches help to make walking a more viable travel option by decreasing distances between the origins and destinations of many trips (Southworth, 1997; Southworth and Ben-Joseph, 2003; Thompson-Fawcett and Bond, 2003). The integration of land use and transport planning is a key element in creating more sustainable cities. However, recent research has shown that while the issue of urban form is important, peoples'

perceptions and prevalent cultural norms may well be more crucial determinants of travel behaviour and neighbourhood sociability (McMillan, 2007; du Toit *et al.*, 2007).

Given this context, our concern centres on the socialities associated with two different forms of quotidian mobility—driving and walking. We note that the automobility literature emphasises the emergence of new sets of social activities and expectations in cities associated with growing dependence on the automobile. Yet pedestrians have not disappeared from city streets and particular forms of sociality continue to be associated with the act of walking. Importantly, the social perceptions and experiences associated with both forms of mobility are variegated, and even ambiguous. Specifically, then, the research we report on asks two questions: what social practices and beliefs accompany walking in our case study city of Auckland, New Zealand; and how do these practices and beliefs depart from, and interplay with, the socialities associated with automobility? Our interest in the social is focused, in particular, on the choices, activities and interactions associated with everyday household life, work, education and leisure.

Our paper aims to enrich the academic debate on urban mobilities in several ways. First, it extends the literature by examining the social effects that car dependence has had on walking as a form of mobility and social practice. Secondly, it takes seriously the socialities of walking itself. Thirdly, it seeks to flesh out the discussion of mobilities through reflection on how the contradictions associated with car use are understood and experienced by a range of individuals. While a growing body of literature investigates the social dimensions of car use, the social dimensions of other transport modes—and the ways these modes impact upon the everyday sociality of the city—have not been examined to the same extent. By way of example, writing on automobility has considered the ways in

which the car has changed the everyday sites, spatialities and socialities of parenting and caring for children (Dowling, 2000). Our research contributes to this tradition, while also emphasising that parenting is still conducted while walking. Indeed, walking can be perceived as an important part of the parent–child relationship.

Our focus on walking, as opposed to other alternatives to car use (specifically, cycling and public transport), reflects in part the particularities of Auckland (see the Context section). More generally, we note that, while walking has become marginalised in an automobilised urban world, there are multiple imperatives pointing to its continued relevance to considerations of urban transport issues. While all alternatives to motorised private transport may contribute to the causes of urban sustainability, physical activity and reduced traffic congestion, walking is distinguished by its extremely low cost and simplicity (for example, no knowledge of timetables is required) and by the simple notion that it is *possible* for a very broad spectrum of the population (including those too young, or infirm, to cycle). Moreover, a substantial literature on urban public spaces (reviewed later) points to the importance of pedestrians in contributing to the social life and vibrancy of cities. While cycling and riding public transport may also be accompanied by particular forms of sociality, they are not the focus of this study.

Traditionally, transport literature has been dominated by quantitative research, with many studies using techniques such as travel surveys or traffic volume data in order to understand travel behaviour. Qualitative studies examining the talk associated with transport modes are now appearing (for example, Guiver, 2007). We aim to contribute to emerging discussion by providing an examination of social experiences related to walking and driving in Auckland, where these are the two main transport modes. Specifically,

we reflect on the socialities and civilities of each, and on the connections between travel choices and embodied experiences of the urban, as well as sense of place in the city.

We investigate these themes using data derived from a series of focus groups conducted in mid 2005. This study sought to engage transport users in a discussion of Auckland's transport and its future, with the view that, if sustainable and active forms of mobility are to be promoted, then it is important to understand the experiences and social meanings of current transport modes. Because travel is socially informed, and also affected by the highly developed and nuanced social and cultural meanings attached to different modes, an understanding of these meanings is relevant to the study of transport and, in particular, travel behaviour change.

In the remainder of the paper, we survey the connections between the social experiences and patterns of daily urban life, and the practices of walking and driving. We then discuss the urban context of our study before proceeding to outline our method and the characteristics of our participants. In the following section, we present selected findings of our focus group research, granting particular attention to the experience of walking and driving, and the socialities associated with each. Our concluding section reflects on the importance of examining dialogue for revealing the tensions between co-existing socialities of walking and driving. We contend that social beliefs can be a determinant of transport practice in addition to considerations of urban form, infrastructure and levels of service of different transport modes.

Walking and Driving in the City

The rise of the automobile and the subsequent reshaping of towns and cities to cater for auto-centred transport have had far-reaching effects on many aspects of everyday life. Only recently, however, have researchers

begun to examine the social and cultural changes which have accompanied increasing automobile use (for example, noting the ways that cars have changed everyday practices of sociality, family life, work, education and leisure, as well as increasing the distances which people need and expect to travel for everyday purposes).

The term 'automobility' has been coined to describe the ways that the car has reconfigured social life, especially in cities, by transforming our ways of organising, moving through and living in time-space (Beckmann, 2001; Freund and Martin, 1993; Sheller, 2004; Sheller and Urry, 2000; Taylor, 2003; Urry, 2004). Other theorists have dealt with the ubiquity of the car in modern cities and the ways in which it has become fundamentally embedded in everyday social relations and cultural life (Brandon, 2002; Jain and Guiver, 2001; Maxwell, 2001; Miller, 2001; Wollen and Kerr, 2002). These writers have documented the transformative effects that the car has had on the built environment, as well as the geopolitical global order (Pinney, 2002), and have convincingly argued that the system of automobility is inherently self-perpetuating (Beckmann, 2001; Urry, 2004). Automobility has altered the spatio-temporalities of everyday life because the automobilisation of our cities has promoted a dispersal of activities necessitating faster and further travel.

As automobility has become dominant, other forms of mobility (including walking, cycling and public transport) have been subordinated (Sheller and Urry, 2000). Walking has been replaced with sitting, riding and driving, and has been predominantly reconceptualised as an inconvenient, slow mode of travel. Indeed, for many, not having to walk has become an important marker of socioeconomic success (Amato, 2004). This said, we argue that walking continues to be a highly social and public form of mobility, with considerable potential to address a range

of ills stemming from the automobilisation of urban life.

The increasing dominance of the automobile has had fundamental effects on the form of many cities, such as the growth of large roads and motorways, low-density suburban development, single-use zoning, as well as phenomena such as petrol stations, auto repair centres, motels, ribbon development and drive-in fast-food outlets (Relph, 1976). To a considerable extent, these sites have replaced 'walking places', such as those areas made up of high-density urban development with mixed land uses in close proximity, as well as paved surfaces for walking, greenery, rest areas and ample public space (Solnit, 2000).

Socialities and Civilities

Walking and automobility create starkly opposed types of socialities. Walking is an inherently social activity because of the likelihood of interaction between the walker and other people, especially those also on foot. It has been argued to be a form of 'urban togetherness', even when one is alone among strangers, because it allows the walker to establish and maintain intimacy and familiarity with a community (Macauley, 2000). A landmark study by Appleyard and Lintell (1972) found that streets designed for pedestrians ('liveable streets') increase levels of social interaction, children's play and neighbouring behaviours. Likewise a recent study by Lund (2003) found that people who walk frequently are more likely than those who drive to have unplanned interaction with their neighbours and to form social ties in their neighbourhood. This type of unanticipated interaction may cultivate "a web of public respect and trust, and a resource in time of personal or neighbourhood need" (Jacobs, 1961, p. 56).

Recent work has also highlighted the importance of local community facilities and walkable environments in fostering social

integration. In one Auckland neighbourhood, a

dearth of local shops, services and parks along with a challenging topography inhibited the foot traffic that might contribute to the interaction and opportunistic encounters that contribute to social cohesion (Witten *et al.*, 2003, p. 336).

Elsewhere, Leyden (2003) found that people living in walkable, mixed-use neighbourhoods feel more connected to their community and are more likely to know their neighbours, to trust or have faith in other people and to contact elected officials to express their concerns. While issues of topography and urban form are important, perceptions and social norms have been shown to be equally, if not more, important determinants of travel behaviours such as interactions and general neighbourhood sociability (McMillan, 2007; du Toit *et al.*, 2007).

Although a range of social interactions can occur while citizens are walking (and to an extent through cycling or taking public transport), these have less opportunity to develop when people are cocooned inside private motor vehicles, moving between private spaces such as the home and the workplace (Freund and Martin, 1993). This situation has implications for public spaces, many of which become degraded and stripped of meaning, and for sociality, as personal interactions are generally confined to individual vehicles (Bull, 2004; Morse, 1998).

The automobile has also had more subtle effects: the replacement of residential front porches with garages, for example, has contributed to a loss of neighbourhood interaction and natural surveillance (Jackson, 1985; Jacobs, 1961). These factors have led to isolation for some people in car-dependent suburbs, increasing the privatisation of everyday life and decreasing the sense of community in many neighbourhoods.

Critically, this isolation may be most acutely felt by those without access to a car.

Recent research, however, has cast the motor vehicle in a more positive light. This work has highlighted the ways in which cars are enmeshed in contemporary patterns of sociality and that much of what is considered social life is facilitated by the car, which has stretched and expanded what is possible (see Brandon, 2002; Wollen and Kerr, 2002). In fact, it is hard to overstate the extent to which the car is interwoven into contemporary social and family life, work, education and leisure: the car affects where and how we live, attend school, shop, work, holiday and even how we perceive the world (Brandon, 2002).

At the same time that automobility offers independence, it also coerces people into an intense flexibility (Sheller and Urry, 2000). It *enables* people to juggle their family life, commitments and leisure through time and space—but, in so doing, contributes to an environment in which stretched socialities are also *required*, or at least *expected*. Much of what many contemporary city-dwellers consider to be their social life would be impossible without a car.

It is critical to appreciate, however, that while people's social networks have been extended, it was automobility that dispersed these networks to begin with, by facilitating the spatial distancing of social networks. Automobility both makes dispersion possible and creates a demand for flexibility that, to date, only automobiles have been able to satisfy (Urry, 2004). The downside is that automobility creates longer distances to be travelled in shorter time-spans even for those who cannot, or would rather not, participate in such travel. Moreover, daily 'taskscape' and routines have been reshaped in order to allow for the flow of traffic so that, for instance, children walking to school must negotiate traffic, roads and intersections (Dant and Martin, 2001; Sheller and Urry, 2000).

In these respects, automobility has transformed the socio-spatial patterns of everyday life and played a pivotal role in the compression of time which has accompanied late modernity (Harvey, 1989). The pace of life has accelerated; the result is not only further, but also faster, travel. People are now able to schedule many small fragments of time, creating complex, patterns of social life. One consequence is that

social relations become 'lifted-out' of local contexts of interaction and are restructured across indefinite spans of time-space (Beckmann, 2001, p. 600).

While human activity has been stretched across space as a result of automobility, the (re)compression of this space and time made possible by car use is not universally or uniformly available. Automobility is disproportionately unavailable to those either unable to drive (children and many elderly and disabled people) and those unable to afford to run a car (Banister and Bowling, 2004; Hillman, 2001; Hine and Mitchell, 2003; Jain and Guiver, 2001). This inequity lends support to initiatives such as the Slow City movement, which aims to create calmer, less polluted environments, conserving local aesthetic traditions and enabling residents to return to the "traditional rhythms of community life" (Knox, 2005, p. 6).

The effect of automobility on children is mixed. On the one hand, those who live in a household which has a car may experience greater mobility (although not autonomy) by being transported between various sites and destinations. On the other hand, automobility has also led to a well-documented withdrawal of children from streets and public space due to their own and/or their parents' increased fear of traffic accidents, as well as various types of crime (see Black *et al.*, 2001; Lam, 2001; Tranter and Pawson, 2001; Valentine, 1997). Research in suburban Sydney has found that mothers feel pressure

to chauffeur their children between activities and that this chauffeuring partially constitutes societal constructions of 'good parenting' (Dowling, 2000). Cultures of parents chauffeuring their children between supervised activities have developed and are cultivated by these societal pressures.

The Walking Body in the City

Walking as an embodied, material, social, everyday urban practice is best understood by reference to de Certeau's (1984) influential study of walking in the city. He begins by taking the reader through an account of viewing New York from the top of the World Trade Centre, where one is transformed into a god-like spectator/reader or a voyeur who is able to view the *concept* city. From here, one can read a type of representation of the 'text' of the city. However, this representation is not the true text of the city. Rather, the 'true' urban text is written by the 'ordinary practitioners' of the city who 'write' the urban text as they walk. What is suggested by de Certeau is that organic practices such as walking actually *create* the city.

Embodiment in the city is interwoven with walking. Walking is one of the primary ways a body can experience a city. Amato (2004) has argued that walkers make the city that they walk, but he adds that walkers also become the city which they walk, because it is walkers who give life to a city. He argues that walking restores neighbourhoods, lures tourists and shoppers, makes streets beautiful and adds vitality and life to urban areas. Thus walkers can add to the sociality as well as the character of a city simply by being there. According to Jane Jacobs (1961), an unwalked city is a dead city and, arguably, no city at all, as it is walking that imbues a city with life.

The relationship between body and city is also explained by Grosz (1992), who argues that bodies and their environments mutually constitute each other. While the city is constructed to mirror and house the body,

in turn the body is transformed into a distinctively urban body (see also Pile, 1996). The city affects the body because it is the site for the body's cultural and social saturation. The body is transformed, (re)examined, contested and reinscribed by images, representational systems, the mass media and arts in the city. In turn, the (cultural) body transforms the urban according to its needs. Meanwhile, the shape and form of a city affect the ways its inhabitants live and their physicality—for example, through the type of terrain the body must traverse daily and the nutrition available (Grosz, 1992).

Because walking for transport has declined as a social and cultural practice in Western cities (Solnit, 2000), it can be argued that contemporary city life is less corporeal. While being in a car is still a corporeal experience, it reduces opportunities for many sensory perceptions and physical exertions, and is therefore a less embodied experience than walking (a point elaborated on in the next section). This 'decorporealisation' is linked to urban form; autocentric cities are constructing driving subjects, who are in turn constructing driving cities.

The Driving Body in the City

Freund and Martin (1993) and Taylor (2003) have argued that driving involves a less authentic sensory experience than walking, because all experiences of the urban are filtered through the car. Exterior sights, smells, sounds and sensations are diluted, while interior ones are controlled through devices such as air conditioners or stereos. The car's controls and wheels act as an intermediary between bodies and cities and the visual sense is heightened but made banal by the speed at which the car is required to move (Taylor, 2003). The sound of the car and personally constructed sound-scapes inside the car also dull the effect of the urban on the driver's or passenger's

hearing, and the ability of city smells to penetrate the car is limited. This said, a range of embodied experiences are impossible without the car.

Thrift (2004, p. 48) has developed the hybrid concept of the car-driver to show that there is "an extraordinarily complex everyday ecology of driving" due to the tactical measures people use to navigate their way around cities on a daily basis. Extending the work of de Certeau, he argues that there is a complex world of driving behaviours, just as there is a complex web of walking behaviours. Moreover, the hybridity of the car-driver is deepening because driving is increasingly assisted by technological add-ons with software and ergonomics resulting in cars and bodies being much more intertwined (Thrift, 1994, 2004). Due to this mutuality and the layers of social meaning stamped on cars, the world of driving is arguably becoming as rich and convoluted as the world of walking (Thrift, 2004).

Just as walkers (re)create place in the city on a daily basis, so drivers (re)create driving places through their varied practices, tactics, strategies and appropriations of space (for example, Falconer and Kingham, 2007). Baudrillard has commented on the creation of Los Angeles, in which car-drivers act out a car-oriented city in order to (re)invent 'auto-scapes' on a daily basis. The result is a "[g]igantic, spontaneous spectacle of automobile traffic. A total collective act, staged by the entire population" (Baudrillard, 1988, pp. 52–53).

Thus, Grosz's (1992) contention that embodied citizens and cities mutually constitute each other may be extended to car-drivers creating autocentric cities. The question then becomes whether the types of places created by walkers and car-drivers are fundamentally different, one being created by embodied selves and the other by hybridised car-drivers.

Mobilities and Urban Sense of Place

'Driving places', or 'auto-scapes', have frequently been characterised as 'inauthentic' places: terms such as 'placeslessness', 'non-places' and the 'geography of nowhere' point to environments devoid of identity and meaning (Arefi, 2004; Augé, 1995; Kunstler, 1993; Morse, 1998; Relph, 1976). The term 'non-place' was originally coined by Webber (1964), who used it to describe the new era in which accessibility had become more important than proximity or propinquity. Place-bound communities had become less significant due to the rise of communication and transport technologies, and instead 'communities of interest' were replacing them. More recently Marc Augé (1995) has used the term to describe places which are not relational, historical or concerned with identity, using the examples of airports, freeways and shopping malls. However, the defining features of non-places, according to Augé, are their specific functions (transport, commerce, leisure) and the means of communication within them (individuals interact increasingly with texts such as signs and instructions rather than other individuals). Augé frequently refers to motorways as one of the quintessential non-places, in that they avoid or by-pass all the places to which they take us (see Sinclair, 2006).

Bull (2004) argues that the term non-place can be used to refer to any environment passed through by an automobile, because many drivers claim that the spaces they move through hold little or no meaning for them. It is important to note that, according to Bull, the non-space of the world outside the car is overlaid by the meaning which is attached to, and emanates from, the car itself. The notion that automobile-dominated places are necessarily 'non-places' is highly contestable. For example, Merriman (2004, p. 146) argues that "transient, mobile and momentary" senses of place can be experienced in

automobiles and auto-oriented environments, and that social relations are restored in such places. Drivers perceive and attach meanings to places in the course of driving, having conversations, reading maps and so on (Laurier, 2004; Merriman, 2004; Weber, 2004). Even Augé (1995, p. 79) acknowledges that non-place "never exists in pure form" and contends that "place and non-place" should be perceived as "opposed polarities: the first is never completely erased, the second never totally completed".

The extent to which walking places should be considered 'authentic', or as likely to foster sense of place, also requires consideration. Walking arguably leads to a stronger place attachment, as surroundings are less likely to be "constituted as scenery and spectacle or postcard-like picture. Rather, the world is more readily experienced as inhabited placescape" (Macaulay, 2000, p. 9). This notion evokes the *flâneur*, for whom walking at a slow pace was regarded as the best way to uncover the urban (Sinclair, 1997).

The equation of walking places with authenticity is not straightforward. Highly manufactured and highly controlled places, from Disneyland to new urbanist town centres, may be built on a walkable scale, with many attractive pedestrian routes, yet are not necessarily authentic (Relph, 1976; Kroloff, 1997). The same can be said for the shopping mall which, although it is in large part a by-product of automobility, also provides an ideal strolling environment inside its doors.

Therefore, while automobile-oriented places have often been associated with non-places and placelessness, and walking with authentic experiences of place, it is clear that these are generalisations. Contemporary urban life is increasingly experienced in the car. Subsequently, automobiles, along with their associated environments, are given meaning by the people who use them. In addition, some walking environments are

contrived and can be interpreted as inauthentic. However, it is evident that walkers and car-drivers create very different places. In addition, they experience place differently because of the varying levels of sensory perception and attention to the detail of place. Walking internalises the relationship between the body and place, while landscapes and places outside the car windscreen are experienced as separate and external. While it is possible to say that individuals may become attached to the places they drive through, the lack of attention to detail in the landscape, and the intermediary of the car's body between the driver and the earth, are likely to diminish this attachment.

Context

Our study is situated in Auckland, New Zealand (2006 population: 1.6 million), a metropolitan area with extremely high and rising rates of vehicle ownership and use, and worsening traffic congestion (Auckland Regional Council, 2005). Auckland's transport 'problem' includes air pollution that leads to over 250 premature deaths each year, traffic accidents that kill around 80 individuals each year and an underdeveloped public transport system (Fisher *et al.*, 2002; Land Transport New Zealand, 2005; Mees and Dodson, 2001). These limitations are compounded by sprawling land use patterns, which reduce the ease of travelling by modes other than private car. Indeed Auckland's transport system is dominated by a car-and-motorway system, with other forms of transport accounting for only ancillary modal shares.

Prior to the 1950s, Auckland's public transport patronage was high, with reports claiming that between 50 and 58 per cent of all trips involved this mode (Auckland Regional Planning Authority, 1955; Mees and Dodson, 2001). However, following road construction from the 1950s onwards,

public transport patronage declined steadily until the mid 1990s in what has been described as one of the most spectacular declines in public transport patronage of any developed city in the world (Mees and Dodson, 2001). Conversely, private car ownership and the private car's share of total trip rates steadily increased. Auckland now has one of the highest car ownership rates in the world (Auckland Regional Council, 2005) and experiences "severe road congestion and arguably the worst public transport levels of any western world city with a population of more than one million" (Laird *et al.*, 2001, p. 2). Unsurprisingly, transport is one of the region's most significant political issues.

Rising concerns for safety have accompanied increasing vehicle use. Pedestrian injury rates have hovered at around 400 reported casualties per year for the Auckland region over the past decade (Land Transport New Zealand, 2005), despite a widespread withdrawal of child pedestrians from the street as parents increasingly chauffeur children from one activity to another (Collins and Kearns, 2001; Kearns and Collins, 2003). This increased level of parental chauffeuring is documented in many Western cities (for example, Mullan, 2003; O'Brien *et al.*, 2000).

Data from the Auckland Regional Council (2005) reveal the car's dominance in Auckland: private vehicles account for 78 per cent of all journeys. Walking is the second-most common travel mode (accounting for 13 per cent of all journeys, including approximately 40 per cent of journeys less than 2 kilometres in length). In addition, walking is a component of most public transport trips and many car trips. Public transport (buses, trains and ferries) accounts for 7 per cent of trips, while cycling is an extremely residual travel mode, making up only 1 per cent. The low level is due, in large part, to safety concerns: the Auckland Regional Transport Authority (2007, p. 10) reports that "over half of Aucklanders believe it is usually unsafe, or

always unsafe, to cycle". In this context, we see walking—a potentially highly sociable form of transport, which may account for a substantial share of short journeys—to be an appropriate research focus. Moreover, it has an established reputation as the most popular active leisure activity among New Zealanders (SPARC, 2001).

Auckland has made some progress in moving towards a more sustainable transport system. For instance, following years of floundering on the part of local body politicians, the Britomart railway station was finally completed in 2003, enabling trains to converge within Auckland's CBD. Since this date, there has been an improved level of rail service. Additionally, a busway from the North Shore to the central city has recently opened. Despite these investments, indicators reveal that Aucklanders are driving more than ever before (Auckland Regional Council, 2005). Recent initiatives to promote walking (such as walking school bus programmes), combined with rising fuel prices and growing congestion, suggest that walking may well be seriously contemplated by larger sectors of the population as a feasible transport mode in the future. An analysis of the position, and perceptions, of walking and driving in Auckland is therefore timely.

Method

We explored experiences of travel behaviour in Auckland through a series of four focus groups. These were organised and conducted by the first author and involved adult participants from a range of ages and residential locations. Because travel behaviour is generally socially informed, and following recent precedent (Guiver, 2007), we deemed focus groups to be an ideal vehicle for examining travel decision-making, the social meanings of different travel modes and the ways people make sense of them in Auckland.

Discussion focused on the ways in which participants travel, make transport decisions, hold attitudes towards different transport modes and the reasons behind their travel behaviour. Initially, we held a pilot study, consisting of graduate students at the University of Auckland. The pilot focus group yielded interesting data that were subsequently incorporated into the results of the study. Further focus groups were held in three Auckland suburbs in order to ensure that the narratives yielded spoke to experience in a diverse set of locations across the metropolitan area. Details on these focus groups, including the characteristics of participants, are outlined in Table 1.

Focus groups were held in relaxed settings, with two groups conducted in a group member's home, one in a local community centre and the other group (with students) in a familiar space at the university. Transcripts were examined through a thematic analysis that searched for difference as well as commonality in participants' viewpoints. A range of themes were identified and the transcript text coded accordingly. At this time, all participants were given a pseudonym to protect their anonymity.

Results

Focus group discussions revealed that transport decision-making in Auckland is a highly complex process. Participants' perceptions of different modes were often plural or contradictory (they both liked and disliked the different modes) and there was a very large range of factors which affected the ways in which they travel.

Driving

Our research revealed that the car is pervasive in the lives of focus group participants. Almost all members held driving licences and had access to a car. Many group members identified the car as their main mode of transport

Table 1. Broad characteristics of the focus groups

<i>Group number</i>	<i>Number of participants</i>	<i>Gender split</i>	<i>Social characteristics of group</i>	<i>Location</i>	<i>Local transport options</i>	<i>Distance from Auckland CBD (km)</i>
1	9	Male Female	4 Graduate students attending the University of Auckland 5 Predominantly aged 20–30 Mixed socioeconomic status Five owned a car, 4 did not	University of Auckland	Numerous: almost all public transport options connect to central city, within which University is located so therefore public transport is a feasible option for the journey to University Walking and cycling possible for those students living relatively close by Driving is also an option.	0.5
2	6	Male Female	4 Parents of school-aged children 2 Predominantly aged 30–50 Medium socioeconomic status All members represented a 2-parent household that owned 1 car	Mt Albert, a suburb of Auckland City	Some heavily trafficked roads in this relatively prosperous area; buses and trains to numerous destinations also available Beyond reasonable walking distance of CBD (although one member still walked on occasion) Good local facilities (playgrounds, parks, churches, schools, halls, leisure centres, etc.)	5
3	6	Male Female	1 Parents of young children 5 (pre-school and school-aged) Predominantly aged 30–40 Medium socioeconomic status One member represented a 2-parent household with 1 car, all others represented 2-parent households with 2 cars	Pt Chevalier, a suburb of Auckland City	Desirable suburb within reasonable proximity of Auckland CBD Public transport option is buses Parks, beaches and coastal reserves offer numerous options for recreational walking Good local facilities (playgrounds, parks, churches, schools, halls, tennis club, etc.)	6

(Continued)

(Table 1. Continued)

Group number	Number of participants	Gender split	Social characteristics of group	Location	Local transport options	Distance from Auckland CBD (km)
4	7	Male	Older adults with most children having moved out of family home	Howick, a suburb in Manukau City, located in the south of the urban region	A relatively prosperous suburban area, with extensive new construction Densities are mixed, but detached family homes predominate Largely a commuter suburb, but with its own 'village' (i.e. shopping centre) Close to local beaches which provide options for recreational walking	20
		Female	Predominantly aged 50–70 Medium to high socioeconomic status All members represented households with 1 car per driver			

and that, for many trips, it simply does not occur to them to consider alternatives. Indeed, some stated that they cannot imagine their lives without cars

CB: Has anyone been unable to travel somewhere that they've wanted to, because they don't have access to a car?

Peter: When my car's broken down I'm screwed ...

Holly: I'd like to go out to the beach and up North ... on the weekend but I don't have a car and ...

Cecelia: God it's been so long since I haven't owned a car that I just, honestly I didn't even think that that question was relevant, I didn't even know what you were talking about, that's outrageous.

Matthew: Yeah, I cannot imagine not having a car to fall back on if I needed it.

Cecelia: That's right, absolutely imperative.

Matthew: Yeah ... You'd make do, but there'd be lots of things in life that you normally take for granted because you have a car to get there that you just wouldn't be able to do.

(Focus group 1).

Despite the apparent ubiquity of cars in the lives of Aucklanders, focus group participants also articulated a widely shared disdain for the social and environmental costs associated with car use and dependence. Many resented traffic congestion because it imposes severe limitations on their lives and their personal time, with trips taking exceptionally longer at rush-hour than during other parts of the day. Parents especially found it difficult to balance long commutes with their desire to spend time with their children in the early evening. Responses to this challenge included reducing work hours, 'juggling' the responsibility of meeting children after school between spouses and changing employment or moving house in order to reduce the distance between home and work.

Importantly, parents also reported a social pressure to walk more with their children

CB: So is there a lot of pressure to drive your kids around?

Andrea: There's actually, in this area, probably more of a pressure to walk, because ... if I drove my children to school ... people are sort of like, "Did you DRIVE?". You know, because I live two streets away, and literally, even if it's teeming with rain, like this morning, you know like we would still walk to school ...

Melissa: Same with me ...

Andrea: And if you sort of turn up to coffee group or something like that and you know, you sort of feel a bit guilty for driving if you're so close ...

(Focus group 3).

This narrative suggests that some parents in Auckland feel guilt about consistently chauffeuring their children and so endeavour to walk. In this context, 'good parenting' may involve walking with children, where this is reasonably possible. Recent programmes aimed at increasing child pedestrian activity in Auckland, such as walking school buses (see Collins and Kearns, 2005), have arguably contributed to encouraging such supervised walking.

While the connection between car use and contemporary sociality is perhaps best characterised as ambiguous, the negative environmental consequences of the car are more clear-cut. Some of our participants did avoid driving due to concerns about its adverse environmental effects. The majority of participants endeavoured to reduce car use in some way, this being one way to appease feelings of guilt over the environmental effects of motorised transport. Notwithstanding, some participants blamed *others* for environmental degradation and did not really consider changing *their* behaviours. This 'otherness' (pointing to other users for damaging the environment) corresponds with Maxwell's (2001) finding that

people employ various coping and blaming mechanisms to justify their own car use and to relieve their anxieties or guilt over the negative environmental and social effects of cars.

Ambiguous Socialities of Driving

Confirming many of the arguments in recent automobility literature, a large number of focus group participants identified that significant parts of every day unfold in the car and on the road or motorway. During this time, the 'non-place' of the motorway is overlaid with the social and cultural meanings which are constructed and attached to the car itself. Car use in Auckland is often constructed as social and as a means of caring for others (by driving them around, or visiting them). For instance, the following excerpt reveals how car use enables parents to allow their children to pursue a number of cultural or sporting activities

Edward: Yes, we were a taxi. But we brought our kids up that way, we said to them, particularly our daughter, we said to Jane, anytime you want to come home, ring. But our daughter used to play hockey and my son used to play soccer so we drove our daughter to, dropped our daughter first and then our son, then reverse ...

Michael: Yeah, our children were like that too when they were growing up but that was our fault more than theirs, because we encouraged them to have as many interests as possible.

(Focus group 4).

Women especially stated that their cars enabled them to go out and socialise after dark, which they would otherwise feel unsafe doing. Furthermore, many parents explained that their own car use enabled them to spend more time with their children, or to 'get back' to them quickly after work or other engagements. In this way, car use is conceptualised as highly social in Auckland and this results in particular meanings being

attached to the car, in which it is understood as a facilitator of social life, as providing safety for oneself and others, and as a resource used to care for others.

In addition, the sociality of cars was highlighted by participants of the student focus group, who discussed the cultural phenomenon of the 'road trip'. For them, "the drive is almost as good as actually being there [on holiday]", because of their social interaction in the car. The car enables these people not only the freedom to go on holiday, but also to spend time with their friends.

Walking

Somewhat surprisingly, given the strength of commonly accepted narratives portraying the Auckland urban environment as hostile to alternatives to car dependence, many respondents articulated positive views of walking. Recreational walking was said to be facilitated by the region's extensive networks of parks, reserves, beaches and relatively 'green' suburban areas. Walking for transport was valued in interesting and highly detailed or varied urban environments, where shops and/or employment were reasonably accessible to many on foot. The latter observation aligns with recent international literature which has identified that high-density, mixed-use urban environments are more conducive to walking for transport purposes (for example, Badoe and Miller, 2000; Ewing and Cervero, 2001; Frank *et al.*, 2001). Participants also stressed (repeatedly) that health concerns motivate them to walk more.

Interestingly, *all* focus group members viewed walking as important, notwithstanding their varying ages and locations (see Table 1). Walking, therefore, presents an ideal tool not only for encouraging healthier lifestyles, but also for improving the broader health of urban areas by reducing the negative environmental effects of automobile use. In

this respect, the interests of transport planners and health professionals may converge around the promotion of active transport (for example, Cavill, 2001; Frank and Engelke, 2001; Lumsdon and Mitchell, 1999).

Despite these positive constructions of walking, many barriers to walking were identified. These were largely predictable and included the fact that automobile-dominated environments were unpleasant for pedestrians, given fear of reckless driving, accidents and crime. Parents of young children repeatedly identified that they did not feel safe allowing their children to have free reign in public space due to fear of traffic accidents and of abduction or assault. However, this did not prevent parents from walking with their children to school or other activities.

Furthermore, walking was acknowledged to be underutilised due to poor public transport services in Auckland, which meant that walking and public transport could not be easily or flexibly combined. Participants also stated that their level of car use was much higher than it might have been, had public transport been better able to meet their needs. Consequently, they were likely to drive habitually rather than consider other options.

Sociality of Walking

While car use has been shown here to be experienced as a form of social practice, participants within every focus group indicated that they enjoyed walking because it gave them a chance either to interact with the others they walk with, or to see other people (acquaintances and strangers) along the way. While contemporary patterns of urban social life are highly auto-oriented (Sheller and Urry, 2000; Urry, 2004), walking continues to facilitate social interaction among friends, strangers and casual acquaintances. The following focus group extract illustrates how students find walking to be a highly social activity

Jeremy: I can't even imagine walking home from the city at, like, five in the morning after a big night, even living in the city, or near the city, which I do.

Matthew: Do you get too [drunk]?

Jeremy: No, I just, it seems like a weird thing to have to do.

Elle: No, it's great, you walk with your mates and ...

Matthew: It's awesome!

Peter: Yeah!

Elle: You have great conversations and you sober up on the way and you don't feel ill when you get home, and you get fresh air ...

Matthew: Cold air's awesome ...

Tristan: and you get sober ...

Matthew: Yeah.

Jeremy: Maybe I'll try and let you know.

Samantha: And you don't realise how far you've walked.

Elle: No, I know, you can walk for two hours and not even realise. Best exercise.

Peter: I've had the best times of my life actually, being drunk and walking with friends.

Elle: Yup.

Matthew: Yup.

Tristan: Okay, alone, it's just a pain in the ass.

Peter: Alone, yeah.

(Focus group 1).

Other focus group members used walking as a primary means of socialising with friends who live in their neighbourhoods and considered their neighbourhood walks to be a fundamental part of their social life.

Discussion highlighted the ways in which the presence of *some* people on the street can encourage others to step out into public space, thereby giving the street a social and convivial atmosphere. This confirms many of the claims in academic literature which state that walkable neighbourhoods, and

those which have a higher level of street life, are actually more social places (for example, du Toit *et al.*, 2007). This idea was also directly articulated by a participant

Rebecca: I like walking where there are other people out, I think that pedestrians encourage pedestrians and that's my experience, so that's why it'd be fun walking through Kingsland, 'cos there's people on the footpath having their cappuccinos and that's quite lovely. And I love walking through our neighbourhood in the morning with the kids 'cos there's actually lots of people out walking and I have so many conversations with other kids and neighbours on the way to school and so, for me, it's about people being out encouraging me to be out really.

(Focus group 2)

From this type of statement, it is clear that walking is perceived to be very social, presumably because people are moving at a pace that enables them to speak to one another, in contrast to the confinement of the car which prevents them from seeing and conversing with others.

Parents stressed the importance of walking with their children to school, partially because of 'peer pressure' from other parents to drive less, but also due to the time they were able to spend with their children on the way. While literature on automobility has highlighted the ways in which the spatio-temporalities of parenting are becoming more complex, this finding suggests that 'mobile parenting' is also experienced locally and while walking. While, on the one hand, parenting is being stretched across time and space, on the other, there is a move towards resisting this by walking to local activities.

Furthermore, another focus group highlighted the importance of walkable environments by drawing a comparison between European streets that encourage both walking and social interaction, and the main streets of Auckland

Edward: One thing I miss that I thoroughly enjoyed, my family when we lived in Europe, we used to go down on holidays to the Adriatic Sea in Yugoslavia. And all of those towns have big boulevards and come after hours, after work, five o'clock or so, or six o'clock, people used to, there used to be about 50 people across, walking, and they sat down and they play a game of chess ... on the sidewalk and there was a tremendous social atmosphere there. It's starting here in places ...

Michael: The village up here actually, Howick village is actually just starting that very well.

Edward: Yes, but that was tremendous.

Phillip: And you see that a lot in Europe?

Edward: Yes, you see that a lot in Europe, but I mean, you don't have the big sidewalks [here].

(Focus group 4).

Walking is a highly social activity because it allows interaction with strangers (as in the examples from Europe and Howick), as well as with other neighbourhood residents and acquaintances. Walking also provides opportunities for friends (or family) to interact when they walk together, as in the earlier case of students walking home from a night out.

Perception of Place and Embodiment in the City

The embodied experiences of walking and driving articulated by focus group participants were linked to constructions and conceptions of 'walking places' and 'driving places'. Walking places were perceived to be local, safe, aesthetically pleasing and separated from busy traffic. Accordingly, they were vital and social places. While recent scholarship on automobility has argued that everyday lived experiences are increasingly situated in the car (for example, Urry, 2004), our study found that walking and walkable places were often perceived to be central to daily life. Echoing the observations of de Certeau,

discussed earlier, participants also felt a deeper connection with areas or places when walking, as opposed to driving, through them. One participant felt that walking offered a heightened level of sensory perception

Holly: And there's another layer to walking, and that is you experience a bit more, rather than doing stuff in the car ... Because when you're walking you feel the air, you smell, you hear things, it's just totally different and if you're in a good place it's nice.

(Focus group 1)

The familiarity and personal connection to place that can accrue from walking a particular route were also apparent

Anthony: And it's just the connection, I mean, you were talking about the route you follow down New North Road. That's not particularly picturesque or anything, but I don't know about how you see it but [when you walk] you get a connection where you just see so much and somehow it becomes more your space, you know, so that corridor that you walked, suddenly, you know, it's part of your space. But if you're just driving through it, well.

(Focus group 2).

This participant claimed to appropriate space through walking; driving did not provide him with the same sense of (non-exclusive) ownership. Indeed, each of the foregoing quotes suggests that walking facilitates deep place bonds. These experiences are broadly consistent with claims that highly walked areas tend to be 'authentic', as walking facilitates the creation of meaningful ties to place (Amato, 2004; Macauley, 2000).

One participant reflected on a walked journey to work along a major Auckland thoroughfare, Dominion Road. This is largely a vibrant and pedestrian-friendly thoroughfare but, as it reaches the city centre, it becomes more industrial and crosses over a major motorway junction. The contrast between the 'walking' and 'driving' places along this road were stark.

Bridget: I used to really enjoy walking on Dominion Road 'cos it's an interesting place, there's lots of really interesting shops, there's lots of really interesting people there, and I did used to walk to work or varsity, even though the top end of the walk was really grotty and it was through an industrial area, and through the motorway and stuff like that, but still ... I used to enjoy the first half of it a lot.

(Focus group 2).

This participant feels a certain connection with the walkable environment on her route to work, but the "grotty" motorway holds no such meaning for her. This is in line with research contending that 'driving places' are often experienced as 'non-places' (see Arefi, 2004; Augé, 1995; Bull, 2004; Relph, 1976).

Conclusion

In the course of reviewing a range of studies, we have built an argument that walking and driving cannot be understood simply as behaviours facilitated or inhibited by urban form. Rather, they are mobilities with deep-seated social meanings. Our study's contribution involved an attentiveness to discourse and what it can reveal about the complex social character of transport options and experiences in an automobilised urban centre. The foregoing focus group data revealed distinctive narratives of walking and driving in Auckland; while the car is dominant, people continue to walk and attach strongly held social values to that practice. Future exploration of these values could usefully consider whether they vary according to neighbourhood socioeconomic status, as more deprived areas may be less predisposed to discretionary walking (see, for example, Witten *et al.*, 2003).

The car is clearly woven deeply into the sociality of Auckland life. Many of our participants could not imagine their lives without access to a car and used them habitually. Cars are also embedded in social and familial

relations such that they are understood as central to people's lives. This situation results in particular meanings being attached to the car, in which it is understood as a facilitator of social life, as providing safety for oneself and others, and as a resource used to care for others.

However, car use is more socially ambiguous than it appears at first glance: there was also a keen awareness of—and sharp distaste for—many of the car's negative consequences. Parents of young children, in particular, spoke of a tension between relying on the automobile to fulfil caring roles and promoting active travel for children. Accordingly, walking is a highly favoured activity for local trips, especially to and from primary schools, as well as for recreation and exercise. However, there are many spaces in which walking is an abnormal activity, as well as being inconvenient, unsafe and unpleasant. The imperative of encouraging exercise for children, combined with safety concerns, creates a local culture in which 'good parenting' involves walking with children, where this is reasonably possible. Follow-up research might consider how households' social practices change over time: does, for instance, a commitment to walking among primary school pupils and their parents structure mobility practices and preferences later in life?

In Auckland, current transport policy and investment indicate that, while the total number of automobile trips will continue to rise, the car's modal share will decline (Auckland Regional Council, 2005). More fundamental change in Auckland's transport system will require additional measures to mitigate the social embeddedness of the automobile. 'Alternative' transport would need to align with family patterns and ways of caring for one another. It would also need to be socially (re)constructed as a plausible, 'normal' option, rather than as 'alternative' in the sense of different or unusual.

Social marketing campaigns may play a role in this. Indeed, the incorporation of stories such as those revealed by our participants could serve to put a human face on the challenge of renormalising walking as a form of everyday mobility. In particular, perceptions that walking is a healthy and social travel mode that facilitates local and community interaction can be built upon. While first-person accounts can be powerful tools in social marketing, we acknowledge that long-term investment in public transport will also be necessary in the promotion of a more sustainable city.

References

- Amato, J. A. (2004) *On Foot: A History of Walking*. New York: New York University Press.
- Appleyard, D. and Lintell, M. (1972) The environmental quality of city streets: the residents' viewpoint, *Journal of the American Institute of Planners*, 38, pp. 84–101.
- Arefi, M. (2004) The pedagogy of the American city: revisiting the concepts of place, non-place, and placelessness, *Urban Design International*, 9(3), pp. 103–117.
- Auckland Regional Council (2005) *Moving forward: Auckland regional land transport strategy 2005*. Auckland Regional Council.
- Auckland Regional Planning Authority (1955) *Master transportation plan for metropolitan Auckland*. Auckland Regional Planning Authority.
- Auckland Regional Transport Authority (2007) *Sustainable transport plan 2006–16*. Auckland Regional Transport Authority.
- Augé, M. (1995) *Non-places: Introduction to an Anthropology of Supermodernity*, transl. J. Howe. London: Verso.
- Badoe, D. A. and Miller, E. J. (2000) Transportation–land-use interaction: empirical findings in North America, and their implications for modeling, *Transportation Research Part D*, 5, pp. 235–263.
- Banister, D. and Bowling, A. (2004) Quality of life for the elderly: the transport dimension, *Transport Policy*, 11, pp. 105–115.
- Baudrillard, J. (1988) *America*. New York: Verso.
- Beckmann, J. (2001) Automobility: a social problem and theoretical concept, *Environment and Planning D*, 19, pp. 593–607.
- Black, C., Collins, A. and Snell, M. (2001) Encouraging walking: the case of journey-to-school trips in compact urban areas, *Urban Studies*, 38, pp. 1121–1141.
- Brandon, R. (2002) *Auto Mobile: How the Car Changed Life*. London: Macmillan.
- Bull, M. (2004) Automobility and the power of sound, *Theory Culture & Society*, 21, pp. 243–259.
- Cavill, N. (2001) Walking and health: making the links, *World Transport Policy and Practice*, 7, pp. 33–38.
- Certeau, M. de (1984) *The Practice of Everyday Life*, transl. S. Rendall. Berkeley, CA: University of California Press.
- Collins, D. C. A. and Kearns, R. A. (2001) The safe journeys of an enterprising school: negotiating landscapes of opportunity and risk, *Health and Place*, 7, pp. 293–306.
- Collins, D. C. A. and Kearns, R. A. (2005) Geographies of inequality: child pedestrian injury and walking school buses in Auckland, New Zealand, *Social Science & Medicine*, 60, pp. 61–69.
- Dant, T. and Martin, P. J. (2001) By car: carrying modern society, in: J. Gronow and A. Warde (Eds) *Ordinary Consumption*, pp. 143–157. London: Routledge.
- Dowling, R. (2000) Cultures of mothering and car use in suburban Sydney: a preliminary investigation, *Geoforum*, 31, pp. 345–353.
- Ewing, R. and Cervero, R. (2001) Travel and the built environment: a synthesis, *Transportation Research Record*, 1780, pp. 87–114.
- Falconer, R. and Kingham, S. (2007) A geography of 'boy racers' in Christchurch, New Zealand, *New Zealand Geographer*, 63, pp. 181–191.
- Feyer, A. and Langley, J. D. (2000) Unintentional injury in New Zealand: priorities and future directions, *Journal of Safety Research*, 31, pp. 109–134.
- Fisher, G. W., Rolfe, K. A., Kjellstrom, T. et al. (2002) *Health Effects Due to Motor Vehicle Air Pollution in New Zealand*. Wellington: Ministry of Transport.
- Frank, L. D. and Engelke, P. O. (2001) The built environment and human activity patterns: exploring the impacts of urban form on public

- health, *Journal of Planning Literature*, 16, pp. 202–218.
- Frank, L. D., Andresen, M. A. and Schmid, T. L. (2004) Obesity relationships with community design, physical activity, and time spent in cars, *American Journal of Preventive Medicine*, 27, pp. 87–96.
- Frank, L. D., Engelke, P., Schmid, T. L. and Killingsworth, R. E. (2001) *How land use and transportation systems impact public health: a literature review of the relationship between physical activity and built form*. Center for Disease Control and Prevention, Atlanta, GA.
- Freund, P. E. and Martin, G. T. (1993) *The Ecology of the Automobile*. Montreal: Black Rose Books.
- Giles-Corti, B. and Donovan, R. J. (2003) Relative influences of individual, social environmental, and physical environmental correlates of walking, *American Journal of Public Health*, 93, pp. 1583–1589.
- Grosz, E. (1992) Bodies–cities, in: B. Colomina (Ed.) *Sexuality and Space*, pp. 241–253. New York: Princeton Architectural Press.
- Guiver, J. W. (2007) Modal talk: discourse analysis of how people talk about bus and car travel, *Transportation Research Part A*, 41, pp. 233–248.
- Harvey, D. (1989) *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Oxford: Blackwell.
- Hillman, M. (2001) Prioritising policy and practice to favour walking, *World Transport Policy and Practice*, 7, pp. 39–43.
- Hine, J. and Mitchell, F. (2003) *Transport Disadvantage and Social Exclusion*. Aldershot: Ashgate.
- Jackson, K. T. (1985) *Crabgrass Frontier: The Suburbanization of the United States*. New York: Oxford University Press.
- Jacobs, J. (1961) *The Death and Life of Great American Cities*. New York: Random House.
- Jain, J. and Guiver, J. (2001) Turning the car inside out: transport, equity and environment, *Social Policy and Administration*, 35, pp. 569–586.
- Kearns, R. A. and Collins, D. C. A. (2003) Crossing roads, crossing boundaries: empowerment and participation in a child pedestrian safety initiative, *Space & Polity*, 7, pp. 193–212.
- Knox, P. L. (2005) Creating ordinary places: slow cities in a fast world, *Journal of Urban Design*, 10(1), pp. 1–11.
- Kroloff, R. (1997) Disney builds a town, *Architecture*, 86(8), pp. 114–118.
- Kunstler, J. H. (1993) *The Geography of Nowhere*. New York: Touchstone.
- Laird, P., Newman, P., Bachels, M. and Kenworthy, J. R. (2001) *Back on Track: Rethinking Transport Policy in Australia and New Zealand*. Sydney: University of New South Wales Press.
- Lam, L. T. (2001) Parental risk perceptions of childhood pedestrian road safety, *Journal of Safety Research*, 32, pp. 465–478.
- Land Transport New Zealand (2005) *Road safety issues*. Land Transport New Zealand, Auckland.
- Laurier, E. (2004) Doing office work on the motorway, *Theory Culture & Society*, 21(4/5), pp. 261–277.
- Leyden, K. M. (2003) Social capital and the built environment: the importance of walkable neighborhoods, *American Journal of Public Health*, 93, pp. 1546–1551.
- Lumsdon, L. and Mitchell, J. (1999) Walking, transport and health: do we have the right prescription?, *Health Promotion International*, 14, pp. 271–279.
- Lund, H. (2003) Testing the claims of new urbanism: local access, pedestrian travel and neighbouring behaviours, *Journal of the American Planning Association*, 69, pp. 414–429.
- Macauley, D. (2000) Walking the city: an essay on peripatetic practices and politics, *Capitalism, Nature, Socialism*, 11, pp. 3–43.
- Mackett, R. L., Lucas, L., Paskins, J. and Turbin, J. (2005) The therapeutic value of children's everyday travel, *Transportation Research Part A*, 39, pp. 205–209.
- Maxwell, S. (2001) Negotiations of car use in everyday life, in: D. Miller (Ed.) *Car Cultures*, pp. 203–222. Oxford: Berg.
- McMillan, T. E. (2007) The relative influence of urban form on a child's travel mode to school, *Transportation Research Part A*, 41, pp. 69–79.
- Mees, P. and Dodson, J. (2001) The American heresy: half a century of transport planning in Auckland, in: P. Holland, F. Stephenson and A. Wearing (Eds) *Geography: A Spatial Odyssey: Proceedings of The Third Joint Conference of*

- the New Zealand Geographical Society and the Institute of Australian Geographers*, pp. 279–287. Hamilton: Brebner Print.
- Merriman, P. (2004) Driving places: Marc Augé, non-places, and the geographies of England's M1 motorway, *Theory Culture & Society*, 21(4/5), pp. 145–167.
- Miller, D. (Ed.) (2001) *Car Cultures*. Oxford: Berg.
- Morse, M. (1998) *Virtualities: Television, Media Art, and Cyberculture*. Bloomington, IN: Indiana University Press.
- Mullan, E. (2003) Do you think that your local area is a good place for young people to grow up? The effects of traffic and car parking on young people's views, *Health and Place*, 9, pp. 351–360.
- O'Brien, M., Jones, D., Sloan, D. and Rustin, M. (2000) Children's independent spatial mobility in the urban public realm, *Childhood*, 7, pp. 257–277.
- Pile, S. (1996) *The Body and the City: Psychoanalysis, Space and Subjectivity*. London: Routledge.
- Pinney, C. (2002) Automonster, in: P. Wollen and J. Kerr (Eds) *Autopia: Cars and Culture*, pp. 227–232. London: Reaktion.
- Relph, E. (1976) *Place and Placelessness*. London: Pion.
- Saelens, B. E., Sallis, J. F. and Frank, L. D. (2003) Environmental correlates of walking and cycling: findings from the transportation, urban design, and planning literatures, *Annals of Behavioral Medicine*, 25, pp. 80–91.
- Sheller, M. (2004) Automotive emotions: feeling the car, *Theory, Culture & Society*, 21, pp. 221–242.
- Sheller, M. and Urry, J. (2000) The city and the car, *International Journal of Urban and Regional Research*, 24, pp. 737–757.
- Sinclair, I. (1997) *Lights Out for the Territory*. London: Granta Books.
- Sinclair, I. (2006) *London Orbital*. Harmondsworth: Penguin.
- Solnit, R. (2000) *Wanderlust: A History of Walking*. New York: Penguin Books.
- Southworth, M. (1997) Walkable suburbs? An evaluation of neotraditional communities at the urban edge, *Journal of the American Planning Association*, 63, pp. 28–44.
- Southworth, M. (2003) New urbanism and the American metropolis, *Built Environment*, 29, pp. 210–226.
- Southworth, M. and Ben-Joseph, E. (2003) *Streets and the Shaping of Towns and Cities*. Washington, DC: Island Press.
- SPARC (Sport and Recreation New Zealand) (2001) *SPARC facts 97–01*. SPARC, Wellington.
- Taylor, N. (2003) The aesthetic experience of traffic in the modern city, *Urban Studies*, 40, pp. 1609–1625.
- Thompson-Fawcett, M. and Bond, S. (2003) Urbanist intentions for the built landscape: examples of concept and practice in England, Canada and New Zealand, *Progress in Planning*, 60, pp. 147–234.
- Thrift, N. (1994) Inhuman geographies: landscapes of speed, light and power, in: P. Cloke, M. Doel, D. Matless et al. (Eds) *Writing the Rural: Five Cultural Geographies*, pp. 191–248. London: Paul Chapman Publishing.
- Thrift, N. (2004) Driving in the city, *Theory, Culture & Society*, 21(4/5), pp. 41–59.
- Tobias, M. and Turley, M. (2005) Causes of death classified by risk and condition, New Zealand 1997, *Australian and New Zealand Journal of Public Health*, 29, pp. 5–12.
- Toit, E. du, Cerin, E. and Leslie, E. (2007) Does walking in the neighbourhood enhance local sociability?, *Urban Studies*, 44, pp. 1677–1695.
- Tranter, P. and Pawson, E. (2001) Children's access to local environments: a case study of Christchurch, New Zealand, *Local Environment*, 6, pp. 27–48.
- Urry, J. (2004) The 'system' of automobility, *Theory, Culture & Society*, 21, pp. 25–39.
- Valentine, G. (1997) 'Oh yes I can.' 'Oh no you can't': children and parents' understandings of kids' competence to negotiate public space safely, *Antipode*, 29, pp. 65–89.
- Webber, M. M. (1964) The urban place and the nonplace urban realm, in: M. M. Webber, J. W. Dyckman and D. L. Foley (Eds) *Explorations into Urban Structure*, pp. 79–153. Philadelphia, PA: University of Pennsylvania Press.
- Weber, J. (2004) Everyday places on the American freeway system, *Journal of Cultural Geography*, 21(2), pp. 1–26.
- Witten, K., McCreanor, T. and Kearns, R. A. (2003) The place of neighbourhood in social cohesion: insights from Massey, West Auckland, *Urban Policy and Research*, 21, pp. 321–338.
- Wollen, P. and Kerr, J. (Eds) (2002) *Autopia: Cars and Culture*. London: Reaktion.