'Are we there yet?': Exploring aspects of automobility in children's lives

A thesis submitted for the degree of Doctor of Philosophy

by

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June 2006
Abstract

This thesis examines children's experiences of cars, by using personal diaries, photographs, in-depth interviews and surveys, to conduct applied research with children aged 4-11, parents and local transport planners in schools within Buckinghamshire and North London. The thesis challenges existing research on automobility, that is the increasingly central role of cars in societies, for focusing predominantly on adults and ignoring children's experiences.

Adopting a postmodern approach, the research explores how cars are not only journey spaces for children, but are also sites for play, relaxation, homework, companionship, technology and the consumption of commodities. Using a postmodern conceptualisation of power, insights into wider familial processes are provided by exploring how cars are sites of conflicting power relations between parents and children. Massey's power geometry of mobility is utilised to consider how the role of cars in children's lives is differentiated by complex interconnections between place, gender, age, ethnicity and social class. Whilst aspirations for car ownership are powerful, many children participate in initiatives to reduce congestion such as 'Safer Routes to School' programmes. However, these initiatives challenge and control children's mobility and fail to include them in decision-making.

Whilst a postmodern approach maps the diversity of children's experiences, insights are also drawn from Marxist geographies, indicating how cars are increasingly commodified spaces, and illustrating how the broader economic context influences children's accounts. The work of feminist geographers helps to explore how children's mobility is often the responsibility of, and embedded with the mobility patterns of mothers. Working with local transport planners, although contributing to social change, is criticised as a rather conservative approach to applied geography. Some of the contradictions between postmodernism and applied geography are explored, such as the inability, from a postmodern position of relativism and fragmentation, to speak with authority and offer solutions for policy makers.
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CRB- Criminal Records Bureau
ESRC- Economic and Social Research Council
DfES- Department for Education and Skills
DfT- Department for Transport
DTER- Department for Transport, Environment and the Regions
OSCRU- Out of School Childcare Research Unit
RAE- Research Assessment Exercise
SRS- Safer Routes to School
STP- School Travel Plan
WGSG- Women and Geography Study Group

WORD COUNT: 78204 (plus appendices)
vi. Acknowledgements

Phew!... Undertaking a PhD is an utterly indescribable process (certainly from my experience!). I would like to thank all the children, families and teachers who took part in the research, including those at Buckinghamshire County Council and the London Borough of Enfield. Several years after initially working with these families, I wonder how the children have grown. Some of them may be old enough to drive in less than two years (which strikes me as amusing, given the thesis' topic). My gratitude also goes to my supervisors, Fiona Smith and Susan Buckingham for their encouragement, support and advice over the last five years. Thank you for reading, often at very short notice, randomly produced drafts of chapters. Thanks also to the Department for supporting the research.

Gratitude is also due to everyone in Geography and Earth Sciences at Brunel University, for being fun, interesting and inspiring people to work with, with particular mention for Anna, Emma, Elodie, Hazel, Lorraine, Mike, Nicola and Phil, for encouragement, advice and support. It is still such a sad and terrible shame that the department is closing and we will all be going our separate ways. Many, many thanks to members of the Brunel and Plymouth diasporas, including Genevieve, Kate, Leo, Lorna, Marilyn, Markus, Pedro, Petra, Phill, Rob, Sue and Susie, specifically for helping me get through the lows of writing and inspiring me (often through example) to get the job done, and more generally for endlessly practising the complex art of nattering, laughing and drinking vast amounts of coffee!

Huge apologies to my other friends, particularly Christine, Liam, Max and Sue, for being either miserable or absent for the past couple of years ("More grumpy than usual? We never noticed!"). I intend to return to cafes, seascides, cinemas, long countryside walks and bars with a vengeance...! I'd also like to thank my families, the Barkers and the Mehtas. Thank you for being such interesting folk, and for putting up with me working. You now have my undivided attention(…ish). I would particularly like to thank my Dad, for proving you're never too old to learn new tricks, and Monica for proof reading the thesis and teaching me English. Bizarrely enough, the Royal Festival Hall, The National Film Theatre, the De La Warr Pavilion, the Barbican Centre and the Metropolitan line also deserve recognition, for being undisturbed and inspiring places to sit, think and work. Without them, this thesis would never have been written.

The biggest show of thanks is for Michael, for putting up with me burbling on about work, supporting me through the tougher times and for doing a hugely disproportionate amount of housework over the past few years. I promise to start emptying the
dishwasher and washing machine, doing the shopping, and emptying the bins (well... maybe next week...). I can't imagine having got this far without your support and encouragement. Thank you!
Chapter one~ Introducing children and automobility

1.1 Situating the research

This thesis considers an aspect of western, industrialised societies which, within the course of a generation, has radically altered contemporary childhoods. Cars are becoming increasingly significant features in the lives of many children and adults in the UK and elsewhere. Whilst there is a growing body of research considering how adults experience automobility, that is the increasingly central role of cars and other forms of motorised transport within societies, there has been little equivalent research exploring children's perspectives. This thesis makes a significant contribution to existing debates by considering three aspects of children's experiences of automobility, including children's experiences of cars, the role of cars in their lives and children's responses to automobility.

This introductory chapter discusses how the research has evolved from a variety of different debates, including those regarding children's geographies, the new mobilities paradigm, postmodern geographies and applied geography, as well as contemporary debates within the UK policy context. It also identifies the theoretical arguments and research aims of the thesis, and the contribution of the research to wider debates. The chapter concludes by providing a summary of each subsequent chapter.

1.1.1 The academic context

Children have become an increasingly important focus for many different social sciences, including human geography. Inspired by Bunge (1973), James (1990, 1991), Sibley (1991) and Winchester (1991), and broader discussions within the new social studies of childhood, children's geographies have developed as a vibrant subject area of human geographical research. Children's geographers have explored the spatiality of childhood, by considering everyday spaces of childhood, such as schools (Holloway et al., 2000), commercial playgrounds (McKendrick et al., 2000a) and public spaces (Matthews et al., 2000c). Children's geographers have also identified the significance of place in diversifying children's lives at a variety of spatial scales (Katz, 2004), and the role of spatialised discourses in defining where children should be (Sibley, 1995a, Valentine, 1996b). In doing so, children's geographers have considered how children are social actors who make sense of, and comment upon, the spaces in which they spend their time. More specifically in relation to this thesis, children's geographers (such as Valentine, 1997a, Ross, 2002) have complemented the work of others (including Hillman et al., 1990, O'Brien et al., 2000) to identify changing trends in children's travel, most notably, a decline in children's independent spatial mobility and a corresponding increase in adults escorting children.
Reflecting the broader cultural turn within human geography, transport geography has shifted from positivist, abstract model or system-based approaches towards a people-focused interest in mobility, leading to the development of a 'new mobilities paradigm' (Cresswell, 2005). Spatial mobility can be defined as 'the short term, repetitive, movement flows of people, designated as circulation rather than migration' (Law, 1999, p568), referring to journeys made outside of the home (Tivers, 1985). Mobility has become a central feature of western, industrialised societies, and has been discussed in relation to wider contemporary processes characteristic of postmodern societies, including time space compression, referring to the collapse of spatial barriers and the speeding up of the pace of social life (Harvey, 1989, Bondi, 1990, Soja, 1996).

One growing focus of the new mobilities paradigm is automobility, a term referring to the increasingly central role of cars, as cultural symbols, manufactured objects, items of consumption, complex systems of distribution, significant users of environmental resources as well as a prime means of transportation within western, industrialised societies (Urry, 2000, Gartman, 2004, Featherstone, 2004). However, most research has focused on the consequences of car use, for example, traffic congestion and the environmental impacts of cars (see Whitelegg, 1997, Banister, 1998), rather than considering everyday experiences of travelling by car (Urry, 2000, Miller, 2001). More specifically in relation to this thesis, despite a growing body of research on automobility (Holtz Kay, 1997, Urry, 2000, Miller, 2001, Wollen and Kerr, 2002), with the exception of current research by Ashton (2005) and Laurier (2005), none consider children in relation to automobility. This thesis seeks to fill this gap in research.

There are a number of theoretical approaches to automobility. Marxist geographers have explored the role of capital in relation to the production and consumption of cars (Dant, 2004, Gartman, 2004), and the increasing role of cars within wider processes such as time space compression within contemporary capitalist societies (Harvey, 1989). However, a postmodern critique identifies that a Marxist approach does not adequately map the complexity of the cultural meanings or explore the everyday experiences of cars within contemporary societies (Miller, 2001). Developing from the work of feminist geographers, who have considered the significance of gender in differentiating access to and use of cars (Law, 1999, Dowling, 2000), a postmodern approach to automobility has begun to make visible the experiences of others who may have been marginalised by research, including different minority ethnic groups (Dwyer, 1998, Gilroy, 2001), older people (Goodwin et al., 1999) and people with disabilities.

This growing body of postmodern research recognises how experiences of mobility are neither homogeneous nor aspatial, but are characterised by diversity and difference
Massey (1994, Law, 1999, Dowling, 2000). Massey (1993a) has developed the concept of a 'power geometry' (p61) of mobility to explore how experiences of mobility, and the power to initiate or control it are differentiated according to gender, ethnicity and place as well as the economic context (see also Massey, 1994, 2005, Bridge, 1997, Cresswell, 2004). However, with the exception of Thomsen (2004) and current work by Ashton (2005) and Laurier (2005), there is no research which explores how children experience cars and the significance of childhood within a power geometry of mobility. This is a gap which this research seeks to fill.

1.1.2 The policy context

There is increasing public debate regarding the role of cars within contemporary societies. Although this has taken many different forms, for example, the 'Reclaim the Streets' and anti-road building protests of the 1990s, one of the most current and vociferous debates is in relation to use of cars for the journey to school. 'School run Mum' is often the scourge of media campaigns, including comments from politicians such as Ken Livingstone, Mayor of London who reputedly said:

When you see someone trying to manoeuvre a 4x4 around the school gates you have to think they're a complete idiot. (cited in Morrison, 2004, unpaged)

Belying such sensationalist headlines is a trend indicating increasing car use for children's mobility. Latest figures from the Department for Transport state that 40% of primary school children are driven to school, an increase from 28% in 1991 (DfT, 2005), accounting for almost one in five cars at the peak of the morning rush hour (DfT, 2003b). One of the original inspirations for this research was a BBC documentary, featuring a West London mother who each morning and evening, undertook a five mile, one and a half hour journey driving her three children to and from school. In the car, the children did their homework and ate their dinner. I was left wondering what the children thought of spending so much time and undertaking so many activities in cars.

Children have also become a growing focus of advertisements for cars. One particular commercial for the Toyota Corolla features a girl running across a playground towards her mother, waiting to collect her from school. She waves to her Mum but gets into a Corolla belonging to another parent. The parent turns and says 'Jenny isn't your mum over there?' to which Jenny replies 'shut up and drive'. The cultural expectations and aspirations to be driven to school are clear, and advertisements promote specific car models above other brands as status symbols for parents and children.

Clearly, the political context surrounding children and cars is controversial. There have been a variety of UK government policy responses to this issue, including 'Safer
Routes to School' (hereafter SRS) programmes, originally developed in Denmark, introduced by the UK government in 1998 and implemented at the local level by local authorities. Central government extended the initiative from 2003-2005 with an extra £50 million funding, with a 2010 target for each school to have its own 'School Travel Plan' (hereafter STP), through which it can implement SRS programmes.

STPs are developed in partnership by headteachers, school governors, parent volunteers and other interested local organisations or individuals, and typically focus upon a combination of street engineering, education and training, and initiatives such as the 'Walking Bus', to reduce dependence on cars for the journey to school (Bradshaw, 1999, Rye, 2002, Barker, 2003). Adopted in many primary schools, both across the UK and internationally (Kearns and Collins, 2003), the walking bus walks children to school in a group by trained and police checked adult volunteers, with strict adult-child ratios. However, except for Collins and Kearns (2001) in New Zealand, and work in progress by Mackett et al. (2004, 2005), there has been little academic discussion of these initiatives.

Underlying these political debates regarding children and cars are sets of assumptions which will help to frame this thesis and feature in its discussions, including the growing use of cars for children's journeys and a lack of consideration of children's views. Also discussed are the underlying power relations which seek to control children's mobility and define their use of cars (and their mothers' use of cars) as unnecessary and problematic, whilst the driving habits of others remain unchallenged.

1.1.3 Introduction to the locations
The research on which this thesis is based was conducted in five locations, three within Buckinghamshire, a predominantly affluent and rural county north west of London, and two within the London Borough of Enfield, a mixed, mostly suburban area on the northern fringe of London, as shown in figure 1.1:
Both administrative areas are diverse, and include areas of deprivation and affluence, and rural and urban contexts. Characteristic details of both locations are provided in chapter four. These locations were chosen in part because Buckinghamshire has some of the highest rates of car ownership in the UK, whilst the London Borough of Enfield has levels similar to the national average. Also influencing the choice of locations was that both local authorities actively promote SRS programmes, enabling the research to explore these initiatives in different locations. Each school taking part in the research was at a different stage of developing their own STP.

1.2 Theoretical arguments and research questions
This thesis was initially conceptualised as a piece of applied geography. Applied geography is a philosophy of usefulness, conducting research of use or benefit to participants or communities to help solve social or environmental problems (Kitchin and Hubbard, 1999, Pain and Francis, 2003). The research continues a wider trend amongst human geographers (see Doyle, 1999, Pacione, 1999a), including more recently among children's geographers (see Smith and Barker, 1999a, Cahill, 2004), to develop knowledges useful and relevant for communities. One motivation for conducting the research was to collect data for participating schools to enable them to develop their own STP.
However, doctoral research is an evolving and dynamic process, which is influenced by broader developments within the discipline. In 2000, when I began the research, cars were rarely a subject of discussion within social theory. Since then, the development of the new mobilities paradigm has encouraged debate regarding automobility (Urry, 2000, Miller, 2001, Maxwell, 2001, Sheller, 2004, Featherstone, 2004). Many of these discussions have drawn upon, or have explicitly adopted, a postmodern approach, which subsequently became an increasingly significant and useful framework for making sense of my research. A postmodern approach identifies growing car use as an example of wider processes of time space compression characteristic of postmodern societies (Urry, 2000) and considers how experiences of automobility are neither homogeneous nor aspatial, but are characterised by diversity and difference (Sheller, 2004). The thesis also discusses how adopting a postmodern approach during the course of the research has also created some challenges, for example in combining postmodernism with an applied geography approach and the use of quantitative methods.

Existing research often focuses upon the impacts of automobility on children's lives, for example, the impact on health (see Mackett et al., 2005), independent mobility (see Hillman, 1999, O'Brien et al., 2000, Ross, 2002), and spatial skills (see Joshi et al., 1999, Rissotto and Tonucelli, 2002). This thesis is innovative in considering automobility in relation to children in three different and less explored ways, investigating children's experiences of cars, the role of cars for children's mobility, and children's responses to automobility. From these three aspects of automobility, four specific research questions have been identified.

Existing research indicates how cars are not only spaces for travelling, but also are sites for a number of activities. Cars can be places of solitude, refuges from contemporary life (Urry, 2000), or alternatively places for conversation and debate (Maxwell, 2001). Cars are also spaces for listening to music (Bull, 2001), making telephone calls and plotting journey routes (Beckmann, 2001). However, existing research has focused upon the experiences of adult drivers. Whilst cars are increasingly important spaces of childhood, there has been no research exploring how children experience these spaces. Therefore, seeking to fill this gap in existing literature, the first aim of the research was to explore how children experience the increasingly significant spaces of cars.

Debates within the new mobilities paradigm (see Urry, 2000, Miller, 2001, Sheller, 2004) have argued that the development of societies characterised by automobility can be seen as part of wider processes relating to postmodern societies, such as time
space compression (see Harvey, 1989). Increased use of cars is both a response to, and a contributor to the speeding up of the pace of social life, and a collapse of spatial barriers (Giddens, 1991, Bauman, 1998). However, these general discussions have not been specifically considered in relation to contemporary experiences of childhood. Therefore, the second aim of the research was to consider the applicability of debates within the new mobilities paradigm to account for the increased role of cars for children's spatial mobility.

Massey (1993a) highlighted that experiences of mobility are not uniform, and developed the concept of a power geometry to explore how experiences of mobility, and the power to initiate or control it are differentiated according to gender, ethnicity and place (see also Massey, 1994, 2005, Bridge, 1997, Cresswell, 2004). Similarly, children’s geographers have highlighted children do not form an homogeneous group (Matthews et al., 1999, Holloway and Valentine, 2000a). Therefore, to map a geography of children's automobility, the third research aim was to explore how Massey’s power geometry of mobility can be used to consider how the role of cars for children's spatial mobility varies between different groups of children and children in different places.

Increasingly, debates both within academic and policy contexts have begun to be more ambivalent towards or critical of automobility (Beckmann, 2001, Kaufmann, 2002). Safer Routes to School programmes have attempted to reduce congestion at the school gate. However, with the exception of Kearns et al. (2003) in New Zealand, and work currently underway in the UK (Mackett et al., 2004, 2005), there has been little discussion of these initiatives as alternatives to automobility. As well as seeking to fill this gap in current knowledge, one motivation for conducting the research was to conduct applied geography, to produce research useful for local committees developing a 'School Travel Plan'. Therefore, the fourth research aim was to evaluate the effectiveness of 'Safer Routes to School' programmes as an example of UK government policy to discourage dependency on cars for children's spatial mobility.
1.3 Original contributions of the research
The thesis contributes to the wider project of mapping children's geographies, making visible children's experiences of automobility and exploring their use of the increasingly important spaces of cars. Reflecting a focus of other postmodern geographers (Sharp et al., 2000, Herod and Wright, 2002, Allen, 2003), the research contributes to debates regarding power. Specifically, it considers how children's lives are embedded and implicated in relations of power, and the transformative potential of children's social agency. The research considers power relations at a variety of spatial scales, from the everyday spaces of cars, to decision-making regarding how children travel, and to children's involvement (or rather lack of) in formal transport policies.

The research also considers the relevance of discussions within the new mobilities paradigm to understand contemporary childhoods. It explores how the work of Harvey (1989) and others (Giddens, 1991, Bauman, 2000) on time space compression, Massey (1993a) and others (Bridge, 1997, Cresswell, 2004) on a power geometry of mobility, and Urry (2000) and others (Featherstone, 2004, Sheller, 2004) on automobility, may have relevance to debates concerning children's geographies. The research also contributes to the new mobilities paradigm by exploring how childhood reshapes and reconfigures these wider contemporary processes in particular ways for children. A critique of the new mobilities paradigm is also developed, for conceptualising cars as solitary places, and assuming all car travellers are autonomous and independent. The thesis develops new knowledges by considering children as one example of mediated mobilities and how their experiences of automobility are distinct from those of drivers.

The thesis also engages with, and contributes to, long standing debates regarding the relationship between economic and cultural processes (McDowell, 2000) and the use of different theoretical perspectives in human geography. In particular, the thesis compares the insights offered by postmodern, Marxist and feminist geographers in relation to children's automobility. Whilst a postmodern approach is useful in exploring the everyday spaces of cars and considering the diversity of children's experiences, no one theory offers a comprehensive or sufficient explanation; each has some relevance for making sense of children's experiences of automobility.

The research also contributes to methodological debates. It evaluates the use of a variety of qualitative methods to explore children's experiences of automobility. Despite attempts to be children-centred, the research indicates how power relations within families influence the research process. Responding to recent debates regarding the reconciliation of quantitative methods, the research also critically explores the possible
role for quantitative methods within children's geographies and postmodernism. Despite its use for conducting applied geography, the thesis identifies significant limitations with the use of quantitative methods.

The thesis engages with policy debates by evaluating SRS programmes, identifying how such initiatives can successfully encourage modes of travel to school other than cars. However, the thesis also argues that SRS programmes are exercises of power which regulate and control children and problematise their mobility. It also raises issues for discussions amongst policy makers, including the reliance on volunteers, and the need to implement these schemes in combination with wider initiatives which also question the use of cars by other social groups.

1.4 Summary of the thesis
Chapters two and three provide the background to the thesis by reviewing different sets of literatures to place the research within its broader context. Chapter two reviews existing literature regarding applied geography. Applied geography has a long, if contested, heritage within human geography (Peck, 1999, Fuller and Kitchin, 2004). Whilst some applied geographers work with policy makers and planners to evaluate and improve services, this has often been critiqued as inherently conservative and reproducing the status quo (Pacione, 1999b). More recently, a series of more radical approaches to contributing to social change have involved more fundamental critiques of policy (Harvey, 1974, Peck, 1999), and working in more participatory approaches with individuals and organisations often excluded from research or policy (Maxey, 2004b).

Chapter two also discusses how mobility has become a key feature of contemporary societies, and explores the rapidly expanding new mobilities paradigm (Thrift, 1996, Featherstone, 2004). One key feature of the new mobilities paradigm is the increasing role of automobility within contemporary societies (Urry, 2000, Sheller, 2004). The chapter outlines different theoretical approaches to automobility, and discusses how emerging theoretical debates within the new mobilities paradigm led to the research evolving, over time, to incorporate a postmodern theoretical approach. The chapter explores how postmodernism refers both to a description of contemporary societies (see Jameson, 1984, Soja, 2001a), as well as an approach to conducting human geography, which critiques modernist claims to truth and recognises knowledge is socially produced (Johnston, 1997).

Whilst a Marxist perspective has focused upon the economic context of car production and consumption, a postmodern approach identifies the need to consider the cultural
role of cars within everyday life. Postmodernism emphasises diversity and difference and giving voice to those often excluded or marginalised in research (Bondi and Domosh, 1992, Philo, 1992a), exploring differential access to, and experiences of, mobility (e.g. Law, 1999, Dowling, 2000), although these debates have rarely included children. The chapter also introduces the concept of power, a key issue discussed throughout the research, and outlines Massey's concept of a power geometry of mobility (Massey, 1993a), which is adopted in the research as a way of exploring how children's experiences of automobility are not uniform, but highly differentiated.

Chapter three summarises the literature on children's geographies, a growing and vibrant subdiscipline of human geography. The chapter highlights how children's lives are increasingly privatised and institutionalised in the UK and other western, industrialised countries (Sibley, 1995a, Valentine and McKendrick, 1997, McKendrick et al., 2000a). Specifically, in relation to this thesis, the chapter reviews evidence suggesting children are increasingly escorted to and from places by parents, and increasingly by cars (Hillman et al., 1990, O'Brien et al., 2000, Jones and Bradshaw, 2000). Whilst there is a growing body of research considering the impacts of cars upon children's lives, little has been written regarding children's everyday experiences of automobility. This research draws upon these different strands to consider three aspects of children and automobility, namely children's experiences of cars, the role of cars in children's lives and children's responses to automobility.

Chapter four provides a reflexive account of the process of conducting research. It justifies and critically discusses the adoption of a postmodern approach to applied geography, to produce knowledge of relevance to and use for the schools participating in the research. It justifies and reflexively evaluates the adoption of a variety of methods, including questionnaire surveys and a range of qualitative techniques such as photographs, diaries and in-depth interviews. The chapter also gives a reflexive account of many of the ethical and methodological issues faced in the research, including choosing a sample, gaining access, obtaining informed consent, ensuring confidentiality and protection, undertaking analysis and dissemination, as well as discussing the possible influences of positionality (as a thirtysomething middle class professional, white man who is not a parent) upon the research process. The chapter also explores tensions regarding undertaking research which is influenced by diverse approaches such as applied geography and postmodern geographies.

In the first discussion of research findings, chapter five explores children's experiences of cars as one particular aspect of automobility. It identifies how cars are more than spaces for journeys for children, and are sites for undertaking multiple and diverse
activities, including play, relaxation, talking to friends and family, homework and listening to music. Using the notion of micro-political geographies of families, it also considers how spaces of cars are sites of power relations. Whilst adults ultimately control such spaces, children demonstrate their social agency by contesting activities and events within cars.

Chapter six explores a second aspect of automobility, by investigating different reasons for the increased role of cars in children's lives. It identifies several broad and interconnected factors, namely the spatial and temporal organisation of children's and parents' lives, spatialised fears for children's safety and preferences for car use. It also explores the extent to which wider theoretical debates within postmodern geographies, Marxist geographies and feminist geographies can help to make sense of this. The chapter draws upon Massey's power geometry to explore how reasons for car use and the role of cars within children's mobility are not uniform, but differentiated by a variety of socio-spatial variables.

Chapter seven considers a third aspect of automobility, exploring children's diverse responses to automobility. It identifies the ways in which cars are a central feature of, and embedded within, expectations regarding childhood and parenting, which reproduce the dominance of automobility. However, it also explores how the desirability of automobility is contested, illustrating how some families have developed alternatives to lifestyles dominated by cars. The chapter also critically explores SRS programmes as an initiative to reduce congestion around the school gate. Whilst offering an alternative to cars, SRS programmes are exercises of power, both within families and within broader institutions such as schools and local transport planning, which regulate and control children and problematise their use of cars, whilst leaving the mobility of others unchallenged.

The concluding section, chapter eight, revisits the research questions to provide a summary of key findings. It also identifies and discusses the wider implications of the research in relation to theory, methodology and policy, and how the thesis contributes to developing new knowledges. The thesis ends with suggestions for future research.
Chapter two~ 'From action to theory': Developing an approach to the research

(Philo calls for)... a blueprint for a truly postmodern geography: a postmodern geography in which details and difference, fragmentation and chaos, substance and heterogeneity, humility and respectfulness feature at every turn, and an account of social life which necessarily brings with it sustained concern for the geography of things rather than a recall for the formal geometries of spatial science. (Philo, 1992a, p159)

2.1 Introduction
This chapter explores the process of developing an approach to the research. It discusses how my initial motivation was to conduct applied geography, in order to produce knowledge useful to or of benefit for research participants or communities. Whilst applied geography is a broad approach used by many diverse spheres of human geography, this chapter discusses how, like many children's geographers, I wanted to conduct research which would help to transform the material circumstances of children's lives. The particular way in which I planned to do this was through working with schools to help develop a 'School Travel Plan' to help reduce children's dependency on cars for the journey to school.

The chapter also explores how research is neither simple nor straightforward, but an ongoing, evolving process. As I undertook part-time PhD research over a number of years, the focus of my thesis evolved to reflect wider changes in the discipline. Since the beginning of the PhD in 2000, a wealth of literature has emerged within the new mobilities paradigm. This chapter discusses how these emerging debates have subsequently had a profound influence on the thesis, shifting the emphasis from applied geography to an approach which also develops contemporary conceptual and theoretical debates regarding mobility. In particular, the chapter explores different theoretical approaches to automobility, justifying why, as the research progressed, I adopted a postmodern approach to automobility. The chapter also identifies gaps in existing research, and considers how this thesis contributes to addressing these gaps by developing new knowledges regarding children and automobility.

2.2 Applied geography
Designing research depends upon different factors, including philosophical justifications, methodological strategies as well as practical considerations (Williams and May, 1996, Graham, 1997). My initial motivation for this research was to conduct applied geography, defined as research which produces 'useful knowledge' of benefit to participants or communities, to help solve social and environmental problems (Doyle,
1999, Pain and Francis, 2003), and is underpinned by ‘a philosophy of usefulness or relevance to society’ (Pacione, 1999a, p4). Most of the research in which I had previously been involved had an applied focus, evaluating policies and the provision of services for children, often involving children in this process (see Bury et al., 1998, Smith and Barker, 1999a). I wished to continue this applied focus for my PhD to conduct research which would be useful for developing local transport plans, in order to challenge children’s car dependency for the journey to school and to increase the profile of children in local transport planning.

Applied geography has a long, if contested heritage in human geography (Peck, 1999, Fuller and Kitchin, 2004). At least within some parts of the academy, applied research has been seen as less valued than pure, theoretical academic research, for example, in the Research Assessment Exercise (RAE). Despite this, applied geography is a popular and vibrant aspect of contemporary human geography, evidenced in the variety of relevant research and publications, and the emphasis of the Economic and Social Research Council (ESRC) on working with user groups. As Peck (1999) comments:

Policy research is a legitimate, non-trivial and potentially creative aspect of the work of academic geographers. (Peck, 1999, p731)

Applied geography has been adopted by a wide range of geographers, including feminist geographers (see Lawson, 1995, WGSG, 1997) and Marxist geographers (see Harvey, 1974) and more recently, as chapter three explores, children’s geographers, who contribute to policy discussions regarding childhood and help to transform the material circumstances of children’s lives. Transport geography, which explores the central role of transport in most social and economic activities, and the different social, political, economic and environmental issues related to transport (Peake, 1994, Guiliano, 1998, Smith et al., 1998, Hoyle and Knowles, 1998), has also often embraced applied geography. Since the 1950s, a positivist approach to applied transport geography used complex and abstract quantitative models to work with planners, policy makers and the broader transport industry to predict and plan for future transport demands and needs (Button, 1993b, Gillespie et al., 1998).

Although some transport geographers continue this approach, this role of applied geography has been critiqued as inherently conservative, working with political and economic elites to legitimise and justify the adoption of policies and plans which support and reproduce the status quo (Cloke et al., 2000). As Pacione comments:
Applied research (can) produce ameliorative policies which merely serve to patch up the present system, aid the legitimation of the state, and bolster the forces of capitalism with their inherent tendencies to create inequality. (Pacione, 1999b, p7)

In response, a number of more radical forms of applied geography have challenged ideas both about who applied geographers work with, and the methods and processes undertaken. During the 1970s, Marxist geographers (such as Harvey, 1974) argued for a more radical approach to applied geography which sought to critique policies rather than implement them. Since the 1980s, a number of feminist geographers have also undertaken applied geography, working with policy makers and practitioners to develop and critique policies and services for women, and more radically, developing a broad range of participatory strategies to engage with women who are often excluded by other approaches to research. Drawing upon these various critiques, the 1990s saw the broader development of a more radical and activist approach to applied geography, advocating more radical forms of engagement and direct action to provoke discussion and enact social transformation (Maxey, 1999, Fuller and Kitchin, 2004, Moss, 2004). It often does so in collaboration with local community organisations or disenfranchised or hitherto invisible groups, such as women, low income groups and, specifically of relevance for this research, children.

As chapter four critically explores in more detail, my approach to applied geography involved working over a period of months with five 'School Travel Plan' (hereafter STP) committees based in schools, to collect data regarding how children currently travel to school and how they would prefer to travel. I hoped that this information would be useful for schools developing their own STP. However, this can be critiqued as a rather conservative approach to applied geography, contributing to the development and implementation of policies, rather than critiquing them or developing a more radical approach, for example, working with those excluded from the policy process. However, Peck (1999) and Halfacree (2004) stress the need to overcome the dualism between policy relevant and more radical, activist research, arguing that applied, policy relevant research need not be conservative, and can be "more than useful" (Horton and Kraftr, 2005, p113) and develop thoroughly critiques of policies. Therefore, whilst assisting the development and implementation of STPs, my research also critiques these policies, the institutions which implement them and the power relations which surround them (as suggested by Gilbert and Masucci, 2004). Doyle's (1999) experiences of developing a critique of services whilst also supporting them echoes my position:

Whilst wishing to support these essential services... because of the vital services they provide, I also wish to be able to criticize (sic) some of the
practices, without undermining the case for providing services. (Doyle, 1999, p245)

Debates in applied geography have also questioned how geographers work with 'research clients', a term Peck (1999) uses to describe the broad spectrum of organisations, institutions or user groups with whom applied geographers work with to enact social change. Some (such as Maxey, 1999, Pain and Francis, 2003) have challenged one-off extractive forms of data collection and have embraced different participatory approaches involving research clients at different stages of the research process, such as developing research aims, designing methods, undertaking analysis and report writing. In this spirit, rather than using the term research clients, I adopt the phrase 'research partners' to reflect a less business or consultancy based model and a more participatory approach to working with organisations.

More recently, there have been more critical discussions regarding participatory approaches in applied geography (Doyle, 1999, Maxey, 2004b). Despite developing more participatory methods of communication and involvement, power relations often persist at all stages of the research process, and some forms of involvement of research partners in applied geography may rather be more accurately identified as manipulation, decoration or tokenism (Hart, 1997, WGSG, 1997, Pain and Francis, 2003). Also, despite intentions, applied geography may well benefit academics, through career progression and external funding, more than it does those participants who were intended to benefit (Kitchin and Hubbard, 1999).

As chapter four discusses in more detail, my approach to applied geography involved working with the research partners at different parts of the process, for example, in the design of research methods and data analysis, in order to ensure the results would be relevant and suitable for developing STPs. A more radical approach could have involved working more directly with parents and children to enable them to influence aspects of the research process. However, such data would have been less likely to be in the format useful for developing STPs. Furthermore, as others such as Doyle (1999) and Maxey (1999) have commented, it is difficult for PhD research to be completely participatory, since students need to shape and own the research in order to produce a thesis.

Therefore, the broad approach taken at the outset of the research was to conduct applied geography, in this instance to explore the role of cars in children's lives by working with schools to develop STPs. However, research is not 'neat, tidy and unproblematic' (Fuller, 1999, p226), but an ongoing, evolving process, which is
influenced both by evolution and change within the research process, as well as external developments and innovation in the broader discipline (see also Limb and Dwyer, 2001). When I began my research, cars were not a subject of interest within social theory. As my part-time PhD research progressed, I witnessed the development of what Cresswell (2005) has called the 'new mobilities paradigm'. Although a contested term (as discussed by McDowell, 2005), it can refer to a set of assumptions, concepts, values, and practices regarding mobility, which is increasingly central to contemporary societies (Miller, 2001, Sheller and Urry, 2003, Kearns et al., 2003, Thrift, 2004, Gartman, 2004, Pooley et al., 2005). A central feature of the new mobilities paradigm is automobility (Urry, 2000), a term referring to the increasing dominance of economic, political, and cultural systems of cars, and their impacts on societies, resources and environments.

These emerging conceptual and theoretical debates inspired me and had a profound influence on the focus of the thesis. Of particular relevance and interest were the different theoretical approaches developed by Marxist, feminist and postmodern geographers which offered distinct ways to explore and account for the new mobilities paradigm. The next sections evaluate different conceptual and theoretical approaches to mobility and automobility, indicating how the research evolved from a piece of applied geography, to one also influenced by a postmodern approach to automobility.

2.3 Conceptualising mobility

Social scientists have studied a number of different forms of mobility, including social, residential and spatial mobility (Urry, 2000). Spatial mobility can be defined as increased circulation and movement within space and 'the ability to travel' (Tolley and Turton, 1995, p14, also Madanipour, 1996). Whilst transport may refer to the infrastructure or system which enables travel, spatial mobility refers to the act of movement, circulation or flow through space, landscapes, places and territory, including longer term movements such as migration as well as everyday travel movements (Beckmann, 2001). There are many differing types of mobility, including: personal travel; travel of objects, such as goods and commodities; imaginative travel, for example through media representations; virtual travel, for example through the internet, and communicative travel, such as email and mobile phones (Urry, 2004a).

Although mobility has been an often undervalued concept in human geography (Cresswell, 1993, Law, 1999), it is increasingly central to most societies, since human beings are not rooted entirely in one space or place (Beckmann, 2001). Mobility is not generally undertaken for its own sake (although walking or driving for leisure are
examples of this), but rather enables accessibility to services, people and culture (Barton, 1998). Whilst these trends are most immediately identifiable in the developed world, there are more global aspirations for increased travel and communication (Button, 1993a, Peake, 1994).

Time space compression is a term often associated with these new mobilities and the spatialities they produce (Harvey, 1989, Massey, 1993a). For many, distance, space and time have become less significant, due to the reduction in barriers between places, regions, countries and continents, brought about by technological advances and the falling costs of communication and mobility (Harvey, 1989, Bridge, 1997, Thrift, 2004). This leads to a collapse in the friction of distance, drawing 'far off' places to become 'nearby' and resulting in a compression of spatial and temporal worlds (Whitelegg, 1997, Dodgshon, 1999). Although time space compression is not a new phenomenon, it has been argued that its pace has quickened dramatically over the past century, due to constant innovation and ever increasing levels of circulation, mobility and communication (Hall, 1992, Thrift, 1995, Dodgshon, 1999).

As my research progressed, these debates have developed as the new mobilities paradigm, which, in turn, have helped shape the conceptual development of the thesis. Whilst others have explored a diverse set of mobility experiences, for example, airports (Auge, 1995), motorway service stations (Merriman, 2004), and cyberspace and virtual environments (Holloway and Valentine, 2003, Jones et al., 2003), my research contributes to this literature by identifying and exploring children's everyday lived experiences of cars. In order to achieve this, it is necessary to discuss the development of the concept of automobility and justify why cars are an important focus within the new mobilities paradigm.

2.4 Conceptualising automobility
Although different modes of transport have played important roles in increasing mobility, the role of cars is arguably the most significant. The increasing dominance of cars as a form of mobility is well documented, accounting for 64% of all journeys in the UK in 2005, compared with 46% in 1975/6 (DfT, 2005). Other forms of motorised and non-motorised journeys, with the exception of air travel, are mostly in decline. Furthermore, whilst this is a feature of most western, industrialised countries, it is also increasingly occurring in industrialising countries as well (Tolley and Turton, 1995).

Despite this, until recently, cars have been noticeably absent from social theory. The work of Urry (2000), Miller (2001) and the special editions of Environment and Planning
D (see Sheller, 2004, Bull, 2004), and Theory, Culture and Society (Featherstone, 2004, Dant, 2004, Merriman, 2004), have begun to theorise a transformational shift in western, industrialised societies towards the dominance of cars, a process Urry (2000) defines as automobility. Automobility is more than simply an increase in the role of cars as the prime means of transportation, and refers to the broader dominance of economic, political and cultural systems of motorised transport including cars (Beckmann, 2001). Urry (2000) argues that automobility is so pervasive that to not have a car is seen as a failure to participate fully in contemporary society and a form of social exclusion (see also Gartman, 2004, Thrift, 2004). The following sections critically discuss existing evidence regarding automobility, considering their relevance for this thesis, as well as identifying gaps in existing research to which this thesis attempts to contribute.

2.4.1 The everyday spaces of cars
Automobility has created new types of contemporary everyday spaces (Kirsch, 1995, Thrift, 1996, Merriman, 2004, Bull, 2004). Urry (2004b) calls for a mapping of how these new spaces are inhabited and experienced. New spaces of mobility have often been conceptualised as 'non-places', since these spaces are transitional, devoid of meaning, and occupied temporarily and fleetingly (Auge, 1995, Sheller and Urry, 2004, Featherstone, 2004). Although cars are primarily functional spaces which transport people to places where social action may occur, people dwell and interact in cars, as well as through the use of them (Urry, 2000, Dant, 2004). Cars generate their own sets of social experiences, and a wide variety of social action has been recorded in them (Maxwell, 2001, Laurier, 2005). People communicate, conduct business, spend time with friends or family, relax or argue whilst in cars (Urry, 2000, Bull, 2001, Michael, 2001, Sheller, 2004). Furthermore, the spaces of cars are characterised by their flexibility, with multiple and overlapping sets of social actions (in addition to driving) which may occur simultaneously (Featherstone, 2004).

Technology also shapes experiences of automobility (Beckmann, 2001). Highly complex information and communication systems perform an increasing number of functions within cars (Sheller and Urry, 2004). The boundaries between driver and car are increasingly blurred. Cars are given human-like properties, as we talk to our cars, name them, scold them when they break down, and treat them as extensions of our bodies (Beckmann, 2001, Miller, 2001, Urry, 2004b, Thrift, 2004). Technology and software increasingly replaces functions performed by humans in cars, such as regulating the climate, mapping preferred routes and operating windscreen wipers and lights. Thus, Thrift argues that the 'intelligence and intentionality' (Thrift, 2004, p49) of
driving is now inseparably distributed between a hybrid of 'the human' and 'the technological'. Whilst cars are moving spaces which travel through public spaces, they are often experienced as private, domestic spaces, in which individuals reclaim time and space to relax from everyday social life (Bull, 2001, Featherstone, 2004), although road rage and the frustration of congestion are often common experiences which contest this ideal. Drivers are in direct control of sound and climate, as well as direction of movement (Beckmann, 2001, Bull, 2004). Spaces of automobility can be seen as part of a wider shift from public spaces of public transport towards a privatisation of mobility associated with the wider privatisation of contemporary societies (Michael, 2001).

Automobility also reconfigures the relationship between the traveller and their external environment, altering the perception of landscape, increasingly experienced as 'blur and streak' rather than in detail (Auge, 1995, Thrift, 1996). Whilst cars offer a view of the external environment, windows are also often seen as a barrier to the outside rather than a view onto them (Miller, 2001, Featherstone, 2004). Cars insulate occupants, offering two dimensional, 'heavily intermediated representations' (Thrift, 2004, p51) of the external environment.

This literature emerged during the course of the PhD and has proved invaluable in providing a context to this study. However, there are three main limitations of existing research, which illustrate the need for research to which this thesis contributes. Firstly, most work on the lived experiences of cars has been conducted by anthropologists and sociologists. Whilst geographers have looked at the implications of car use upon different groups (for example, Law, 1999, Dowling, 2000), geographers have not as yet (with the exception of current research, such as Ashton, 2005, and Laurier, 2005) explored people's experiences of these increasingly significant spaces. Therefore, this research contributes to existing knowledges in the new mobilities paradigm by considering a geographical perspective to explore the everyday experiences of cars.

Secondly, most existing research has focused on the experiences of car drivers (Dant, 2004). However, cars are often spaces in which more than one person travels, and indeed 23% of journeys undertaken in the UK are as car passengers (DfT, 2004). Therefore, this thesis contributes to developing new knowledges on automobility by considering how one particular, if diverse, group of passengers experience the spaces of cars and how this may differ to those of car drivers.
Thirdly, as chapter three explores in more detail, most existing discussions (with the exception of current research by Ashton, 2005 and Laurier, 2005) have focused on the experiences of adults, and has failed to consider children's perspectives, and how adult-child relations may differentiate experiences of automobility. Therefore, this research contributes to this gap in existing knowledge by considering how children, whose experiences of automobility have yet to be explored, experience the spaces of cars.

2.4.2 The role of cars for spatial mobility

As well as exploring the spaces of cars, researchers have begun to map the diverse impacts associated with automobility. Whilst there are numerous cultural, social, environmental and spatial impacts experienced by both users and non-users, this research focuses specifically upon exploring the increasing role of cars for spatial mobility.

There are many diverse, complex and interconnected reasons for increasing levels of car ownership and use, including economic explanations and wider socio-demographic trends. The costs of car ownership have been steadily falling, both in absolute terms and relative to other forms of transport, whilst personal incomes have been rising (Maddison et al., 1996, Hibbs, 2000). Socio-demographic changes, such as the reduction in average size of households and a growing older population, have contributed to increasing car ownership and use. Also significant is the growing cultural and financial independence of many women, and the increasing proportion of mothers using cars to combine employment, caring and household roles (Peake, 1994, Guiliano, 1998, Dowling, 2000, McKie et al., 2002).

Automobility has both contributed to, and has developed in response to changes in the spatiality of living and working patterns and of the British landscape (Guiliano, 1998, Featherstone, 2004). There are two interconnected ways in which this has occurred. Firstly, cars have increased spatial mobility by offering more freedom, flexibility and adaptability than other forms of travel (Goodwin et al., 1991, Hamilton and Hoyle, 1999, Urry, 2000). Cars have given more opportunities to access activities, such as employment, education or leisure, over wider geographical areas (Goodwin et al., 1991, RCEP, 1994, Peake, 1994, Maddison et al., 1996, Beckmann, 2001).

Secondly, automobility has led to, and has increased as a response to the development of new facilities and the spatial reorganisation of existing ones, including a relocation of many employment, retail and leisure facilities from town centres to more
dispersed and decentralised 'out of town' locations (Guiliano, 1998, Turton and Knowles, 1998). These new spaces of consumption have lower land costs and suffer less congestion, and have encouraged car ownership and use since they are often more accessible by car (Goodwin et al., 1991, Elkin, McLaren and Hillman, 1991, Peake, 1994). Therefore, changing patterns of travel and land use have re-enforced each other in the emergence of a more dispersed and highly mobile society (RCEP, 1994, Kaufman, 2002). As Smith et al. (1998) comment:

The built environment is now characterised by more land take, more mobility and greater levels of dispersion and trip complexity then even before and requires greater distances to do the same things we have always done such as travel to work, school, shops and see friends and relatives. (Smith et al., 1998, p85)

The predominance of cars as a means of mobility has had a wide variety of impacts. Despite significant expansion of the road network, congestion is an increasing problem, so that rather than an experience of liberation and individuality, driving often becomes frustrating and disempowering (Whitelegg, 1993, Maddison et al., 1996, Hoyle and Knowles, 1998). Increased levels of traffic have also impacted upon non-car owning households, segregating communities and re-enforcing the dominance of cars (Button, 1993b, RCEP, 1994, Hunter, Farrington and Walton, 1998). Automobility generates accidents, although vulnerability to accidents is distributed unevenly amongst different road users. Whilst cars are relatively safe, and becoming safer through technological developments such as braking, steering, seat belts, side impact bars, and crumple zones, death and serious injury rates are higher for vulnerable road users, such as cyclists and pedestrians and, as chapter three explores, children (Sabey, 1993). Automobility has also impacted on non-car owning households, through the decline of public transport in many places, with the exception of London and other metropolitan centres. Public transport constituted only 8% of all trips taken in 2005 (DfT, 2005), and is often unable to match the flexibility, adaptability, convenience and comfort offered by cars (Torrance, 1992, Simpson, 1994, White, 1995).

However, as chapter three discusses, one critique of existing research regarding the role of cars is that evidence only focuses upon the perspective of adults. Children's voices remain largely absent, and research has not yet explored the ways in which these processes may influence the role of cars for children's spatial mobility. Therefore, this research contributes to developing new knowledges, by exploring whether and how far these debates within the new mobilities paradigm can help to explain the increasing role of cars for children's spatial mobility.
2.4.3 Responses to automobility

There are growing criticisms of automobility (Adams, 1992, Beckmann, 2001, Kearns et al., 2003, Sheller, 2004). In addition to creating new opportunities, the spatial restructuring and dispersing of societies associated with automobility has also created new dependencies (Hillman et al., 1990, Featherstone, 2004), creating distances between home and other facilities that often only car drivers can travel (James and Pharoah, 1992). Automobility does not only represent freedom or choice, but also compulsion, coercing people into a particularly intense form of flexibility (Hughes, 1993, Whitelegg, 1993). As Urry comments:

Social life has become locked into the modes of mobility that automobility generates and presupposes. (Urry, 2004b, p27)

The freedoms and benefits that people seek through cars are eroded by congestion as more people attempt to make use of these opportunities (Goodwin et al., 1991, Hills, 1993). As Beckmann discusses:

The car simultaneously enables and disables- individualises and re-integrates, liberates from one spatio-temporality and coerces into another. (Beckmann, 2004, p83)

More radical responses to automobility, such as the anti-road protests at Twyford Down in Hampshire (1992-5), the M11 link road in east London (1994-7), and the Newbury bypass in Berkshire (1995-8), and more formal organisations such as Transport 2000 and the Environmental Transport Association, have also problematised the building of new roads, and the wider dominance of cars. Policy makers and planners have also become increasingly critical of the 'predict and provide' approach to transport planning, focusing upon demand management, including a variety of initiatives such as road pricing (for example, the London congestion charge), Work Travel Plans, Homezones and, specifically of relevance for this thesis, 'Safer Routes to School' programmes (Whitelegg, 1997, Biddulph, 2001).

However, once more existing literature can be criticised for focusing upon the perspective of adults and failing to examine children's experiences. This thesis contributes to existing debates by considering children's responses to automobility. Furthermore, there has been little discussion or critique of SRS programmes. This thesis fills this gap by considering the extent to which this initiative represents an alternative to automobility.
Therefore, this section has indicated how emerging debates regarding automobility have had a profound influence on the thesis, highlighting how the initial applied geography approach to research was complemented by one conceptually grounded within the new mobilities paradigm. The next section discusses how different theoretical approaches have made sense of automobility, and justifies why a postmodern perspective was most suitable to explore automobility in children's lives.

2.5 Theoretical approaches to automobility

2.5.1 Postmodern geographies
During the process of undertaking the research, a postmodern approach increasingly seemed the most appropriate way to make sense of aspects of automobility in children's lives. Postmodernism has become a popular, if contested term, often used to refer to recent and highly significant changes both within society (often associated with terms such as postindustrialism and postmodernity), and within social theory, linked with terms such as postmodern geographies and poststructuralism (Johnston, 1997, Crang and Thrift, 2000). Although postmodernism was initially seen as a passing trend, its continued presence within theoretical debates has highlighted that it cannot be ignored by those who wish to engage with contemporary human geography (Soja, 1989, Dear, 2001). Defining postmodernism is complex, since it has many meanings and applications. Postmodernism can be defined by its distinctiveness from modernism, which Harvey described as:

Generally believed as positivistic, technocentric, and rationalistic, universal modernism has been identified with the belief in linear progress, absolute truths, the rational planning of ideal social orders and the standardization of knowledge and production. (Harvey, 1989, p9)

Postmodernism has a very rich and diverse heritage, and originated in philosophy (Derrida, 1972, Lyotard, 1984), history (Foucault, 1977, 1980a, 1980b) and sociology (Giddens, 1984, Bauman, 1987), primarily in response to what was seen as the growing obsolescence of traditional Marxist theory. Compared to other disciplines, human geography came relatively late to consider postmodernism. Jameson's article in 1984 was the first to consider postmodernism explicitly in relation to spatiality (Jameson, 1984). Several key publications followed, including articles by Soja (1986) and Dear (1986) in Environment and Planning D, Harvey's Condition of Postmodernity (1989), Soja's Postmodern Geographies: The Reassertion of Space in Critical Social Theory (1989), and several influential papers in Environment and Planning D in 1992 (Philo, 1992a, Bondi and Domosh, 1992, Pile and Rose, 1992). That Dear, Soja and Harvey are still discussing postmodernism almost 20 years later (see Harvey, 2000,
Postmodernism has been defined and adopted by geographers in different ways across the globe (for example, Soja, 2001b, details different approaches in the UK, Italy and East and West coasts of the USA), reflecting a wider trend within postmodernism towards an emphasis on fragmentation, multiplicity and difference. The following discussion does not hope to offer a comprehensive overview of all debates regarding postmodernism in geography, since to attempt a definitive description is against what postmodernism stands for. Indeed, the term postmodern geographies in the plural is adopted, reflecting the diverse ways in which it can be conceptualised. Rather this section offers one possible exploration of postmodernism, to indicate its relevance to the research, and to justify its adoption as a theoretical perspective which has subsequently informed much of the thesis. In order to do this, it is necessary to explore other theoretical approaches to automobility, to map how a postmodern geographical approach has both built upon, as well as developed from critiques of other approaches.

2.5.2 A Marxist geographical approach to automobility
There are three key ways in which Marxist geographers have discussed automobility, focusing upon the system of production of cars, the consumption of cars and cars within the broader context of contemporary mobility patterns. Economic geographers have indicated how cars are one of the most commonly manufactured objects, and how Fordist modes of production have been replicated around the globe in countless
industries (Urry, 2000, Dant, 2004). That there are 700 million cars currently in use around the world is testament to their enduring popularity as a commodity and highlights the potential for profitability (Gartman, 2004). Cars are part of wider complex economic systems, incorporating garages, petrol companies, motels, and a wide range of other related services. These economic systems are driven by and for the benefit of capital accumulation, which can be defined as wealth in the form of money or other assets or expanding social value (see Harvey, 1989, Johnston, 1997, Dodgshon, 1999, Dematteis, 2001).

Secondly, Marxist geographers have explored more recently how the manufacture of cars and other commodities have shifted from Fordist methods of mass production to post Fordist techniques, reflecting increased product differentiation as consumer markets incorporate differing lifestyles and niche markets (Featherstone, 2004, Gartman, 2004). This shift is often seen as an example of the emergence of a postmodern society, although for Marxist geographers, this represents the latest and most sophisticated phase of capital accumulation.

In focusing upon mobility as a consumable commodity, Marxist geographers have explored how access to mobility is not equal. Transport disadvantage follows established lines of class inequality, with more powerful, higher class groups possessing more mobility opportunities at the expense of lower class groups, who are less likely to own cars, and depend upon slower and cheaper forms of transport (RCEP, 1994, White, 1995). A lack of mobility has been identified as an indicator of poverty, isolation, and social exclusion (Goodwin et al., 1991, Urry, 2000), since inability to travel restricts access to increasingly geographically dispersed economic, social and cultural resources, limiting opportunities for participating in education, employment, and leisure (Torrance, 1992, Maddison et al., 1996).

There are also significant spatial variations in access to mobility, reflecting wider geographically uneven capitalist development, both between and within societies (Massey, 1993a, Massey, 1999a). Many low income, inner city populations suffer from poor and slow road and rail networks, or networks that are not affordable or accessible, as many high speed transport networks through inner cities do not serve these areas, but are specifically provided for longer distance and more affluent commuter routes (Whitelegg, 1997, Turner and Grieco, 1998). Inner city populations are also more likely to experience the negative impacts of transport, for example, congestion, air pollution, noise and accidents, generated by the movement of more affluent commuters (Torrance, 1992, Tolley and Turton, 1995, Hamilton and Hoyle, 1999).
Thirdly, Marxist geographers have also discussed the role of cars within the broader context of societies increasingly transformed by mobility and time space compression. Harvey's *Condition of Postmodernity* (1989) was one of the first and most influential geographical texts to discuss these recent transformations. For many, these transformations are seen to represent a radical break from the past and the advent of a new epoch (Bondi, 1990, Johnston, 1997). These contemporary changes have often been identified as a historical period of *postmodernity* (Smart, 1993). In this context, a geography of postmodernity is:

A geographical reading of the transformations within our societies, cultures, economies- a reading, in other words, of our new 'condition'. (Minca, 2001, pxv)

However, for Marxist geographers, time space compression and the broader epoch of postmodernity represents the latest phase of capitalist relations:

These changes, when set against the basic rule of capitalist accumulation, appear more as shifts in surface appearance rather than as signs of the emergence of some entirely new postcapitalist or even postindustrial society. (Harvey, 1989, pvii)

These shifts are produced by, and are of benefit to, the consumption requirements of capital (Harvey, 2000, Dematteis, 2001). Relations of production are never static as capital is dynamic, constantly finding new and innovative ways to increase profits, leading to more flexible and contemporary forms of capitalism (Lee, 2002, Castree, 2003). Time space compression produces, but is also produced by new forms of commodities, such as cars. New mobility spaces, such as airport lounges, have become significant spaces for consumption. For Marxist geographers, these new spaces represent the latest attempts to increase profits and ever more sophisticated efforts to obscure the real relations of production, consumption and exploitation.

Therefore, this literature suggests that a Marxist geographical approach may have some relevance for this thesis, in tracing some of the links between economy and automobility. However, the following sections discuss a number of critiques of Marxist theories which demonstrate it has only limited explanatory power, indicating a need to move beyond this approach. Firstly, as a structural approach, Marxism neither adequately maps the complexity of the cultural meanings of cars nor explores how cars are experienced as everyday spaces. Secondly, whilst Marxist geographers explore differences relating to class, this does not adequately account for how experiences of automobility are not uniform, but are characterised by diversity and difference. As the
following sections discuss, a postmodern approach is most useful in responding to these limitations of Marxism.

2.5.3 A postmodern focus on cultural aspects of automobility

There has been significant debate amongst geographers as to whether automobility and the broader geography of postmodernity can be entirely reduced to the material conditions, processes and practices of contemporary global capitalism (Soja, 2001b). Although capitalism may have played a key role in generating postmodernity, it is not sufficient in explaining all of its manifestations within wider cultural, political and social spheres, which retain at least some independence from, and cannot be explained entirely in relation to, capital (Pile and Rose, 1992).

A Marxist analysis that automobility and time space compression are initiated and developed by and for the interests of capital does not adequately or sufficiently explain the lived experience of cars or their cultural and symbolic value. Whilst Urry (2000, 2004b) acknowledges the importance of capital, he suggests that an economically deterministic perspective is not sufficient to explain all aspects of automobility. Whilst capitalism produces cars, individuals are not simply passive consumers who exist as cogs in a system of automobility (Thrift, 2004). Capitalism does not determine the social action which occurs within cars, nor the cultural meanings of cars as revered objects or status symbols (Miller, 2001). Cars are afforded different meanings and symbolisms by different social groups (Beckmann, 2001, Featherstone, 2004). A collection of papers edited by Miller (2001) highlights a geography of the cultures of automobility, exploring the differing symbolism of cars in Ghana (Verrips and Meyer, 2001), among Aboriginal Australian tribes (Young, 2001) and in Norway (Garvey, 2001). Massey also guards against an exclusive concentration on the power of capital:

> These economic interpretations (of the cultural logic of capitalism or flexible accumulation) come far too close to depriving the cultural (or the non-economic more generally) of any autonomy at all. (Massey, 1994, p164)

The shift towards an emphasis on cultural aspects of automobility reflects a broader critique of Marxist geographers for offering structural accounts which conceptualise socio-spatial life as a product of wider economic systems (Adams, 1992). The move from a structural approach, towards a consideration of people's experiences of transport reflects the wider 'cultural turn' in human geography. Postmodern geographies have played a key role in leading an exploration of the symbolic and cultural landscapes of everyday life (Massey, 1993b, Hubbard et al., 2002), and how everyday spaces are experienced 'on the ground' (Philo, 1992a, p156). One aspect of
this is the need to give voice to those long silenced by the world view of modernism produced largely by white, middle class, heterosexual men (Harvey, 1989, Bondi and Domosh, 1992, Philo, 1992a). This feature of postmodern geographies has drawn upon critiques initially developed by feminist geographers, who sought to recover and make visible the experiences of women, who had hitherto often been silenced within geography (see Bondi, 1990, WGSG, 1997).

2.5.4 A feminist geographical approach to automobility

Feminist geographers were amongst the first to consider people's experiences of transport, through exploring the significance of gender (Tivers, 1985, Pickup, 1985). Whilst there are important variations between women which highlight that they cannot be considered an homogeneous group, women and men often have different transport patterns and different transport needs (Tivers, 1985, Hamilton and Jenkins, 1992, Turner and Grieco, 1998, McDowell, 2005).

Many women's transport patterns often consist of trip chaining (White, 1995), a series of interrupted, multi-purpose, short distance movements throughout the day, from one activity to another, for example, journeys to work, school, shops and relatives (Tolley and Turton, 1995, Turner and Grieco, 1998). This complex trip chaining, combined with fears over safety, often makes public transport unattractive to women or unable to meet their needs, although recent developments to increase staff on railway platforms and the introduction of CCTV have contributed to alleviating some of these safety aspects (Valentine, 1989, 1992, Hamilton and Jenkins, 1992, Tolley and Turton, 1995). Although differences in car use are narrowing as the proportion of women holding driving licences and owning cars increases, women are still less likely to have access to cars (Goodwin et al., 1991, Hamilton and Hoyle, 1999).

Feminist geographers have highlighted how Marxist geographers have failed to adequately explain the role of gender and its importance in understanding women's experiences of mobility. Harvey has been criticised by feminist geographers such as Massey (1993a) and McDowell (2000) and others (Soja, 1996, Johnston, 1997) for subsuming differences (a key term which will be explored shortly and considered throughout the thesis) such as gender and ethnicity within Marxist theories (although Harvey himself has recognised the need to consider and incorporate other forms of difference within an economic analysis, see Harvey, 1989).

Feminist geographers have therefore looked for an explanation which overcomes gender blindness and incorporates and theorises gender relations (Tivers, 1985,
Feminists such as McDowell (2005) have developed a more critical approach to the new mobilities paradigm, highlighting how automobility re-enforces patriarchy and reproduces expectations about gender. Whilst Garvey (2001) considers how automobility can represent freedom and enable women to contest patriarchal relations, many feminists recognise that cars have re-enforced gender roles, requiring women to juggle additional paid employment, caring and household tasks (Law, 1999, Dowling, 2000).

2.5.5 A postmodern focus on giving voice to 'othered' groups

Drawing upon this feminist critique, postmodern geographers, initially led by postmodern feminist geographers of difference, have moved beyond considering gender to make visible and explore the experiences of others who may have been marginalised or excluded in research. For example, the voices and experiences of sexual minorities have been made visible through geographies of sexualities (see Bell and Valentine, 1995), and Philo (1992b) and others (for example, Cloke and Little, 1997) have brought attention to the invisibility of many rural experiences. As Harvey states:

The idea that all groups have a right to speak for themselves, in their own voice, and have that voice accepted as authentic and legitimate is essential to the pluralistic stance of postmodernism. (Harvey, 1989, p48)

Research has also begun to map the mobility experiences of those often hitherto excluded (Dowling, 2000, Miller, 2001), indicating that older people, although a diverse and heterogeneous group, often have lower mobility, as the result of changing social or material circumstances, such as the decline in income beyond retirement (Goodwin et al., 1991, Bashall and Smith, 1992). Whilst bus use is highest amongst older people, public transport may also be inaccessible to some older people with mobility problems, and combined with fears over safety, can reduce their overall mobility (Tolley and Turton, 1995, White, 1995, Hamilton and Hoyle, 1999). People with disabilities often have distinct experiences of mobility, who, although not an homogeneous group, may experience mobility problems. These problems are often not the result of any physical impairment, but the inability of the built environment to cater for their needs (Torrance, 1992, Tolley and Turton, 1995).

Massey (1993a) and others (Dwyer, 1998, Gilroy, 2001) have mapped the significance of ethnicity. Gilroy (2001) explores the link in the US between ethnicity and cultural meanings of cars, arguing that African-American groups have different and complex cultural associations with cars, which, in addition to reflecting more mainstream aspirational consumerism, also represent a particularly intense and profound
association with freedom and rebellion. Similarly, the role of cars in rebellion and independence amongst youth cultures highlight that cars can be afforded very different meanings (O'Dell, 2001).

Therefore, a second broad critique of Marxist accounts of automobility have been levelled by a number of feminist and postmodern geographers (for example, Dowling, 2000, Cresswell, 2005) who state that whilst economic explanations can account for differences in mobility relating to class, the role of capital fails to fully explain other differentiating factors. Whilst feminist geographers have explored the significance of gender, there is a need to incorporate other forms of difference relating to ethnicity, sexuality and disability. As chapter three discusses, the emphasis on considering children's experiences, which until recently had largely been overlooked, has also been encouraged and inspired by the postmodern emphasis on 'othered' groups. However, with the exception of a limited number of recent articles (Porter, 2003, Thomsen, 2004, Pooley et al., 2005), children remain noticeably absent from debates regarding automobility. Therefore, this thesis addresses this gap by making visible the voices and experiences of children in relation to automobility.

More recently, however, debates have become more cautious and more critical of the possibilities for representing the voices of those often silenced or excluded in research. Critiques have demonstrated that the voices of research participants are always mediated through researchers, who control the design and use of methods, as well as analysis and dissemination (Mauthner and Doucet, 2003, Timar and Enyedi, 2004). Chapter four indicates how this thesis contributes to these wider critiques of representation, by reflexively evaluating the research process and the possibilities for making visible children's views.

2.5.6 A postmodern sensitivity to difference

The postmodern emphasis on mapping the experiences of different groups has indicated that the experiences and impacts of automobility are not uniform, contributing to a more critical view of the new mobilities paradigm (Hamilton and Jenkins, 1992, Porter, 2002, Cresswell, 2005, McDowell, 2005). Automobility has further stratified societies and polarised geographies (Thrift, 1995, Beckmann, 2001, Urry, 2004a). Massey (1993a) identifies a need to expose these differential experiences. Although ambivalent towards postmodern geography, Massey argues that one of postmodernism's key contributions is the appreciation and theorisation of difference (Massey, 1999b, 1999c). As Massey states:
Time-space compression has not been happening for everyone in all spheres of activity. (Massey, 1994, p148)

Philo (1992a) was one of the first to call for a 'postmodern sensitivity to difference' (p200), which has since become one of the most well known and accepted aspects of postmodern geographies (Lee, 2000, Dear, 2001). Postmodernism focuses upon confronting spatial hegemonies to develop a cultural politics of difference which incorporates an understanding of heterogeneity, particularity and uniqueness (Cloke et al., 1990, Pile and Rose, 1992, Johnston, 1997).

A postmodern approach requires a sensitivity to the local knowledge of different peoples and different places, to the geography of the world, and to fragmentation, plurality and diversity across space, place and environments (Soja, 1989, Bondi, 1990, Shields, 1992). Thus, one feature of postmodern geographical research is to contextualise and particularise, by developing local rather than universal knowledge (Soja, 1996, Dear, 2001). As Hubbard et al. comment:

(Postmodernism can) encourage analysis of socio-spatial relations within a specific context without claims for universality or scientific rigour. (Hubbard et al., 2002, p76)

This postmodern focus on the specificity and particularity of places is reflected in my research which considers children's experiences of automobility within particular local contexts in the UK, rather than attempting to generalise to broader experiences or patterns.

The blurring of disciplinary boundaries associated with postmodernism has led to the respatialisation of social theory and also resulted in space increasingly becoming the focus of other academic disciplines as well as human geography, for example, sociology and anthropology (for example, see Giddens, 1991, Bauman, 1998, Urry, 2000). Similarly, many geographers have become interested in social theory, in what some have described as the cultural turn in geography (Philo, 1992a, Hubbard et al., 2002), and have embraced interdisciplinarity, which can be referred to as the integration of knowledge derived from distinct disciplines which may have different expectations about what counts as knowledge (Schoenberger, 2001, Schmelzkopf, 2002). Interdisciplinarity influences this research, since the thesis draws upon other social theorists within the new mobilities paradigm, particularly sociologists such as Urry (2000) and others (Beckmann, 2001, Kaufmann, 2002, Sheller and Urry, 2003) and anthropologists (such as Miller, 2001 and Garvey, 2001) who have led debates regarding automobility. In doing so, the thesis contributes to discussions regarding an
interdisciplinary approach to research, by considering the usefulness of other disciplines to explore cars as increasingly significant spaces of childhood.

As well as exploring the specificity of places, postmodern geographers have also considered the heterogeneity of specific social groups. Section 2.5.5 has noted how different social groups, as well as specific places, are located in different ways in the reconfiguration of relations across time and space (Massey, 1993a). In addition to highlighting the importance of difference between sections of the population, postmodern geographers have also explored diversity within specific social groups. Postmodern geographers have considered how social identities such as gender, ethnicity, class, sexuality and of particular interest for this research, childhood, are neither essential nor homogeneous but socially constructed categories which are decentred and fragmented by other social identities and incorporate a diversity of experiences (see Bondi and Domosh, 1992, WGSG, 1997, Limb and Dwyer, 2001).

These debates regarding diversity and difference have been powerful and convincing for children's geographers, who, as chapter three explores, have begun to identify how childhood is not an essential, homogeneous category, but is subject to social and spatial variations (Holloway and Valentine, 2000a). However, this diversity, with the notable exception of Thomsen (2004) and current research by Ashton (2005) and Laurier (2005), has not been explored in relation to children and automobility. Therefore, the thesis contributes to existing debates by considering the diverse ways in which children experience automobility. In order to accomplish this, it is necessary to develop a way of conceptualising these aspects of difference.

### 2.5.7 Towards a power geometry of mobility

Increasingly, postmodern geographers have moved away from merely describing difference towards a more grounded conceptualisation and theorisation of difference. As Bondi (1990) notes, a postmodern approach must avoid the problem of creating:

> ...a celebration of geographical difference (which) merely obscures relations of power, inequality and hierarchy. (Bondi, 1990, p165)

Power has been a key concept through which postmodern geographers have attempted to analyse difference (Philo 1992a, Bridge, 1997, Lee, 2000, Sharp et al., 2000, Kearns and Collins, 2003). For example, Philo (1992a) was one of the first geographers to consider how Foucault explored power relations. Power is a contested term, which can be seen as a capacity, resource, strategy or practice (Oldersma and Davis, 1991, Allen, 2003), or the ability to achieve certain ends (Sharp et al., 2000).
Massey (1993a) has developed the concept of a 'power geometry' (p61) as a way of theorising diverse experiences of mobility (Bridge, 1997, Massey, 2004, Urry, 2004b, Merriman 2004). Massey's power geometry first appeared rather briefly in 1993 (Massey 1993a) and has been further discussed and developed by Massey (Massey, 1993b, 1994, 1999a, 1999b, 1999c, 1999d, 2004) and others (Bridge, 1997, Allen, 2003, Graham, 1998, 2004, Cresswell, 2004). Massey argues that Marxist explanations of time space compression are not sufficient and that time space compression needs differentiating socially:

The usual interpretation is that (time space compression) results overwhelmingly from the actions of capital, but surely this is insufficient. Among other things which clearly influence that experience, there are, for instance race and gender. (Massey, 1993a, p60)

Massey develops the concept of a power geometry to explore these complex differential experiences. She calls for a consideration of:

...the power geometry of it all; the power geometry of time space compression. For different social groups, and different individuals, are placed in very distinct ways in relation to these flows and interconnections. (Massey 1993a, p61)

Massey's power geometry operates at two levels. Firstly, it considers how different social groups and individuals are differentially placed in relation to time space compression, considering who moves, who does not, and why (Bridge, 1997). However, it is not simply a case of who has mobility, but also whether people have power and influence to initiate or control it (Bridge, 1997, Kaufmann, 2002). Therefore, at the second level, Massey also focuses upon power in relation to time space compression:

This point concerns not merely the issues of who moves and who doesn't, although that is an important element of it; it is also power in relation to the flows and the movement. Different social groups have distinct relationship to this anyway differentiated mobility: some people are more in charge of it than others; some initiate flows and movement, others don't; some are more on the receiving end of it than others; others are effectively imprisoned by it. (Massey, 1993a, p61)

Massey offers several examples to illustrate these points. At one end of the spectra (and she uses the plural term advisedly) are those who move, communicate and who can control and initiate mobility. Massey uses examples of international jet setters, affluent western tourists and business leaders who Massey and others (Graham, 2004, Cresswell, 2004) identify as being in charge of time space compression. Massey also identifies that there are groups of people who may undertake lots of movement but who
have little control of the process, for example, migrant workers or asylum seekers. There are also those on the receiving end of time space compression, who may purchase commodities from around the world but might be spatially immobile, for example, isolated pensioners who may be afraid of going out after dark. Immobility represents powerlessness for those unable to take part in an increasingly mobile world (Graham, 2004).

This thesis explores the usefulness of Massey's power geometry as a concept for exploring children's mobility. I was initially interested in Massey's power geometry since it encourages a focus not only upon levels or types of mobility (as explored in relation to children by Hillman et al., 1990, O'Brien et al., 2000), but also explores mobility as an exercise of power, identifying who has power to initiate or control it. It recognises that greater mobility neither equates with, nor is a reflection of, greater freedom, choice or power, but rather can represent powerlessness. Thus, Massey's power geometry offers a way of considering whether children actively choose to undertake mobility or whether it is enforced upon them. Massey's power geometry is also useful in exploring diverse patterns of mobility, in this instance exploring the diversity of children's experiences of mobility. Whilst Massey conceptualises time space compression in its widest sense, including electronic mobility and communication as well as personal mobility, this research considers spatial mobility, that is actual movement through space, as one important form of mobility (Allen, 2003), particularly in relation to automobility.

However, Massey does not explicitly discuss her conceptualisation of power (Bridge, 1997). Therefore, this thesis turns to others to consider how power as a concept may be applied to children's mobility. Power is a contested concept and different theoretical perspectives in human geography have considered power in different ways. As discussed earlier, Marxist geographers conceptualise power as the product of relations of capital. This structural, macro-scale account locates power within economic structures, which is exercised upon individuals (Harvey, 1989, Johnston, 1997). Humanist geographers move away from a more abstract, structural conception of power towards one in which power is embedded within micro-scale, everyday interpersonal relations (Cloke et al., 1991). Alternatively, feminist geographers explore the power relations present in relation to patriarchy (McDowell, 1992). Whilst these theorisations of power are very different, each can be seen as a modernist interpretation containing a singular explanation of power (Soja, 1996).

Power is also a key focus of postmodern geographers, who have brought the concept to the fore in human geography (Philo, 1992a, Sharp et al., 2000, Minca, 2001).
Postmodernism turns towards more diverse and diffuse notions of power and resistance (Hubbard et al., 2002). The work of Foucault (1977, 1980a, 1980b) has been influential in developing a postmodern approach to power (as discussed in Soja, 1989, Philo, 1992a). Foucault theorised a move away from locating power relations within the economic sphere, commenting that:

Power in its exercise goes much further, passes through finer channels, and is more ambiguous, since each individual has at his (sic) disposal a certain power. (Foucault, 1980a, p72)

Foucault conceptualised power as neither located in the abstract or structural (Bridge, 1997, Allen, 2003). Power, in all its complexity, cannot be reduced to one single source, such as relations to capital or patriarchy (Foucault, 1980b, Oldersma and Davis, 1991, Lee, 2000). The postmodern conceptualisation of power having multiple and numerous locations moves beyond seeing power relations in terms of oppositional forces, such as dominant versus dominated or hegemony versus counter-hegemony (Soja, 1996). Power is everywhere, embedded in all forms of social action (Bridge, 1997, Hubbard et al., 2002). Power is neither a given pre-existing resource nor stable, but is open ended, circular and continuous (Soja, 1996, Sharp et al., 2000). Furthermore, the multiple and numerous relations of power means that the dominance or hegemony of any one form of power is never complete (Lee, 2000). Power is productive, finding gaps and possibilities for transgressive acts, contestations, resistance and change (Soja, 1996). The geometry of power refers to its different arrangements or configurations:

They (relations of power) are not univocal; they define innumerable points of confrontation, focuses of instability; each of which has its own risks of conflict, of struggles, and of an at least temporary inversion of the power relations. (Foucault, 1977, p27)

This postmodern conceptualisation of power offers a nuanced and sensitive way of exploring the complexity of how individuals experience socio-spatial life. As chapter three discusses, this conceptualisation of power has been useful for children's geographers, to explore aspects of children's lives, examining how children are both subject to a variety of power relations yet also exercise power as social actors (Holloway and Valentine, 2000a). However, with the exception of Kearns et al. (2003) there has been little exploration of how power can be used to make sense of children's different experiences of automobility. The research contributes to filling this gap by considering a postmodern conceptualisation of power to explore the diverse ways in which children experience aspects of automobility.
2.5.8 A postmodern perspective on knowledge

In addition to emphasising the significance of culture, mapping the experiences of those often excluded in research, and recognising diversity and difference, postmodernism also represents a broader epistemological approach to the study of the social world, that is the development of ‘a postmodern geography’ (Cloke et al., 1991, p170) or rather postmodern geographies. Theories preceding postmodern geographies, such as Marxism and feminism can be seen as part of the modernist Enlightenment project which saw the world as having a fundamental order which could be discovered, explored and catalogued (Williams, 1998). As Hubbard et al. comment:

Modernism concerns the search for a unified ‘grand’ theory of society and social knowledge and seeks to reveal universal truths and meaning. (Hubbard et al., 2002, p74)

The work of modernist geographers rested upon the ‘foundational certainty’ of knowledge production associated with Enlightenment ideals, that is, the application of order, reason and logic to discover phenomena and generate meta-theories (Cloke et al., 1991). Whilst each theory has very different views on science, objectivity and how to study the social world, these perspectives have in common a modernist assertion that the order of social reality can be discovered, whether that refers to economic structures, the agency of individuals or patriarchal relations (Williams, 1998).

Postmodernism has drawn upon existing humanist and feminist critiques of the certainties of the Enlightenment project, which had begun to problematise the values, goals and methods of science to produce meta-theories of truth or knowledge. Like other critiques, postmodernism has highlighted that knowledge is socially produced, is subject to, and inseparable from the socio-political processes that it observes (Williams and May, 1996, Scott, 1998, Maynard, 1998, May, 2001). As Bondi and Domosh note:

The notion of a universal form of geographical knowledge, external to the observer, denies the partiality and positionality of all our visions. (Bondi and Domosh, 1992, p203)

Postmodernism takes these critiques further to deny the possibilities of meta-theories (Graham, 1997, Dear, 2001). Postmodernism argues that no one theory can be sufficient for explaining social reality or offer a universalising claim to truth, since there is no essential social reality to be uncovered:

Postmodernism undermines the modernist belief that theory can mirror reality, and replaces it with a partial, relativistic viewpoint emphasizing the contingent, mediated nature of theory building. (Dear and Flusty, 2002, p6)
Once more, drawing upon a diverse heritage of debates within feminist geographies (for example Bondi, 1990, Kobayashi, 1994, Tooke, 2000), postmodernism suggests science and the academy have lost the ability to comment with authority on the social world. In part, this critique draws upon the work of poststructural geographers, who have highlighted that the solidity of language, and the meta-theories that have been built from language, is illusory (Bondi and Domosh, 1992).

Many (for example, Soja, 1996, Minca, 2001) argue postmodern theory and research offers a more pluralistic and contested approach to knowledge production, generating different readings and multiple interpretations on social events, rather than conclusive findings, to produce 'situated', 'local' or 'partial' knowledge (Bondi, 1990, Cloke et al., 1991, Dwyer and Limb, 2001, Minca, 2001). As Pile and Rose comment:

Postmodern knowledge is of local terrains, with a tolerance of variety and diversity of narratives... tentative, probabilistic and revisable. (Pile and Rose, 1992, p125)

Postmodern geographers recognise knowledge is always contingent, and should never be placed beyond the possibility of revision (Graham, 1997, Scott, 1998). Like much geographical research conducted over the past decade (see Limb and Dwyer, 2001, for more explanation), this research accepts and adopts the premise of postmodern geographers that the search for, and possibilities of, a universalising theory of the social world is futile. Rather, this research offers one possible reading of contemporary experiences of children and automobility in a number of families in a particular set of local contexts. In doing so, the research recognises the potential polyvocality of data, in that there may be multiple and sometimes opposing ways of interpreting results. The research contributes towards discussions regarding the potential for more humble and locally based postmodern research endeavours.

2.5.9 Some limitations of postmodern geographies
Whilst there are a number of significant contributions postmodern geographies offer to contemporary debates, and more specifically offer research regarding automobility, this approach is not without criticism. Furthermore, adopting a postmodern approach to theorise research which was initially developed as applied geography is not without its problems or limitations. This thesis explores whether, and to what extent, it is possible to reconcile these two approaches to research. In particular, chapter four reflexively discusses some of the methodological challenges of combining a postmodern approach with applied geography.
One criticism of postmodernism is that the emphasis on plurality and multiplicity leads to problems of relativism, referring to:

(The lack of) universal, ahistorical standards to which scientists might allude in justifying their methods and findings... what is considered true, or better, is the product of the community in which the theory is devised. (Williams and May, 1996, p35)

Problems in distinguishing between competing voices (Graham 1997, Lee, 2000) can result in nihilism, paralysing the possibilities for human geography (Johnston, 1997, Fuller and Kitchin, 2004). Harvey (1989) states that the rhetoric of postmodernism is dangerous because it means research cannot:

...confront the realities of political economy and the circumstances of global power. (Harvey, 1989, p117)

This ambiguity of postmodernism also runs counter to feminist political agenda, bringing into question the possibilities of identifying the centrality of patriarchal relations (Bondi, 1990, and Bondi and Domosh, 1992 discuss the different ways in which feminist geographers have responded to the relativism of postmodernism).

This raises a possible problem for this research, since the relativism of postmodern claims to knowledge also questions the possibilities of applied geography, since policy makers prefer unitary, concrete recommendations or policy solutions, rather than relative, contestable and multiple perspectives on events (Pacione, 1999b). Others (such as Soja, 1996, Dempsey and Lowe, 2004) are more positive about the possibilities for reconciling postmodernism and applied geography. Whilst not able to produce universal truths, postmodern applied research can still offer a grounded, humble and partial set of knowledges on particular topics. Bauman (1987, 2000) states that by embracing postmodern debates, the role of applied researchers changes from a privileged position of authority and scientist as 'legislators' to a more nuanced, relative and partial role, contributing as 'interpreters'.

Many geographers (for example, Soja, 1989, 1996, Pile and Rose, 1992, Dear, 2001) are content to work within this revised remit of geography which acknowledges, embraces and even theorises relativism, polyvocality, difference and diversity, whilst maintaining a commitment to political and social change. The emphasis on diversity and difference can show possibilities of resistance, contestation, protest or critique. These in themselves can represent numerous possibilities for social change, and as Bauman comments, can 'disclose the possibility of living together differently' (Bauman, 2000, p215). This thesis adopts this positive but moderate and humble role for
postmodern, applied geography. As chapter four discusses, this thesis contributes to these debates by reflexively exploring the possibilities of reconciling postmodernism and applied geography, and also identifying the ways in which they may be incompatible.

A second criticism of postmodernism is that, despite suspicion towards meta-theories, postmodern geographies present a universal truth to be believed. Whilst it criticises other meta-theories, it too itself can be characterised as one (Dear and Flusty, 2002). However, if all knowledge is contestable, then the claims of postmodern geographies are just as fallible as modernist meta-theories (Johnston, 1997). Postmodern geographers have responded to this criticism by recognising that tactics such as adopting reflexivity and positionality can only be partially successful, and offering limited glimpses into the social production of knowledge (see Rose, 1997). Postmodern researchers must not use postmodernism as a concept which replicates the omniscience or 'god trick' of other theoretical perspectives. Therefore, throughout the research, I have attempted to be reflexive and critical of the research process, whilst also recognising the limits to reflexivity.

2.6 Chapter summary
This chapter has reflexively explored the processes of developing an approach to the research. My initial motivation was to undertake applied geography, which would have relevance or use to communities. The research adopted a rather conservative approach to applied geography, working with STP committees to collect information useful for a 'School Travel Plan', with the aim of reducing congestion at the school gate.

The chapter has also explored how research is an ongoing, fluid process subject to change. Emerging debates regarding automobility, which have developed as part of the new mobilities paradigm, have had a profound influence on the research, providing a stronger conceptual and theoretical basis for the thesis. Debates within the new mobilities paradigm indicated a postmodern approach might be most relevant for exploring aspects of automobility in children's lives. Whilst Marxist geographies identify links between the economy and automobility, these fail to consider the role of culture, meaning and symbolism, and do not explore how cars are experienced 'on the ground' in everyday life. A postmodern approach, with its emphasis on everyday culture and experience, is better suited to this. Feminist geographers were some of the first to explore the experiences of those often ignored in research, considering the experiences of women. Postmodern geographers have drawn upon this to move
beyond gender to explore the experiences of different 'othered' groups. This has led to another critique of Marxist geographers, for failing to consider the diversity of experiences of automobility.

Postmodern geographers have considered how experiences of automobility are not uniform, mapping spatial variations in automobility as well as differences both between and within different social groups. As chapter four explores, children's geographers have embraced this postmodern perspective by exploring how children do not form an homogeneous group. However, as yet, with the exception of current research by Ashton (2005) and Laurier (2005), there has been no research considering children's experiences of automobility, a gap which this research seeks to fill. The research draws upon Massey's power geometry of mobility to address this gap and theorise the diverse experiences of automobility in children's lives.

However, the chapter also identifies some challenges in combining applied geography with postmodernism, which are discussed throughout the thesis, particularly in chapter four. None the least of these is regarding the possibilities for applied geography given that postmodernism challenges the legitimacy and authority of research. Before moving on to these discussions, however, it is first necessary to consider the development of children's geographies, and existing evidence regarding children, cars and mobility.
Chapter three~ ‘The road less travelled?’: Children’s geographies, cars and children's spatial mobility

Many children enjoy the comfort and convenience of being ‘chauffeured’ to and from school and to other sometimes remote places which children of earlier generations had little opportunity to visit. (Hillman et al., 1990, p82)

3.1 Introduction
This chapter explores different theoretical approaches considering children and childhood. It outlines the development of the new social studies of childhood, which have emerged as the dominant way of conceptualising childhood. The chapter explores how the new social studies of childhood are characterised by their interdisciplinarity. Children's geographies, and their development in response to, and in parallel with, the new social studies of childhood, is also discussed. The chapter draws upon the work of more established children's geographers (such as Matthews, 1992, Holloway and Valentine, 2000a), as well as exploring the contribution of more contemporary research, such as that by Maxey (2004a, 2005), Holt (2004a, 2004b), and Cahill (2004). The chapter considers three key contributions of children's geographies to the wider social studies of childhood, exploring the everyday spaces of childhood, identifying the significance of place and considering the influences of spatialised discourses to an understanding of childhood.

The chapter also considers specific evidence in relation to children, cars and children's spatial mobility, identifying the decline in the independent spatial mobility of primary school children and the concomitant increase in escorting children, often by car. In doing so, it shows how debates within postmodern geographies and the new mobilities paradigm may be relevant to children's geographies, and more specifically, to this thesis. Bringing these different bodies of literature together, the discussion identifies gaps in existing research, from which the research aims of the thesis are then generated.

3.2 The new social studies of childhood
The 20th century has often been characterised as the century of the child (James, Jenks and Prout, 1998). Defining childhood, however, is problematic, due to the fluidity of popular conceptions and legal interpretations (Valentine, 1996a). The definition adopted by this thesis and used by most academic research is the period up to 18 years of age, as reflected in the 1989 UN Convention on the Rights of the Child (West, 1999, Matthews and Limb, 1999, Valentine, 2003).
In the UK, debates regarding childhood have been fuelled by successive moral panics involving children (Valentine, 1996a, Scraton, 1997), most notably those following the deaths of James Bulger and Damilola Taylor, and the perceived growth in the number of ‘gangs’ of children and young people visible on the streets, who are increasingly seen as a threat to public order (Hendrick 1997, Frones et al., 2000b). There are highly contested debates as to whether these moral panics challenge prevailing assumptions about the innocence of children, and suggest a collapse in adult authority and the wider disintegration or decline of childhood (Postman, 1994, Cunningham, 1995, Franklin, 1999).

Despite this, until recently, childhood as a theoretical and analytical concept has been absent from geography and social theory, and was confined to specific disciplines such as psychology and sociological theories regarding the family (Brannen and O’Brien, 1995, Jenks, 1996, Corsaro, 1997). Developmental psychology states that children are psychologically immature, and must be led and encouraged along a ‘normal’ pathway to psychological development and maturation as adults (Archard, 1993, Mayall, 1994a). Influential throughout the 20th century, notably in the work of Piaget and others, this approach still remains influential in popular culture, for example in school league tables that compare the intellectual progress of individual children to the ‘normally developing’ child (James, Jenks and Prout, 1998). Theories of socialisation identify pathways to social, rather than psychological, maturation (Waksler, 1996). Socialisation can be defined as ‘the process through which children... learn to conform to social norms’ (James, Jenks and Prout, 1998, p23). Social institutions, such as the family, schools, and religious institutions, are instilled with the responsibility of teaching children societal norms and values, and encouraging the internalisation of social constraints (Corsaro, 1997).

However, there have been growing criticisms of these particular academic conceptualisations of childhood. Developmental psychology has been criticised for failing to consider the social context of children’s lives (Prout and James, 1990). Cross-cultural variations in experiences and expectations of childhood have problematised the claim for a universal, natural process of development (Holloway and Valentine, 2000a). Both developmental psychology and socialisation theories have been criticised for conceptualising children as inferior and ‘less than adults’ (Qvortrup, 1990, Oakley, 1994). Children are constructed as passive objects, who are dependent upon, and unable to function socially or psychologically without instruction from adults (James, Jenks and Prout, 1998). Furthermore, in prioritising paths to adulthood, these theories fail to see childhood as a valid social category in itself (Archard, 1993). Children are
seen solely as 'human becomings' or 'adults in waiting', rather than human beings in their own right (Mayall, 1994a, Brannen and O'Brien, 1995), rendering invisible children’s own experiences of the social world (Holloway and Valentine, 2000a).

Over the past twenty years, there has been a shift in academic conceptualisations of childhood (Brannen and O'Brien, 1995, Pilcher and Wagg, 1996, James, Jenks and Prout, 1998), leading to a collection of studies encompassed by the term the new social studies of childhood. Aries' (1962) now classic study, often cited as the forerunner to this, highlighted that in pre-modern societies there was no cultural distinction between children and adults (Aries, 1962, see also Postman, 1994, Valentine, 1997a). It was only during the 17th century that new social practices such as coddling and education, initially amongst the upper classes, began to develop oppositional characteristics of adult and child (Prout and James, 1990, Archard, 1993). Whilst Aries' work has been heavily criticised for considering specific images from aristocratic children (Hendrick, 1990), it was groundbreaking in removing childhood from the realms of biological determinism and reductionism, recognising childhood as forms of social practice, subject to historical and cultural variations (Hockey and James, 1993, Postman, 1994).

Since the work of Aries, there has been a growth in research encompassed within the term the new social studies of childhood, in sociology (Prout and James, 1990, Qvortrup, 1990), anthropology (James, 1998) and geography (James, 1990, Aitken, 1994). Although not explicitly aligned with one theoretical perspective, as the next section highlights, the new social studies of childhood draw upon and parallel debates within postmodernism and feminism across a variety of disciplines (Oakley, 1994, Alanen, 2001a). Drawing upon the ideas of James, Jenks and Prout (1998), it is possible to identify four key features that constitute the new social studies of childhood: that childhood is worthy of investigation; childhood is socially constructed; there is no universal category of child; and the new social studies of childhood seek to transform societies. It should be noted that these characteristics are not mutually exclusive, but are rather four different ways of discussing and raising important questions about the new social studies of childhood.

Firstly, rather than seeing children as poor imitations of the adult world, the new social studies of childhood highlight that childhood and children’s social relationships are worthy of investigation in their own right (Holloway and Valentine, 2000b). This requires a reconceptualisation of children as human beings rather than human becomings (James, Jenks and Prout, 1998, Frones et al., 2000b). As chapter two has explored, this has developed in part from wider postmodern concerns to explore the experiences
of a diverse range of social groups who have traditionally been silenced or ignored in research. As discussed in more depth shortly, a key aspect of this reconceptualisation is that children are social actors, who possess detailed knowledge of the everyday spaces in which they spend their time, and employ a variety of strategies to influence these contexts.

Secondly, the new social studies of childhood indicate that childhood is socially constructed. Historical and cultural variations in childhood indicate there is no essential or natural phenomenon of 'child' (Pilcher and Wagg, 1996, Kennedy, 1998, Matthews and Limb, 1999). A social constructionist approach to childhood is one explicitly linked to a postmodern approach. This critique of essentialism challenges the idea that categories such as childhood represent any given, objective biological reality, but are historically and culturally specific categories, constructed through sets of discourses, which can be defined as language, ideas and other forms of socially produced knowledges (Alanen, 2001b).

Thirdly, whilst children can be considered in relation to other groups such as adults, the new social studies of childhood demonstrate that there is no universal category of 'child' and children do not form an homogeneous group (Mayall, 1994a, Brannen and O’Brien, 1995). There are a variety and diversity of childhoods and children’s experiences (Holloway and Valentine, 2000a). As the following sections discuss, childhood cannot be seen as independent from other variables such as social class, gender and ethnicity (Prout and James, 1990), and geographers have played a key role in exploring the significance of place in childhood (Holloway, 1998, Ross, 2002). As chapter two has explored, this reflects the wider postmodern focus on exploring difference and the heterogeneity of experiences of social groups.

Fourthly, in addition to providing new theoretical and conceptual understandings of childhood, the new social studies of childhood also seek the transformation of children’s lives at the political, social and economic level (Mayall, 1994a). Researchers explore the experiences of children facing poverty, social exclusion or exploitation, often with the intent of undertaking applied research, as discussed in chapter two, to help alleviating these problems (Waksler, 1996, Freeman, 2000). As chapter four explores, the new social studies of childhood also promote research that is for rather than on children (Morrow, 1994, Hill et al., 1996). Engaging in such political enterprises has been inspired by, and draws upon aspects of feminist research and applied geography (Oakley, 1994, Mayall, 2002).
In addition to these four points, the new social studies of childhood can also be characterised by interdisciplinarity. The new social studies of childhood include contributions from sociology, anthropology, social policy, history, education, geography and others (James, 1998, Matthews and Limb, 1999). Within human geography there has been a growing interest in the new social studies of childhood, and a corresponding regard within sociology for the spatiality of childhood (see O’Brien et al., 2000, Christensen et al., 2000). As a specifically geographical thesis, it is necessary to explore the contribution that geographers have made to this growing body of research.

3.3 Children’s geographies
As in other disciplines, until recently, children have not been a significant concern of geography (James, 1990, Sibley, 1991, Aitken, 1994, Philo, 1997). A collection of small, but significant, literature from the 1970s and 1980s focused mainly upon children’s spatial cognition, mental maps and mapping abilities (most notably, Bunge, 1973, Ward, 1978, Moore, 1986, Matthews, 1987). These successfully critiqued traditional models of developmental psychology by demonstrating the mapping abilities of very young children (Holloway and Valentine, 2000a). However, these examples notwithstanding, the lack of geographical enquiry into childhood by the end of the 1980s led to James’ (1990) article beginning a debate regarding ‘is there a ‘place’ for children in geography?’ (see also Sibley, 1991, Winchester, 1991, James, 1991). These discussions were the beginning of an upsurge in geographical interest in childhood, examining what children do in the environment and exploring their experiences of space and place (White, 1996, Philo, 1997, Holloway and Valentine, 2000a).

Children’s geographies have drawn inspiration from a variety of other contemporary theoretical approaches within geography and wider social theory. Early geographical discussions (such as James, 1990, Sibley, 1991) identified the potential contribution from other disciplines. Children’s geographies have both drawn upon other disciplines to develop a geographical approach, and now contribute to the wider interdisciplinarity of the new social studies of childhood (Hart, 1984, Matthews and Limb, 1999). The focus on children also reflects a wider increase in geographical interest in all forms of socio-spatial inequality to explore hitherto ‘hidden’ and ‘neglected’ geographies (James, 1990, Philo, 1992a, Philo, 2000a). Both the interdisciplinarity of children’s geographies and the emphasis on uncovering unexplored geographies are both influences of a postmodern perspective within geography (Sibley 1991, Holloway and Valentine, 2000a).
Holloway and Valentine (2000a, 2000b) discuss the work of children's geographers by examining three broad, but interconnected, strands that identify the significance of geography in shaping and understanding childhood: children's everyday spaces; the significance of place and spatialised discourses. These three strands are considered here, both to explore the broad contribution of children's geographies, but also, more specifically, to discuss existing evidence directly relevant to the context of the thesis, which in turn contributes to the development of the research questions.

3.3.1 Children's everyday spaces
In 2000, Holloway and Valentine (2000a) identified that one contribution of geographers to the new social studies of childhood was the exploration of the everyday spaces of childhood, such as school (Holloway et al., 2000) and the street (Matthews et al., 2000c). Since then, reflecting the dynamism and innovation of children's geographies, more contemporary research has explored a wide spectrum of children's everyday spaces within a number of contexts across the globe, including nurseries (Gallacher, 2005), intentional communities (Maxey, 2004a), the use of space by gangs (Winton, 2005) and the experiences of street children (Young and Barrett, 2001a). Furthermore, as chapter four discusses in more detail, this has also raised methodological questions about how to conduct research to explore these everyday spaces.

Within the UK context, children spend increasing amounts of time in specific spaces, most notably at home and school (Edwards and Alldred, 1999, Matthews and Limb, 1999, Jones, 2000). Children are increasingly removed from adult spheres of activity and placed into specialised spaces of childhood (James, 1990, Frones et al., 2000a). Thus, contemporary childhood can be characterised as a period of ‘spatial separateness’, in which children are marginalised, insulated and excluded from the wider adult world (Qvortrup, 1994, Valentine and McKendrick, 1997).

As part of a wider focus on institutional geographies (see Philo, 2000b), children's geographers have explored how many of these contemporary spaces of childhood, such as school, nurseries and play centres, are increasingly institutionalised (Valentine and McKendrick, 1997, Kearns and Collins, 2003). Institutionalisation refers to:

...a process by which organised arrangements, chiefly the school system, influence children's lives and organise their days. (Frones, 1994, p150)
Specialised adult-constructed institutions structure children’s space and organise their time, enabling adults to maintain surveillance and regulation of children, although as discussed shortly, children do not passively accept this (Goldson, 1997, Smith and Barker, 1999b, Holloway and Valentine, 2000a, Thomas, 2000, Maxey, 2004a). As section 3.3.3 explores, the growth in institutional spaces is partly due to spatialised fears which increasingly define public space as dangerous or inappropriate for children, and from which they need protection. Furthermore, changes in contemporary lifestyles, including the growth in lone parent families and the increasing proportion of mothers returning to paid employment has meant that caring responsibilities are, at least in part, transferred from mothers at home to institutional spaces such as nurseries, crèches and out of school clubs (Holloway, 1998, Smith and Barker, 2000a, Gallacher, 2005). Significantly, many of these spaces are also commodified, since they require some form of payment to use (McKendrick et al., 2000a, 2000b, Alderson, 2000b).

However, these bounded and separated spaces in which children are increasingly spatially restricted are not isolated from wider social processes (Holloway and Valentine, 2000b). For example, as section 3.3.3 discusses, Holloway (1998) identifies how the home is influenced by local and national political and cultural processes, such as local cultures of mothering. Thus, spaces of childhood can be characterised by their connections, or as Holloway and Valentine identify their 'porosity':

"It (a space of childhood) is not a bounded site, rather it is constructed and reconstructed through its interconnectivity with wider society. (Holloway and Valentine, 2000b, p772)"

The concept of power has been used to consider how the increasing spatial restriction and institutionalisation of children is not simply based upon protection but also control (Sibley, 1995a, Philo, 1997, Kearns and Collins, 2003). Power, as discussed in chapter two, has become an increasingly important concept for understanding relations between different individuals and social groups (Matthews and Limb, 1999). Power is distributed unevenly throughout families and generations, creating complex patterns of domination and resistance (Sibley, 1995a, Goldson, 1999, Punch, 2000, Tucker, 2003). In the everyday spaces of childhood, adults use power and control to spatially restrict and regulate children, although as discussed later, this is fragmented by other social variables (Holloway and Valentine, 2000b, Ross, 2002).

However, as chapter two has indicated, postmodern conceptualisations of power recognise that power is not simply a unidirectional process of domination (Foucault, 1980b, Lee, 2000). A postmodern approach considers how power is never absolute but
fluid, and that there are always possibilities and opportunities for contestation, resistance, subversion and challenge (Soja, 1996, Sharp et al., 2000). As Sibley comments:

> We cannot understand the role of space in the reproduction of social relations without recognising that (even) the relatively powerless still have enough power to carve out spaces of control in respect of their day-to-day lives. (Sibley 1995b, p76)

This postmodern conceptualisation of power has relevance for debates in children’s geographies. Although children’s everyday spaces are becoming increasingly institutionalised, controlled and regulated by adults, this is not to say that children passively accept these adult defined spaces (Matthews and Limb, 1998). Some of the more innovative work of children’s geographers has explored how children are competent social actors who employ a variety of strategies to contest, challenge or to trangress adult spatial hegemony or boundaries (Valentine et al., 2000, Horton, 2001, Cahill, 2004). The fluidity and numerous possibilities of power means that these contestations may have a variety of outcomes. Children may successfully challenge adult spatial dominance, children and adults may negotiate compromises, or direct conflict between adults and children may ensue (Valentine, 1997a, Philo, 2000a, Prout, 2000b).

A postmodern conceptualisation of power also recognises that power relations are not fixed or stable, but are in a constant process of becoming. Thus, adult-child power relations are not static but are configured in different ways in different times and places (Mayall, 1999, Holloway and Valentine, 2000a). Families can be both sites of cooperation and conflict (Sibley, 1995a). Power relations do not simply exist between adults and children, but, as section 3.3.2 considers in more detail, are also cross cut by other social divisions, such as gender, ethnicity and social class, creating a multiplicity of power relations (Tucker and Matthews, 2001).

The focus within children’s geographies and the new social studies of childhood towards conceptualising children as social actors is mirrored by the development of the children’s rights movement, including legislation such as the United Nations Convention on the Rights of the Child (1989), and the Children Act (UK) 1989 (Beresford, 1997). However, the movement for children’s rights has as yet had only limited success. The global position of children has remained poor, with significant numbers of children lacking basic education and nutrition (Freeman, 2000). The UN convention has been criticised for imposing a global vision of childhood which does not recognise local variations in cultures of childhood and the diverse needs of many
groups of children (James and James, 1999). The UK has been criticised for its poor record of implementing the UN convention (Lansdown, 1994, Franklin and Franklin, 1996). Despite some excellent examples of children's participation in service delivery, many projects claiming to listen to children are tokenistic and manipulative (Hart, 1997, Smith and Barker, 1999a, Alderson, 2000b, Cahill, 2004).

Therefore, despite the statements of the UN convention, children often still have no political or economic power and ‘form a structurally disenfranchised group within society’ (Matthews et al., 2000b, p280). Acknowledging that children are social actors does not deny that childhood as a social institution exists beyond and influences individual children, and that structural contexts can restrict children's lives (James, Jenks and Prout, 1998). Thus, it is necessary to illuminate both the structure and agency of children’s lives, to identify how children:

...experience space in both its oppressive and its liberating aspects.
(Sibley, 1995a, p125)

As part of exploring these everyday spaces of childhood, children's geographers and others have begun to consider children's travel between each of these spaces, both in the UK (for example, Hillman et al., 1990, O'Brien et al, 2000, Ross, 2002, Kingham and Donohoe, 2002) and elsewhere (Sandqvist, 2002, Porter, 2003, Fotel and Thomsen, 2004, van Blerk, 2005). This reflects, as chapter two discusses, a changing geographical focus recognising the centrality of mobility to contemporary societies (Law, 1999, Urry, 2000). Hillman et al. (1990) were the first to highlight changing patterns in children's mobility, most notably a decline in children's independent spatial mobility. These trends have subsequently been explored by others, although direct comparisons are difficult, due to the differing ways in which data has been presented. One of the most significant trends can be observed by exploring the freedoms of 10/11 year olds, as figure 3.1 indicates:
Figure 3.1 above illustrates that the proportion of 10/11 year olds undertaking specific tasks alone has declined over the past 30 years, suggesting a decline in children's independent spatial mobility (see also Joshi and Maclean, 1995, Valentine and McKendrick, 1997, Depeau, 2001). Although the decline in children's independent spatial mobility occurs at all ages of childhood, it is most marked at ages 7-11, with children over the age of 11 retaining more of their independent spatial mobility (Hillman et al., 1990, Hillman, 1993). A growing body of international research highlights this is not only a feature of UK society but is witnessed in other industrialised countries, such as Denmark (Fotel and Thomsen, 2004), Italy (Rissotto and Tonucci, 2002), Sweden (Sandqvist, 2002), and New Zealand (Collins and Kearns, 2001).

The decline in children’s independent spatial mobility corresponds with an increase in the proportion of journeys for which children are escorted by parents (Hamilton and Hoyle, 1999, Hillman, 1999), for example, as figure 3.2 indicates, the journey to school:
Figure 3.2 demonstrates that the proportion of children aged 10/11 travelling to school unaccompanied has declined over the past 30 years, reflecting an increase in the proportion being escorted by adults (see also DETR, 1999, Hillman, 1999). Research suggests that only 8% of primary school children walk to school alone (DfT, 2004). Parents are often escorting their children up to a later age, with the transition to secondary school increasingly seen as a watershed in children's independent spatial mobility (Hillman, 1999, O'Brien et al., 2000, Lupton and Bayley, 2002).

Related to the increase in escorted journeys is the increasing use of cars to escort children. As chapter two has explored, automobility is becoming an increasingly significant feature of contemporary societies. This broader trend is reflected in changes in the popularity of modes of travel for children, for example, as figure 3.3 highlights, on the journey to and from school:
Figure 3.3 indicates that there has been a decline in the proportion of primary school children walking to school, from 61% in 1988 to 52% in 2005 (DETR, 2000, DfT, 2005). There has been a corresponding increase in the proportion of primary school children being driven to school, from 27% in 1988 to 40% in 2005 (DfT, 2005). Despite increasingly high levels of cycle ownership, few junior school children ride by bike to school (Hillman et al., 1990, DfT, 2005). Whilst much research has focused on children's travel to school, less is known about children's escorted travel patterns outside of school, although it is suggested that non-school travel is also becoming increasing car based (Kegerreis, 1993, Turner and Pilling, 1999, Joshi et al., 1999, Mackett et al., 2004). One particular piece of research suggests that 64% of primary school children's non-school journeys are undertaken by car, a much higher proportion than for school journeys (Jones and Bradshaw, 2000).

To return to Holloway and Valentine's discussion of the everyday spaces of childhood, cars are therefore increasingly significant spaces for children (Whitelegg, 1997, Law,
1999). This reflects the wider context of the development of automobility within contemporary postmodern societies (Urry, 2000, Sheller and Urry, 2004). Despite growing research on adults and cars (see Miller, 2001), little research has explored children's experiences of cars (see Fotel and Thomsen, 2004, and ongoing research by Ashton, 2005, and Laurier, 2005 as important exceptions to this). For example, cars may be significant sites for the reproduction of family life, promoting close contact between parents and children (Hillman et al., 1990, Buchner, 1990, Dowling, 2000). Marvin's (1995) small-scale research on the conversations of children aged under 5 in cars highlighted that it is indeed a significant space for child-adult interactions. This research contributes to developing new knowledges in children's geographies by exploring cars as increasingly important everyday spaces of childhood. In doing so, the research draws upon key debates within children's geographies regarding the postmodern conception of power to explore, returning to Sibley's quote, how children 'experience (cars) in both (their) oppressive and liberating aspects' (Sibley, 1995a, p125, emphasis and word added).

In addition to their significance as increasingly important spaces for children, cars have a growing role in children's mobility. Chapter two has explored how cars have offered new opportunities to access geographically distant facilities, and have increased the spatial mobility of many sections of the population (Featherstone, 2004). However, there is a lack of evidence on how this particular aspect of automobility may influence children's lives. Evidence suggests that primary school children are travelling longer distances to school, increasingly from a mean average of 1.1 miles in 1997 to 1.4 miles in 2003 (DfT, 2003a). Changes in local government legislation have enabled parents to choose geographically distant schools rather than their local one (Hillman, 1999, Taylor, 2001), with 30% of children not attending their local primary school (Jones and Bradshaw, 2000). Predictably, as the distance between home and school increases, so does the proportion of children driven to school (Hillman, 1993, Lupton and Bayley, 2002). There is anecdotal evidence from parents that their children travel more than they used to as children (Gillespie et al., 1998), and that cars enable children to visit geographically distant places more so than children of earlier generations (Hillman et al., 1990, Pooley et al., 2005).

However, it is debatable whether the decline in children’s independent spatial mobility has been adequately compensated for by increased car based mobility (Tranter and Pawson, 2001). Some have argued that automobility encourages the production of brief, superficial, ‘disembodied’ and ‘dislocated’ lifestyles and relationships (Giddens,
The move to more fragmented and complex spatialities are seen to erode local social networks, as a sense of locality or place becomes diluted, so that:

...(a) child's subjective map becomes a patchwork carpet consisting of islands of apparently unconnected space. (Buchner, 1990, p79)

Others have stated that spatially diverse lifestyles can provide more opportunities for children (O'Brien et al., 2000). As Hillman questions:

Should it necessarily be assumed that children's loss of freedom to get about on their own is not compensated for by the wider opportunities for leisure and education that the parents' car provides? (Hillman, 1993, p17)

Research in the UK and Italy states that mode of journey to school does not significantly influence children's spatial cognition, for example ability to identify landmarks on the journey or to draw a map of the route (Joshi et al., 1999, Maluceilli and Maass, 2001, Rissotto and Tonucci, 2002, Paskins, 2004).

There are various explanations both for increased levels of escorting children and increased use of cars for children's spatial mobility. Children's experiences can be linked to wider processes within contemporary postmodern societies, such as time space compression, which has led to a wider respatialisation of social relations from the local to the non-local (Giddens, 1990, Whitelegg, 1997). Levels of car ownership have risen, from 53% of households in 1980 to 74% in 2002 (DfT, 2005), as households have become more affluent. A greater proportion of households (29%) own two or more cars, than the 26% of households without a car (ibid).

Also relevant is the increasing proportion of mothers returning to paid employment. Despite this, women still remain responsible for most caring duties, including escorting children (Joshi and Maclean, 1995, Dowling, 2000, Skinner, 2003). Cars play a crucial role in enabling increasing numbers of mothers to juggle the competing demands of employment and care. Estimates suggest that between 40% (Jones and Bradshaw, 2000) and 60% (Bradshaw, 1995) of journeys to school undertaken by car are immediately followed by a journey to work. Such complex and often spatially dispersed lifestyles can often only be undertaken by car (RCEP, 1994, Dowling, 2000). Therefore, the increase in children's car use may reflect changes in families' lifestyles. Another factor influencing the decision to use cars for escorting children and to and from places relates, as section 3.6 explains in more detail, to wider spatialised fears about children.
and public space. Car use is a common response to these fears, since, as bounded spaces, they insulate occupants from public space.

Also of importance are preferences for car use, both as a more convenient mode of travel, and as status symbols (Miller, 2001). Chapter two has indicated how car culture is becoming more central within societies (Urry, 2000). However, whilst there is much research on preferences for cars amongst adults (Holtz Kay, 1997, Wollen and Kerr, 2002), there is little equivalent research with children. Research indicates strong aspirations amongst young people to own and drive cars, which are often seen as symbols of independence (Pilling et al., 1998, Carrabine and Longhurst, 2002). Research shows that amongst younger age groups, most primary school children also have aspirations for automobility in the future (Meaton and Kingham, 1998, Kingham and Donohoe, 2002) and are aware of the status of being escorted by car (Bradshaw, 1995).

However, no research as yet has explored whether or how these different factors influencing children's car use may relate to the wider theoretical discussions and debates among Marxist, feminist and postmodern geographers regarding automobility and time space compression. Therefore, this thesis contributes to existing knowledge by considering the applicability of debates within the new mobilities paradigm, and the value of postmodern, Marxist and feminist geographers to account for the increased role of cars for children's spatial mobility.

An increasing number of commentators from a variety of sources, including the popular press, policy makers and academics, have begun to problematise children's increasing dependence on cars, as part of a growing set of concerns regarding the development of automobility (RCEP, 1994, Meaton and Kingham, 1998, Bradshaw, 1999). In addition to concerns regarding children's physical health (Hillman, 1999), are the increasing accident rates of 11/12 year olds, who, when beginning to travel to secondary school unaccompanied, are often not used to walking without escort (see DfT, 2003c). Furthermore, escorting children to school by car contributes to congestion. At the peak of the morning rush hour, up to 18% of cars on urban roads are escorting children to school (Jones and Bradshaw, 2000, DfT, 2004).

There have been a variety of responses to these growing concerns over traffic congestion generated by the journey to school, including the development of Footsteps training for primary school children (Zeedyk et al., 2002), Yellow School Buses (DfT, 2003c, 2003d) and the development of 'Safer Routes to School' (hereafter SRS) programmes across the UK. Each participating school develops a 'School Travel Plan'
(hereafter STP) in partnership by headteachers, governors, parent volunteers and other interested local organisations or individuals. STPs typically focus upon a combination of i) engineering, such as traffic calming and other measures to reduce accidents and discourage driving, ii) education and training, to help children and parents improve their confidence and skills as pedestrians, and iii) initiatives to reduce dependence on cars for the journey to school, such as the walking bus, car sharing and cycle trains (Bradshaw, 1999). The UK government has set a target for every school to have a STP by 2010 (DfT, 2003c).

Evidence suggests that the majority (60%) of parents driving children to school are interested in changing mode of travel, and that children prefer walking to school than other modes of travel (Jones and Bradshaw, 2000, Collins and Kearns, 2001). Walking buses can be a popular and successful alternative to car journeys to school (Kearns and Collins, 2003). Despite their popularity amongst children, the initiatives are organised by adults and can be seen as a form of social control of children (Kearns and Collins, 2003, Kearns et al., 2003). Since these innovative programmes are still relatively new, so far little research has been undertaken to examine their impact in the UK, with the exception of Rowland et al. (2003), and work in progress by Mackett et al. (2004). This thesis contributes to developing this body of research by evaluating the effectiveness of SRS programmes as an example of UK government policy to discourage dependency of cars for children's mobility, and considering whether, and to what extent, such initiatives are successful in providing alternatives to automobility.

3.3.2 The significance of place

Holloway and Valentine (2000a) note that a second contribution of geographers to the new social studies of childhood is highlighting the significance of place in children's lives. Although the historical and cultural specificity of childhood is central to the new social studies of childhood, the emphasis has largely been on the historical rather than the cross cultural or the spatial (James, 1998, Holloway and Valentine, 2000a, 2000b). A key contribution of children's geographers is to examine the diversity of childhoods, exploring variations between countries, regions or places (Sibley, 1995a, Philo, 2000a, Matthews et al., 2000a). As chapter two has discussed, this focus draws on the wider concerns of feminist and postmodern geographers to consider diversity and difference (Pile and Rose, 1992, Soja, 1996).

Whilst Holloway and Valentine (2000a) identified the significance of spatial variations in childhood, more recent research (such as Katz, 2004, Horschelmann and Schaefer, 2005) has begun to explore the very diverse spatial variations which occur at both
global and local scales, as well as between them. At the global level, variations in experiences of children from the developed and developing worlds are well documented (Punch, 2000). For example, infant mortality rates and premature death rates are significantly higher in much of the developing world (James, Jenks and Prout, 1998). It is largely only in western, industrialised countries that childhood is a time of relative protection and economic dependence upon adults (Corsaro, 1997). Large numbers of children in developing countries contribute daily to economic and non-economic household tasks (Punch, 2000), or are involved in war, or living and working on the streets (Glauser, 1990, Frones et al., 2000a, Robson and Ansell, 2000, Beazley, 2000, Cahill, 2004, Winton, 2005).

Specifically in terms of mobility, there are significant spatial variations across the globe. Children's geographers have begun to explore differences in the mobility experiences of children in developed and developing countries, indicating how the increasing spatial restriction of children is largely a feature of western, industrialised countries (Punch, 2000). As well as engaging in personal mobility, children in developing countries also often play a significant role in carrying and moving goods, food and water (Porter, 2003).

Significant socio-spatial variations in childhood also occur at the local level (James, Jenks and Prout, 1998). For example, Raey and Lucy (2000) discuss the significance of growing up in different housing estates in inner city London, and Lupton and Bayley (2002) explore how children's fears of mugging are higher in London than in other places. More specifically in relation to this thesis, place is also significant as children's spatial mobility is influenced by location, including the social and physical characteristics of the neighbourhood (Valentine, 1997a, Tranter and Pawson 2001, Ross, 2002). For example, although nationally 40% of primary school children are driven to school (DfT, 2005), there are spatial variations in how children travel. London has the lowest proportion (31%) of journeys to primary school undertaken by car, whereas the South East has the highest (47% of pupils, DfT, 2003b).

Until recently, most literature has focused upon urban children, whilst the experiences of children living in rural areas was ‘a hidden geography’ (Philo, 1992, Valentine, 1997c, Cloke, 1999, Matthews et al., 2000a). Whilst 'rural' is a problematic term (as discussed in chapter four), powerful sets of ideological and symbolic representations construct rural childhoods as growing up in a natural environment with unlimited access to the countryside (Philo, 1992b, Jones, 2000, Tucker and Matthews, 2001). However, children’s experiences often contrast sharply, indicating that the countryside is
increasingly inaccessible to them, and many rural children often have less independent spatial mobility than their urban counterparts (Matthews et al., 2000a, Kloep et al., 2003). Children's geographers have developed a more nuanced account of rural childhoods to acknowledge there is no homogeneous rural experience (Ward, 1988, Jones, 2000, Tucker, 2003, Halfacree, 2004a).

The significance of place interconnects with, and is fragmented by other significant social processes, such as gender, ethnicity, social class and age (Davis and Ridge, 1997, Smith and Barker, 2001a, Matthews et al., 2000a). Although children are more likely than other social groups to experience poverty, there are significant socio-spatial variations in the material circumstances of children (Qvortrup, 1990, Goldson, 1997, Hendrick 1997). Child poverty is concentrated within, but by no means limited to, inner city estates (Reay and Lucey, 2000). Children living in lone parent families and children from minority ethnic groups are more likely than other groups of children to face poverty (Oppenheim and Lister, 1996). In relation to mobility, children from lower social class families are less likely to have space to play at home, and are often more likely to spend time unsupervised outdoors (Matthew, 1992). Conversely, affluent children often experience very different childhoods, living in more wealthy localities, and participating in more institutionalised and commodified leisure activities (Frones et al., 2000a). Children from higher social class families often have less independent spatial mobility, with higher levels of adult-escorted spatial mobility (Jones and Bradshaw, 2000, Tranter and Pawson, 2001).

Children's geographers have argued that gender also influences the significance of place (Jones, 1999, Reay and Lucey, 2000, Philo, 2000a). For example, children's experiences and domestic duties within the home, and the ways in which children use cyberspace are highly gendered (Holloway et al., 2000). There is also gendered conflict over use of space, for example in relation to playing football and other activities (Smith and Barker, 2000b, Tucker and Matthews, 2001). Until recently, boys were seen to have greater levels of independent spatial mobility than girls (Valentine, 1996b, Matthews et al., 2000b), although more recent research has found no significant gendered differences in children's spatial mobility, as both boys and girls are increasingly escorted until the transition to secondary school (Jones and Bradshaw, 2000, Ross, 2002, Thomson and Philo, 2004). As well as considering gender differences, more recent and innovative research has identified that there is also a need to recognise variation within gender categories. For example, Tucker (2003) identifies conflicts amongst girls' use of space, and Skelton (2000a) has considered
how gender is cross cut and fractured by other social identities such as age and ethnicity.

The significance of place in children's lives also varies according to age (Philo, 2000a). In many contemporary childhood spaces, children are strictly spatially segregated and organised according to age (Holloway and Valentine, 2000a). The significance of individual places in children's lives often change as they become older. Children's independent spatial mobility increases with age (Matthews, 1987, Hillman et al., 1990, Valentine, 1996b, Valentine, 1997a). The age 10/11 appears to be a watershed in gaining independent spatial mobility (Maguire and Shirlow, 2004). After this age, most children are able to go to school, play out on the street, and walk to local shops and friends' houses alone (Hillman et al., 1990, O'Brien et al., 2000).

The significance of place for children and young people is further differentiated by ethnicity (Watt and Stenson, 1998, Dwyer, 1998, Hopkins, 2004). Research has explored the complex negotiation of identities amongst young Muslim women in England (Dwyer, 1998) and young Muslim men in Scotland (Hopkins, 2004). Watt and Stenson (1998) consider the impact of racism in public spaces by identifying unsafe places and exploring strategies of resistance for young people from minority ethnic groups. Gender further differentiates the spatial experiences of ethnicity, for example, Asian girls often have more spatial restrictions, both to protect their honour as well as responding to fears over racism (O'Brien et al., 2000), although both can be seen as forms of social control. Disability is a relatively new focus for children's geographies, with Valentine et al. (2001) and Holt (2004b) drawing upon the work of others (such as Priestley, 1998) to consider the experiences of disabled children and young people.

This growing collection of research exploring the diverse and contested character of childhoods indicates that the significance of place for children is differentiated by a variety of other significant social variables (Matthews and Limb, 1999). Specifically in relation to this thesis, Whilst research has suggested that gender, ethnicity, and place are significant in influencing children's independent spatial mobility, there has been no previous research to explore whether and how these factors differentiate children's experiences of cars, a gap which this research seeks to fill.

As chapter two discusses, power is a key concept increasingly used by postmodern geographers to explore a variety of socio-spatial phenomena, including, as mentioned earlier, contemporary childhoods. However, the diversity of childhood experiences highlights that power is not simply organised around adult-child relations. Rather it is necessary to develop a conceptualisation of power which considers how adult-child relations are fragmented and multiply positioned in a variety of ways according to place
and other social variables, creating multiple and numerous relations of power. This research contributes to debates regarding diversity and difference by considering the usefulness of Massey's power geometry to explore how the role of cars for children's spatial mobility varies between different groups of children and children in different places.

3.3.3 Spatialised discourses

A third way in which geographers contribute to the new social studies of childhood is through identifying how conceptualisations of childhood come to shape particular spaces, such as the home and the street. As Holloway and Valentine comment:

Childhood is imbued with a spatial ideology which shapes our understanding of different environments. (Holloway and Valentine, 2000b, p776)

There are many ideological assumptions regarding where children should be, encoding spaces as either appropriate or not appropriate for children (Holloway et al., 2000). One example of this is the popularisation of home as the dominant and idealised space of childhood (Wyness, 1999, Christensen et al., 2000, Harden, 2000).

As section 3.1 discussed, parents have increasingly withdrawn children's independent access to public space, drawing upon fears mainly associated with children's vulnerability to traffic or stranger danger (Sibley, 1995a, Valentine, 1996a, Jenks, 1996). Growing traffic levels have made streets increasingly hostile and dangerous for non-car users, having a particularly strong impact upon children's independent spatial mobility and use of public space. Research suggests that between 64% and 66% of parents of primary school children have concerns regarding traffic (Joshi et al., 1999, Jones and Bradshaw, 2000). Paradoxically, in part this threat is generated by the growing proportion of children travelling by car (Rosenbaum 1993, Tranter and Pawson, 2001). Once more this is not solely a UK phenomenon, but one which is increasingly experienced in other western, industrialised countries (Collins and Kearns, 2001, Fotel and Thomson, 2004). This fear is partly justified by evidence of road traffic accident statistics. Between 1979-99, 200,000 children have been fatally or seriously injured on roads, the majority occurring as pedestrians or cyclists (Hillman, 1999). However, child pedestrian deaths have fallen as many parents avoid the exposure to danger by removing their children from the streets (Hillman et al., 1990).

The second factor influencing spatialised fears of public space and the decline in children's independent spatial mobility is 'stranger danger' (Tolley and Turton, 1995, Tranter and Pawson, 2001). Research suggests that between 58% and 91% of parents
have such concerns (Joshi et al., 1999, Jones and Bradshaw, 2000). Fears of stranger danger are subject to significant socio-spatial variations (Dowling, 2000). Public parks are the most identified space to fear abduction (mentioned by 60% of parents of primary school children) followed by shopping centres (34%), playgrounds (33%), and outside school (6%) (Valentine, 1997a).

Furthermore, these spatialised fears affect different groups of children in different ways (Percy-Smith and Matthews, 2001). Girls are more likely to be seen as targets for sexual assault, whereas boys are often seen as targets for physical attack or street robberies from strangers, often from their own age group (Hillman et al., 1990, Turner and Pilling, 1999). However, instances of actual abduction are very low, and children are more at risk in their own homes and from people that they know (Bury, Barker, and Popple, 1998). Parents are aware that stranger danger abduction is unlikely, but still spatially restrict their children because of the immense consequences of not doing so (Valentine, 1996b).

Implicit in both these spatialised fears are constructions of childhood that shape the meanings and use of childhood spaces. Apollonian visions of childhood construct children as ‘little angels’, identifying children’s vulnerability and danger in public space (Sibley, 1995a, Valentine, 1996b). Public space is seen as dangerous, from which children, as innocent and incompetent, need protection (Qvortrup, 1990, Harden, 2000). Parents reduce the risk by protecting children from public space, and by introducing children to public space gradually, and with accompaniment (James, Jenks and Prout, 1998). However, this Apollonian vision of childhood innocence has been critiqued by research which demonstrates that children are social actors. For example, children themselves are very aware of problems of traffic (Bury, 1993) and play active roles in keeping themselves safe against stranger danger (Bury, Barker and Popple, 1998).

The opposing Dionysian vision of childhood constructs children as ‘little devils’, creating alternative spatialised fears about childhood (Valentine, 1996a). Public space is made dangerous by unsupervised, unruly children who challenge the moral order (Boyden, 1990, Reay and Lucey, 2000). In some cases, this has led to curfews restricting children and young people’s spatial movements (Franklin, 1999). Once more, these spatialised fears do not impact on all groups of children in the same way, but are classed, racialised and gendered (see Skelton, 2001a, Aitken and Marchant, 2003). These spatialised fears reinforce the notion that public space should belong to, and be used and controlled by adults (Valentine, 1996a, Harden, 2000).
At the local level, these wider spatialised discourses influence and are influenced by local cultures of parenting (Dyck, 1990, Holloway, 1998). Parenting is a social process not simply influenced by individual perception or family expectations but is also informed by local social networks (Ross, 2002). These cultures of parenting are, by their definition, local and spatially variable (Dyck, 1990, Holloway, 1998). Local cultures of parenting also influence children's independent spatial mobility. For example, Ross (2002) highlighted that rural Fife in Scotland has local parenting cultures which promote the independent spatial mobility of children. Local cultures of parenting extol the benefits of independence, and promote a wider community responsibility for children's welfare that is often not seen elsewhere (Ross, 2002). This is perhaps in contrast to many other contexts in western, industrialised countries where local cultures of parenting draw upon local and more general spatialised fears to prevent children from undertaking independent spatial mobility. For example, in Auckland, New Zealand, local cultures of parenting produce powerful expectations that escorting children, and indeed escorting children by car, is a necessary part of 'good mothering' (Kearns et al., 2003).

The example of local cultures of parenting highlights the interconnectedness of Holloway and Valentine's (2000a) three contributions of children's geographers, since, for example, spatialised fears are fragmented by the significance of place and are played out in everyday spaces. This research recognises the importance of local cultures of parenting and wider spatialised fears regarding children's use of space, and contributes to existing knowledges by considering how spatialised fears may influence car use, and construct cars as safe places for children.

3.4 Chapter summary

This chapter has explored how children's geographies have developed by drawing on the new social studies of childhood and wider debates within postmodern and feminist debates. It has examined how childhood is socially constructed and is worthy of investigation in its own right, responding to a call from postmodern geographers to explore hitherto invisible geographies. Drawing upon the postmodern emphasis on diversity and difference, it has also discussed how children do not form an homogeneous group.

The chapter has explored three important contributions of geographers to the new social studies of childhood, both in a general sense and more specifically in relation to this thesis. Whilst established children's geographers identified these processes, more contemporary and innovative research has begun to map these issues in more depth. Firstly, the chapter has discussed contemporary everyday spaces of childhood, and
how power is a key concept used by children's geographers to consider how children are increasingly placed in specific institutions. However, recognising that power is not simply repressive but also productive, children's geographers have shown how children are social actors who contest and challenge this adult control. Secondly, the chapter has also discussed the significance of place in differentiating children's lives, and how experiences of place are further differentiated by other social variables such as class, gender, age and ethnicity. Thirdly, spatialised discourses regarding childhood have rendered public spaces as dangerous for children, who are seen to increasingly require an escort.

The chapter has also indicated how debates regarding children and mobility are relevant and timely. Cars are increasingly used for children's journeys and are increasingly significant, if hitherto unexplored, spaces of childhood. Whilst these developments can be linked to wider discussions of automobility and the new mobilities paradigm, the chapter has argued that children and their views have often been omitted from theories regarding automobility, a gap which this thesis attempts to fill. In drawing together existing research from applied geography, the new mobilities paradigm, postmodern geographies and children's geographies, the thesis has developed four key questions to explore how cars are experienced amongst different groups of children, and the role of automobility in their lives. The following chapter sets out the methodological framework and processes by which these research questions have been addressed.
Chapter four~ 'Is it fun?': Developing methods to explore children’s experiences of automobility

The field is constantly changing and... researchers may find that they have to maneuver (sic) around unexpected circumstances. The result is research where the only inevitability seems to be unreliability and unpredictability. (England, 1994, p81)

4.1 Introduction
In previous chapters, a number of questions have been raised regarding different aspects of children's automobility. This chapter discusses the process of collecting data to answer these questions, considering the influence of a number of epistemological and methodological issues. Like other children's geographies research, the project was initially envisaged as a piece of applied geography, developing knowledge of benefit to communities, in this instance working with 'School Travel Plan' (hereafter STP) committees to promote alternatives to travelling to school by car. This chapter reflexively explores adopting a participatory approach to applied geography, involving STP committees in aspects of the research process, including design and analysis. The chapter also critically discusses the use of quantitative and qualitative methods to conduct children-centred applied geography.

Recognising that undertaking PhD research is an evolving process undertaken over a number of years, chapter two has discussed how the research became increasingly influenced by emerging debates regarding automobility, particularly a postmodern approach. This chapter considers methodological implications of this approach, critically exploring the use of multiple methods in attempts to explore the diverse voices of children, and discussing the possibilities of reconciling quantitative methods with a postmodern approach. The chapter also critically considers methodological issues encountered in the research process, including those relating to selecting a sample, informed consent, confidentiality, anonymity, analysis and dissemination. The chapter explores the myriad of different and often unequal power relations present in research, which influence the success of children-centred methods and other aspects of the research process (Mauthner, 1997, Valentine, 1999).

4.2 Developing a methodological approach to the research
The initial methodological strategy adopted by the research was an applied geography approach. As well as ‘a philosophy of usefulness or relevance to society’ (Pacione, 1999a, p4), applied geography is also a methodology, offering a framework or strategy to how research might proceed (Maynard, 1998, Jayaratne and Stewart, 1995, Smith,
Many different geographers have contributed to methodological debates regarding applied geography, including feminist geographers (Lawson, 1995, WGSG, 1997), and Marxist and other critical geographers (Maxey, 1999, Doyle, 1999). Of particular relevance for this research, children's geographers have often embraced the principles of applied geography, through contributing to discussions attempting to transform the material circumstances of children's lives (Horton and Kraftl, 2005).

Some applied geographers have drawn upon broader debates led by feminist geographers (such as Nast, 1994) and others (Maxey, 1999) to reflexively explore the possibilities and problems of conducting applied geography. Reflexivity can be defined as:

The self-critical sympathetic introspection and the self conscious analytical scrutiny of the self as researcher. (England, 1994, p82)

Rather than projecting illusions of objectivity, reflexivity explores how researchers influence research design, data collection and analysis (Stanley and Wise, 1993, Tooke, 2000, Holt, 2004a). Researchers are both agents and participants in the production of knowledge (Hubbard et al., 2002), and reflect a particular political or theoretical standpoint or position (Rose, 1997, Graham, 1997, Scott, 1998, May, 1998).

One methodological debate within applied geography, as identified in chapter two, is choosing research partners to work with in order to enable research to have a practical application or impact. This chapter reflexively explores my methodological approach to conduct research with children and families by working with schools and STP committees, motivated by the desire to help these local groups to challenge the dominance of cars for the journey to school.

However, whilst helping to develop and reform policies to the benefit of research partners, respondents or communities, this approach has been criticised for not challenging the broader context and for supporting existing elites and reproducing the status quo (Maxey, 1999, Cloke et al., 2001). Therefore, this chapter critically considers this perhaps rather conservative methodological approach to conducting applied geography, discussing whether and how such forms of engagement, rather than challenging existing power relations, actually re-enforce them (Gilbert and Mascucci, 2004, Wilbert and Haskyns, 2004). For example, whilst STP committees include different interested individuals and groups, children were noticeably absent and were not consulted, even though it was their travel which was being discussed. As Peck (1999) comments, applied geographers should be critical of policies, and, as Moss (2004) suggests, there is always space to manoeuvre around and challenge existing
power relations. Therefore, the chapter discusses some of my methodological strategies to challenge existing power relations and to involve children more in the process of developing STPs.

The chapter also contributes to wider methodological debates by critically considering the possibilities of involving research partners in different stages of research. In response to critiques of one-off methods of communication, applied geographers have developed and critically considered more radical methodological strategies to involve research partners in different aspects of the research process, including research design, data collection, analysis and dissemination (Doyle, 1999, Moss, 2004, Gilbert and Masucci, 2004, and Wilton, 2004). This chapter explores how, in response to these debates, my methodological approach attempted to involve STP committees in different aspects of the research process.

However, research is an ongoing, evolving process, which is influenced by continuing developments and innovation in the discipline (Fuller, 1999, Limb and Dwyer, 2001). Chapter two has already discussed how, over time, in addition to drawing upon applied geography, the research evolved to incorporate a postmodern approach to automobility. Therefore, this chapter also explores how postmodernism informed some of the methodological aspects of the research process.

A range of quantitative and qualitative methods have been used in applied geography to gather data attempting to contribute to social change, and have also been used to explore children's lives (Matthews, 1987, O'Brien, 2000, Kearns and Collins, 2003). This chapter justifies and critically considers the use of a number of methods, including questionnaire surveys, in-depth interviews, photographs and diaries. The following sections discuss how the decision to use surveys was a pragmatic one, motivated less by philosophy and theory, and more by the desire to conduct applied geographical research of use for communities developing STPs. Whilst many are critical of using quantitative methods for research with children, some (for example, Mayall, 2002, Qvortrup, 1990, 2000, Maxey, 2005) have suggested that they may be useful in exploring broader scale trends in children's lives. Similarly, whilst many postmodern debates critique quantitative methods for oversimplifying and decontextualising respondents and for a misguided belief in the scientific method, a number of researchers influenced by postmodernism (Lawson, 1995, Rocheleau, 1995, Kelly et al., 1995) have suggested there may be a post-positivist role for using such methods in a more reflexive way without claims to objectivity. This research contributes to methodological debates by exploring the possibilities of using quantitative methods to
explore children’s experiences of automobility and, more broadly, for a postmodern approach to applied geography.

Children’s geographers have developed a variety of children-centred, qualitative methods for conducting research with children, including photography (Young and Barrrett, 2001a), map drawing (Matthews, 1992, Matthews et al., 1998) and storyboards (Van Blerk, 2005). Similarly, much postmodern research also draws upon a rich heritage of qualitative methods, such as in-depth interviews and ethnography, in order to make visible and explore the everyday experiences of those often excluded from research (Bryman, 1998, Dwyer and Limb, 2001). However, methods do not simply record or represent respondents' experiences, but produce a particular, partial account, influenced by the researcher, the method and the context in which it is generated (Haraway, 1997). A postmodern epistemological position acknowledges that each method produces a partial and socially produced account, rather than offering a definitive record (Cloke et al., 1991). Therefore, this chapter contributes to methodological debates by considering the usefulness of a range of qualitative methods, including photographs, diaries and in-depth interviews, to consider in detail children's experiences of automobility and more broadly for a postmodern approach to applied geography.

The chapter also explores the possibilities of combining postmodernism and applied geography. Some (for example, Bauman, 1987, Soja, 1996, 2001b, Dempsey and Lowe, 2004) argue that it is possible to conduct applied geography from a postmodern approach, since reflexive discussion of the research process and the desire to give voice to others are often common to both approaches. As introduced in chapter two, my own approach to combining these two perspectives was influenced by Bauman (1987, 2000) who develops a postmodern approach to applied geography, offering a more modest role for researchers as 'interpreters' rather than 'legislators'. Whilst researchers offer specialist skills which others might not have access to, we offer one partial perspective which cannot ultimately be seen as more authoritative than others (Moss, 2004), although researchers may be more powerful than others at influencing public or policy debates. A postmodern approach recognises that our contributions to applied research are socially produced, subject to and inseparable from the processes we observe, and that knowledge produced is contingent and revisable (see also Bondi and Domosh, 1992, Williams and May, 1996, Fuller and Kitchin, 2004). As Fuller and Kitchin (2004) comment:

The role of the academic, then is not simply as expert but primarily as enabler or facilitator, and the role of the participants is one of co-researcher or co-activist. Co-researcher expertise is acknowledged as equal but often
However, as this chapter explores, the role of researchers as interpreters is not stable, but rather is dynamic, fluid and shifts over time, often in unpredictable ways.

4.3 Identifying a research sample
The research was undertaken in five primary schools within Buckinghamshire and the London Borough of Enfield. This was a purposive sample, a form of non-probability sampling, chosen for its usefulness in investigating particular areas (Parfitt, 1997, Robinson, 1998). The motivation to conduct applied geography influenced the choice of these two local authorities, both of which were at the forefront of developing SRS programmes. I hoped that working with these particular forward thinking and very receptive local authorities would maximise the potential of the research to contribute to social change, helping to reduce congestion and promote alternatives to car travel to school. Also, it was interesting to compare these two authorities, since Buckinghamshire has one of the highest levels of car ownership in the UK, whereas Enfield, as a part of Greater London, has levels similar to the national average (DETR, 1999).

This exploration of these places also allowed a postmodern sensitivity to local terrains and the specificities of place (Bondi, 1990, Pile and Rose, 1992, Mohammad, 2001). Place is a highly contested term, which can refer to physical locations, material settings for social relations as well as the emotional attachment people have to localities (Massey, 1993a, Crang and Thrift, 2000, Cresswell, 2004). In discussing the importance of place in relation to children’s automobility, this thesis alludes to many wider place-sensitive processes, such as local economic and transport planning contexts. As identified in subsequent chapters, one limitation of the research is that the focus on these place-sensitive processes was a post-hoc consideration, rather than informing the initial research design. Therefore, the research only considers each of these processes as they relate to automobility, rather than undertaking a more comprehensive place-based analysis, which would include a wider historical, cultural and economic investigation of the context of each place.

The first stage of the research entailed working with schools. A growing number of children’s geographers have undertaken research in schools (Ansell, 2001, Weller, 2003, Holt, 2004b). Schools are a practical, easy way of contacting and disseminating details of research to potential participants, distributing surveys to large numbers of children and/or their families, and recruiting participants for participation in other methods. Also of importance for this research, working with schools was a practical
way of conducting applied geography. Each school invited to participate had an STP committee, which had been charged by the local authority to collect specific types of information for their STP. I offered to collect this data, giving schools access to resources and skills they might not otherwise have. In addition to supporting the committees, this would also help me collect large-scale information on children's travel to school patterns, and enable me to invite parents and children to participate in more in-depth research exploring children's experiences of automobility. Five schools took part, enabling the research to explore some of the diversity within, as well as between, the two administrative areas. None of the schools were faith schools, since these often have a much broader catchment area than other schools (see Parson et al, 2000). Each school and its locality was given a pseudonym. The five schools were situated in diverse locations, as table 4.1 indicates (see over).

The data in table 4.1 describe some key characteristics of each sample location and justify their inclusion in the research, although there are some limitations to using these indicators. The ONS categories refer to all households, rather than families with dependent children attending a specific primary school. Similarly, whilst indicators refer to the proportion of mothers in employment, ONS data was not available regarding part or full time employment trends, nor whether children were of primary or secondary school age. Furthermore, whilst the ONS data was ward level, a school's catchment area may extend beyond the ward, hence the inclusion of information for adjacent wards where appropriate.

Despite these limitations, the indicators provided an overview to each location. Buckinghamshire is a predominantly rural county, generally characterised by high levels of affluence. Of the three Buckinghamshire schools taking part, Rural Hill and Village Bottom were both located in villages in the south east of the county, surrounded by fields protected by green belt legislation. These two wards could be labelled as 'rural', categorised by National Statistics as 'village, hamlet and isolated dwellings'. However, terms such as rural and urban are highly contested and debated, and are ideological concepts as much as indicators of population density. There is no homogeneous category of rurality, since there are many differing rural experiences, from affluent commuter belt countrysides, to more isolated and impoverished rural locations (Cloke and Little, 1997, Matthews et al., 2000a). This spectrum of ruralities makes it problematic to consider such diversity under the same category (Philo, 1992b). This research explores one particular, partial set of experiences of rurality characteristic of commuter belt countrysides adjacent to large urban centres, which may not represent or be relevant to other rural contexts.
<table>
<thead>
<tr>
<th>Ward location</th>
<th>England and Wales</th>
<th>Buckinghamshire</th>
<th>London Borough of Enfield</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural Hill</td>
<td>Village Bottom</td>
<td>Suburban Royal</td>
</tr>
<tr>
<td></td>
<td>Townham East*</td>
<td>Valley Town South*</td>
<td>Country Wood</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural Hill</td>
<td>Village Bottom</td>
<td>Suburban Royal</td>
</tr>
<tr>
<td></td>
<td>Townham East*</td>
<td>Valley Town South*</td>
<td>Country Wood</td>
</tr>
<tr>
<td>Population</td>
<td>2,183</td>
<td>4,404 (part of town 21,000 pop)</td>
<td>5,192</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4,756 (part of town of 158,000)</td>
<td>9,328 (part of town of 119,000)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12,536 (Country Wood pop approx 6,000)</td>
</tr>
<tr>
<td>per cent of households from minority ethnic groups</td>
<td>9.1</td>
<td>1.5</td>
<td>8.1</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>3.4</td>
<td>2.1</td>
<td>1.6</td>
</tr>
<tr>
<td>Per cent of women aged 17-74 economically active</td>
<td>67</td>
<td>71.03</td>
<td>71.92</td>
</tr>
<tr>
<td>Per cent of households from social class one and two</td>
<td>27.1</td>
<td>41.4</td>
<td>37.7</td>
</tr>
<tr>
<td>Per cent of households in local authority/housing association accommodation</td>
<td>19.2</td>
<td>8</td>
<td>7.3</td>
</tr>
<tr>
<td>Per cent of households owning a car</td>
<td>73.2</td>
<td>93.1</td>
<td>85</td>
</tr>
<tr>
<td>Per cent of households owning two or more cars</td>
<td>29.4</td>
<td>61.5</td>
<td>41.3</td>
</tr>
<tr>
<td>Per cent of pupils statemented</td>
<td>10</td>
<td>N/A</td>
<td>9</td>
</tr>
</tbody>
</table>

*catchment area of school also covers this adjacent ward

Source: ONS, 2005, from Census 2001
Table 4.1 indicates both Rural Hill and Village Bottom were located in affluent wards, with high proportions of households from social class one and two, low levels of unemployment and households in social housing, and of particular relevance for this project, near universal levels of car ownership. A higher than average proportion of women engaged in paid employment. Both had low proportions of households from minority ethnic groups and lower than average levels (9-10%) of children with special educational needs. In both locations, the catchment area extended beyond the village to towns in adjacent wards. In Rural Hill, more than half of the school pupils were resident in the local market town of Townham, three miles away. In Village Bottom, approximately 30% of pupils lived in the large town of Valley Town, five miles distant. One key difference between these two schools was that whilst the Townham ward had a similar profile to Rural Hill, the Valley Town ward had a less affluent demographic profile, with higher proportions of minority ethnic groups.

In contrast, the third Buckinghamshire school, Suburban Royal was located on a large 1960s housing estate on the edge of a large industrial town in the south of the county. The ward was less affluent, reporting higher than average unemployment rates, and had the lowest levels of car ownership amongst the sample, and proportions of households from social class one and two. Also, there were lower rates of women's participation in paid employment, and higher than average proportions of households from minority ethnic groups. Community languages included Punjabi, Urdu, Gujarati and Hindi. Of the five locations, it had the highest proportion (19%) of children with special educational needs. Most children lived within one mile of the school.

The London Borough of Enfield is London's most northerly borough. The eastern and southern parts are characterised by high levels of deprivation, whilst the western half is very affluent. Country Wood was located in the northern edge of the borough, in a village within the green belt. Its prime location attracted affluent residents, characterised by higher than average proportion of households from social class one and two, and lower levels of social housing. However, unlike other similar affluent sample locations in Buckinghamshire, it had only average levels of car ownership, and relatively high proportions of minority ethnic group households, particularly Indian, Black African and Chinese groups. Of the sample, it had the lowest rates of paid employment amongst women. Most children attending the school lived in the village.

By contrast, suburban Common Green, located in the south west of the borough, was much more economically mixed. Although it had the highest unemployment rates amongst the five locations, since the proportion of women working was the national
average, this suggests higher levels of male unemployment. It also had low rates of car
ownership. Of the five locations in the research, it had the highest proportion of
households from a wide range of minority ethnic groups, including Black African, Black
Caribbean, Indian, Turkish and Greek families. Most children lived within one mile of
the school.

4.4 Designing research with schools, families and children

Children's geographers have considered how research with children and families is
complex, attempting to develop strategies and methods to communicate with children
and families that are non-invasive, non-confrontational and participatory, in order to
design research with and for, rather than on children (Morrow and Richards, 1996,
Masson, 2000). The following sections explore how the research draws upon and
contributes to these existing debates by discussing aspects of the research process,
justifying, detailing and critiquing different methodological issues such as access,
consent, confidentiality and anonymity, as well as reflexively evaluating each method
undertaken.

4.4.1 Working with schools: Gaining access, and involving schools in designing
the research

Gaining access to children can be a lengthy and complex process, since children are
surrounded by adult gatekeepers, such as parents, headteachers and local education
authorities who restrict or prevent access (Masson, 2000, Corsaro and Molinari, 2000).
In my research, schools that were invited to take part were generally willing and keen
to participate and to allow access to contact pupils and families, perhaps because this
would enable me to collect information which they required for their STP.

Like others (e.g. Maxey, 1999, Macmillan and Scott, 2003), one way in which I tried to
design a participatory approach to conducting applied geography was to involve STP
committees in the research design. STP committees stated that questionnaire surveys
would be appropriate for collecting data useful for STPs, whilst qualitative methods
would not be suitable. The feedback from STP committees also influenced the age
range of children involved in the research. I was initially specifically interested
considering the experiences of 7-11 year olds since, as chapter two noted, it is the
mobility of this age group which has changed most over time. However, STP
committees stated the research would only be of use, and by implication, access to
schools would only be granted, if I collected information for the whole primary school. I
was initially uneasy about this request, since it would change the focus of my research.
However, since my aim was to conduct applied research of use to communities, and
also since I felt powerless to challenge this (except by withdrawal), I agreed to include
the entire school.

A more radical participatory approach at this stage of the research could have involved
parents and children, to help design research methods reflecting their needs and
wishes. However, this may have focused the research away from specific types of
information needed to develop STPs. One critique of this decision to involve STP
committees rather than individual parents and children is that it failed to challenge, and
perhaps helped to reproduce, existing power relations in which formal committees of
predominantly middle class adults determined local transport planning, whilst children
and many parents were excluded from this process.

Access is not only granted at the outset, but is an on-going process, through which
research partners and other gatekeepers continue to enact surveillance on
researchers. Throughout the research, like others (see Mayall, 1999, Morrow, 1999), I
found that my behaviour was constantly scrutinised to ensure I was suitable to work
with children, for example, by repeated questioning of my purpose, and teachers’
requests for me to speak, with no notice for preparation, to groups of children. Perhaps
in this instance this was due to my gender, since there are few men working with
children of primary school age (Cameron et al., 1999).

These different examples are also acts of surveillance and exercises of power by the
research partners, which question the notion of partnership in applied geography.
Although applied geography aims to develop partnerships between researchers and
communities, as Cloke (2004) mentions, this is sometimes contradicted by the specific
power relations often encountered in research. My experiences caused me to question
the possibilities of a participatory approach, as my research partners were powerful
gatekeepers who also enacted surveillance. My experiences mirror those of others
conducting applied geography (see Pacione, 1999a, Macmillan and Scott, 2003), who
have also felt powerless because of the conditions that research partners may impose
on research.

4.4.2 Informed consent
Informed consent is the process of respondents choosing whether to participate in
research, having been briefed about the research and other relevant points (Nachmias
and Nachmias, 1992, Lindsay, 2000). Informed consent for children is particularly
complex. Legislation conceptualises children as the responsibility of parents or
guardians, so informed consent must be sought from them (Matthews et al., 1998,
Valentine, 1999). I designed a leaflet, distributed through schools, introducing parents
to the project, asking if parents were willing to participate themselves and also asking for consent for their children to take part (see appendix 10.1).

Gaining legal consent from parents does not preclude also obtaining informed consent from children themselves (Alderson, 1995). Children can and should be treated like any other potential research subject. Researchers should introduce themselves and the research, and give the opportunity for children to ask questions (Morrow and Richards, 1996, Mauthner, 1997). I developed a children-friendly leaflet (see appendix 10.2), also distributed through schools and written in clear, simple language. I also spoke in school assemblies, informing children of the research and explaining that it was their choice whether to participate. Before undertaking the qualitative research, I once again asked children for consent to participate. No child formally refused to participate, though it is difficult to know whether they felt empowered to say no. As following sections discuss, some did withdraw consent more informally by not completing different activities.

The research adopted a number of different methods to explore the research aims, as table 4.2 indicates:

Table 4.2 Research methods to examine the research aims

<table>
<thead>
<tr>
<th>Questionnaire Survey</th>
<th>Diaries and drawings</th>
<th>Photographs</th>
<th>In-depth interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To identify how children experience the increasingly significant spaces of cars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. To consider the applicability of debates within the new mobilities paradigm to account for the increased role of cars for children's spatial mobility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. To explore how Massey's power geometry of mobility can be used to consider how the role of cars for children's spatial mobility varies between different groups of children and children in different places</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. To evaluate the effectiveness of 'Safer Routes to School' programmes as an example of UK government policy to discourage dependency on cars for children's spatial mobility</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.4.3 Designing, using and evaluating questionnaire surveys

There were several reasons for using questionnaire surveys. Despite recent critiques of positivism, there have been renewed debates regarding the usefulness of quantitative methods. A broad range of researchers undertaking applied geography, including some feminist geographers (such as Jayaratne and Stewart, 1995, Kelly et al., 1995,
Greaves et al., 1995, Mattingly and Falconer-al-Hindi, 1995) and those researching children (such as Mayall, 1999, Qvortrup, 2000, Christensen and James, 2000, Bradshaw, 2001), have indicated the possible contribution of quantitative methods to research. Large-scale, quantitative data may be useful in describing the wider social, political and economic context of disadvantaged groups or exploring larger-scale processes, for example, the incidence of poverty (Moss, 1995, Maynard, 1998, Mayall, 1999). For this research, it was hoped that quantitative methods would have a role in exploring, at a broader spatial scale, children's use of cars and preferences for different modes of travel.

Particularly relevant for applied geography, quantitative data is often more influential than other methods in raising wider awareness and highlighting particular issues, and also can be useful for political action in a variety of spheres, including engaging with policy makers and local community groups (Maxey, 1999, Pacione, 1999a). As discussed earlier, in my research, STP committees stated that qualitative data would not be 'useful', whereas quantitative data would enable them to develop STPs. Therefore, adopting a quantitative method was, in part, a pragmatic and practical response, which befitted an applied geographical approach to produce knowledge useful to local communities, rather than the result of any particular theoretical perspective.

However, as my research increasingly drew upon postmodernism, this raised an interesting dilemma, since a postmodern approach critiques the use of the scientific method and positivist claims to objectivity. However, some researchers adopting a postmodern approach (such as Lawson, 1995) have suggested there may be a post-positivist role for quantitative methods. A recent and relevant example for this research is the work of Kearns and Collins, who combine quantitative methods with a Foucauldian exploration of children’s mobility (see Collins and Kearns, 2001, Kearns et al., 2003). A post-positivist role for quantitative methods involves rejecting the scientific 'god trick' of positivism and epistemological claims to scientific objectivity, and recognising how quantitative methods are socially produced and construct particular forms of knowledge (Jarayatne and Stewart, 1995, Crotty, 1998). This also involves trying to develop questionnaires ethically and sensitively (Kelly et al., 1995, WGSG, 1997). Therefore, as my research developed, I became interested in exploring the extent to which quantitative methods could be reconciled with a postmodern approach.

As part of developing a participatory approach, I involved the research partners in drafting the questionnaire survey, who asked for additional questions to be included which would make the results more useful for developing STPs. Although the
questionnaire surveys were designed for parents to complete, I had hoped children would at least be involved in the process, and, in an effort to encourage this, I included a prompt at the beginning of the survey asking for parents to sit with their children to complete the form, and asking children directly how they would prefer to travel to school. This was one way in which I attempted to increase the profile of children in developing STPs. A more radical and participatory approach to designing the questionnaire survey could have involved parents or children in the process of drafting the survey, so that the questions may have reflected more fully their concerns or issues. I could also have been more innovative in designing a questionnaire survey specifically for children. However, I decided against this, as the questionnaire survey needed to address the pre-existing PhD research questions, and needed to produce data on certain indicators which would be relevant and useful for STPs.

The survey recorded information regarding children's travel to school and other places (see appendix 10.3). Existing relevant research (such as Valentine, 1997a, Jones and Bradshaw, 2000) helped to inform possible response categories. One issue arising from this may be to inherit problems from existing research and, through time, wording or concepts can alter meaning (May, 2001). This problem was addressed by undertaking a pilot survey, and, through discussing the completed survey with participants of the interviews, to determine whether categories had indeed recorded their views accurately. No such problems were identified.

The first section of the survey asked how children travelled to and from school, whether they were escorted and reasons for mode of travel and escort. It also asked how parents and children would prefer to travel to school. One limitation of collecting information about travel to school or preferred modes of travel is that this may be affected by the seasons or weather patterns. Each school was visited at different times of the year (as shown in table 4.3 below). Chapters five, six and seven each identify how seasons and weather patterns influenced perceptions of car travel, and also discuss some of the implication of this for the research.

The second section collected information regarding children's travel to other places over the previous week. It is easier to remember behaviour over a specific and recent time frame (Nachmias and Nachmias, 1992), rather than asking for a 'typical' week, although it is difficult to know whether the previous week was reflective of broader patterns. Another limitation is that people may have had different understandings as to what constitutes a journey (for example, whether a trip to the neighbours next door is a journey). This is one limitation of questionnaire surveys, in that they do not allow for dialogue and clarification, and the results must be considered with this limitation in
Respondents were also asked who made choices regarding children's travel, and whether children contributed to these decisions. A series of questions explored children's freedom to undertake specific activities, drawn from Hillman et al. (1990), to compare changing patterns in children's independent spatial mobility (although refer to above discussion for problems of using categories from existing research). The third section collected socio-demographic information regarding the age, gender and ethnicity of children and whether they received free school meals, which could be used as a basic if crude indicator of the economic position of families (Hood, 2001). It also asked for parental details, including car ownership. Finally, contact details were recorded for those wanting to participate further in the research.

A pilot, testing the survey on a sub-sample of the intended population, was crucial in determining whether the design, layout and question wording were effective (Robinson, 1998, May, 2001). Rural Hill school took part in the pilot, identifying several potential problems. The original draft did not include car sharing, which several parents mentioned in the pilot survey, so two questions were added to record this information. Several questions needed additional response categories. Questions regarding car ownership were expanded to distinguish between ownership of cars and whether one was available for the journey to school. The 166 completed surveys from the pilot were included in the final data analysis, since it seemed unethical to attempt to conduct applied geography but then not use the information gathered from participants. It is noted, where necessary, when data comes from four schools rather than five.

Primary schools distributed the surveys to all families with pupils attending the school. Although some schools had significant proportions of families from minority ethnic groups, the survey was not translated. The diverse number of languages spoken, including Panjabi, Urdu, Gujarati, Hindi, and Greek, would have required translation into many different languages, at high cost. More importantly, headteachers advised me that school policy was to send information to parents only in English, and that an English survey would be accessible to all. However, I recognise that taking the advice of headteachers may simply be re-enforcing their own prejudices and methods of exclusion. Thus, as the following section discusses, I checked to see whether the proportion of respondents from minority ethnic groups reflected the overall socio-demographic profile. Table 4.3 (see over) details the response rates:
Table 4.3 Details of respondents participating in the questionnaire survey

<table>
<thead>
<tr>
<th>Area</th>
<th>Number distributed</th>
<th>Number returned</th>
<th>Response rate (%)</th>
<th>Per cent of respondents from minority ethnic groups</th>
<th>Per cent of households at ward level from minority ethnic groups*</th>
<th>Per cent of respondents obtaining free school meals for children</th>
<th>Time of year in which survey was conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Hill</td>
<td>280</td>
<td>166</td>
<td>59</td>
<td>4 (n=6)</td>
<td>1.5/8.1**</td>
<td>&lt;1 (n=1)</td>
<td>Sept</td>
</tr>
<tr>
<td>Village Bottom</td>
<td>450</td>
<td>277</td>
<td>62</td>
<td>5 (n=14)</td>
<td>4/ 14.2**</td>
<td>&lt;1 (n=1)</td>
<td>Oct</td>
</tr>
<tr>
<td>Suburban Royal</td>
<td>400</td>
<td>168</td>
<td>42</td>
<td>17 (n=29)</td>
<td>14.1</td>
<td>4 (n=5)</td>
<td>Nov</td>
</tr>
<tr>
<td>Country Wood</td>
<td>176</td>
<td>91</td>
<td>52</td>
<td>17 (n=15)</td>
<td>16.9</td>
<td>1 (n=1)</td>
<td>Feb</td>
</tr>
<tr>
<td>Common Green</td>
<td>650</td>
<td>304</td>
<td>47</td>
<td>34 (n=104)</td>
<td>22.6</td>
<td>11 (n=32)</td>
<td>April</td>
</tr>
<tr>
<td>Total</td>
<td>1956</td>
<td>1006</td>
<td>51</td>
<td>17 (n=187)</td>
<td>N/A</td>
<td>4 (n=40)</td>
<td></td>
</tr>
</tbody>
</table>

*Source: ONS data, census 2001
**Data covering neighbouring wards
In many respects, the survey was successful. 1006 completed surveys gave a response rate of 51 per cent, higher than that expected by researchers (Nachmias and Nachmias, 1992) or by the headteachers, who suggested the high profile topic encouraged participation. The response rate varied from 42% in Suburban Royal to 59% in Rural Hill. This may be due to spatial differences in levels of interest in the topic, or different relations and levels of involvement and communication between parents and schools.

Despite earlier concerns, table 4.3 indicates that the proportion of respondents from minority ethnic groups participating was similar to the overall proportion of households from minority ethnic groups at ward level, although it is acknowledged these indicators are not exactly the same. In Common Green, the proportion from minority ethnic groups in the sample was much higher (34%) than at the ward level (22.6%), suggesting they formed a greater proportion of respondents than anticipated. However, as mentioned earlier, there are limitations comparing ONS indicators and data from my research, as the two samples are not contiguous. The proportion of families in the sample obtaining free school meals (4%) was relatively low, given that nationally 18% of families are eligible for free school meals, although the take-up rate is nearer 15% (DfES, 2005). This means that one possible limitation of the research was that families from lower incomes may have been less likely to participate in the survey, or less likely to claim this particular benefit.

The survey was successful in producing large-scale datasets regarding children’s travel to school and other places, which were relevant to the research aims. The quantitative data was also useful for STP committees, who used the results as a basis for planning their STPs, demonstrating how questionnaire surveys can be of value for conducting applied geography. Quantitative data was also useful when I was interviewed by several journalists at the 2002 Royal Geographical Society/ Institute of British Geographers conference. As others have commented, journalists often are more interested in the 'hard facts' of quantitative data rather than qualitative, in-depth findings (Mayall, 1999).

However, during the process of conducting the research, I became less comfortable with using quantitative methods, identifying significant limitations. WGSG’s (1997) threefold critique of quantitative methods helped to evaluate the usefulness of quantitative methods, both as a technique for conducting applied geography and in relation to a postmodern approach to research. Firstly, surveys classify social life in all its complexity into pre-existing categories defined by researchers, over-simplifying and
restricting the possibilities for respondents to participate. In my research, some respondents were so limited by quantitative categories that they responded 'beyond the category', either through the formal open ended questions provided, or sometimes more informally by ignoring the layout and writing over the page, as figure 4.1 illustrates:

Figure 4.1 Examples of responding 'beyond the category'

Figure 4.1 demonstrates that not all respondents were comfortable with using quantifiable pre-existing categories, indicating how quantitative methods do not facilitate in-depth communication, have a tendency to impose categories (Rocheleau, 1995, May, 2001), and contradict the postmodern emphasis on 'giving voice' to others. Perhaps engaging with parents and children in the process of drafting the questionnaire survey may have alleviated this to an extent. Where possible, I have incorporated these 'beyond the category' comments in the results. This limitation of quantitative methods was partly addressed by employing a multi-method approach, using qualitative methods through which respondents could talk in-depth 'beyond the category'. When considering the trends identified by quantitative methods, I often found myself looking through the qualitative data to find more detailed descriptions to shed light on these everyday events.

A second critique is the power relations inherent in questionnaire surveys. As a researcher, I had the power to construct the parameters of the research, deciding, in consultation with STP committees, which questions to ask or to omit from the survey, and offered possible response categories from which participants chose. Although, as
mentioned above, respondents sometimes resisted this, they could not shape nor challenge the research parameters. Hence one problem of using questionnaire surveys is that they re-enforced existing power relations, with STP committees having power and influence, and children and individual parents being relatively powerless.

Another level of power relations in the questionnaire surveys was between adults and children. Perhaps naively, in an attempt to involve children, I had asked parents to complete the survey with their children. Interestingly, at least 10 of the surveys were completed entirely by children, although sometimes it was very difficult to distinguish between adults' and children's handwriting, as figure 4.2 indicates:

Figure 4.2 Distinguishing between adults' and children's handwriting

(unsure if written by child or parent)

(written by child)

When talking to children participating in other methods used in the research, it became clear that many had not been involved in the survey, and it is also possible that children's responses may well be influenced by their parents (Aitken, 2001a). These examples provide glimpses into power relations between parents and children, suggesting that parents see their contribution as more important than children's (Mayall and Hood, 2001). Therefore, although the survey generated useful information regarding children's travel, as a method it often re-enforced specific familial power relations and perhaps failed to include the voices of children, which was a key aim of the research and an important feature of a postmodern approach. A questionnaire survey specifically written for, and drafted in consultation with children, may have been more effective to enable children to participate, although this would not have recorded
adults’ views on why they take their children to school, and hence might not have produced data in a format useful for conducting applied geography.

Thirdly, quantitative data is also criticised for presenting an abstracted, homogenised view which obscures context, diversity or difference (Jayaratne and Stewart, 1995). However, McLafferty (1995) suggests that quantitative methods can be adopted in postmodern research to explore the broad contours of difference. In my research, I have tried to use quantitative methods to explore diversity and difference, rather than using categories which aggregate and homogenise experiences. However, I recognise that quantitative methods do have a tendency to obscure differences, and once more found myself turning to qualitative methods to explore diversity in more depth.

Therefore, at the end of the process of using quantitative methods, I am less confident of the role of questionnaire surveys within applied geography. Whilst they may be popular amongst established organisations since they reflect what is perceived as ‘scientific’ and objective research, such large-scale and superficial data may re-enforce existing power relations and often limit the participation of, or exclude the voices of others. A more participatory approach to questionnaire surveys, whilst focusing more centrally on the views and needs of parents and children, may have been less useful to STP committees with their pre-determined categories and indicators. This indicates the difficulty of engaging in participatory approach when working towards such pre-determined outputs, such as STPs.

Similarly, I have found very limited possibilities for reconciling quantitative methods within postmodernism or, their use as a method within children’s geographies. Despite the arguments of some postmodern researchers of the possibilities to develop post-positivist quantitative methods, my research has shown the difficulties of designing and using questionnaire surveys to make visible the experiences of those often excluded or marginalised, since surveys tend to collect superficial data which aggregates and oversimplifies responses. Even suggesting alternative ways of conducting surveys, for example, involving participants in the design, or developing a children-friendly questionnaire survey, seem to fail to address these critiques.

4.4.4 Identifying a sample for the qualitative research
A sub-sample of respondents who had given their details on the questionnaire survey were invited to participate in the qualitative research in their homes. I set a target of five families per school, in order to explore in detail some of the differences amongst children’s experiences and the particularity and diversity of local contexts. In total, 23
families took part in the qualitative research, involving 28 children:

**Table 4.4 Participation in the qualitative research**

<table>
<thead>
<tr>
<th>Area</th>
<th>Total no. of families taking part</th>
<th>Total no. of children taking part</th>
<th>No. of children taking part in photography</th>
<th>No. of children taking part in diaries</th>
<th>No. of children taking part in interviews</th>
<th>No. of parents taking part in interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Hill</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Village Bottom</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Suburban Royal</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Country Wood</td>
<td>6*</td>
<td>6</td>
<td>6</td>
<td>4**</td>
<td>6</td>
<td>5***</td>
</tr>
<tr>
<td>Common Green</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
<td><strong>28</strong></td>
<td><strong>28</strong></td>
<td><strong>25</strong></td>
<td><strong>26</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

*- in one family, a parent took part in an interview but did not want their child to take part.
**- two children lost their diaries
***- one parent, with one child, did not undertake an interview

Table 4.4 indicates the target of five families was met in most case study locations. However, recruiting families was a difficult process, and a number who initially expressed interest dropped out, stating that they were too busy to continue. Whilst I had tried to anticipate this beforehand by approaching more than five families per area, this proved insufficient, particularly in Suburban Royal and Common Green, where the number of families participating was less than five.

This sample has limitations. Families opted whether to participate by entering their contact details on the survey. Self-selection often means only interested families may have taken part, often over-representing motivated middle class professionals, and eschewing socially excluded groups (Valentine, 1997d). To counter this, I aimed to target diverse groups of families. The qualitative sample included four households who did not own cars, three lone parent households, three families with children receiving free school meals, two households with children with special needs and nine families from a variety of minority ethnic groups, including Indian, Black African, Black Caribbean, Greek and Eastern European families (see appendix 10.4).

Whilst this can be seen to map some diverse experiences associated with a postmodern approach, the small numbers means that it is problematic to consider these representative. The research may also not represent those most car dependent families who may not have wanted to participate in research linked to SRS
programmes, or those families 'too busy' to take part. The research must be considered with these limitations in mind.

4.4.5 Gaining access to children at home

Gaining access to work with children at home can be complex, since research in the private spaces of the home may be intrusive (Matthews et al., 1998, Valentine, 1999). However, my experiences of gaining access to homes was that it was often much more simple and straightforward than with schools, as families had, in effect, already chosen to participate by leaving their details on the survey. There was a distinct gendered reaction to my telephone invitation to participate. Women immediately decided whether to participate, whilst men stated it was their wife/ female partner who 'knew about that sort of thing'. Similarly, only three men took part in the interviews, reflecting, as chapter six indicates, Dowling's (2000) assertion that moving children is women's business.

Visiting families' homes, I introduced the project, and encouraged children to ask questions (Mahon et al., 1996). Since informed consent is not a one-off event, children were asked again whether they wanted to participate (Hood et al., 1996, Matthews, Limb and Taylor, 1998). Although no one declined at this point, as the following sections discuss, some children effectively opted out by not participating in specific methods.

4.4.6 Designing, using and evaluating qualitative methods at home

The research adopted a number of qualitative methods, with the aim of enabling children to communicate in non-confrontational, familiar and fun ways. Using qualitative methods was motivated by debates within both applied geography and postmodernism. Qualitative methods enable applied geographical research to consider issues in-depth, in this case providing detailed explanations for different modes of travel to school, and to explore interest in initiatives to encourage children to travel to school by modes other than cars. Qualitative methods are also more suited to the postmodern emphasis to make visible the experiences of those often excluded from research, and have been used successfully by children's geographers to explore numerous aspects of children's everyday lives. Using a combination of qualitative methods helped to explore the diversity of experiences, and can be sensitive to different preferences or skills of different groups of children, to engage as many children as possible (Smith, 2001, McDowell, 2001).

As children's geographers have discussed in detail (see Matthews et al., 1998, Valentine, 1999, Unwin, 2001), developing successful participatory methods for
research with children is difficult and complex. Researchers, as adults with more experience, physical presence, institutional positioning and social standing, hold greater power and may intimidate child participants (Hill et al., 1996, Valentine, 1999, France et al., 2000). Strategies such as children calling researchers by their first name (Oakley, 1994), children taking control over tape recorders or equipment (Mahon et al., 1996), and communicating at children's height rather than looking down on them (France et al., 2000), may help to lessen uneven power relations. Other strategies, such as involving children as researchers (Alderson and Morrow, 2004) or having children involved in research design (Smith and Barker, 1999a), recognise that power relations do not just occur within a method of data collection, but throughout the research process (Fuller, 1999).

However, there are growing critiques of these strategies. Hart's (1997) ladder of participation indicates different levels of engagement, and critiques some forms of participation, identifying that some forms of involvement may rather be more accurately identified as manipulation, decoration or tokenism (see also Maxey, 2004a). What adults perceive as children-friendly and empowering may be an imposition for children (Oakley, 1994, Ansell, 2001). Although these strategies may engage children, mostly it is still adults who define research, choose methods and control other aspects of the research process. Although I designed my research in consultation with STP committees, children themselves were not invited to participate on the committees nor were they involved in decision-making. Therefore, despite attempts to include the voices of children, researchers must be aware of continuing differential power relations between researcher and respondents (Pain and Francis, 2003).

Research has identified that different methods may be suited to different children and different contexts. Younger children may prefer drawing, whilst older children may feel more confident to talk (Morrow and Richards, 1996). Girls may enjoy interviews, whereas boys may like more activity-based, rather than talk-centred methods (Mahon et al., 1996). Different methods can be more effective in particular contexts, for example, writing may be more appropriate in school whereas photography might be a more enjoyable method suited to other places (Matthews et al., 1998, Punch, 2001). It is important to be sensitive to these contextual differences, and to offer multiple methods to enable different forms of communication (Meth, 2003).

Therefore, this project considers the usefulness of a number of qualitative methods to explore cars as increasingly important spaces of childhood, and to consider their use within a postmodern approach to applied geography. Participant observation was considered, but rejected since an unknown researcher taking up one quarter of the
spaces of cars would have altered the everyday social interaction of occupants (see Barker and Weller, 2003b for more on this). As already indicated in table 4.4, the research adopted photography, diaries and in-depth interviews.

4.4.7 Photography

Photography is often seen as fun and enjoyable by children, and can be used by all ages and abilities to record experiences and sense of place(s) (Hart, 1997, Aitken, 2001b). Giving children the responsibility of a camera also helps to build trust between researcher and respondent (Harrison et al., 2001). Photography was also chosen since researchers can be absent when pictures are taken, giving respondents autonomy and avoids the presence of a researcher altering the dynamics of the space being studied (Young and Barrett, 2001b). In this way, photography can help to record the everyday experiences of those often marginalised or excluded, as part of a postmodern approach.

Children were given disposable cameras and were asked to take photographs over a week-long period of their experiences of travelling by car. To show my gratitude for participating, an extra set of photographs was developed, so children could keep their pictures. Photography proved to be very popular, with 28 children aged 5-11 taking pictures of the spaces within cars, travel landscapes through which the children passed, and pictures of their own cars and their friends' vehicles. Photography was broadly successful in achieving the postmodern aim to give voice to children's experiences and to explore 'on the ground' how they experienced cars.

However, there were also limitations to using this method, including varying levels of participation. Whilst some children quickly ran out of photographs, others had taken only one or two, which may indicate a loss of interest or a withdrawal of consent (Alderson and Goodey, 1996). Whilst I accepted this lack of interest, parents were often much more critical of what they saw as their child's 'laziness' and failure to participate 'properly'. This illustrated power relations in families, and that at least some children experienced high levels of parental expectation and pressure to participate. Also, during subsequent conversations, it became clear that some photographs were not taken by children:

John (discussing the photographs): And what's this photograph of?
Charlie, 6, Rural Hill, Bucks: traffic... more awful traffic.
John: OK, and this one?
Charlie: erm... I don't know... I didn't take that one.
Pete and Charlie's Mum: yes... you did... they're your photos...
Charlie: No, you took that one.
Whilst I was attempting to give children autonomy to communicate, the power relationships in families meant that photography was sometimes influenced or controlled by parents. With each subsequent family, I asked who had taken photographs. Two other parents ‘admitted’ taking pictures. This identifies one limitation of photography, in that whilst attempting to give voice to participants, there is uncertainty regarding whether, and how, others have influenced how children use this method.

Accurate interpretation is also vital to the success of photography, ensuring that researchers record children's own reasons for taking photographs, rather than relying on their own, often inaccurate, interpretations (Hart, 1997, Smith and Barker, 1999b). To counter this, as discussed in more detail below, children were asked to talk about their photographs in a subsequent interview (see section 4.4.9).

4.4.8 Diaries

Diaries are an innovative method within children's geographies and can be particularly useful in gaining insights into how respondents spend their time (Scott, 2000, Meth, 2003), helping to achieve the postmodern aim to explore everyday experiences 'on the ground'. To this effect, diaries used both written and drawing exercises to record children's travel over a week (see appendix 10.5). Once more, at least in theory, diaries can give children autonomy regarding their participation, and can be completed in the researcher's absence.

Diaries were completed by 26 children and one parent, who said it was only fair that she be able to complete a diary if her children were! Once more, there were significant variations in the level of participation. Many children wrote little or nothing, perhaps because it was seen too much like school work (Barker and Weller, 2003a). Hence, this aspect of the method was less successful in enabling children to communicate, as some were excluded, or chose not to participate, due to the writing exercises. The inclusion of drawing exercises was one response to this problem. Drawing is a popular, effective way for younger children or children with low literacy skills to communicate (Mauthner, 1997, Pink, 2001). In response to being prompted to draw something interesting about their journeys, children drew their experiences of cars, who they travelled with and activities they undertook in cars. Once more in an effort to foster reciprocity, I copied their work so children could keep their drawings. This is important, as drawings are often labour intensive (Hart, 1997).

Once more, accurate interpretation of drawings is also important. For example, I
sometimes asked ‘what's this drawing about?’ to be told by a child staring blank-faced ‘it's only a scribble... a doodle!', demonstrating the need for a follow-up interview (see section 4.4.9 below) to ensure researchers record children's interpretations of drawings, and not those of adults. Another limitation is that those who do not enjoy drawing or who have poor drawing skills may have been excluded (Pink, 2001, Meth, 2003). The use of other methods, such as photography and interviews, hopefully addressed this issue by offering alternative methods of communication.

Another limitation of diaries was that, despite attempts to create an autonomous and confidential children-centred method, once again wider familial power relations intervened. Many parents had read their children's diaries, and also apologised for bad spelling (one parent had corrected spelling errors). It is common for parents to assume a right to examine data collected from children (Hood et al., 1996, Mauthner, 1997). As well as failing to ensure the method was confidential, this was a problem since children may not have been truthful in their diaries if they knew parents might read them. Hence, echoing the experiences of photographs, whilst diaries attempt to give voice to children to explore their experiences of cars, this was limited by wider familial power relations.

4.4.9 In-depth interviews with children and parents
To complement data collected by these methods, I wanted to undertake semi-structured interviews to explore children's experiences of cars, and to ascertain parents' motivations and attitudes behind their child's travel movements. Interviews encourage an environment in which respondents discuss, in a conversational approach, their own opinions and experiences (Matthews, Limb and Taylor, 1999, Morrow, 1999). Semi-structured interviews allow researchers to discuss areas of interest, but also enable respondents to raise their own issues (Kitchin and Tate, 2000). Therefore, these are valuable ways of conducting applied geography to ascertain in-depth reasons for behaviour or attitudes, and are also often used to conduct postmodern research to explore the experiences of those often excluded or marginalised.

I gave each child the option to participate in an individual or family group semi-structured interview with siblings and/or parent(s), so they could choose whichever they were most comfortable with. Family group interviews are advantageous in that, surrounded by family members, children may feel more confident to participate (Hood et al., 1996, Hart, 1997). Discussion and debate can be generated by the interaction between respondents (Punch, 2001). However, family group interviews can discourage
the expression of unconventional or diverging attitudes, in order to represent a 'united family front' (Ansell, 2001). Researchers have developed strategies to overcome this, including looking mainly to, and addressing questions initially to the child (Alderson and Goodey, 1996). Most children (20 out of 26) chose a family group interview with sibling(s) and/or parent(s).

In total, I undertook 25 interviews, involving 26 children and 21 parents. To begin the interview, children talked through their photographs and diaries. Like others (for example, Young and Barrett, 2001a), I found this a valuable way of introducing issues I could return to discuss in more depth later, as well as clarifying the intended meaning of photographs and diaries. The second half of each interview consisted of a series of questions and themes that I wished to address (see appendix 10.6), including asking children their experiences of cars, their travel patterns and preferences, and asking parents similar questions.

The family group interviews were successful in encouraging discussion and debate amongst participants. This indicated their value in gathering information regarding the spaces of cars, and also their use in conducting applied geography, as parents and children discussed in detail their concerns regarding increasing traffic congestion around schools, and their interest in alternative methods of travelling to school. However, one limitation of this method as an approach to applied geography, as discussed further below, was that this type of data was seen as of little interest and of low value to headteachers and STP committees.

Conducting family group interviews was also a valuable way of conducting research with the postmodern aim of exploring children's day to day experiences of automobility. One interesting feature of my experiences of conducting interviews mirrors that of Aitken's (2001a), that seemingly mundane questions during family group interviews can produce glimpses of, and contest, familial power relations. Parents often exercised their power as adults to clarify or correct what they saw as inaccuracies in children's accounts. However, illustrating that power is not absolute, children often did not simply accept this, and disclosed information to embarrass their parents, most notably parents' driving misdemeanours:

Kathy, 9, Village Bottom, Bucks: ...sometimes Mum finds it hard (to drive to school), because we talk to her on the way there, Dad finds it easier because he's more used to driving. Mum sometimes gets distracted, and she might go through a red light by mistake.
Kathy's Mum: (coughs) just one or two times.
Shane, 9, Village Bottom, Bucks: In a way, I like the motorway, and in a way I don't. When I like it, I like it when I am really excited, going somewhere nice, we’re usually in the Beetle, and Mum breaking all the speed limits on the motorway.
Shane and Graham's Mum: (voice from the other half of the kitchen-diner) No, I'm not!

Similarly, some children became concerned when they thought that their parents were dominating the interview, interrupting:

I can’t believe you’re doing all the talking. It’s my work! (Ritchie, 8, Village Bottom, Bucks)

These examples illustrate that power is not simply a commodity that can be packaged, transferred and overcome, but, reflecting a postmodern conceptualisation of power, is contested, fluid and changing over time (Edwards and Alldred, 1999, Davis et al., 2000). Attempts to create a relaxed environment for children through family group interviews were limited by complex and persisting sets of familial power relations (Aitken, 2001a),

Therefore, each of these qualitative methods, although to differing extents, were useful in undertaking a postmodern approach to applied geography. In particular, photographs and interviews were useful for undertaking a postmodern approach to explore how often excluded or marginalised groups experience everyday spaces. The methods were also useful for exploring experiences of spaces which researchers remain absent from. Interviews were also very useful for considering the reasons behind attitudes and behaviours regarding travel, enabling me to conduct applied geography to explore people's interest in other forms of travel. However, a more critical view indicates that despite strategies to be children-centred, it was difficult to challenge and circumvent pre-existing familial power relations which influenced each method.

4.4.10 Confidentiality and protection
Children's geographers have attempted to offer children the same level of confidentiality as adults, assuring children that they can express their views in confidence (Morrow and Richards, 1996). The diaries, transcripts and locations of participating schools have been anonymised. I reassured participants that no child would be identifiable in pictures used publicly. Researchers must also resist the pressure from parents and other adults to disclose details of research, and to attempt to maintain confidentiality for children (Masson, 2000).

However, in creating a confidential place for discussion, children may disclose child abuse or neglect. As researchers have a duty of care to children, confidentiality cannot
be kept in this instance (Kitzinger, 1990, Alderson, 1995, Masson, 2000). The issue of disclosure forces researchers to address 'the nitty gritty' of child protection (Horton, 2001, p163). Researchers should not underestimate heightened concern over children's safety, and should adopt 'cautionary practice' to protect children and researchers (Cameron et al., 1999, Barker and Smith, 2001). Researchers should be police checked, and ensure they are not the sole adult in a room with children (Holmes, 1998, McDowell, 2001). Ensuring the research can be observed is one way to reduce this risk whilst maintaining some confidentiality (Masson, 2000).

In my research, I avoided having significant lone access to children, although I was sometimes offered too much privacy (Barker and Weller, 2003b). At the beginning of interviews, some parents said 'I'll leave you two alone', and closed the door. Home was seen as a 'safe' place for researchers to have privacy to interview children. However, I actively engineered the spaces to be less private, asking parents if they wanted to participate, observe, or leave the door open so we could be overheard. This raised a problem in reconciling cautionary practice and confidentiality. Since the interview could be heard, it is difficult to know how children's concerns of being overheard may have influenced their responses.

4.4.11 Analysis and dissemination

There is recognition that analysis of data is not an objective process and that researchers undertake a complex process of interpretation (WGSG, 1997, Savin-Badin, 2004). Despite the postmodern concern to give voice to respondents, the discussions above indicate some of the ways in which respondents do not speak for themselves, rather their voices are mediated and filtered through significant others, such as parents who exercise control, and researchers who make decisions about what methods to use and how to interpret their accounts.

Therefore, researchers need to be reflexive about how data is interpreted, since all research is analysed from a particular perspective or position (Mauthner and Doucet, 2003, Timar and Enyedi, 2004). Postmodern geographers illustrate that there is no objective truth to be found, but rather that researchers produce one possible, partial and situated account (Mauthner and Doucet, 2003, Power, 2004). The messiness of the process of analysis should not be obscured, but rather addressed to 'unravel multiple meanings' (Savin-Badin, 2004, p370). Indeed, in subsequent chapters, I have indicated where I have felt a singular explanation of data is not sufficient, and explore some of the multiple and contradictory possible interpretations of data.
The quantitative data was analysed using SPSS, from which simple statistics were obtained. Statistical tests are only included where they indicate a statistically-significant finding. These are indicated by showing the test statistic used (such as chi squared, t test, ANOVA) and the significance level. The number of responses (n=) is also noted. Whilst 1006 surveys were completed, the sample size varies depending upon the number responding to each particular question. However, despite the claims of positivism, statistical tests do not indicate the existence of reliable, objective trends or universal laws. Surveys are socially produced, and construct rather than uncover knowledge. Decisions to use particular tests were subjective ones made by myself as a researcher.

As part of my motivation to undertake applied geography and to conduct research in participation with research partners, I involved STP committees in the analysis of quantitative data, asking them which trends they would be most interested in exploring. Whilst this was valuable in creating knowledge useful for STP committees, a more radical participatory approach could have directly involved parents or children in the analysis. Had I attempted this, as a number of researchers have begun to do (for example, Savin-Badin, 2004), it may have challenged my interpretation of findings. However, involving children and parents in this part of the process would have been difficult, since I was looking at abstract, theoretical, academic and policy related issues and, as discussed earlier, may have produced data in a format less useful for STP committees.

The interviews were transcribed verbatim. Each child's discussion was matched with the relevant photo, drawing or diary entry. The qualitative data was analysed in three ways. Firstly, the data was analysed in relation to the different research aims (Kitchin and Tate, 2000). This followed the established method of coding information into relevant themes for each research aim, and finding exceptions to this (May, 2001). Secondly, the different methods used by each participant were put together to consider an overall view of each individual's experiences. This was important to avoid the problem of decontextualisation, whereby the photographs or diary entries can become removed from the everyday context in which they were produced (Meth, 2003). Thirdly, data from each method was subject to a content analysis, comparing individual responses, in order to explore emerging trends and possible differences, such as those relating to place, gender, ethnicity and age.

As mentioned earlier, one way in which I tried to challenge the preconceptions of STP committees was by using qualitative methods, which they had dismissed as irrelevant. I
invited the research partners to participate in the analysis of qualitative data, hoping it would demonstrate to them its value. However, even though I showed the committees that qualitative data contained rich, in-depth and detailed accounts of how different initiatives might be attractive to children and parents, it was still of little interest to them. My failed attempts indicated their deeply entrenched views regarding the ideology of positivism and the need for 'scientific' data for transport planning, and their power to ignore the qualitative data and, in effect, exclude the voices of children. This example indicates that whilst researchers often have power to shape research, often we cannot restructure deeply embedded power relations, and do not always have final editorial control over data and whether or how it is used (Wilton, 2004, Wilbert and Hoskyns, 2004).

Dissemination is an important, although an often overlooked part of the research process, and is particularly significant when undertaking applied geography (Pacione, 1999b). The process of dissemination also gave glimpses into power relations (Doyle, 1999, Kitchin and Hubbard, 1999), and contributed to wider discussions regarding the possibilities of conducting applied geography. Given that I wanted to undertake research of benefit to schools, each school received results of the travel survey for their STP (see appendix 10.7).

However, one problem of a postmodern approach to applied geography is that the postmodern focus on relativism and situated knowledge challenges the authority or 'expert' position of researchers. As discussed earlier, I was content with embracing the relativism of a postmodern approach, as suggested by Bauman (1987, 2000), that I was an 'interpreter', recognising that whilst I offered specialist research skills, others were equally or more skilled, although in different ways. I was there to support, rather than lead their work. However, like others who have conducted applied geography (Maxey, 1999), it was difficult to convince the research partners, who positioned me as an 'expert', unless, as I have discussed, the committee did not agree with my suggestions, for example including children in the process or the use of qualitative methods. Hence my role within STP committees was not constant, but shifted and changed over time (Maxey, 2004b).

Applied geography can have unintended consequences and unanticipated outcomes (Halfacree, 2004b). I continue to have contact with two schools, who still use the survey and ask for advice regarding analysis. As Maxey (1999) comments, applied geography can create ongoing dialogue with participants. Conversely, one headteacher revealed at the end of the process that the local authority had pressured her into
participating in the research, and that her school would not be implementing a STP, which she thought was worthless. Having worked with the school for over 6 months, I felt disappointed and cheated. My experiences indicate the uncertainty and fluidity of power relations between researchers and participants, and once more how researchers can never be sure whether or how results may be used (Pacioni, 1999a). As Maxey comments:

(Researchers) can never know all the implications our actions will have, nor how they will be perceived, interpreted and consumed. (Maxey, 1999, p206)

In an effort to foster reciprocity and to thank respondents, I also produced a four page summary of the research which was sent to all parents and children who had participated (see appendix 10.8), and a report for local authorities and the Department for Transport, which had expressed interest in the research. This form of dissemination can be seen as rather conservative. A more radical way of disseminating information could have involved children themselves (as a number of children's geographers have tried to do, see Unwin, 2001). However, this may not have been as effective, since a more radical approach may have alienated planners and policy makers rather than engage them in the planning process.

4.4.12 Positionality

Positionality involves considering critically how aspects of social identities position researchers in relation to respondents and, in turn, influence the collection of data and the knowledge produced (Bondi and Domosh, 1992, Valentine, 1997d, Skelton, 2001b). Positionality refers to:

Taking account of our own position and writing this into our research practice. (Rose, 1997, p305)

Once more, this has drawn upon the work of feminist geographers who have identified, developed and critiqued these concepts, initially explicitly in relation to gender and geographical research (for example, see Nast, 1994, Kobayashi, 1994, Rose, 1997, Dwyer and Limb, 2001). Subsequently, these concepts have been applied and further developed by a wide range of geographers, including more recently children's geographers (see Unwin, 2001, Young and Barrett, 2001b, Horton, 2001) and those conducting applied geography. Initially, commonalities between researchers and respondents, for example, women interviewing women, were thought to create connections and give researchers privileged 'insider' status. For example, Mohammed (2001) highlighted how ethnicity was significant in influencing her relations with research subjects, and Tooke (2000) outlined the relevance of gender.
More recent debates have considered how positionality is much more complex, as commonalities between researcher and respondents may be fractured by other social identities. For example, although Mohammed (2001) was the same ethnicity as her respondents, she discusses how she was positioned differently by women of different ages. Furthermore, identification with respondents is temporary and unstable, as relations are ever-changing and shifting, once more reflecting a more postmodern conception of power relations (Kobayashi, 1994, Fuller, 1999).

Children’s geographers, like other spheres of human geography, have reflected upon positionality, initially exploring how children and adults position one another in relation to adult-child categories. More recent discussions have demonstrated how adult-child relations are also cross cut by gender, ethnicity and other socio-spatial variables which create a multiplicity of complex power relations, positioning researchers in diverse ways in relation to child respondents. For example, in a previous research project on childcare environments in which I took part, I was often perceived as an ‘outsider’, whilst my female colleague was often given ‘insider’ status (Barker and Smith, 2001).

During research for this thesis, my positionality as a thirtysomething middle class professional, white man who is not a father positioned me in different ways by different groups of respondents. Some parents automatically assumed I was a parent, and during the interviews often gave responses which began ‘you know how it is as a parent...’ Conversely, other families asked if I was undertaking my undergraduate dissertation, repositioning me as an inexperienced ‘outsider’ with no knowledge or understanding of contemporary parenting. Neither position was accurate, since I am neither a parent nor an undergraduate. This reflects the position of ‘betweenness’ as described by Tooke (2000), to describe how researchers are neither entirely ‘insiders’ nor ‘outsiders’. For me to have challenged these assumptions would have disrupted my position with participants, possibly losing trust or rapport. To resolve this, I stated I did not have children, but often talked about my nephews instead, indicating I was not completely ignorant of the topic. This reflects positionality as an ever-changing process, as identities are repositioned and renegotiated in often fluid and unpredictable ways (Fuller, 1999).

Echoing the experiences of other researchers (Dwyer, 1998, Horton, 2001), gender was also very significant in influencing relations with respondents. Women often saw me as an ‘outsider’, since there are few men who work with children of primary school age (Cameron et al., 1999). This may have had a negative impact on the research, limiting my ability to gain access to, and build relationships with families. Conversely,
there were also benefits to this, since the three fathers I interviewed assumed we had shared experiences, talking to me, again as someone 'who knew what it was like', discussing how their gender made them isolated and feel out of place outside the school gate.

Gender was also significant in influencing relations with children. I think I built more immediate relationships with boys. As well as our common gender, this was also aided by arrival on my motorbike, which often sparked their interest and was a good 'ice breaker'. However, I was much less positive about how this may have impacted upon building relationships with girls, although, highlighting that girls are not an homogeneous group, two girls in Buckinghamshire also loved motorbikes and insisted on showing me their father's bike before we began the research.

I was also less sure of how ethnicity and cultural expectations may have influenced the research. I interviewed families from a variety of ethnic groups, including British white, Indian, Black African, Black Caribbean, Greek and East European families. For most of the interviews I did not feel that ethnicity positioned myself and respondents in different ways. One exception to this was one father who requested to listen and observe (but not participate) in the interview with his children and their mother. However, I also recognise, as Kobayashi (1994) warns, that it is impossible to articulate completely our own situatedness or how we are positioned by others. Rather, our understandings are partial. To assume that reflexivity and positionality can be completely known is a form of concealment, and another universal claim, reminiscent of the 'god trick' of positivism (Rose, 1997, Maxey, 1999). Therefore, although I have discussed some of the ways in which positionality was relevant, I have to acknowledge many of these effects are not, and cannot be known.

4.5 Chapter summary
This chapter has explored how the research has been influenced by a myriad of theoretical, methodological, ethical and practical issues. The research used a number of children-centred, qualitative methods. Although photography, diaries, drawings and in-depth interviews each had specific limitations, these methods, particularly photography and drawings, were broadly successful in encouraging children to communicate their diverse experiences of cars and their role in children's mobility. Reflecting a postmodern approach to applied geography, multiple and diverse methods helped to enable children to communicate their experiences in different ways. However, these qualitative methods were not useful for conducting applied geography, since STP committees were only interested in quantitative data, which as this chapter
discusses, for many reasons, I have found more problematic as a method for researching children. Despite recent debates amongst children's geographers (Qvortrup, 1990, Maxey, 2005) and postmodern researchers (Lawson, 1995) regarding the use of quantitative methods, and regardless of my attempts to create a more participatory approach, questionnaire surveys still tended to objectify, aggregate and simplify responses, and often simply excluded children’s views.

This chapter has also explored some of the limitations of a children-centred approach. Perhaps naively, I had attempted to empower children, giving them control over their own decision-making about consent, assuring them of confidentiality and anonymity and developing participatory children-centred methods. However, this chapter critiqued these possibilities of participation, as children remained embedded within sets of deeply entrenched, diverse and unpredictable power relations. Within families, children's views were often mediated, corrected or challenged by parents. STP committees remained unconvinced of the need to involve children. Although researchers can identify these deeply embedded power relations, it has proven very difficult to challenge them.

This chapter has also identified some of the possibilities and the limitations of working with research partners when undertaking applied geography. Whilst I initially thought I had much in common with STP committees, like the experiences of others (see Moss, 2004) over time I realised there was less common ground. My attempts to challenge the rather conservative ways in which these committees worked (for example, in trying to develop a more participatory approach through involving children) were less than successful. This led me both to critique their motives and to critically consider how my approach to applied geography was rather a conservative one. By working with these organisations, my research may have supported and re-enforced existing power relations rather than challenging them by working in more radical ways, such as engaging directly with parents and children.

The chapter has also evaluated a postmodern approach to applied geography, identifying some problems of combining these two approaches. Postmodern geographers focus upon diversity and relativism, for example, in the ‘researcher as interpreter’ role which I sought to follow, rather than producing concrete solutions for policy makers. However, those outside of academia may still perceive academics as experts, even though postmodern debates have eroded this authority. The chapter explored some of the ways in which I struggled with these different and ever-changing roles as researcher.
There are two key ways in which postmodern geographies have been most useful in conducting applied geography and influencing methodological aspects of the research. Firstly, reflexivity and positionality have been crucial in understanding and evaluating the processes of constructing knowledge and conducting research with children and families. Secondly, a postmodern conception of power as fluid, contingent, unstable and unpredictable has been useful in mapping these different sets of relations with STP committees as research partners, and parents and children as respondents. Particularly when undertaking applied research, researchers can find themselves powerless when responding to situations that present themselves in the field. As England (1994) states, the only inevitability in research is its unreliability and unpredictability.
Chapter five~ 'Driven to distraction?': Children's experiences of the spaces of cars

There are multiple variations in how the car has been desired and inhabited by different social groups. (Urry, 2004b, p31)

5.1 Introduction
This is the first of three empirical chapters and explores how children experience the spaces of cars. The chapter begins by considering the significance of cars in children's everyday travel, highlighting how many children's lives are influenced by what Urry (2000) and others (Sheller, 2004, Featherstone, 2004) have defined as automobility. The chapter then investigates how children experience travelling by car, identifying that where children sit, the opportunities for privacy and companionship, and the activities undertaken significantly influence how children inhabit cars. Central in these accounts are the increasing role of technology, a focus upon both the internal space of cars and external travel landscapes, and the growing commodification of car spaces. By focusing upon these issues, this chapter addresses research aim 1 ‘to identify how children experience the increasingly significant social spaces of cars’.

In doing so, the chapter draws upon a postmodern approach, indicating how processes within cars can be seen as characteristic of postmodern societies, and illustrating how children do not form an homogeneous group but have diverse and fragmented experiences. This indicates a need to move away from discussing 'the car' to referring to 'cars', since this identifies the multiple ways in which these spaces are experienced. The chapter also considers the limits of a postmodern approach, and how Marxist geographies help to explain some aspects of children's experiences.

5.2 The significance of cars in children's lives
Cars play ever-more significant roles within social life and have become an integral part of contemporary societies (Gilroy, 2001, Urry, 200). However, there has been little research regarding what it might mean to 'inhabit' car spaces (Miller, 2001, Bull, 2004). Urry (2000) and Featherstone (2004) call for an exploration of the experience of 'dwelling' in cars. Of particular relevance to the thesis is the lack of research (with the exception of current research by Ashton, 2005, and Laurier, 2005) considering how children interact with, or in, cars, a gap which this research seeks to fill.

Ninety five per cent (95%, n=956) of households taking part in the survey owned a car. This is similar to research by Kingham and Donohoe (2002) who found that 97% of
families with primary school children lived in car owning households. In my research, over half the respondents (57%, n=573) lived in households with two or more cars. These car ownership rates are significantly higher than those of the general population (74%, DfT, 2005), suggesting children participating in the research were more likely than other social groups to live in car owning households. It also indicates that the sample locations had car ownership levels higher (at 95%) than the national average for families with dependent children (85%, DfT, 2005). Therefore, one limitation of the research is that the results are more likely to explore the experiences of car owning families, although perhaps this is not necessarily a problem, since the research is considering different aspects of automobility. Reflecting the postmodern emphasis on diversity and difference, chapter six discusses in more detail how levels of car ownership were not uniform.

However, whilst children may live in car owning households, car use is often not shared equally amongst all family members (Law, 1999). The research explored the number of car journeys primary school children undertook during the week of the survey, as illustrated in figure 5.1 below:

![Figure 5.1 Number of car journeys undertaken by children during week of the survey](image)

Figure 5.1 indicates that 93% (n=936) of children participating in the research made at least one car journey during the week of the survey. Children undertook a mean average of 9 car journeys over the week in question, whilst almost one third (31%, n=270) travelled in cars everyday. Thirty seven per cent of children were driven to school and 58% of non-school journeys were made by car. Only 7% of children (n=57) did not make any car journeys over the week of the survey. However, it must be noted...
that travel patterns vary according to the season (a point more fully explored in chapters six and seven), so these figures must be considered with this limitation in mind. These figures suggest the central and everyday role of cars in at least some children's lives, although chapter six explores how the role of cars for children's mobility differs between places and different groups of children. This trend for increasing car use is not limited to the UK but is being witnessed across many western, industrialised countries, including Australia (Tandy, 1999), France (Depeau, 2001), Germany (Zeiher, 2001), Italy (Rissotto and Tonucci, 2002), New Zealand (Collins and Kearns, 2001), and Sweden (Sandqvist, 2002).

It is possible to compare the results presented here with other recent research in the UK to explore the changing role of cars in children's lives. Table 5.1 illustrates the changing patterns of the journey to school:

Table 5.1 Changes in mode of travel to primary school

<table>
<thead>
<tr>
<th>Mode of Travel</th>
<th>DTLR, 1985 (%)</th>
<th>Hillman et al., 1990 (%)</th>
<th>DTLR, 1992/1994 (%)</th>
<th>DTLR, 1995/1997 (%)</th>
<th>DIT, 1999/2001 (%)</th>
<th>DIT, 2005 (%)</th>
<th>this research (to school) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>foot</td>
<td>66</td>
<td>62</td>
<td>61</td>
<td>54</td>
<td>54</td>
<td>54</td>
<td>52</td>
</tr>
<tr>
<td>car</td>
<td>26</td>
<td>30</td>
<td>30</td>
<td>37</td>
<td>39</td>
<td>40</td>
<td>37</td>
</tr>
<tr>
<td>bicycle</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>public transport</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>other</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*those undertaking only one mode of travel to school; those undertaking more than one mode are classed as 'other'
**walking and walking bus
Source: Hillman et al., 1990, DIT, 2003b, DIT, 2005

Table 5.1 indicates that my research supports existing evidence suggesting that the proportion of primary school children walking to school has declined over the past 20 years, with a corresponding increase in the proportion driven to school (see also Davis and Jones, 1997, O'Brien et al., 2000, Lupton and Bayley, 2002). However, there are limitations in comparing results from different surveys, since each project may have phrased questions differently, employed a different sampling strategy or was undertaken in different locations. The increased use of cars can at least partially explain the decline in the proportion of primary school children travelling to school unaccompanied, as table 5.2 highlights:
Table 5.2 Proportion of 10/11 year olds travelling at least part of the way to school unaccompanied

<table>
<thead>
<tr>
<th>Year (reference)</th>
<th>Per cent of 10/11 year olds travelling at least part of the way to school unaccompanied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970 (Hillman, 1971)</td>
<td>94</td>
</tr>
<tr>
<td>1990 (Hillman et al., 1990)</td>
<td>54</td>
</tr>
<tr>
<td>1998 (O'Brien et al., 2000)</td>
<td>48</td>
</tr>
<tr>
<td>2003 (this research)</td>
<td>44</td>
</tr>
</tbody>
</table>

Notwithstanding the problems of comparability highlighted earlier, table 5.2 demonstrates that my research supports existing evidence suggesting there has been significant decline in the proportion of 10/11 year olds travelling to school unaccompanied over the past thirty years, from almost all 10/11 year olds (94%) in 1970 to less than half (44%) in 2003. Revisiting Hillman et al.'s (1990) 'licences' of freedom for primary school children to undertake specific activities independently provided another indicator of changes in children's independent spatial mobility, as figure 5.2 illustrates:

Figure 5.2 Changes in primary school children's freedom over time

Source: Hillman et al., 1990
Figure 5.2 indicates a decline in the proportion of primary school children allowed to undertake ‘freedoms’ first identified by Hillman (1971) and later revisited in Hillman et al. (1990). Whilst Hillman et al. (1990) and Valentine and McKendrick (1997) state that independent spatial mobility often begins at age 8 or 9, for children in the research presented here, this was often not attained until the age of 10 or 11. Only 13% (n=131) of primary school children and 44% (n=74) of 10/11 year olds reported any independent spatial mobility during the week of the survey. Once more, these trends are not limited to the UK but are witnessed across many western, industrialised countries. Chapter six explores in more detail some of the different reasons for these trends.

The qualitative data complemented this evidence by also identifying that cars were key features of many children’s lives. As figures 5.3 and 5.4 indicate, children proudly took photographs of their own cars, and discussed, with detailed knowledge, the relative merits of cars:

**Figure 5.3 Photograph of Grandad's car**

![Photograph of Grandad's car](image)

This is Grandad's car... I really like that. (Rebecca, 6, Country Wood, Enfield)
Sometimes (I like going) in the little car, but I like this big car when we have everyone going... it has more room. (Helen, 8, Country Wood, Enfield)

Other photographs of cars identified by children can be seen in figures 10.1 and 10.2 in appendix 10.9. As stated earlier, since over half of respondents (57%, n=573) lived in households with two or more cars, and many parents took part in car sharing (as further discussed in chapter seven), children had regular experiences of travelling in different cars:

Yeah, we go in the Beetle... or the van... we’ve got three cars... Well, the van is very fun to drive in, and you can put the dog in the back. (Charlie, 6, Rural Hill, Bucks)

This reflects other research highlighting that at least some children have knowledge of and aspirations for cars, and are embedded within automobility from a very young age (Kingham and Donohoe, 2002, Carrabine and Longhurst, 2002). These points illustrate that cars are important contemporary everyday spaces of childhood, perhaps only surpassed in importance by home and school (James, Jenks and Prout, 1998, Edwards and Alldred, 1999), and that automobility is a key feature of many children’s lives. This chapter explores children's experiences of spending time in cars, whilst chapter six accounts for the increasing role of cars for children's mobility, and chapter seven considers some of children's different responses to automobility.
5.3 Children's experiences of the spaces of cars

It is only recently that research has begun to consider the everyday, mundane experiences of travelling by car (Dant, 2004). Different experiences, meanings and cultural attitudes are attached to cars amongst different social groups, including those relating to gender (Dowling, 2000, Garvey, 2001), ethnicity (Gilroy, 2001, O'Dell, 2001, Young, 2001) and social class (Gartman, 2004). However, whilst there is growing evidence of how drivers use cars, no research has specifically explored how passengers experience car spaces, nor (with the exception of current research by Ashton, 2005, and Laurier, 2005), have children's views been explored. In response, this section explores how children identified a number of features significant to their experiences of cars, such as the arrangement and use of the space of cars, including where children sit, the privacy of cars and the importance of companionship and activities. This section discusses children's experiences in relation to broader debates regarding automobility and considers a postmodern approach to make sense of children's experiences, in particular, a postmodern focus on diversity and difference, and a postmodern conceptualisation of space and of power.

5.3.1 The physical spaces of cars

The designed physical layout of cars was important to children. Most had a preferred location to sit in cars:

Yeah, (my favourite place)... mine's the middle... Our car's got an extra back seat, two in the front, three in the middle and then there’s two at the back. (Stephen, 10, Country Wood, Enfield)

Individual seats were rated by the amount of physical space they offered:

I like the Saab because it's really wide and you get more space. (David, 7, Country Wood, Enfield)

...because (sitting) in the middle you’re not squashed. (Rebecca, 6, Country Wood, Enfield)

As well as the physical space of seats, some children also liked cars which have space for children to put their belongings, as one child's photograph (figure 5.5) showed:
Similarly, children also identified the importance of cars to carry luggage. Taking bags and equipment to school is a contemporary feature of school life in the UK (Alderson, 2002). Children explained that they often had much to carry to school, as one boy mentioned:

My stuff I have to carry? Well, we have music day, lunch box, PE kit, everything. (Ranj, 11, Common Green Enfield)

Cars were the easiest way of transporting this equipment to school. As discussed in more depth shortly, this is one manifestation of an ever-increasing array of goods and products aimed at children, or parents of young children (McKendrick et al., 2000a).

In addition to the physical layout of seats and space for storage, research by Miller (2001) indicated the significance of the interior decoration of cars. For example, in Trinidad, great emphasis is placed on the different patterns, textures and colours of upholstery in cars (Miller, 2001). However, whilst children in my research talked about seats and storage space, none discussed interior design. This is perhaps surprising, given that research suggests children enjoy bright, colourful environments (Smith and Barker, 1999a). One possible explanation for this is that cars were implicitly seen as spaces designed and owned by adults, and children did not feel they had the power or ability to redesign this environment, or to influence decisions about what kinds of cars were purchased.
That the physical space of cars was routinely contested and fought over indicated its significance and illustrated power relations within families. Until recently, little attention has been paid to the micro-political geographies of families (see Sibley, 1995a, Valentine, 1997a, McKendrick et al., 2000a, Philo and Smith, 2003 as notable exceptions). Sibley urges us to:

...focus on power relations, the way power is expressed in family interactions and played out in the spaces of the home. (Sibley, 1995a, p130)

To paraphrase Sibley, the children's accounts presented here indicate the ways in which 'power is expressed in family interactions and played out in the spaces of cars' (Sibley, 1995a, p130, emphasis and word added). For example, sitting in the front passenger seat was seen, by many children, as an exercise of power over siblings:

Ritchie and his dad went down to Devon, so Ritchie got to sit in the front, and he thought that was really good, sitting in the front all the way down to Devon. (Ritchie's Mum, Village Bottom, Bucks)

She (sibling) sits in the front seat because she is older. (John, 8, Rural Hill, Bucks)

Figure 5.6 Photograph of the front seat

John, 8, Rural Hill, Bucks

The picture in figure 5.6 interested me as it indicated that, due to their smaller size, children's views from the back seat were much more restricted than adults. Sitting in the front seat symbolised importance, and being able to sit there for the first time was
seen as a rite of passage. Its importance was indicated as children routinely fought with siblings over who was going to sit there:

They used to have arguments about who was going to sit in the front, and you’d have to strap them in. (James's Mum, Country Wood, Enfield)

This is the first of many examples indicating how cars were everyday sites of power relations and conflict. Sitting in the front seat was not the only way in which there was conflict over space:

If they are both trying to sleep, they fight over how much space they have. (Charlie and Pete's Mum, Rural Hill, Bucks)

They do get bored... It is boring. They chat... and argue... and argue. (Rebecca and David's Mum, Country Wood, Enfield)

Section 5.3.8 explores in much more detail how cars were sites of power relations, in which parents had power over children and regulated the spaces of cars, resolving conflicts between siblings or implementing their own wishes, and how children also contested and resisted this control.

Since the literature often suggests that boys dominate spaces such as the playground (Thomson and Philo, 2004, Tranter and Malone, 2004), I had expected to find that boys might also dominate the physical spaces of cars. However, I found no such differences. Perhaps the intense regulation of the spaces of cars by parents prevented this, or simply that the methods used in the research did not record this. Alternatively, influences relating to gender may have been less significant than the importance of age and the presence of siblings.

Whilst literature often considers cars as individual or solitary places, as peaceful refuges from the stresses of contemporary life (Miller, 2001, Bull, 2004), this research indicates how this ignores the experiences of children, who never travel in cars alone. With multiple occupants, cars can be everyday sites for exercises of power and conflict. However, not all children fought over seats, and some discussed strategies of cooperation with their siblings over the use of space in cars:

Kathy (9, Village Bottom, Bucks): And sometimes, for school days, we have a week in the front, so we have Lydia’s week, and then we have my week...
Lydia (9, Kathy's sister): ...because we’re responsible...
Kathy: ...and then at weekends, who ever asks first. Normally you...
Lydia: ...Normally me, I ask first.
Pete (9, Rural Hill, Bucks): We've done a deal. He sits in the front...
Charlie (6, Pete's brother): ...in the trooper... in the big car...
Pete: ...and I sit in the front in the Beetle.

One aspect of a postmodern approach to research is that there is no one singular interpretation of evidence, rather multiple readings may be possible. One interpretation of these accounts is that at least some children's use of space with siblings can be characterised as co-operation and negotiation, rather than conflict. However, a more critical reading questions whether these negotiations were initiated by children or imposed on them by parents. In the last example, Pete and Charlie's Mum exercised power to impose this 'deal' on the children, in response to their conflict over use of space.

Therefore, different families had different strategies for seating within cars. Furthermore, use of seats was not constant, but was often fluid, flexible and dynamic:

When he (brother) goes to cubs, I sit in the front so he can sit in the back with (his friends). But if we go and he doesn't have a friend, then we both go in the back. (Rebecca, 6, Country Wood, Enfield)

These points reflect a postmodern conceptualisation of the micro-political geographies of families. Power relations influencing the use of the physical spaces of cars were not fixed, but were dynamic and flexible, and spaces could be configured in different ways. Other factors, including wider-scale legislation beyond the immediate spaces of cars, such as macro-scale legislation regarding the use of seat belts or air bags, also influenced where children could sit. As one mum commented:

You can only go in the front in Mummy's car because it doesn't have an air bag. (Gill and Sarah's Mum, Village Bottom, Bucks)

Parents were not only responsible for controlling and mediating the use of space in cars, but also implementing government safety advice. As the following sections discuss, the physical spaces of cars were also significant in framing other aspects of children's experiences of cars, including companionship, accessing technology and watching travel landscapes.

### 5.3.2 The privatised spaces of cars

Another key feature of children's experiences was the separation cars provided from the external physical and human environment. For example, children liked being shielded from hostile weather:
In the car, your legs rest, it’s nice and warm in the winter. (Daniel, 9, Suburban Royal, Bucks)

Yeah, specially in the winter. It's too cold to be walking, and you've got the heater in the car, you can warm up. (Ritchie, 9, Village Bottom, Bucks)

Children’s perceptions of cars were influenced by the weather. Whilst children often liked cars in the winter, many did not enjoy them during warmer and sunnier months:

I don’t like getting stuffed up in the car. (Lydia, 9, Village Bottom, Bucks)

As well as insulation from the weather, children also liked privacy and separation from other sensations:

I like the smell of the car... it smells of nothing.. I like that. (Rebecca, 6, Country Wood, Enfield)

These accounts suggest children experience cars as enclosed spaces, separated from undesirable features of external environments. This emphasis on spatial separation has been defined by Maxwell (2005, p199) as the ‘automobile sanctuary’, and relates to wider contemporary socio-spatial processes characteristic of contemporary societies (Michael, 2001, Lash, 1994, Beck and Beck Gernsheim, 2002). On many levels, social life is increasingly individualised and privatised, exemplified in mobility in the shift from public and collective forms of travelling to more individualised forms, such as cars (Urry, 2000).

Although these processes are experienced by many social groups, children's geographers have explored how privatisation is a particularly significant feature of other contemporary spaces of childhood, such as home, school, commercial playspaces and after school activities (Matthews and Limb, 1999, McKendrick et al., 1999a, Aitken, 2001a). Cars are but one example of a number of childhood spaces which are created, structured and organised by adults, and segregate children from the wider world (Valentine and McKendrick, 1997). As Aitken comments:

...supposed safe havens- home, schools and some commercially secure environments- are the only seemingly proper places for children. Young people are increasingly confined to acceptable 'islands' by adults and are thus spatially outlawed from society. (Aitken, 2001c, p151)

My research suggests cars can be seen as one of these safe havens and, as chapter six identifies, a particularly appropriate way for children to travel between institutionalised environments. However, some children spoke negatively of the spatial
separateness of cars. As well as the separation from the weather identified earlier, some children were critical that cars isolated them from friends:

...and in the car you haven't got any friends to chat with. (Helen, 8, Country Wood, Enfield)

It's quite boring, because I don't have a brother or sister to talk to. (Therese, 10, Suburban Royal, Bucks)

Figure 5.7 indicates how one girl drew her dissatisfaction at having to be driven to school:

![Figure 5.7 Drawing of being driven to school](image)

Anushka, 10, Village Bottom, Bucks

Anushka liked to walk to school with her friend. The drawing shows her disappointment because her friend was ill. Not only did this mean that she did not have her friend's company, but that she had to be driven, since she was not allowed to walk to school on her own. As the next section discusses, these accounts illustrate the importance of companionship in cars.

5.3.3 Companionship
The presence of friends was a key feature influencing children's experiences of cars:

...if I'm with a friend, it's fine, we talk. (Therese, 10, Suburban Royal, Bucks)

Whereas adults often perceive cars as solitary places, this is not a possibility for children. Children stated that they enjoyed cars when they enabled them to spend time with friends, indicating cars are spaces which can facilitate sociability (Carrabine and
Longhurst, 2002). That friendships are important to experiences of cars is perhaps not surprising, since children's geographers have highlighted that friendships are key to experiences of other spaces of childhood such as school and out of school care (Alderson, 2000a, Smith and Barker, 2001b). Sharing cars with other children can be seen as a way of 'deprivatising' automobility (Urry, 2004b).

However, there are alternative and more critical ways of reading this aspect of automobility in children's lives. Unlike the less private spaces of schools or streets where children have a degree of freedom to meet children and make friends, chapter six explores how access to, and use of cars was most often planned and controlled by parents. Although children may travel in cars with their friends, this is rarely the result of children's own desires to spend time together with friends in cars, but is rather mediated through parents, and often an unintended consequence of their plans to move children together.

Reflecting that children do not form an homogeneous group, companionship in cars was more likely mentioned as important by girls than boys. Once more, this reflects research which highlights that friendships are more important to girls' enjoyment of spaces than boys' (Hey, 1997, Smith and Barker, 2001b, Morris-Roberts, 2004). Another indicator of difference is that some children did not like spending time in cars with other children. The car sharing plans of parents resulted in children travelling in cars with other children whom they did not necessarily like:

Charlie (6, Rural Hill, Bucks): Sometimes it's a bit annoying, to have to (car share).
Charlie's Mum: To be honest, all four children would prefer not to car share, they'd rather go on their own, but it's convenient.

Once more, the micro-political geographies of families influenced how children experienced the spaces of cars. Parents had the power to define who travels in cars, resulting in travel companions who children might not like.

As well as friends, children also experienced cars as important spaces in which to spend time with other family members:

If it's me, Mum, Vicky and Beck, we just talk. Mum and Vicky talk, me and Becca sit there... in the back. (Tom, 8, Suburban Royal, Bucks)

Best thing about being with my Mum (in the car) is that I have someone to talk to. (Daniel, 9, Suburban Royal, Bucks)
Children talked about various events, including those related to school:

Kathy (9, Village Bottom, Bucks): We just talk about things, about school and stuff.
Lydia (9, Kathy's sister): We remind each other what we have to do in school...
Kathy: ...Yeah like homework and stuff.

Some parents saw spaces of cars as opportunities for children to undertake homework:

We sometimes shoot times tables at them, or check out their spellings.
(Charlie and Pete's Mum, Rural Hill, Bucks)

In some cases, cars were educational spaces in which children completed their homework, perhaps reminiscent of the way in which some workers use their cars as spaces to conduct business (Laurier, 2004). Mostly, however, conversations were more informal and relaxing, with family members spending time enjoying each other's company:

There are plenty of times we have an enjoyable time together... travelling to school together is just one of the ways to have an enjoyable time with them.
(Jane and Rachel's Mum, Rural Hill, Bucks)

Thus, as well as being sites of conflict and contestation, cars were also spaces of sociability, for friends and families to spend time together (Dowling, 2000, Sheller, 2004), as Dowling comments:

The car (was) seen as much more than a way of getting from A to B... a place where identities are forged, a place where members of the family conversed and did things together. (Dowling, 2000, p346)

In busy, hectic lifestyles associated with postmodernity, the time spent in cars was one of the few opportunities for family members to spend time together. As the next section indicates, one consequence of this is that it enabled children to take part in activities with other occupants.

5.3.4 Activities

Whilst there is growing evidence of the multiple activities drivers undertake whilst driving (Urry, 2000, Miller, 2001), there is no published academic research exploring how passengers spend the journey time in cars. As well as talking to companions, children stated that they undertook a wide range of activities in cars. Children described their favourite activities:
Yeah, sometimes we have the radio on, and have a singalong. (Daniel, 9, Suburban Royal, Bucks)

Figure 5.8 Photograph of the radio

Pete, 9, Rural Hill, Bucks

Sometimes you can have a sleep or play games... or we listen to music on our headphones. (Kathy, 9, Village Bottom, Bucks)

In the car, Stephen is attached to his game boy, but the girls are OK. They read and listen to the radio, and chat. (Kylie and Stephen's Mum, Country Wood, Enfield)

This evidence indicates that cars are not just spaces for travelling, but are important spaces for play opportunities (Tranter and Pawson, 2001). Interestingly, there were spatial variations in preferences for activities. For example, during the time of the research, 'Top Trumps' were particularly popular in one school:

What I do in the back, I sort out my 'Top Trumps' card... I ask someone to play with my cards. So I sort them out, shuffle them and everything. (Pete, 9, Rural Hill, Bucks)

This demonstrates that the ways in which children inhabited the spaces of cars were different in different places. Four key themes emerged from the children's accounts relating to activities within cars: the role of technology; the commodification of activities; the connectivity of car spaces and activities and power relations.
5.3.5 The role of technology in children's activities

Central to many children's accounts of activities in cars was the role of technology:

Dad's car, he's got satellite navigation and stuff, so we can type in where to go. (Pete, 9, Rural Hill, Bucks)

We normally go to Wales, or Bath. So when we go there, I normally listen to my CD Walkman. (Jane, 10, Rural Hill, Bucks)

Oh yeah, I play my Gameboy Advance. (Ritchie, 9, Village Bottom, Bucks)

Many social theorists have identified how technology is an increasingly central feature of contemporary societies (Latour, 1993, Urry, 2000, Hutchby and Moran Ellis, 2001). One manifestation of the 'inseparable relationship' (Miller, 2001, p4) between the human and the technological is that experiences of cars have increasingly become mediated through and by technology, for example the use of satellite navigation and air conditioning systems. As Featherstone comments:

More and more aspects of everyday driving becomes (sic) a mediated process, in which technology ceases to be a visible tool or technique, but becomes a world in which the boundaries and interfaces between humans and technological systems become blurred, refigured and difficult to disentangle. (Featherstone, 2004, p10)

However, these discussions have focused on drivers, and have not considered how passengers engage with technology. Children, as passengers, can only use some in-car technologies, such as entertainment and climate control, rather than those associated with driving. Since it is increasingly well documented that technology plays an increasingly important role in other key spaces of childhood, such as home and school, its role in cars is perhaps not surprising (Hutchby and Moran Ellis, 2001, Lee, 2001, Holloway and Valentine, 2003).

Listening to music was a popular activity amongst all groups of children. Crang (1992) and Bull (2004) have argued that there is a geography of music, whereby music plays a central role in constructing certain spaces, such as the home, shops and malls. Cars are also important soundscapes, offering personalised listening environments (Featherstone, 2004), as Bull states:

Many drivers habitually switch on their radio as they enter the automobile, describing the space of the car as becoming energised as soon as the radio or music system is switched on... mediated sound thus is a component part of what it is to drive. (Bull, 2004, p246)
Children's accounts, as described shortly in section 5.3.8, illustrate how music was also another potential site of conflict. Reflecting a postmodern emphasis on diversity and difference, technology is a resource which was used, appropriated and ascribed different meanings by different groups, and used in cars by different groups of children in different ways. Boys often discussed playing game consoles, whilst girls preferred to listen to music or use mobile phones. These findings have been replicated elsewhere, since Holloway et al. (2000) also found that children's experiences of technology, such as computers, were also mediated by gender, both in terms of the types of technology used and the frequency of use (see also Valentine et al., 2002). Also, as section 5.3.8 explores in more detail, technology was often the site of conflict in cars, and children's access to technology often mediated or controlled by parents.

5.3.6 The commodification of children's activities
Cars are important commodities within contemporary capitalist societies (Dant, 2004). Commodification refers to:

...a core process in the establishment and maintenance of capitalism and refers to the industrial and commercial processes that turn artefacts into commodities sold in the economy. (Carrabine and Longhurst, 2002, p187)

In addition to initial purchase, cars require consumption of a wide variety of commodities, including petrol, servicing and other maintenance (Gartman, 2004, Urry, 2004b). Similarly, many of the activities which children enjoyed in cars, such as games consoles and other toys, card games, CDs, and mobile phones are also commodities. A Marxist perspective is useful here highlighting how capital is constantly striving for new and innovative markets to increase consumption and profit (Harvey, 1989, Roberts, 2001, Lee, 2002). The evidence from the children here suggests that capital also exploits the spaces of cars as sites of consumption. This commodification of childhood is not unique to cars but is a wider process identified in relation to other spaces and activities, for example commercial playgrounds, schools, and children's toys and clothing (McKendrick et al., 2000b, Kenway and Bullen, 2001). Several children described ideas for new activities for cars. Several wanted cars with TVs:

...(to Mum) Can we have a car that has a TV in it? (Ritchie, 9, Village Bottom, Bucks)

Without wasting the battery, (I'd like) this thing, (where) you can plug your Gameboy Advance into the car. (Daniel, 9, Suburban Royal, Bucks)

Since these interviews three years ago, these features have now been introduced into some car models. Once more, there are multiple ways of reading this evidence. It is possible to suggest that cars are becoming more children-centred spaces, as
designers incorporate more features to improve children's experiences of cars. An alternative and more critical perspective offered by a Marxist approach indicates how this represents the dynamism of capital as it constantly searches for new markets of consumption to increase profit (Harvey, 1989). Parents with children are increasingly important niche markets, as Sheller (2004) notes how cars are increasingly designed with accessories such as video consoles, cup holders and extra space for children's luggage as a way of marketing cars towards parents who drive children. This also indicates the power of adult designers in automobile corporations to influence and structure children's experiences of childhood spaces.

However, whilst a Marxist approach helps to account for these processes of commodification, not all activities in cars were commodified, with children identifying other activities, such as singing or word games, and playing 'eye-spy':

Sometimes with (my sister), we do 'eye-spy'. (James, 9, Country Wood, Enfield)

We try to count how many houses have windows with lights on, games like that. (Charlie and Pete's Mum, Rural Hill, Bucks)

We sing 'she'll be coming round the mountain' and I like to draw. (Ritchie, 9, Village Bottom, Bucks)

Once more, there are different ways of interpreting this evidence. In some instances, these may be activities undertaken by those unable to afford to consume often expensive commodities such as game consoles. However, that these activities were also undertaken by affluent families who also participated in more commodified activities suggests that children's experiences of cars are neither entirely structured by capital nor adequately explained by a Marxist approach, and indicates a need to consider more cultural aspects of travelling by car. Nor does capital explain why different groups inhabit car spaces in different ways, for example the significance of gender, as identified in sections 5.3.3 and 5.3.5.

5.3.7 The connectivity of car spaces

Most activities described thus far have focused on the internal spaces of cars. However, children discussed how the view of external travel landscapes were often important to their experiences of cars:

(I like travelling by car because) you can see better. You can see better behind you... you can see all the places you are going to pass. (Charlie, 6, Rural Hill, Bucks)
And I like being in the front because you can look out of the windows. (Rebecca, 6, Country Wood, Enfield)

Children discussed how some cars were better designed than others to do this:

Yeah... well. Dad's car is a lot higher so it feels different... better. It makes you feel bigger, and you can see lots more things. (Kathy, 9, Village Bottom, Bucks)

The trooper is nice because it's big, but they can't see so well out from the back because the windows are so high. (Charlie and Pete's Mum, Rural Hill, Bucks)

Children enjoyed a range of activities which drew upon the external travel landscapes through which cars travelled:

Usually, when we are on journeys, every Christmas there are loads of light decorations and we like counting the decorations and seeing which one is the best one. (Ritchie, 9, Village Bottom, Bucks)

Many children took photographs and commented upon the landscapes that they travelled through. Figure 5.9 shows one girl's photographs of the view from the car on the journey to school:

Figure 5.9 Photostory of the journey to school

There's the pub on the road... and that's the walking crocodile... and that's the stores, where we are dropped in the morning. (Rachel, 7, Rural Hill, Bucks)
Other examples of these photostories documenting trips to different places can be seen in figures 10.3, 10.4 and 10.5 in appendix 10.10. Whilst not a specific aim of the research, these findings contribute to debates regarding the influence of car travel upon children's spatial cognition. These examples contest the notion that, when in cars, children are completely disconnected from the external environment and that increased car use reduces children's spatial awareness, creating a sense of geography of 'a patchwork carpet consisting of islands of unconnected space' (Buchner, 1990, p79, see also Keggerreis, 1993, Depeau, 2001). Rather, at least some children are attentive travellers who can produce vivid accounts of the travel landscapes through which they pass, as Bull describes:

The space of the car is both one to look out from and to be looked into. It is simultaneously private and public. (Bull, 2004, p249)

This contributes to existing discussions that children are knowledgeable social actors who make sense of, and engage with, the environments in which they spend their time (Matthews and Limb, 1999, James, Jenks and Prout, 1998). Whilst low speed driving provided an interesting landscape, higher speed or motorway driving was seen as less enjoyable, as figure 5.10 indicates:

**Figure 5.10 Photograph of blurred landscape**

That was when we were in the car travelling, and we thought it (the field) looked really pretty, so we took that. (Pete, 9, Rural Hill, Bucks)

(Sometimes) you don’t want to go in the car, because all the countryside is really, really fast and it's boring, boring. (Jane, 10, Bucks)
These pictures were often very blurred, highlighting the fleeting glimpses of such places as they are passed at high speed. Other examples of blurred landscapes can be seen in figures 10.6 and 10.7 in appendix 10.11. The sheer speed of travel reconfigured perceptions of and interactions with external environments (Urry, 2004a), although in specific ways in different places and at different speeds. Since exploring how cars influence spatial cognition and spatial skills was not a key aim of the research, there was only limited evidence relating to this, so it is difficult to explore in more detail (see Joshi et al., 1999, Malucelli and Maass, 2001, for further discussion), although it can be identified as a suggestion for further research.

In addition to watching external landscapes, children also discussed how they circumvented the spatial separateness of cars by using forms of technology, such as mobile phones, to keep in contact with their friends, or satellite navigation to keep them in touch with traffic delays. This reflects a wider point made by Bull:

Automobiles are increasingly being used as spaces of interpersonal communication... with absent others. (Bull, 2004, p250)

Car spaces are not simply privatised or spatially segregated, but are also, in some ways, connected to external environments. Postmodern geographers have noted an increase in forms of technologies which connect individuals to others who are remote or distant (Gregory, 1989, Giddens, 1991). Whilst these technological advances are not new, what is unprecedented is the pace of technological development and extent of their penetration into everyday life (Kirsch, 1995). These have led to a reconceptualisation of space, from a modernist view of space as fixed and bounded, to a more postmodern one in which space is seen in relation to dynamic flows and connections, which serve to erode the stability, insularity and separateness of everyday spaces such as cars (Shields, 1992, Kirsch, 1995, Graham, 1998, Dodgshon, 1999). To this wider point, Massey comments:

In place of an imagination of a world of bounded places we are now presented with a world of flows... an understanding of the spatial as relational through connection. (Massey, 2005, p281)

However, this does not result in the annihilation of space, but creates new and distinct forms of space (Massey, 1993a, Kirsch, 1995). Cars can therefore be seen as paradoxical spaces which are simultaneously experienced and elevated as privatised and enclosed but are also ‘spaces of flows’ (Mol and Van den Burg, 2004, p319) which are connected to external environments and have numerous entry points (Graham,
1998). This reconfigures how individuals experience external environments, in comparison to other modes of travel, as Urry describes:

> Car drivers are located within a place of dwelling with insulates them from the environment that they pass through- the sights, sounds, tastes, temperatures and smells of the city and countryside reduced to the two dimensional view through the car windscreen. (Urry, 2000, p63)

Cars offer a more selective form of connectivity than other forms of travel. Car occupants choose whether to watch external environments or to connect with people outside by taking or making calls, resulting in what Featherstone describes as:

> ...a sense of control, of the communicative world and comforting refuge zone as something which can be opened, closed and blended at the touch of a switch. (Featherstone, 2004, p9)

For children, this mediated communication is more complex, since, as the next section discusses, these experiences are further influenced by parents, who often controlled activities, including whether children had mobile phones and whether they were allowed to use them in cars.

5.3.8 Activities and power relations

Section 5.3.1 has already identified how conflict over the use of space was a common aspect of children's experiences of cars. Conflict also appeared to be a regular feature of children's activities in cars:

> John's Mum, Rural Hill, Bucks: We have a battle with the radio (between Capital and Magic).  
> John (8): We never manage to persuade her to listen to Capital.  
> Stephen, (7, Country Wood, Enfield): I stick my tongue out, then she (sibling) pokes me.  
> Kylie (10, Stephen's sister): Yeah, I poke him really hard...  
> Stephen: ...Yeah, then I poke her very hard.

Once more, these examples challenge existing research which only considers drivers' experiences of cars (Bull, 2004). By considering the experiences of other occupants, cars can be seen as spaces for exercises of power, involving negotiation and conflict between different family members. These conflicts, and the processes by which they were resolved, provided insight into the micro-political geographies of families. Sibley (1995a) states that some families have more formal, authoritarian power relationships, where power is vested in parents, whilst other families have a more equal and negotiable set of power relations, where, as Sibley comments:
...notionally, power is equally distributed between family members with the implication that the uses of space and time (in the home) are negotiable. (Sibley, 1995a, p131)

Parents used a variety of strategies to control children’s experiences of, and activities within cars. The physical layout of cars, designed by adults in automobile corporations, position the driver close to technology, such as climate control, heating and entertainment, enabling them to access these systems, but also to exercise power and control over them. Therefore, although children’s accounts of cars usually involved technology, parents often mediated and controlled these experiences. Parents also used and adopted different technological features to exercise power and control over the spaces of cars. Some parents used mirrors, not for their intended purpose to focus upon external road conditions, but, as figure 5.11 demonstrates, to watch over their children in the back seat:

Figure 5.11 Photograph of the mirror

...Mum watching in the mirror. (Tom, 8, Suburban Royal, Bucks)

Once more, there are multiple ways of interpreting this use of technology. Ostensibly, the use of seatbelts and child-proof looks are safety measures, and parents talked about using these to help ensure children’s safety. However, more critically, several parents also spoke of ‘strapping their children in’ as a form of control and restraint, to contain children and to stop them being disruptive in cars. These examples indicate how the meaning of technology in cars was contested and subject to change, as Carrabine and Longhurst comment:
Technologies and objects are functional. They may be used in ways far removed from the intentions of designers and marketers... functions may change or disappear. (Carrabine and Longhurst, 2002, p188)

Parents explained that another way in which they controlled children was to provide them with activities to 'keep children quiet' and prevent conflict and dispute:

Mum usually gives us a bag of things to do. (Rachel, 7, Rural Hill, Bucks)

This is interesting since it offers a more critical perspective on influences upon children's activities in cars. Although children may choose and enjoy specific activities, these may actually represent strategic exercises of power by parents through which they pacify and control children. However, this is not to say that children passively accepted parental authority. There were a variety of ways in which children contested the power exercised over them by parents:

Pete (9, Rural Hill, Bucks): We have the radio on or a CD...
Charlie (6, Pete's brother): ...yeah, we like to have it on rather loud...
Charlie and Pete's Mum: ...yes, far too loud for me...
Charlie: ...I like that.

Children also contested the driving style of parents:

Anushka doesn't like it, she shouts at me, when we are sitting in the left hand lane, going straight on. And there is a right lane, and people use it for going straight on, but you should go right. I wait 15 minutes in the queue and Anushka wants me to fly past all the other cars. We hate that.
(Anushka's Mum, Village Bottom, Bucks)

These examples illustrate that although parents exercise power and control over children, this power is never absolute and can be contested. Children exploit gaps, or that which Foucault (1977) calls 'instabilities', in parents' exercises of power. Children's responses can be seen as acts of contestation and transgression, that is attempts to break rules, boundaries or limits (Jenks, 2003). For example, one child described sitting behind the driver's seat, so he could play games or make gestures at the driver whilst remaining unobserved. These contestations reflect a postmodern conception of power, in which power is not fixed or singular, but is diffuse, fluid, with multiple locations (Foucault, 1980a). Whilst children and parents are differentially positioned, each can exercise power. As Foucault discusses:

Power is not something that is acquired, seized or shared, something that one holds on to or allows to slip away; power is exercised from innumerable points, in the inter-play of non-egalitarian and mobile relations. (Foucault, 1980a, p94)
A more visible way in which children contested power in the spaces of cars was through ‘pester power’ (Bradshaw, 1995), repeatedly asking for certain outcomes:

They (parents) don’t get a go at choosing music. If they do, they just choose horrible, slow music, without any words... so we moan. (Helen, 8, Country Wood, Enfield)

Chapter six discusses how ‘pester power’ is not only important for the spaces of cars, but is also significant in influencing how children travel. Often children allied with their siblings to provide a more vocal way of attempting to transform the spaces of cars. Once more, a postmodern conception of power is useful here, illustrating that power relations do not simply exist between adults and children, but are often more diffused and dynamic, sometimes including others such as siblings or friends. Children's alliances, although often temporary, provided a stronger challenge to the dominance of parents.

These examples demonstrate that children are not passive family members who simply accept the power and dominance of parents. It adds to the growing body of evidence mapping the different ways in which children are social actors, who employ a variety of strategies to influence their lives (Valentine, 1996b, Punch, 2001, Mayall, 2002). As Holloway and Valentine note:

...researchers insist that children are active beings whose agency is important in the creation of their own life-worlds. (Holloway and Valentine, 2000a, p6)

It also indicates how children's actions contest symbolic boundaries relating to their lack of involvement within the micro-political geographies of families, and the potential for transforming the spaces of cars. However, as Jenks (2003) notes, whilst transgressions represent rule breaking, they also serve to identify the boundaries of acceptable behaviour and open the possibility for reaffirming rules. Thus, although children contested the use of space in cars, in some cases this simply resulted in parents exercising their power to re-enforce rules and punish the transgressor.

Recognising the postmodern emphasis on diversity and difference, not all parents dominated the spaces of cars. Some children participated in a variety of decisions concerning the spaces of cars:

We take it in turns (to choose the music). It goes Jay, Helen, Bob or something. (Helen, 8, Country Wood, Enfield)
In some families, children had a greater degree of involvement in decision-making, undertaking successful negotiations with their siblings and parents regarding use of space in cars (Beck, 1997).

Therefore, everyday events and activities in the spaces of cars indicate how they can be sites of contestation and conflict, providing insight into complex, shifting patterns of power, control, negotiation and resistance between children and parents (Holloway and Valentine, 2000a). Gender was also highly relevant in mapping the everyday micro-political geographies of families, since, as chapter six explores in more detail, women were predominantly responsible for organising and escorting children. Therefore, in most instances, it was specifically mothers, and not fathers, who mediated and controlled children's experiences of cars. Cars with children were 'women's territory' (Sheller, 2004), spaces for the performance and reproduction of gender roles. These gendered roles undertaken by parents added another layer of complexity to the micro-political geographies of families. Whilst power relations exist between children and parents, it is also clear that individual adults were placed in different positions vis-a-vis the division of travel labour.

5.3.9 Journey length and purpose
So far, the chapter has focused upon how children experience the spaces of cars. However, car use is a means to an end, i.e. travelling to a destination (James and Pharaoh, 1992, Hughes, 1993). Children stated that their experiences of spending time in cars were directly related to the different purpose and length of journeys:

'It's ok for short distances, but if you're in there for hours, like going to Scotland or something, it's really annoying. You just sit there and your legs ache, you feel sick.' (Lydia, 9, Village Bottom, Bucks)

'...but if I get car sick, I don't like it. I don't like long car journeys, there is nothing to do.' (Anushka, 10, Village Bottom, Bucks)

'I didn't like Wales, because it was three and a half hours or something.' (Helen, 8, Country Wood, Enfield)

Therefore, children's enjoyment of cars varied according to journey purpose and length. There were a number of factors influencing this. Shorter journeys were more enjoyable than longer journeys. Journeys to visit children's friends, or for children to access activities were more popular than trips to visit parents' friends or relatives. These factors combined in diverse ways, so that, for example, a long trip to visit relatives was often unpopular:
Once, when Granny lived elsewhere, it takes six hours to get there, I felt sick. (Ritchie, 9, Bucks)

Encouraging children to undertake activities was a common strategy to help children pass the journey time whilst on long trips. Once more, there are different ways of reading this evidence. This can be seen as children choosing how to spend their time in cars, by taking part in activities of their choice, or more critically as an exercise of power by parents, who provided activities to pacify children and keep them occupied and quiet on long journeys:

We also do lots of long car journeys as well... these girls are experts on long car journeys. (Gill and Sarah's Mum, Village Bottom, Bucks)

Therefore, children's experiences of cars depend not only upon what happens within the spaces of cars, but are also influenced by the journey purpose, length and destination.

5.4 Chapter summary
This chapter has explored how cars were increasingly important contemporary spaces of childhood. Cars were much more than simply spaces for travelling, and were important spaces for different activities, including play, leisure and homework. Key features of cars for children included the actual space and layout of cars, including preferred places to sit, and the possibilities for companionship. Technology played an increasing role in children's accounts of cars.

Although children's experiences reflect wider processes regarding automobility and the privatisation of space, these were mediated in different ways to other social groups. Existing research can be criticised for focusing upon the experience of drivers, and assuming cars are solitary places. This chapter has shown that children's experiences as passengers were different to those of drivers, since their experiences are always mediated and reconfigured by others, as they never have independent or autonomous access to cars. With multiple occupants, cars can become sites of power relations, involving contestation and conflict. Although parents often controlled the spaces of cars, drawing upon technology to exercise power and maintain their authority, their power was not absolute. Children contested the power of adults in a variety of ways to influence and transform the spaces of cars. That many children co-operated with their siblings illustrates the relevance of a postmodern conception of power, in indicating that power relations were fluid and diffuse amongst different family members.
At a broader level, children's everyday experiences of cars were framed by wider sets of power relations, including car corporations which design and manufacture these spaces, and the role of capital in commodifying everyday activities in cars. Whilst a Marxist geographical approach was useful here, it was not sufficient for explaining other aspects of children's experiences of cars. The chapter also began to explore the significance of gender, which is more fully considered in chapter six.

The chapter also explored the usefulness of a postmodern approach to children and automobility. Whilst cars were often seen as privatised and enclosed spaces, children's focus on the external environment and use of mobile phones and other technologies suggests that cars were also porous spaces which have flows and connections with the external environment. This is reminiscent of a postmodern conception of space. However, the existence of adult-child relations meant it was often adults rather than children who mediated and controlled these connections.

Throughout the chapter, the diversity in children's accounts reflects a postmodern sensitivity to difference. The evidence presented here indicates children's experiences were not homogeneous, but were differentiated by personal preferences, gender, journey length and purpose, and differing power relations with other family members. Whilst existing research can be criticised for referring to 'the car', the chapter has used the plural term 'cars' to convey the diversity of ways in which cars were experienced, inhabited, and used for mobility. Whilst this chapter has begun to explore this diversity, it is further investigated and theorised in subsequent chapters. Reflecting a postmodern emphasis on multiplicity and partial perspectives, the chapter has also considered how it is often not possible to present a singular interpretation of data. The chapter has considered some of the multiple and contradictory readings and possible meanings of evidence relating to children and cars. Whilst this chapter has explored the spaces of cars, it must be noted that cars are not usually experienced for their own sake, but are devices for movement (Featherstone, 2004), the following chapters explore the role of cars in relation to children's mobility.
Chapter six~ 'Accounting for automobility': Exploring the increasing role of cars for children's spatial mobility

Automobility has irreversibly set in train new socialities, of commuting, of family life, community, leisure, the pleasures of movement and so on. (Urry, 2004b, p28)

6.1 Introduction

Chapter five has identified the growing role that cars play in contemporary childhoods, exploring children's experiences of inhabiting these increasingly important spaces. This chapter accounts for the increasing role of cars for children's spatial mobility. It identifies several, interconnected factors: the spatial and temporal (re)organisation of childhood and family life; fears for children's safety and preferences for cars compared to other forms of travel. In doing so, it indicates how children's mobility is inextricably linked to wider parental lifestyles and preferences.

The chapter also explores the usefulness of debates within the new mobilities paradigm to account for these factors. The work of Urry (2000) and others (Miller, 2001, Kaufmann, 2002) demonstrate that increasing car use and the spatial and temporal reorganisation of children and families' lifestyles are key features of postmodern societies. The chapter also draws upon the work of children's geographers (such as Valentine, 1997a, McKendrick et al., 2000b) to explore how the parental desire to protect children from perceived dangers in public space reconfigures these wider mobility trends. Therefore, the chapter addresses research aim 2 'to consider the applicability of debates within the new mobilities paradigm to account for the increased role of cars for children's spatial mobility'.

The chapter also discusses how reasons for car use are not uniform. Reflecting the postmodern focus on the specificity of local places, and recognising that children do not form an homogeneous group, the research explores the geography of automobility, indicating how the role of cars varies amongst children in different places. Adopting Massey's power geometry of mobility, the chapter explores how the factors influencing car use are differentiated by place, gender, social class, ethnicity, and the micro-political geographies of families. Although there is no specific section exploring the importance of age, the chapter explores how age is a significant variable which differentiates reasons for car use and children's experiences of automobility. However, the chapter indicates how age as a variable cannot be seen in isolation from, and indeed intersects with, other factors, such as place as well as other social categories. Therefore, discussions related to the significance of age are integrated through this chapter and the next. Therefore, the chapter also addresses research aim 3 'to explore
how Massey’s power geometry of mobility can be used to consider how the role of cars for children’s spatial mobility varies between different groups of children and children in different places’.

6.2 Cars and the spatial organisation of children’s lives

This section discusses the increasing role of cars in children's lives with reference to wider debates in the new mobilities paradigm regarding the spatial (re)organisation of lifestyles within contemporary postmodern societies (Thrift, 1996, Urry, 2000). A number of trends in the research suggested that, for at least some children, distances between key sites of childhood had increased, compared to previous generations. The mean average home-school distance was 1.3 miles, an increase from 1.1 miles recorded in the early 1990s (DTLR, 2001). Many children travelled relatively long distances to other places and to visit friends:

There is swimming on Wednesdays (3 mile trip), and tennis on Thursdays (2 mile trip), Saturdays 8 o'clock swimming for Pete (3 mile trip), then at 9 he goes to see his friend for an hour (1 mile trip), and then I have to get Charlie to swimming for 9.30 (3 mile trip), and then he finishes at 10 (3 mile trip). Then I pick Pete up at 10.50 (1 mile trip) and then there might be football (4 mile trip) after that. It's very stressful and very, very busy. (Charlie and Pete's Mum, Rural Hill, Bucks)

Well, some of my friends live in (a market town) (3.5 miles), some live in (the village with the school) (2.5 miles), some in (local large town) (6 miles), not many live here. (Gill, 10, Village Bottom, Bucks)

Whilst making comparisons over time is problematic due to the lack of available historical data exploring how far children travel on journeys other than school, it has been suggested that whilst children's independent mobility may have declined, their overall spatial mobility has increased (Zeiher, 2003, Pooley et al., 2005). Indeed, Pooley et al. (2003) have suggested increases in distances for non-school journeys has contributed the most to an increase in children's spatial mobility.

Increasing distances between key sites of childhood may reflect, as chapter two discusses, the wider reordering of experiences of space and time characteristic of contemporary postmodern societies (Giddens, 1991, Kaufmann, 2002). Increased communication and speed of travel have reduced barriers between places, resulting in a compression of spatial and temporal worlds in a process Harvey calls time space compression (Harvey, 1989, Thrift, 1996). The scale of human interaction has extended from beyond the local to encompass the non-local, a stretching of social relations across space (Giddens, 1991).
My research explored the link between car use and distances between key sites of childhood, as figure 6.1 illustrates:

Figure 6.1 indicates, perhaps unsurprisingly that as home-school distance increased, there was an increase in the proportion of children being driven to school. This was also reflected in the mean average distance travelled to school, as noted by table 6.1:

Table 6.1 Mode of travel and mean average home-school distance

<table>
<thead>
<tr>
<th>Mode of travel</th>
<th>Mean average home-school distance (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>by car</td>
<td>1.5</td>
</tr>
<tr>
<td>on foot</td>
<td>0.5</td>
</tr>
<tr>
<td>All modes</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Table 6.1 indicates that those walking to school lived closer, on average, than those who were driven to school. Cars offer new opportunities and make accessible activities, such as school or after school events, which are beyond the local (Beckmann, 2001, Kaufmann, 2002). Education policies, enabling families to choose schools other than their most local one, have also contributed to the respatialisation of children's lives. There has also been a reorganisation of other facilities for families, such as commercial playgrounds, leisure parks and other services, from local areas to more out of town sites, which often are only accessible by car. Furthermore, as section 6.3 discusses,
car use was not only influenced by distances between key sites of childhood but also distances to places to which adults travelled. These points reflect other research, linking the role of cars with spatially diverse lifestyles (Jones and Bradshaw, 2000, Collins and Kearns, 2001), and reflect wider debates regarding the dominance of cars within societies characterised by automobility (Urry, 2000, Beckmann, 2001). Increased use of cars both contributes to, and is a response to the reorganisation of space in postmodern societies, although as following sections discuss, this was differentiated by many factors.

6.3.2 Cars and the temporal organisation of children's lives

Whilst most geographers have focused on the spatial, a small but increasing number have explored the temporal, considering how movement through space is also mediated by time, and structured and shaped by a multiplicity of rhythms (May and Thrift, 2001, Davies, 2001, Lefebvre, 2004). Rhythms may be differentially paced, repeating on a daily, weekly or annual basis, and different sets of rhythms may occur simultaneously in any one place and time (May and Thrift, 2001, Crang, 2001, Lefebvre and Regulier, 2004).

Time constraints (identified by 42% of respondents, n=422), rather than distance, was the most commonly identified factor influencing mode of travel to school. Many families had highly organised timetables. One mother explained their after school routine:

I bring Pete home and put the dinner on. I go back and pick up Charlie, put dinner on the table, we get changed and go out again. It's not unusual to be back and forth. (Pete and Charlie's Mum, Rural Hill, Bucks)

These points suggest that at least some lifestyles were less bound by space and more restricted by time (Bauman, 1998, McKie et al., 2002, Eldon, 2004). Trip chaining has been identified as a way of juggling commitments to maximise activities within a given time and space (Timmermanns et al., 2002). Over one third (34%, n=347) of parents combined the trip to or from school with another journey, a finding reflected in other research (Bradshaw, 1995, Dowling, 2000, Collins and Kearns, 2001, Lupton and Bayley, 2002). Figure 6.2 indicates the diary entry completed by one parent, which showed her complex trip chaining during a weekday:
The pressures of juggling commitments in this way are not new, described by the Women and Geography Study Group 20 years ago as:

The complexity of (women's) daily routines and the ways in which they manage, often only just, to accommodate and reconcile their patterns of activities over time and space. (Little et al., 1985, p8)

These rhythms of children's mobility were not constant nor uniform, but diverse and subject to change (McKie et al., 2002, Pooley et al., 2005). For example, almost one quarter (21%, n=211) of children travelled from school by a different mode of travel than the one to school, differences which have also been identified in other research (Joshi and MacLean, 1995, Collins and Kearns, 2001). Similarly, almost one third (32%, n=322) of respondents used different modes of travel to school on different days of the week. There were also longer term variations in rhythms (Gren, 2001, Eldon, 2004). For example, term time mobility patterns, such as taking the children to and from school, generated a distinct set of rhythms to those of holidays, for example, taking children to grandparents for holiday care. The multiplicity and fluidity of these rhythms reflect the broader complex and fragmented character of postmodern societies. Gillespie et al. comment:

Just as spatial regularity... is giving way to a more fragmented and complex spatiality, so it is the case with temporal regularities. The rhythm of the
conventional working day is giving way under a variety of flexible working
practices (and) leisure and consumption activities are no longer allocated
set times but are extending temporally. (Gillespie et al., 1998, p247)

My research contributes to these debates by indicating the increasing role of cars in
enabling families to organise and undertake these complex and contingent timetables,
as table 6.2 illustrates:

**Table 6.2 Mode of travel to school and trip chaining**

| Per cent of parents going on to another activity after dropping child off to school |
|---|---|
| By car | 42 (n=162) |
| On foot | 27 (n=149) |
| All modes | 34 (n=347) |

chi squared ($\chi^2$) = 19.625, df = 1, p = 0.00

Table 6.2 indicates that a greater proportion of parents driving their children to school
went on to another activity outside the home, compared to those walking their children
to school. Cars are increasingly important tools which enable families to maximise and
plan use of time and space to an extent not possible before, creating new spatio-
temporalities (Gershuny, 1993, Urry, 2000, McKie et al., 2002). Pooley et al. (2005)
identify how cars have contributed to a speeding up of social life:

The pace of life has increased... through the process of time-space
compression. Most people expect to be able to both achieve more, and to
travel over a greater distance, in a given amount of time than was the case
in the past. (Pooley et al., 2005, p45)

Parents commented:

It's convenient to use the car, it's easy. It takes more effort to take another
means. (Shane and Graham's Mum, Village Bottom, Bucks)

I don't think you could do it... you couldn't do most of it on foot, you haven't
got the time. You have to go back and forth in the car. (Charlie and Pete's
Mum, Rural Hill, Bucks)

There were several broad and interconnected factors which influenced the role of cars
in planning use of time. Children's participation in different after school activities on
different days of the week often increased demands on time:
Say today, Sharon (mother's friend) picked us up, Stephen had a tutor, so she drove us home in the car. But if we haven’t anything after school, then we just walk home. (Kylie, 10, Country Wood, Enfield)

Time is a constant pressure, especially after school, because invariably there is picking my other daughter up or getting them to after school activities. (John's Mum, Rural Hill, Bucks)

This relates to the broader work of children's geographers, identifying the increasing role of institutional activities in contemporary childhood:

Parents are increasingly encouraging children to spend their time either in the home with friends or taking part in activities organised by adults (such as music lessons, sports training and so on). (Valentine, 1997b, p48)

Children's mobility was also structured and influenced by wider rhythms, such as those generated by the wider economy, for example traffic congestion often associated with rush hours. As section 6.4.3 discusses in more detail, the employment patterns of parents, in particular mothers, also influenced the role of cars for children's mobility, illustrating how decisions regarding how children travel were also influenced by the wider lifestyles of parents, which often created busy, time-limited schedules which could only be undertaken by car.

Lefebvre (2004) and others comment that everyday rhythms are not only generated by events in the social world but also by those in the natural world (May and Thrift, 2001). As discussed in chapter five, weather was identified as a common factor which influenced the everyday rhythms of children's journeys, including use of cars:

If it's a nice day, we walk. And if it's not, we go in the car... It depends on what kind of day it is. If it is a sunny day then I like to walk, but if it's cold and raining I like to go in the car. (Helen, 8, Country Wood, Enfield)

When it rains we go by car, when it's sunny we walk. (David, 7, Country Wood, Enfield)

Longer term seasonal variations also influenced how children travelled to school and other places (Collins and Kearns, 2001). Nature may have more influence on children's lives compared to adults (Jones, 2000), and in turn can shape patterns of car use:

In winter, we don't cycle, it's too muddy, but in the summer we do it quite often. (Liam, 9, Rural Hill, Bucks)

Such highly organised, spatially diverse and time-limited lifestyles could not be undertaken by public transport (Urry, 2000), since existing public transport systems are
often not organised around the lifestyles of children, trip chaining mothers and others (Law, 1999, Dowling, 2000), and cars are easier ways to transport children and their equipment. As Urry (2000) comments:

Social life generally (becomes) irreversibly locked into the mode of mobility that automobility generates and presupposes. (Urry, 2000, p27)

As to whether these lifestyles are ‘irreversible’ is a point that will be returned to in chapter seven.

6.4 Towards a power geometry of children's mobility

For Harvey (1989), capital generates and structures these new spatio-temporalities, since they are not only opportunities for individuals but more significantly for the accumulation of capital (see also Cresswell, 2004). These new spatial and temporal configurations have developed from new technologies and communication designed to create more fluid forms of capital to increase opportunities for profit (Castree, 2003). Cars help to maximise opportunities for consumption or production (amongst children and adults) within a given period of time (Harvey, 1989, 1993, McKendrick et al., 2000a, Kenway and Bullen, 2001). However, as discussed in chapter two, Massey, amongst others, has noted that time space compression and the new spatio-temporalities it produces are not uniform, but highly uneven, and cannot be explained in relation to capital alone (Massey, 1993a, Thrift, 1996). Massey (1993a) has developed a power geometry to map the systematic and uneven ways in which different individuals and groups are located within networks of connections, flows and mobility. This chapter considers whether and to what extent Massey's power geometry helps to explore how the factors explaining the role of cars for children's mobility are differentiated by complex and interconnected socio-spatial relations, particularly relating to place, gender, social class and ethnicity.

6.4.1 Spatial variations in car use

It is important to explore spatial variations in children's mobility (Tranter and Pawson, 2001, Pooley et al., 2005). Car use was not consistent across places, as table 6.3 indicates:
Table 6.3 identifies spatial variations in how children travelled to school and other destinations. To an extent, car use appeared to be greater in rural places. Rural Hill, a predominantly affluent and rural Buckinghamshire location and Country Wood, a predominantly rural, affluent location on the edge of North London, had higher levels of car use, whereas Common Green, a deprived suburban London location, had the lowest levels of car use. That the use of cars was not consistent across the five locations identifies one aspect of a power geometry of children’s mobility. Whilst others (such as Depeau, 2001, Kearns and Collins, 2001, Porter, 2003) have explored differences in children’s mobility in other countries, my research identifies how places differentiate the role of cars for children's mobility at the local level. Whilst both Harvey (1989) and Urry (2000) have considered the importance of time space compression and automobility, neither have explicitly explored in depth spatial variations to these processes.

There are multiple ways of making sense of spatial variations in the role of cars for children's mobility. Table 6.3 indicates one reason for spatial variations in car use for children's mobility is that mean average distances between key sites of childhood (such as home-school) were greater in rural places. For example, Rural Hill and County Wood, whilst reporting highest levels of car use, also had greatest mean average distance between home and school (1.61 miles and 1.43 miles respectively). Local facilities for children in the villages were limited, and access to after school activities, swimming pools, and cinemas required longer journeys to local urban centres such as Townham 3 miles distant. Although these rural places were on the edge of London, these patterns reflect existing research identifying that services are more geographically dispersed in rural areas (Philo, 1992b, Whitelegg, 1997).
By contrast, the evidence from Common Green, a suburban location in North London, highlighted that not all children lived in car owning households, nor had car dominated or spatially diverse lives. Here, only 31% of children were driven to school, and distances between home and school were lower than other places. Many children lived geographically compact lifestyles not centred around cars:

Normally, most of them (friends) live close, Irina lives next door, so I can just climb over the front wall. (Daphne, Common Green, 8, Enfield)

Figure 6.3 indicates one girl's drawing of how she walked to and from places:

![Figure 6.3 Drawing of walking to school](image)

Julie, 10, Common Green, Enfield

As well as children travelling greater distances, another reason for higher levels of car use in rural areas was that more respondents identified a lack of alternative ways of travelling these distances, as identified in table 6.4:

<table>
<thead>
<tr>
<th>Location</th>
<th>Per cent identifying no alternative as reason for mode of travel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Hill</td>
<td>43 (n=72)</td>
</tr>
<tr>
<td>Village Bottom</td>
<td>18 (n=50)</td>
</tr>
<tr>
<td>Suburban Royal</td>
<td>24 (n=41)</td>
</tr>
<tr>
<td>Country Wood</td>
<td>28 (n=25)</td>
</tr>
<tr>
<td>Common Green</td>
<td>18 (n=55)</td>
</tr>
<tr>
<td>All locations</td>
<td>24 (n=243)</td>
</tr>
</tbody>
</table>

chi squared ($\chi^2$)=45.294, df=4, p=0.00
Table 6.4 indicates that respondents in Rural Hill and Country Wood were more likely than those in other places to have no alternative to the current mode of travel. Respondents commented on the lack of public transport in rural places:

We moved here four years ago, from (inner North London)... the children didn't want to go, they said "we're going out in the sticks, there is no public transport". (Angel's Dad, Country Wood, Enfield)

Massey's second level of a power geometry is useful here, arguing that experiences are differentiated not only by levels of mobility, but also by ability to initiate or control it (Massey, 1993a, Bridge, 1997). Although rural respondents may have reported higher levels of car based mobility, the lack of alternatives suggests this was not necessarily a choice or exercise of power, but rather was often enforced due to lack of alternative modes of travel or local facilities. This relates to the wider work of rural geographers who have explored distance deprivation (Philo, 1992b, Cloke and Little, 1997), which forces rural dwellers into mobility (Kaufmann, 2002). As Whitelegg states:

Inaccessibility for those without access to a car is manifest and increasing, whether due to the withdrawal of bus services, closure of local facilities (such as schools) or the general trend towards centralization and specialization in the provision of services (such as hospitals). (Whitelegg, 1997, p187)

However, all encompassing categories such as rural or urban are problematic terms, concealing diverse experiences (Cloke and Little, 1997, Matthews et al., 2000a, Halfacree, 2004a). The research was carried out in a limited and particular number of rural places, so the mobilities discussed here relate to these particular edge of London commuter countryside locations, rather than the possibly very different experiences in more deprived and peripheral rural places, such as mid-Wales or Cornwall. Matthews et al. (2000) discuss the particularity of their rural research in Northamptonshire:

We recognise that the stories these children tell may differ greatly from those recalled by residents of other rurals. (Matthews et al., 2000, p142)

Moreover, a postmodern approach critiques an homogeneous account of particular places, and emphasises difference and diversity. Even in rural places such as Rural Hill and Country Wood, which reported higher levels of car use, not all families lived car dominated lifestyles, as table 6.3 on page 136 highlighted how approximately one third (32% and 36% respectively) of respondents walked to school. Some children, across all locations, discussed how they lived close to local facilities such as school, and friends:
I just walk really. The main friend I play with, out front, is one door down, so I only have to walk a little way... I have one friend that lives right down the road, and another friend down the next road. (Daniel, 9, Suburban Royal, Bucks)

Within each sample location, there was no homogeneous pattern of car use, indicating different sets of experiences within each place. Spatially diverse car dominated lifestyles were often interspersed with shorter trips and other modes of travel, such as walking. As Kaufmann notes:

People covering long distances during the course of their daily lives (also) often conduct activities near to or in their own neighbourhoods. (Kaufmann, 2002, p23)

More significantly, the mobility patterns of the remaining two locations (the predominantly rural Village Bottom and urban Suburban Royal) challenged the notion that children in rural places lived more spatially diverse or car dominated lifestyles. Village Bottom, an affluent Buckinghamshire village, although similar in profile to the other two rural places, had very different patterns of car use, with the lowest proportion of children (36%) driven to school in the research. In part, this was due to the low mean average home school distance (1.06 miles), as more children attending the school lived in the village, compared to the other rural places. Also, as the following sections discuss, other factors, such as relatively low reporting of fears such as stranger danger or bullying, and interest in initiatives such as 'Safer Routes to School' programmes, influenced why patterns of car use and mobility were different to the other two rural places.

Although home-school distance in Suburban Royal, a deprived, urban place in Buckinghamshire, was the lowest of the sample (0.96 miles), the proportion of children driven to school was relatively high (53%), compared to other places with similar mean average distances between home and school. Once more, other factors (explored in more depth in section 6.4.2), such as a higher proportion of respondents going directly to paid work after dropping their children off, helped to explain higher rates of car use.

Therefore, whilst the spatial and temporal organisation of children's lives was a factor influencing the role of cars for children's mobility, it is too simplistic to suggest increasing distances between places such as home and school generated car use, or that rural lifestyles generated more car based, spatially diverse lifestyles than other locations. This reflects the growing recognition amongst rural geographers of the need to consider the heterogeneity of rural experiences (Philo, 1992b, Cloke and Little, 1997, Weller, 2003).
Whilst wider debates of Harvey (1989) regarding time space compression and Urry (2000) on automobility may be useful in contextualising the increased role of cars for children's mobility, they do not explicitly explain how the effects of these processes and the spatialities they produce are uneven. A postmodern approach explores the specificity of mobility both between and within places (Ross, 2002, Hubbard et al., 2002). However, as the following sections discuss, the significance of place was also influenced by and combined with other socio-spatial factors, such as gender, class and ethnicity, to further differentiate experiences of mobility.

6.4.2 Gender and car use

Feminist geographers have long observed that women have the primary responsibility for organising and undertaking care for children (Little et al., 1985, WGSG, 1997, Laurie et al., 1999, McKie et al., 2002). Table 6.5 identifies the relationship between gender and making decisions regarding children's travel, for those taking part in my research:

Table 6.5 Parents' involvement in making decisions regarding children's travel

<table>
<thead>
<tr>
<th>Decisions made by:</th>
<th>Per cent of one parent families</th>
<th>Per cent of two parent families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother only</td>
<td>86 (n=85)</td>
<td>46 (n=401)</td>
</tr>
<tr>
<td>Both parents*</td>
<td>11 (n=10)</td>
<td>52 (n=453)</td>
</tr>
<tr>
<td>Father only</td>
<td>2 (n=2)</td>
<td>1 (n=9)</td>
</tr>
</tbody>
</table>

*In the case of lone parent families, this refers to lone parent and, where relevant, ex-partner

chi squared ($\chi^2$)=56.656, df=2, p=0.00

Table 6.5 illustrates that in just under half of two parent families (46%), mothers had the sole responsibility for making children's travel decisions, reflecting other research highlighting that mothers are often responsible for organising and undertaking escort trips as part of the broader range of tasks undertaken within the domestic sphere (Bowlby et al., 1997, Law, 1999, Dowling, 2000):

On the whole, it's me, dashing in and out, sorting it out (Charlie and Pete's Mum, Rural Hill, Bucks)

Yes... definitely (me)... And if it isn't (me) it's because I have set it up, if I'm doing another run or doing something, then I will have set something else up. (Helen's Mum, Country Wood, Enfield)

Table 6.5 indicates that fathers were involved in decision-making in just over half of two parent families. However, one limitation of this statistical evidence is that it only reports whether involvement took place and does not consider its extent. The in-depth
qualitative research indicated that, even in families where fathers did participate in
decision-making, women had most responsibility and undertook most escorting. As
Aitken (1999) discussed, fathers' involvement was limited, often helping out at
weekends:

Yes. It is usually (me). If it's into town we'll walk, and it's me who... my
husband is around at the weekend, but it is me who drives them around
most of the week. He does his bit on Saturday morning when we have to be
in three directions at once, but it's generally me. (John's Mum, Village
Bottom, Bucks)

Some partners took equal responsibility for escorting children, although this often did
not give mothers free time, but enabled them to undertake other tasks associated with
traditional gender roles:

Saturdays if we are both at home, Charles will take him, so I can get on
with the housework and the washing. But quite often, Charles is at work on
Saturdays, so I will do it. In the week, if there is driving to be done, early
evening Charles will have to do it because I am not home from work. So it
depends who is home. But I think Ritchie is right, it's probably about 50/50.
(Ritchie's Mum, Village Bottom, Bucks)

Fathers also contributed by organising and driving during family outings, such as
holidays, long journeys, or visits to adult friends and relatives:

Yeah, usually Mum, but at weekends, my Dad. And he takes us to
brownies.... If we go with Dad, then it's probably because we go to places
that are very far away, or if we go on a very long walk. You enjoy going with
someone else. (Rachel, 7, Rural Hill, Bucks)

But sometimes if we are going to Oxford, Daddy sometimes drives. If we go
on holiday, Mummy and Daddy take turns, but usually Daddy does it. He
drives around a lot. He probably gets tired of driving. (Gill, 7, Village
Bottom, Bucks)

Whilst the contribution of fathers was limited, mothers were responsible for the day to
day, routine journeys which Dowling (2000) describes as the 'temporal treadmill' (p347)
and McKie et al. (2002) call 'caringscapes' (p914). Whilst employment and other
engagements were valid reasons to limit the involvement of fathers, women's
participation in similar tasks, including full time employment, did not release them from
their domestic responsibilities (Bowby et al., 1997), such as organising and
undertaking children's travel. For many feminist geographers, this highlights the
continuing influence of patriarchal power relations in structuring the experiences of
women (WGSG, 1997, McKie et al., 2002):
This gendered division of labour is not only a fundamental feature of industrial societies, it is also a site of inequality. (McDowell, 2004, p148)

The postmodern sensitivity to difference recognises the diversity of family forms and different gendered divisions of labour (Bowlby et al., 1997, McDowell, 2004). For example, in Common Green, Daphne's Dad was a lone parent who had sole responsibility for her travel, and Ranj's parents equally shared responsibility for escorting him. Although lone parents mostly had sole responsibility for escorting children, this sometimes included input and negotiation with ex-partners. As Table 6.5 indicate, 11% of lone parent families negotiated travel decisions with ex-partners. One step-father spoke of the practical difficulties of involvement in his children’s travel:

It's more difficult for me, because I am not their only father, their other father is still around. (Angel's Dad, Country Wood, Enfield)

There are multiple ways of exploring the links between women, caringscapes and cars. Whilst some (such as Tolley and Turton, 1995, Hamilton and Hoyle, 1999) have suggested cars have played an important role in emancipating women, enabling them to travel safely, and to juggle escorting responsibilities and paid employment, others have looked more critically at trip chaining and the role of cars (Turner and Grieco, 1998, Law, 1999). Rather than freeing women, feminist geographers such as Law (1999) and Dowling (2000) have argued that technological developments such as cars have placed further responsibilities and restrictions on women’s lives, locating them more securely within established gender roles. Kaufmann makes a similar point regarding the generation of car based mobility patterns:

(Mobility) is often the result of a system of social and spatial constraints which impose themselves on the individual and not as a broadening of their degree of liberty. (Kaufmann, 2002, p32)

Increasingly, women are chauffeuring children in addition to undertaking paid employment, households tasks and other roles. Therefore, gender is very significant within a power geometry of children's mobility. Wider gendered power relations positioned many but not all women as central to children's mobility, and responsible for juggling escorting children with other commitments, for example paid employment. As chapter seven discuss, car sharing was one way in which women responded to the task of escorting children. Whilst gender was important in terms of parental roles and expectations, there was no relationship between children, gender and frequency of use of cars or levels of independent spatial mobility. Although earlier research had found boys had more freedom than girls (see Hillman et al., 1990), more recent research identifies very few gender differences in how children travel to school (DfT, 2003b,
Kingham and Donohoe, 2002, Ross, 2002), and that parents are equally concerned about both boys and girls (Valentine, 1996b, Matthews et al., 2000). However, gender is still relevant here, since children's experiences of being escorted by women in cars may re-enforce the notion that women are responsible for undertaking caring duties (McKie et al., 2002).

### 6.4.3 Spatial variations regarding gender and car use

The research identified that these gendered caringscapes were not uniform. For example, there were spatial variations in women's patterns of trip chaining, as suggested by table 6.6:

**Table 6.6 Spatial variations in trip chaining patterns**

<table>
<thead>
<tr>
<th>Location</th>
<th>Per cent of parents going directly on to another activity having dropped child off at school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Hill</td>
<td>31 (n=52)</td>
</tr>
<tr>
<td>Village Bottom</td>
<td>32 (n=88)</td>
</tr>
<tr>
<td>Suburban Royal</td>
<td>32 (n=54)</td>
</tr>
<tr>
<td>Country Wood</td>
<td>34 (n=31)</td>
</tr>
<tr>
<td>Common Green</td>
<td>25 (n=76)</td>
</tr>
<tr>
<td>All locations</td>
<td>30 (n=301)</td>
</tr>
</tbody>
</table>

| chi squared ($\chi^2$)= | 9.264, df=4, p<0.05                                                                 |

Table 6.6 indicates that Common Green had the lowest proportion of parents (although as discussed earlier, in effect mostly mothers) combining the journey to school with other journeys (25%), whereas Country Wood had the highest (up to 34%). This can be linked with spatial variations in the spatio-temporalities of women's lives, including women's participation in paid employment (Tivers, 1985). Thirteen of the 19 women taking part in the qualitative research undertook paid employment. Paid employment was one time limitation influencing the role of cars for children's mobility:

> The reason they get dropped off in the morning is the simple fact that I have to then drive into (town), it's a half way point. I can still take my children to school, and I have to be in work at quarter to nine. So that's why they get dropped off. (Tom's Mum, Suburban Royal, Bucks)

Although nationally employment participation rates for women have increased from 58.7% in 1985 to 70.2% in 2005 (ONS, 2005), patterns of women's paid employment are not uniform (Jenkins, 2004). The census identifies distinct local patterns of women's employment, as table 6.7 indicates:
Table 6.7 Key census statistics on economic context of sample locations

<table>
<thead>
<tr>
<th>Ward location</th>
<th>England and Wales</th>
<th>Rural Hill school</th>
<th>Village Bottom school</th>
<th>Suburban Royal school</th>
<th>Country Wood school</th>
<th>Common Green school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Hill</td>
<td>3.4</td>
<td>2.1</td>
<td>1.6</td>
<td>1.8</td>
<td>2.3</td>
<td>4</td>
</tr>
<tr>
<td>Townham*</td>
<td>71.03</td>
<td>71.92</td>
<td>73.78</td>
<td>71.17</td>
<td>67.24</td>
<td>63.4</td>
</tr>
<tr>
<td>Village Bottom</td>
<td>1.6</td>
<td>1.8</td>
<td>2.3</td>
<td>4</td>
<td>3</td>
<td>4.4</td>
</tr>
<tr>
<td>Valley Town South*</td>
<td>71.17</td>
<td>67.24</td>
<td>63.4</td>
<td>67.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*catchment area of school also covers this adjacent ward
** figures refer to proportion of women aged 17-74
Source: ONS, 2005, from Census 2001

Table 6.7 must be treated with caution since the ONS indicator considered is ‘women in paid employment aged 17-74’ rather than women with primary school children (see discussions in chapter four). Despite this, the table indicates at the local level, there was what others have called a geography of women's paid employment (Jenkins, 2004), with highest participation rates in Village Bottom and lowest in Country Wood.

Since this thesis focused upon children's experiences of automobility, rather than those of adults, only a limited amount of data was collected on this issue. Despite this, the research identified a number of complex interconnected factors influencing maternal participation in the labour market (McDowell, 2000, Jenkins, 2004). In relatively deprived Suburban Royal, both Tom's and Daniel's mothers undertook part-time employment specifically to increase family income, reminiscent of research in other deprived areas where mothers undertook part-time, low-paid employment (Tivers, 1985, Jenkins, 2004). However, local labour market conditions dictate what types of jobs are available (Bowlby et al., 1998). Whilst part-time service sector work was readily available at a distance on edge of town retail sites, there was none available in the local area near the school. So for both Tom's and Daniel's mothers, cars played a key role in enabling them to cover large distances in limited time frames, to maximise income whilst also undertaking escort and caring responsibilities. Pickup (1985) discusses the constraints faced by many women:

> When women work, the number of job locations accessible to them is dependent on the time and space conflicts that exists between the gender role activities and available working hours. (Pickup, 1985, p104)

By contrast, in more affluent Rural Hill mothers often undertook full-time, professional employment, producing different trip chaining schedules which often required collecting
children from childcare at 6pm. For example, Wendy's mother worked as a senior administrator in a hospital 15 miles from their home:

It is restricting being so far away (from work). I have to be at work (at the hospital) by 9, and that's a (15 mile) distance as well. And when I leave (work) at 3, and try to get there (school) by 3.15, but as they said, I can be a little bit late. Or I leave at 6 for the childminders. (Wendy's Mum, Rural Hill, Bucks)

The examples from these two locations indicate how decisions to use cars for children's mobility were embedded within wider patterns of the local economy, including the availability of relevant paid employment and childcare. As noted by Tivers (1985) and Holloway (1998), these experiences are differentiated by social class, and are constantly shifting, constructing new sets of relations. As McDowell (2004) notes, the closure of one employer or childcare facility can have many consequences, including altering women's travel patterns and care arrangements.

A Marxist feminist approach is useful here in exploring how local gendered social practices such as parents' mobility (and in turn children's mobility) are structured by the local economic context and the requirements of capital. As discussed by Walby (1990), Rose (1993) and Katz (2001a, 2001b), Marxist feminists incorporate gender into contemporary relations of production and reproduction, considering the power relations arising from the two inter-related systems of capital and patriarchy.

However, Jenkins (2004) identifies that women's participation in the labour market is not only determined by economic necessity or the availability of suitable paid work or childcare, but is also influenced by local ideological aspirations and expectations regarding gender identities. In the more affluent Buckinghamshire locations of Rural Hill and Village Bottom, some women undertook paid employment for the social and career benefits, rather than for economic incentive, which impacted upon escorting children:

You have to be really organised, combining it (escorting children) with work. I want to be a working Mum... I like to go out with my friends from work and do a class together. (Jane and Rachel's Mum, Rural Hill, Bucks)

Similarly, two of the four mothers from Country Wood taking part in the qualitative research (Kylie and Stephen's Mum, and James' Mum) did not undertake paid employment, stating that they preferred to stay at home to look after their children. However, opportunities for this were further differentiated by social class and the availability of, or need for, alternative sources of household income (Dowling, 2000). Section 6.4.5 discusses how expectations regarding maternal (non)participation in the
labour market were further differentiated by ethnicity. Differing rates of labour market participation amongst women can be linked to broader local cultures of parenting, defined as:

Firstly, a cluster of beliefs, attitudes and symbols attached to mothering, and secondly the practices that result. (Dowling, 2000, p347)

Spatially variable local cultures of parenting influence expectations, including maternal labour market participation, at the local level (Dyck, 1990, Holloway, 1998). Therefore, gender was a significant factor influencing the role of cars for children's mobility, interconnected with and further differentiated by other issues, such as economy, place and class within a power geometry of children's mobility. However, one limitation of the thesis is that, as the research focused on aspects of automobility in the lives of children rather than parents, it does not explore in detail some of the complex ways in which cars facilitate labour market participation and are connected with local cultures of parenting, and as chapter eight discusses, further research is needed on this topic.

6.4.4 Spatial variations regarding social class and car use

The previous section has begun to explore the relevance of social class within a gendered analysis of children's mobility, through influencing patterns of employment. Social class was also relevant in more direct ways, since it is well documented that less affluent groups have lower rates of car ownership (RCEP, 1994, Turner and Grieco, 1998, DETR, 2000). Table 6.8 indicates spatial variations in levels of car ownership:

### Table 6.8 Spatial variations in car ownership levels

<table>
<thead>
<tr>
<th>Location</th>
<th>Per cent of households owning a car</th>
<th>Per cent of households owning two or more cars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Hill</td>
<td>99 (n=165)</td>
<td>83 (n=138)</td>
</tr>
<tr>
<td>Village Bottom</td>
<td>99 (n=274)</td>
<td>79 (n=220)</td>
</tr>
<tr>
<td>Suburban Royal</td>
<td>94 (n=159)</td>
<td>48 (n=82)</td>
</tr>
<tr>
<td>Country Wood</td>
<td>99 (n=91)</td>
<td>85 (n=77)</td>
</tr>
<tr>
<td>Common Green</td>
<td>93 (n=287)</td>
<td>40 (n=124)</td>
</tr>
<tr>
<td>All locations</td>
<td>97 (n=976)</td>
<td>64 (n=641)</td>
</tr>
</tbody>
</table>
| England and Wales (from DfT, 2005) | 85 | N/A

| chi squared ($\chi^2$) =23.169, df=4, p=0.00 |

Table 6.8 indicates spatial variations in car ownership levels (although chapter four has discussed some of the limitations of the sample reporting levels of car ownership higher than the national average). Levels of car ownership reflected broader indicators
of affluence. A larger proportion of children in more affluent locations lived in households with two or more cars, whilst more the more deprived locations of Common Green and Suburban Royal had lower rates of car ownership.

As discussed in chapter five, 5% of households with children in the sample, and 15% of households with children nationally (DfT, 2003b) live in non-car households. Furthermore, almost one quarter (22%, n=218) of car owning households stated that a car was not available for children's journeys, indicating car use was negotiated between different members of the household (Tivers, 1985). There was a relationship between socio-economic status and car ownership, as table 6.9 shows:

**Table 6.9 Car ownership amongst different groups**

<table>
<thead>
<tr>
<th></th>
<th>All families</th>
<th>Lone parent families</th>
<th>Families in receipt of free school meals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per cent of households owning a car</td>
<td>95 (n=956)</td>
<td>85 (n=85) chi squared ($\chi^2$)=59.322, df=1, p=0.00</td>
<td>70 (n=28) chi squared ($\chi^2$)=104.501, df=1, p=0.00</td>
</tr>
<tr>
<td>Per cent of households having access to cars for the journey to school</td>
<td>78 (n=738)</td>
<td>65 (n=72) chi squared ($\chi^2$)=7.586, df=1, p&lt;0.006</td>
<td>50 (n=29) chi squared ($\chi^2$)=18.275, df=1, p=0.00</td>
</tr>
</tbody>
</table>

Table 6.9 indicates that lone parent families and families in receipt of free school meals taking part in the research were less likely to own cars and have cars available for the journey to school than other families. Receipt of free school meals can be taken as a crude indicator of poverty, although chapter four discussed some of the limitations of this. However, as chapter seven discusses, socio-economic status was not the only factor influencing whether families owned cars, as environmental concerns and social attitudes were also significant.

There was a complex relationship between car ownership and children's mobility, as table 6.10 indicates:

**Table 6.10 Car ownership and number of journeys undertaken during the week of the survey**

<table>
<thead>
<tr>
<th></th>
<th>Mean average no. of journeys during the week of the survey</th>
<th>Mean average no. of car journeys during the week of the survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children in car owning households</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Children in non-car households</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>t test, $t=2.056$, df=23.470, p&lt;0.05</td>
<td>t test, $t=5.316$, df=23, p=0.00</td>
</tr>
</tbody>
</table>
Table 6.10 indicates some mobility differences between the experiences of children in car owning and non-car households. Children in non-car households undertook fewer journeys during the week of the survey, and also undertook fewer car journeys. However, there was no statistically-significant relationship between car ownership and children's independent spatial mobility. Although children in car owning households had more regular and more frequent access to cars, over half of children (56%) in non-car households undertook at least one car journey during the week in question, and respondents from non-car households indicated they had access to a car if needed:

If we are late, the family across the road give us a lift. (Daphne's Dad, Common Green, Enfield)

Children in non-car households also discussed how cars were significant in their lives, as figure 6.4 indicates:

**Figure 6.4 Drawing of going to school**

Monday: my neighbours gave me a lift half way to school and I walked the rest. (Julie, 10, Common Green, Enfield)

These accounts suggest many children in non-car households also engage in automobility. Whitelegg (1997) and others (Urry, 2000, Graham, 2004) consider non-car ownership in societies dominated by automobility as a form of social exclusion. However, this fails to acknowledge the specificities of place, which differentiates the impact of living in non-car households. None of the respondents in London saw themselves as 'deprived' as a result of not owning a car:

It's not been a problem over the years, because you change your life accordingly. So when we think about where to go on our summer holidays,
we wouldn’t choose a place where you would need a car for long drives out or excursions... but day to day, week to week, it's not a hassle. (Ranj’s Dad, Common Green, Enfield)

Hillman et al. (1990) also state that London has unique spatial configurations and mobility patterns, whilst Gillespie et al. (1998) also discuss how other large urban centres, such as Newcastle, may share similar characteristics. The local planning context, including provision of public transport, influenced children’s mobility patterns. In North London, families in non-car households identified that public transport gave comprehensive mobility opportunities:

I think in London you don't need a car, public transport is so fantastic... I know it could be better, but coming where I come from in rural East Anglia, the bus service is wonderful here (in Enfield) so we don't need a car. (Daphne’s Dad, Common Green, Enfield)

It's OK, we mostly go on buses and trains... you can get more people on a bus, so it cuts down on pollution, and we travel on the underground normally, so normally it's not as difficult to get around. (Ranj, 11, Common Green, Enfield)

Other places, such as Country Wood, did have an infrequent bus operating during the middle of the day, and a railway station which linked the village with central London, neither of which were particularly useful for children’s mobility patterns. Similarly, Suburban Royal’s bus services linked the area with the local town centre. These examples illustrate how although public transport often caters for the needs of specific groups, this often does not include children (Whitelegg, 1997). The other two rural locations did not have regular public transport services. Perhaps that none of the non-car households were from the more rural locations indicated car ownership was perhaps a necessity in these rural contexts (Banister and Evans, 1992, Nutley, 1999).

However, there was no necessary link between affluence, levels of car ownership and use. Although Village Bottom reported high levels of household multiple car ownership, there was lower than average levels of car use for the journey to school. An affluent area with extremely high house prices, wealthy families had more choice regarding location and mobility patterns:

One of the things we looked for when we moved was that though our focus now is the primary school, as the children get older and change school next year, that will change. They will able to be independent- they will be able to walk down to the bus stop, walk to the train, walk to the shops and park, and all of that. For us, that was as key consideration. We did think of moving further out into the villages, but the driving implications of that... (Ritchie's Mum, Village Bottom, Bucks)
This reflects Massey's second level of a power geometry which focuses not simply on levels of mobility, but also upon power and ability to control it. These families had substantial amounts of mobility as a form of capital (for example, through multiple car ownership), but, significantly, had power over its use (Kaufmann, 2002). Conversely, the very high cost of housing in both Rural Hill and Village Bottom forced some families to relocate to the local towns of High Wycombe and Chesham where housing was relatively less expensive. Several families stated they would prefer to live in the village close to school but could not afford to:

If we lived in the village, our life would be different. She could walk to school and she could always walk to go and see her friends... but it's too expensive to live there. (Anushka's Mum, Village Bottom, Bucks)

The inability to afford property close to school impacted upon mobility patterns, often requiring cars to travel longer distances to school. Therefore, rather than choosing mobility, social class and in this instance relative low incomes 'co-erced' (Urry, 2004b) some families into intense patterns of spatially diverse lifestyles. As Cresswell comments:

...some are forced to move, some move at will and others are effectively forced to stay still. (Cresswell, 2004, p71)

This is one aspect in which Harvey is particularly useful, in identifying how capital and the economic context structures differential experiences of mobility (Harvey, 1989). Social class is significant within a power geometry of mobility, in influencing levels of mobility but also ability to control or initiate it, rendering some as more powerful than others. However, the influence of social class was further differentiated by place and the local transport planning context, and, as previous sections have discussed, gender and labour market participation.

### 6.4.5 Spatial variations regarding ethnicity and car use

Levels of car ownership and use, and children's mobility patterns, were also differentiated by ethnicity. Massey herself identifies 'race' as significant in diversifying experiences of mobility (Massey, 1993a), however, 'race' as a concept has been problematised since it is associated with biological differences between groups (Solomos and Back, 1995, Johnston et al., 2000). The term 'ethnicity' is adopted here, reflecting that the majority of differences between 'races' are historical, cultural, social, and political rather than biological.
A number of indicators in the research suggested children from minority ethnic groups had less mobility, as Table 6.11 indicates:

**Table 6.11 Ethnicity and children’s mobility**

<table>
<thead>
<tr>
<th></th>
<th>Mean average no. of journeys undertaken during week of survey</th>
<th>Per cent undertaking at least part of the journey to school unaccompanied</th>
<th>Per cent of families owning a car</th>
<th>Per cent of families with cars available for the journey to school</th>
<th>Per cent driven to school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children from minority ethnic groups</td>
<td>13</td>
<td>6 (n=10)</td>
<td>84 (n=140)</td>
<td>72 (n=160)</td>
<td>44 (n=73)</td>
</tr>
<tr>
<td>Other children</td>
<td>16</td>
<td>13 (n=140)</td>
<td>97 (n=798)</td>
<td>80 (n=490)</td>
<td>38 (n=312)</td>
</tr>
</tbody>
</table>

**t test, \( t=4.4137, ~\text{df}=857, ~\text{p}=0.00 \)**

**chi squared \( (\chi^2)=6.285, \text{df}=1, p<0.012 \)**

**chi squared \( (\chi^2)=4.262, \text{df}=1, p<0.039 \)**

**chi squared \( (\chi^2)=4.050, \text{df}=1, p<0.004 \)**

**chi squared \( (\chi^2)=4.058, \text{df}=1, p<0.024 \)**

Table 6.11 illustrates that children from minority ethnic groups undertook fewer journeys during the week of the survey, and were less likely than other children to undertake at least part of the journey to school unaccompanied by an adult, a finding replicated by others, including Watts and Stenson (1999) and O’Brien et al. (2000). Families from minority ethnic groups also reported lower levels of car ownership and lower levels of availability of cars for the journey to school, although a higher proportion were driven to school. Aside from this last point (which is explored shortly), these findings suggest minority ethnic groups had lower levels of mobility than other children. There are a variety of explanations for this, which include reference to economic and cultural factors. That families from minority ethnic groups reported lower rates of car ownership may reflect that they were more likely to be living in poverty (Pain et al., 2001), as Table 6.12 indicates:

**Table 6.12 Ethnicity and receipt of free school meals**

<table>
<thead>
<tr>
<th></th>
<th>Per cent of families in receipt of free school meals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority ethnic groups</td>
<td>9 (n=14)</td>
</tr>
<tr>
<td>Others</td>
<td>3 (n=25)</td>
</tr>
</tbody>
</table>

**chi squared \( (\chi^2)=10.456, \text{df}=1, p=0.001 \)**

Reflecting the views of Harvey, this is perhaps another example of how the economic context has some relevance in structuring differential experiences of mobility (Harvey, 1989). However, minority ethnic groups are highly diverse and the significance of
ethnicity combined with social class in different ways in different places. The urban centres of Buckinghamshire included long established but economically mixed minority ethnic groups, particularly South Asian families, with children reporting lower rates of spatial mobility than other families. By contrast, the more rural Buckinghamshire locations and Country Wood in Enfield included a number of very affluent minority ethnic groups, including highly successful city executives (such as Angel's Dad), who had previously lived in other places such as Hong Kong and Dubai. These children were highly mobile at a variety of spatial scales, both in terms of everyday mobility and regular international trips for holidays and visiting relatives. Common Green also had a broad ethnic mix, including children from long established Black African, Black Caribbean and South Asian families, who reported more mobility than more recent and impoverished migrants, including Eastern and Southern European families, and refugees.

However, the differential mobility experiences of minority ethnic groups cannot be explained entirely in relation to social class. Specific forms of local cultures of parenting, regarding cultural or religious expectations regarding children's use of space, may also be relevant. For example, cultural practices often result in greater spatial restrictions for Muslim children, particularly for girls (Valentine, 1997a, O'Brien et al., 2000). However, as Dwyer (1990) notes, there is no one homogeneous Muslim experience, since there are a variety of ways in which religion is incorporated into and impacts upon everyday life. However, I did not find any examples of cultural or religious beliefs influencing children’s mobility amongst different minority ethnic groups. There was a relationship between ethnicity and levels of trip chaining, as table 6.13 indicates:

<table>
<thead>
<tr>
<th>Table 6.13 Ethnicity and trip chaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per cent of parents going onto another activity after dropping child to school</td>
</tr>
<tr>
<td>Minority ethnic groups</td>
</tr>
<tr>
<td>Others</td>
</tr>
</tbody>
</table>

chi squared ($\chi^2$) = 6.567, df=1, p=0.01

Table 6.13 indicates that parents from minority ethnic groups were less likely to go onto another activity having dropped their child off to school. Whilst this may include a wide variety of activities, for example, shopping, leisure or caring responsibilities, this may also include participation in paid employment. Other research (for example, see Dwyer, 1998, Bowlby et al, 1998) suggests for at least some families from minority ethnic groups, cultural expectations may prevent or view negatively maternal participation in
the labour market or participation in certain types of labour markets. However, this was not apparent amongst the nine minority ethnic families taking part in the qualitative research, and the small numbers involved meant it was difficult to explore this issue in any depth.

A third reason explaining the significance of ethnicity in differentiating experiences of mobility and use of cars was in relation to safety (an issue more fully explored shortly in section 6.5), as table 6.14 illustrates:

Table 6.14 Ethnicity, safety and children's mobility

<table>
<thead>
<tr>
<th>Per cent identifying fears of bullying as influence on choice of mode of travel</th>
<th>Per cent identifying safety as influence on choice of mode of travel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority ethnic groups</td>
<td>11 (n=18)</td>
</tr>
<tr>
<td>Others</td>
<td>5 (n=40)</td>
</tr>
<tr>
<td>chi squared ( (\chi^2) = 8.816, \text{df}=1, p&lt;0.003 )</td>
<td>chi squared ( (\chi^2) = 7.171, \text{df}=1, p&lt;0.007 )</td>
</tr>
</tbody>
</table>

Table 6.14 indicates respondents from minority ethnic groups were more likely to identify bullying and safety as reasons for escorting children and may also account for the greater proportion of children from minority ethnic groups travelling to school by car despite lower levels of car ownership. Not reported by minority ethnic groups in the rural locations, these views were mostly expressed in the more urban areas of Common Green and Suburban Royal, where, at the time of the research, there had been active canvassing by the British National Party. These points substantiate other research suggesting minority ethnic groups have greater concerns for children's safety in public space (Valentine, 1997a). This particular explanation for the different role of cars for children from minority ethnic groups draws upon a specific set of power relations combining ethnicity and place within Massey's power geometry of mobility, to produce place specific forms of spatial restriction. Watt and Stenson (1999) argue that this is a racialised spatial strategy controlling minority ethnic groups and regulating the production of 'white' public space.

Therefore, so far this chapter has identified that the role of cars for children's mobility can be understood in relation to the spatial and temporal organisation of social life and wider debates regarding time space compression and automobility within the new mobilities paradigm. Place, gender, the local economic context, social class and ethnicity differentiated the role of cars within children's mobility. Furthermore, these factors were not independent of each other, but combined in specific, although often
shifting, ways within a power geometry of children's mobility. However, as the following sections of the chapter explore, these factors were not sufficient, as reference needs to be made to the significance of spatialised fears for children's safety, preferences of children and parents and the micro-political geographies of families.

### 6.5 Spatialised fears for children's safety

This section indicates that whilst it was possible to explain the role of cars for children's mobility in relation to wider spatio-temporal changes as identified in the new mobilities paradigm, children were positioned differently to other social groups in relation to these factors. Existing research identifies that parents increasingly escort their children in response to growing concerns over children's independent use of public space (Hillman et al., 1990, Valentine, 1997a, 1997c, O'Brien at al, 2000). In my research, safety was the second most commonly identified factor (after time constraints, an issue explored earlier) influencing mode of travel (identified by 33%, n=301 of respondents). The three most commonly identified fears were traffic, stranger danger and fear of bullying or violence from other children or young people, as table 6.15 highlights:

**Table 6.15 Spatial variations in fears for children's safety**

<table>
<thead>
<tr>
<th>Location</th>
<th>Per cent identifying fear of traffic</th>
<th>Per cent identifying fear of stranger danger</th>
<th>Per cent identifying fear of bullying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Hill</td>
<td>57 (n=94)</td>
<td>49 (n=81)</td>
<td>2 (n=3)</td>
</tr>
<tr>
<td>Village Bottom</td>
<td>53 (n=145)</td>
<td>47 (n=129)</td>
<td>1 (n=3)</td>
</tr>
<tr>
<td>Suburban Royal</td>
<td>38 (n=63)</td>
<td>67 (n=112)</td>
<td>10 (n=16)</td>
</tr>
<tr>
<td>Country Wood</td>
<td>51 (n=46)</td>
<td>56 (n=51)</td>
<td>0</td>
</tr>
<tr>
<td>Common Green</td>
<td>33 (n=100)</td>
<td>57 (n=174)</td>
<td>12 (n=37)</td>
</tr>
<tr>
<td>All locations</td>
<td>45 (n=448)</td>
<td>54 (n=492)</td>
<td>6 (n=59)</td>
</tr>
</tbody>
</table>

\[
\text{chi squared (}\chi^2\text{)} = 26.965, \, df=4, \, p=0.00 \\
\text{chi squared (}\chi^2\text{)} = 20.092, \, df=4, \, p=0.00 \\
\text{chi squared (}\chi^2\text{)} = 47.904, \, df=4, \, p=0.00
\]

Table 6.15 indicates that fears concerning traffic were greater in rural places (Rural Hill, Village Bottom and Country Wood) and fears regarding people (either strangers or other children and young people) were more likely to be identified in urban places (Common Green, Suburban Royal). This reflects what Dowling (2000) has called a 'geography of danger' (p350), as certain places are labelled as relatively safe or contain particular threats to children's safety. However, as discussed throughout, using such aggregated categories may tend to homogenise experiences and conceal a diversity of events within each location.
Automobility impacts upon children's mobility through the danger of traffic. Echoing previous research, 45% of parents were fearful of traffic (Davis and Jones, 1996, Valentine, 1997a, Joshi et al., 1999, Tranter and Pawson, 2001). That a greater proportion of respondents in the rural locations in my research identified fear of traffic as a reason for escorting children can be in part explained by the lack of pavements and higher average speed of cars along country lanes (also discussed by Valentine, 1997c):

The problem with (the lane) is that there is no pavement consistently on one side of the road. It means criss-crossing, and they are very bad crossing points. (John's Mum, Rural Hill, Bucks)

It's a very busy road for commuters. Traffic not associated with the school whizzes by, it's a very busy road. (Jane and Rachel's Mum, Rural Hill, Bucks)

Reflecting the postmodern approach to the research, there are different ways of interpreting this evidence. The lower reporting of traffic in urban areas may reflect lower traffic speeds, or more consistent and better pavements. However, it may also indicate how traffic may be an implicit and embedded although often overlooked aspect of urban life.

Stranger danger, identified by 54% of parents as influencing decisions to escort children, has also been noted in existing research (Joshi and MacLean, 1995, Valentine, 1997a, Jones and Bradshaw, 2000). Respondents showed an awareness of, and fears of stranger danger:

There was something sent round about someone hanging around by the station, that's because of the girls going to the secondary school. (Ranj's Mum, Common Green, Enfield)

The proportion of parents identifying stranger danger was lower in rural places, in part reflecting the assumption, although often critiqued in the literature (see Valentine, 1997c, Matthews et al., 2000), that the countryside is less dangerous for children. However, in both Village Bottom and Country Wood, specific instances had begun to question this:

There was a girl who was attacked by someone. Changed my ideas about what was safe and what wasn't. Until then, I thought (the village) was a fairly safe community. It is safe in some respects, but that made me think about things. (Gill and Sarah's Mum, Village Bottom, Bucks)
This indicates both the general assumption that stranger danger is less of a threat in rural places, but also highlights how one incident can begin to challenge this view, reflecting that geographies of danger are not constant but subject to change.

Respondents in the urban locations of Suburban Royal and Common Green were more likely to report the fear of stranger danger and also the need to protect children from other children and young people. Percy-Smith and Matthews (2001) discussed how fear of bullying from other children on the street is a common aspect of young people's geographies. One family in Suburban Royal discussed this threat:

(School is) across a main road. There’s a pedestrian crossing and he has to cut through garages to get there. I’m not happy, because there are lots of older children there. It’s not so much the traffic, it’s the older children. (Daniel's Mum, Suburban Royal, Bucks)

Yeah, she trusts me with the traffic. She knows I would be careful of the traffic, but I don’t think she’s too sure about the people that are down there. I know my friend is there, but he lives quite far into the place. Some kids could speak to me, or hit me, before I get there. (Daniel, 9, Suburban Royal, Bucks)

Daniel identified specific places where he might be at risk from older children, such as the pathway shown in figure 6.5:

Figure 6.5 Photograph of unsafe pathway

Daniel, 9, Suburban Royal, Bucks
Both Suburban Royal and Common Green were urban, relatively deprived areas. The literature suggests that bullying and street violence, or at least the fear of these, is more visible within these particular sorts of communities (Raey and Lucy, 2000). Valentine and McKendrick identify this as a wider theme:

Parents fears about young children's safety are not only a produce of their concerns about violent adults, but are also linked with contemporary popular anxieties about the changing nature of childhood. Moral panics (about everything from child murderers and teenage gangs, to joy riding and juvenile crime rates) have been used to fuel adults' fears that public space is being overrun by violent and unruly teenagers who are a threat to the personal safety of young children (and others). (Valentine and McKendrick, 1997, p223)

Another reason for the comparative lack of reporting of bullying in more affluent locations was the built environment of local estates. Three of the 24 families taking part in the qualitative research lived in gated communities. One mother who lived on a private, gated estate commented:

I feel more confident about letting Gill go out and about here, and also on bikes as well, it's more safer, because we don't have the hills, the parked cars... and there are the gates. (Gill and Sarah's Mum, Village Bottom, Bucks)

Whilst Cresswell (2004) sees gated communities as a feature of urban places, this research indicates they can also be a feature of rural locations. Gated communities reflect wider processes within postmodern societies to regulate and privatise spaces to purify them of possible dangers, such as traffic and older children. However, as the wider literature demonstrates, the perception of young people as threats can also be seen as an exercise of power by adults to deny young people access to, and use of, public space (Valentine, 1996b).

Concerns over child safety were also particularly expressed by parents of children with disabilities. Several parents stated in the questionnaire survey that their children needed accompanying on the journey to school due to their disabilities which made it difficult or unsafe for children to travel to school alone. One parent of a child with physical disabilities commented:

(He needed to be driven to school) since his condition has deteriorated, he's trying to recover. (Mum, Common Green, Enfield)
More specifically for this research, there was a link between these locally specific and changing concerns for children's safety and the use of cars for children's mobility, as table 6.16 notes:

### Table 6.16 Safety and mode of travel to school

<table>
<thead>
<tr>
<th>Mode of Travel</th>
<th>Per cent identifying safety influences choice of mode of travel to school</th>
</tr>
</thead>
<tbody>
<tr>
<td>On foot</td>
<td>29 (n=133)</td>
</tr>
<tr>
<td>By car</td>
<td>38 (n=131)</td>
</tr>
<tr>
<td>All modes</td>
<td>33 (n=333)</td>
</tr>
</tbody>
</table>

\[\chi^2 = 9.972, df=1, p<0.05\]

Table 6.16 indicates a greater proportion of parents driving to school identified that safety influenced their decision to drive, compared with those walking with their children. Automobility responds to concerns regarding safety in public space by offering privatised forms of travelling, insulated from the external environment (Sibley, 1995a, Bauman, 1998), although chapter five has taken a more critical view on this. Children are socially constructed as innocent and vulnerable, requiring greater protection from the dangers of public space than other social groups (Valentine, 1997a, James, Jenks and Prout, 1998). This influences how children travel, making car use particularly appropriate for children.

Therefore whilst changing spatio-temporalities help to explain the increasing role of cars, there has been less debate within the new mobilities paradigm about how the social construction of childhood reconfigures these more general patterns of time space compression in particular ways for children. Whilst Massey specifically identifies place and gender as key features of a power geometry of mobility (Massey, 1993a), this research indicates how childhood represents another significant but so far overlooked set of power relations, which positions children in different ways to other social groups.

However, despite these examples, this is not to say that all families responded to these different concerns for children's safety by driving children to school and other places. In Village Bottom, despite high reporting of concerns for traffic, rates of car use on the journey to school were comparatively low (36%). These fears may have been partly overcome by a successful 'Safer Routes to School' programme (as discussed in more detail in chapter seven) which escorted children to school in safety. Common Green, despite higher than average reporting of fear of bullying, also had lower than average rates of car use for the journey to school (31%). Therefore, locally specific threats and
fears for children's safety influenced the use of cars for children's mobility in different ways in different contexts.

The research also identified how children of different ages were positioned differently within a power geometry of children's mobility. Younger primary school children (aged 4-6) were more likely to be driven to or from school (48%, n=173) than older children aged 7-11 (44%, n=282). Younger children were often seen as less competent or more vulnerable to risks than older children, and became more quickly tired than older children, and hence required chauffeuring by car. Older primary school children were also less likely to travel to school by car since they were less likely to be escorted to by an adult. By age 10/11, almost one third (32%, n=54) of children were able to undertake at least part of the journey to school unaccompanied, indicating that individual children's mobility is fluid and evolving since, over time, children were ascribed different competencies.

6.6 Preferences for cars and decision-making in the micro-political geographies of families

So far, the chapter has considered car use as a response to external factors, such as new spatial and temporal configurations generated by time space compression, or fears for children's safety. However, car use was not simply a response to these issues, but, as chapter five has identified, was also favoured by children as time to be with friends and family members and to play games and undertake other activities.

Almost a quarter (22%, n=121) of parents stated that given a choice, they would prefer to drive to school, and almost one third of children (31%, n=312) stated that they would prefer to be driven. These results highlight that some parents and children chose to travel by car, although chapter seven considers in more depth the range of responses to cars. However, when considering preferences for car use, it is necessary to explore whether children are involved in choosing how they travel, as table 6.17 illustrates:

Table 6.17 Children's involvement in making travel decisions

<table>
<thead>
<tr>
<th>Per cent of respondents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Child not involved</td>
<td>47 (n=473)</td>
</tr>
<tr>
<td>Child involved:</td>
<td>53 (n=533)</td>
</tr>
<tr>
<td>Mostly adult- some child involvement</td>
<td>40 (n=402)</td>
</tr>
<tr>
<td>Equal</td>
<td>13 (n=130)</td>
</tr>
<tr>
<td>Child decides</td>
<td>less than 1 (n=1)</td>
</tr>
</tbody>
</table>
Table 6.17 indicates that just under half (47%) of children taking part in the research were not involved in making travel decisions. Children explained how decisions were often made solely by adults:

If Mum needs to get somewhere, she says 'we're cycling', or 'we're going in the car', made the decision. (Shane, 9, Village Bottom, Bucks)

Sometimes Mum says 'we're going somewhere (by car)', and that's it'. (Sarah, 10, Village Bottom, Bucks)

That many families constructed timetables and schedules regarding car use without consulting children (Barker, 2003) mirrors existing research which found children were rarely involved in making decisions about attending other places, such as commercial playgrounds (McKendrick et al., 2000b). Once more it is possible to consider the micro-political geographies of families, as discussed in chapter five, which in many cases position parents as powerful to determine how children travel (Sibley, 1995a).

Children's lack of involvement was often due to their journeys forming only a small part of the wider complex spatial and temporal organisation of parents' lives. Some decisions such as where to live, work or to send children to school, all of which can influence how children travel, may be made several years prior to the present, maybe even before children were born, limiting the capacity for children to be involved in decision-making. Despite this, just over one half of the sample (53%) reported some degree of child involvement in travel decisions. Children described the extent of their participation:

It's usually Mummy... sometimes they ask what we would like to do, but it's usually them... they don't normally ask us. (Rachel, 7, Rural Hill, Bucks)

I don't know. Sometimes Mum says, 'we're going somewhere' and sometimes I say 'can we drive?' (Kylie, 10, Country Wood, Enfield)

However, table 6.17 indicates that 40% of respondents stated decisions were 'mostly made by adult, with some child involvement', with only 13% of families identifying that children participated as equals. This suggests that for children's mobility, as many other spheres of children's lives, there are limited opportunities for participation (Morrow, 1999, Alderson, 2002). Therefore, it is necessary to incorporate the micro-political geographies of families within a power geometry of mobility, since adults were often positioned as powerful to control children's mobility and make decisions regarding car use.
Although many parents did not explicitly invite their children to participate, children described their strategies for influencing outcomes:

Sometimes I sweet talk her into changing the way we do it. (Daniel, 9, Suburban Royal, Bucks)

These examples demonstrate that children were not passive family members who unquestioningly accepted decisions based upon generational power relations (Barker, 2003a). Where power is exercised, there are also opportunities for resistance and transgression (Foucault, 1977, Katz, 2003, Jenks, 2003). Children employed strategies for contesting and negotiating parents' decisions (Punch, 2001), illustrating children are social actors who make sense of, and actively contribute to, their environments (see Valentine, 1996, Holloway and Valentine, 2000a, Mayall, 2002). Children had a variety of strategies:

It's normally Mum (who makes decisions). But sometimes if we ask, we can go running or normally Mum and Dad say 'we're going for a walk', and we moan about it... Normally we give in, or normally we just get in the car. (Kathy, 9, Village Bottom, Bucks)

Children's actions represent attempts to transform how they travel. Siblings played a significant role in helping to contest the power of parents. As one girl highlighted:

They normally want us to walk, and my sister and me get annoyed and say 'can't we go in the car?' (Sarah, 10, Village Bottom, Bucks)

As discussed in chapter five, this indicates the influence of children's 'pester power', making alliances and repeatedly calling for specific outcomes. However, children were aware that their transgressive acts were not always successful:

You start off "I don't wanna walk" or "I don't wanna go in the car", but then you end up doing it anyway... We normally first say "I don't wanna walk" but then we do, because we can't be bothered to argue. (Jane, 10, Rural Hill, Bucks)

In some instances, children were successful at reorganising a single journey from one mode of travel to another. However, these challenges also identified children's limited power to transform how they travelled, particularly if children's journeys were embedded within a set of wider trip chaining movements. Furthermore, as discussed earlier, the local social, political and economic context means some families had more mobility options available to them, and more opportunity to enact children's wishes, than others.
Massey’s second level of a power geometry of mobility, concerning the power to initiate or control mobility, is relevant here (Massey, 1993a, Bridge, 1997, Johnston, 1997). Whilst some children had car dominated lifestyles, car use was often parents’ preference, rather than children themselves, who had little power to exercise intent or control over their own spatial mobility or how they travelled. Despite this, as social actors, children employed a wide number of strategies which commented upon, or contested travel decisions made by parents. This mirrors the evidence in chapter five which indicated similar power relations regarding the use of cars, which children also contested. However, Jenks comments that transgressive acts are situation specific, and that both their patterns and outcomes vary considerably across social spaces and times (Jenks, 2003). There were more opportunities for children to enact transformation of the spaces of cars than to change how they travelled to places, which was often embedded within wider processes, over which they had very little control or influence.

6.7 Chapter summary

This chapter responds to Massey’s question regarding what determines our (or in this case, children’s) mobility (Massey, 1993a). There was no one overall explanation for the increasing role of cars for children’s mobility. Several broad reasons were identified. There was some evidence that increased distances between key sites of childhood resulted in greater car use, particularly in some rural areas. However, this was not so for all locations, and there were significant differences within as well as between each place. Limitations of time combined with distance to create new spatio-temporalities which influenced how children travelled. Local fears for children, mostly concerned with traffic, stranger danger and bullying, were also significant. Also, due to reasons outlined in chapter five, some parents and children simply preferred to travel by car rather than other modes of travel.

Postmodern debates regarding time space compression and automobility were useful in explaining how the increased role of cars for children’s mobility is both a response to, and contributes to the reorganisation of space and time within postmodern societies (Urry, 2000). The work of Marxist geographers such as Harvey and others (Lee, 2002, Castree, 2004) had some resonance in exploring how capital structured these new spatio-temporalities. Car travel maximised children’s increasing role as consumers and, at a broader level, children’s travel patterns were also structured by wider rhythms, such as parental employment patterns generated by the local economic context. However, Marxist geographers have not explicitly focused upon the unevenness and diverse experiences of these processes, an issue which the chapter has used Massey’s concept of power geometry to explore.
Within the micro-scale examples of North London and Buckinghamshire, the research has indicated the specificity and particularity of individual places in differentiating the role of cars for children’s mobility. Place combined in fluid, complex, multi-layered and unpredictable ways with factors such as gender, social class and ethnicity, and the local labour market and planning context within a power geometry of children’s mobility, to differentiate the role of cars in children's lives. A power geometry has also indicated it is not sufficient to focus on levels of mobility, but also ability to initiate or control it. Some families had more power and choice over the amount of mobility or car travel they undertook. A relatively powerless location within a power geometry of mobility could leave children immobile or force them to undertake increased mobility (Urry, 2000, Kaufmann, 2002).

The chapter has also considered two limitations to Massey’s work. Although Massey explicitly identified place, gender and race as key components of a power geometry of mobility, my research suggests the need to incorporate childhood. General debates regarding time space compression and automobility are reconfigured in specific ways in relation to children. That cars are perceived as isolated and protected from the dangers of public space (Urry, 2000, Miller, 2001) is particularly powerful in defining car use as appropriate for children, who are seen as vulnerable in public space, due to spatially variable geographies of danger (Valentine, 1997a, 1997c). Adult-child power relations reconfigured general mobility experiences in specific ways for children. Children often had little power to initiate or control their own spatial mobility. However, children challenged this lack of involvement, highlighting that power was fluid, dynamic and subject to contestation and resistance. Despite this, the chapter has explored some of the limitations of children's agency to enact social change or transformation.

Secondly, whilst Massey never explicitly conceptualised power, this chapter has indicated how a postmodern conceptualisation of power is useful in explaining a power geometry of mobility. Power is not singularly located as the relations of capital, rather power is multi-sided (Soja, 1996), endlessly circulating and flowing through multiple layers of social relations (Philo, 1992a, Cresswell, 2004). Having considered the very diverse influences of cars upon children’s mobility, the thesis will now consider the different responses children offer to automobility.
Chapter seven— 'Are we there yet?': Responses to children's automobility

For those who have become so deeply attached to their cars and to the physical, cultural and emotional geographies that have become 'natural' within car cultures, how easy will it be to give up? (Sheller, 2004, p233)

7.1 Introduction

So far, the thesis has considered two key aspects of children's automobility. Chapter five has indicated that cars are increasingly important for children's spatial mobility, and explored how children experience the spaces of cars. Chapter six identified a number of reasons why children travel by car, including the spatial and temporal organisation of contemporary societies, spatialised fears which render children in need of protection from the dangers of public space, as well as preferences for cars compared with other modes of travel. The chapter used Massey's power geometry of mobility to indicate how the role of cars was uneven and differentiated, mapping significant socio-spatial variations in access to, use of, and reasons for, car use.

This chapter continues the debate regarding children and cars by considering the diverse ways in which children and parents responded to automobility. Whilst some families reproduced cultures of automobility, the chapter argues that the desirability of children's automobility was contested, by showing how other families problematised and challenged its dominance. The chapter also explores 'Safer Routes to School' programmes as an example of the UK government's response to automobility. Whilst such initiatives can reduce the number of children travelling to school by car, the research suggests they are also forms of regulation and social control, which problematise children's use of cars whilst leaving the system of automobility and the mobility of others unchallenged. In doing so, the chapter addresses research aim 4 to evaluate the effectiveness of 'Safer Routes to School' programmes as an example of UK government policy to discourage car dependency for children's spatial mobility.

7.2 Reproducing automobility

Many children's and parents' accounts demonstrated that cars were a key aspect of children's lives. As discussed in chapter six, almost one third of children (31%, n=312) stated they would prefer to be driven to school. When children exercise power within the micro-political geographies of families, it may be to choose cars over other forms of travel. This echoes the findings of similar research in Denmark:
Children report that they themselves initiate and organise their automobility. Not only do they go by car as a result of their parents wishes, they may themselves wish to go by car and manipulate events to make sure it happens. (Fotel and Thomsen, 2004, p540)

Indeed, that a greater proportion of children compared to adults (31%, compared with 22% of adults) wanted to travel to school by car demonstrates at least some children willingly engaged with, and reproduced automobility. Cars were embedded within children's lives not only as a form of everyday mobility, but also as status symbols and cultural icons:

Recently, we bought the Beetle, and I really like arriving (at school) in that. (Pete, 9, Rural Hill, Bucks)

Soon we are going to get a new jeep, a silver one called a Honda, it's got great seats like benches. (David, 7, Country Wood, Enfield)

Other research has commented on how cultural symbols such as toy cars and television commercials combine with everyday travel patterns to immerse children within automobility from an early age (Meaton and Kingham, 1998, Carrabine and Longhurst, 2002). Many children indicated their own aspirations for owning and driving cars when they were old enough:

Ranj (11, Common Green, Enfield): I want a car...
Ranj's Dad: ...I'm sure Ranj will want to drive, his (older brother) will want to start learning soon.

This reflects other research highlighting automobility is a key target for children when they become old enough to drive (Pilling et al., 1998, Mackett et al., 2004). One explanation for these aspirations of automobility relates to capital and the wider economic context. Young people, as new car consumers and drivers, are increasingly important niche markets within automobility (Featherstone, 2004). Media advertisements increasingly focus on cars as status symbols for drivers, but also for children as passengers, for example, the Toyota commercial described in chapter one. These advertisements address children simultaneously as future car consumers by increasing their aspirations for car ownership and use, and also their current experiences as consumers of, and within cars (as discussed in chapter five). Reproducing aspirations for automobility secures future markets for the interests of capital.

However, despite ever-more sophisticated media advertisements (Miller, 2001, Kneale, 2002, Fotel and Thomson, 2004), it is problematic to assume children and young
people's experiences and aspirations are structured entirely by economic determinism and the interests of capital. Cars are important cultural symbols linked with identity and belonging (Urry, 2004b). Young people's aspirations and anticipation to own and drive cars reflects that cars are seen as integral to adulthood and independence. For young people, cars often symbolise rebellion and freedom, as ways to challenge existing social structures rather than support them (Miller, 2001, Carrabine and Longhurst, 2002).

However, children's preferences were not uniform, as table 7.1 indicates:

### Table 7.1 Spatial variations in children's preference for travelling to school by car

<table>
<thead>
<tr>
<th>Location</th>
<th>Per cent of children preferring to travel to school by car</th>
<th>Per cent of children currently travelling to school by car</th>
<th>Time of year in which the survey was conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Hill</td>
<td>34 (n=56)</td>
<td>59 (n=98)</td>
<td>Sept</td>
</tr>
<tr>
<td>Village Bottom</td>
<td>26 (n=72)</td>
<td>36 (n=56)</td>
<td>October</td>
</tr>
<tr>
<td>Suburban Royal</td>
<td>42 (n=70)</td>
<td>53 (n=89)</td>
<td>November</td>
</tr>
<tr>
<td>Country Wood</td>
<td>32 (n=29)</td>
<td>57 (n=52)</td>
<td>February</td>
</tr>
<tr>
<td>Common Green</td>
<td>29 (n=89)</td>
<td>31 (n=96)</td>
<td>April</td>
</tr>
<tr>
<td>All locations</td>
<td>31 (n=316)</td>
<td>39 (n=391)</td>
<td></td>
</tr>
</tbody>
</table>

chi squared ($\chi^2$) = 13.044, df=4, p<0.011

chi squared ($\chi^2$) = 96.413, df=4, p=0.00

Table 7.1 demonstrates that a greater proportion of children in Suburban Royal and Rural Hill wanted to be driven to school compared with other places. Once more, it must be noted that these aggregated categories may render invisible diversity and differences within each location. The table indicates that the proportion of children preferring to travel by car was lower than the proportion who currently travel by car, suggesting some were not content with automobility (a point further explored shortly). Conversely, most (89%, n=476) of the children currently walking to school preferred to travel on foot.

However, one limitation of this data is that individual schools participated at different times of the year. Chapters five and six have already indicated how weather and the seasons influence travel patterns and, therefore, may also influence children's preferences for travel. For example, the greater proportion of children wanting to travel by car in Suburban Royal may, in part, reflect the time of year the study was conducted. Therefore, the data on preferences for travelling to school must be read with this limitation in mind. Furthermore, it was not possible (nor is it my place) to
assess how 'practical' these preferences may have been (for example, one child said he would prefer to travel to school by helicopter), given that children's mobility patterns are embedded within wider family lifestyles.

Differences in preferences for car travel can also be explained by spatial variations in the symbolic meanings children and families attached to cars (Garvey, 2004). As well the importance of local cultures of childhood, Dowling (2000) and Kearns and Collins (2003) note that in some places, local cultures of parenting promote car use as part of local expectations regarding 'good mothering'. For example, in affluent places like Country Wood and Rural Hill, many families had purchased large, people carriers:

I would like a big seater car... but (my partner) doesn't see why we should have a bigger car to ferry other people's children around... but it doesn't work like that, because we all (mothers) take turns (driving the children). (Kylie and Stephen's Mum, Country Wood, Enfield)

As well as a practical response to escorting larger numbers of children (as discussed in more detail in section 7.4), buying ‘a bigger car’ can also be seen as a response to powerful local ideological expectations regarding motherhood and automobility in this particularly middle class part of Enfield, where large 4x4s and people carriers were commonplace (Barker, 2003). Material objects such as cars can be used as status symbols to create and maintain social difference (Maxwell, 2001). Cars, and indeed certain types of cars, were seen as central to expectations of family life (Gershuny, 1993). As Tranter and Pawson note:

Parents may feel that they are expected to drive their children because that is what all the other parents are doing, and allowing their children to walk or cycle or play on the street may be seen as irresponsible parenting. (Tranter and Pawson, 2001, p37)

The examples in my research demonstrate that local ideological expectations may not simply define whether cars are required for 'good mothering', but also specify what particular types of cars may be acceptable. These ideological aspirations, in part, reflected the local socio-economic context. In Suburban Royal, a more deprived location, the emphasis was less on the model or size of car but rather its age. One child spoke of the status of being driven to school in a new car:

Yeah, (our car) it's a brand new car. (Tom, 8, Suburban Royal, Bucks, emphasis added)
As well as spatial variations in preferences for car use, there were also differences amongst children, for example, according to age, as table 7.2 illustrates:

**Table 7.2 Age and children’s preferences for travelling to school**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Per cent preferring to be driven to school</th>
<th>Per cent preferring to walk to school alone</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-6 year olds</td>
<td>35 (n=127)</td>
<td>26 (n=92)</td>
</tr>
<tr>
<td>7-11 year olds</td>
<td>29 (n=186)</td>
<td>53 (n=340)</td>
</tr>
</tbody>
</table>

chi squared ($\chi^2$) = 4.204, df=1, p<0.04

chi squared ($\chi^2$) = 70.627, df=1, p=0.00

Table 7.2 demonstrates that a greater proportion of younger primary school children preferred to travel by car, compared with older primary school children. Conversely, older primary school children were more likely to want to walk to school alone. There are multiple ways of reading this evidence. Whilst this might seem to counter the notion that children aspire for automobility as they get older, it may reflect that at the ages 7-11 children have greater aspirations for independent spatial mobility, since this aim can be realised long before children can become car drivers. There were no significant differences relating to gender or ethnicity.

As the following sections discuss, the dominance of automobility was challenged, and the role of cars was contested, in a number of different ways.

### 7.3 Concerns regarding automobility

Within the new mobilities paradigm (see Urry, 2000, Miller, 2001, Sheller, 2004), the dominance of automobility is often uncontested and unchallenged. However, automobility is an expression of power, and as earlier discussions have suggested, dominant and powerful processes always have contestations and resistances (Sharp *et al.*., 2000, Jenks, 2004). Therefore, this section considers some of the ways in which children and parents questioned and challenged the dominance of automobility.

A wide variety of problems were identified with car use, including the lack of exercise and subsequent impact on children’s health:

> I think we do an awful lot of car journeys and it's not setting up good habits for them. (Rebecca and David’s Mum, Country Wood, Enfield)

Coupled with other factors such as a general lack of physical exercise and increased food consumption, car use has been implicated in growing rates of childhood obesity and poor health (Hillman *et al.*, 1990, Armstrong, 1993, Mackett *et al.*, 2005, Osborne,
Mothers also expressed concern for children's social development, as children travelling by car were not seen to gain the necessary skills for independent spatial mobility:

I don't think it's good for them, we do not do them any favours at all. There is a time when they will have to come to terms with doing it (travelling) by themselves. (John's Mum, Rural Hill, Bucks)

In a way, they are so independent in so many ways, they do so many wonderful things now, so many opportunities, but the simple things like walking on their own, they can't do. (Shane and Graham's Mum, Village Bottom, Bucks)

Mothers were positioned within contradictory ideological expectations of parenting. Whilst it may be seen as 'good mothering' to escort children, mothers expressed concern this may also be poor parenting since it also prevented children obtaining basic spatial skills. There is a lack of consensus among researchers of the impact of increasing car use upon the development of children's spatial skills (Joshi and Maclean, 1999, Tranter and Pawson, 2001, Depeau, 2001). The increase in road traffic accidents involving children aged 11/12 during their first term of secondary school is often accounted for by inexperience, since for many it is the first time they travel to school unaccompanied by an adult (Kegerreis, 1993). In addition to the impact on children, mothers also problematised children's car use for the effect on those undertaking the escort:

I don't want to be this person who spends their whole life ferrying their children around. A lot of Mums spend an inordinate amount of time doing that (Jane and Rachel's Mum, Rural Hill, Bucks)

These accounts demonstrate that many parents were ambivalent towards automobility (Gershuny, 1993, Beckmann, 2001). Children's responses also suggested ambivalence, raising concerns about car use, particularly in relation to environmental impacts:

We don't like the pollution, so we try a lot to go by walking or something. (Pete, 9, Rural Hill, Bucks)

I never realised, but if one car drives for one hour, it takes four big trees to get rid of the pollution. (Kylie, 10, Country Wood, Enfield)

The environment and environmental issues have been identified as important to many children and young people (Depeau, 2001, Tranter and Pawson, 2001). Children's ambivalence towards automobility has also been found in other research (Fotel and Thomsen, 2004). The accounts of parents and children in my research are reminiscent
of 'reflexive automobilisation', which Beckmann (2001, p598) describes as a shift in attitudes towards more thoughtful recognition of the problems of automobility than previously. Many respondents stated they would prefer fewer car journeys. Seventy eight per cent of children and 80% of parents stated that they would prefer their child to walk to school. Furthermore, many parents stated driving to school was not an easy option, as table 7.3 indicates:

Table 7.3 Reported ease of mode of travel to school

<table>
<thead>
<tr>
<th>Mode of Travel</th>
<th>Per cent reporting mode of travel as 'easy'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving to school</td>
<td>29 (n=112)</td>
</tr>
<tr>
<td>Walking to school</td>
<td>42 (n=223)</td>
</tr>
<tr>
<td>All modes</td>
<td>35 (n=349)</td>
</tr>
</tbody>
</table>

chi squared ($\chi^2$)=16.454, df=1, p=0.00

Table 7.3 demonstrates that a greater proportion of those walking to school found the journey easy. Respondents identified that traffic congestion made driving to school difficult and stressful:

(A picture of) awful traffic... awful traffic... more awful traffic. (Charlie, 6, Rural Hill, Bucks)

We were late for school for about three days, because they dug a hole in the road and they put... we had to wait in a traffic jam for a long time. (Gill, 10, Village Bottom, Bucks)
In addition to traffic congestion on the journey to school, another problem was parking near schools:

But, it’s not hell getting to school, it’s hell trying to park when you are there, and trying to get across the road. (Charlie and Pete’s Mum, Rural Hill, Bucks)

This afternoon, because it was raining, the school was absolutely packed with cars, a lot of cars up there. It is just a nightmare, a real nightmare.... Nobody up there abides by the road markings, it’s a real nightmare. They don’t pay any attention. (Tom’s Mum, Suburban Royal, Bucks)

Other examples of photographs documenting traffic congestion and parking problems can be seen in figures 10.8 and 10.9 in appendix 10.12. Parents of children with disabilities were particularly critical of other parents driving their children to school. One parent described in the questionnaire survey how, although it was easier for her to drive her disabled child to school, she is forced to walk with her:

...driving would be impractical, as there is no suitable parking, despite the fact I have a disabled badge and school parking permit- due to the selfish parking of other car users. (Mum, Suburban Royal, Bucks)

These accounts suggest that car based lifestyles of automobility may neither be easy nor straightforward. Respondents were also aware that lifestyles involving cars could often create car dependency. As explained in chapter six, a greater proportion of drivers (36%, n=139) stated they had no alternative to their current mode of travel to school, compared with 13% (n=73) of walkers. Rather than offering freedom and flexibility, automobility can be seen as submission to wider processes, such as the demands of capital for greater circulation and mobility (Harvey, 1989). Whilst cars gave new opportunities for disabled parents or children to access services and participate in everyday events, these parents also expressed a preference not to drive, highlighting that cars can be simultaneously enabling and restricting:

Wendy is much more keen to walk, she sees it as weight control. If it wasn't for my disability we would walk a lot more. (Wendy’s Mum, Rural Hill, Bucks)

However, although many families identified problems with automobility, many felt powerless to challenge it. As one parent commented:

I don't think we make decisions, it's just what we do. There isn't another alternative. (Anushka’s Mum, Village Bottom, Bucks)
The feeling of powerlessness is a finding which supports the conclusions of other research, such as Maxwell (2001), and others:

Even though some parents perceive it to be a pity that children are ferried around, they also feel powerless towards what we have termed as the auto logic (automobility). (Fotel and Thomsen, 2004, p546)

Therefore, due to a perception of a lack of alternatives, some families submit to automobility. However, submission to structures of automobility still requires a decision to actively choose to drive, which in turn contributes to the reproduction of these dominant power structures (Tranter and Pawson, 2001). However, a postmodern conceptualisation of power argues that as well as creating dominance, power can also be productive, generating contestations and resistances. The remainder of this chapter considers the extent to which alternatives to cars, including different lifestyles adopted by families, and SRS programmes may be seen as challenges to automobility.

7.4 Alternatives to automobility: individual lifestyles

Although automobility is increasingly seen as dominant, the previous section has highlighted some ambivalence towards it (see also Hillman et al., 1990, Whitelegg, 1997, Beckmann, 2001). In addition to questioning automobility, some families took practical steps to avoid or limit car use. Whilst the evidence has shown the significant role of cars in many children's lives, one must be careful not to overemphasise their importance. For the sample as a whole (although only for two specific schools, as patterns of car use were uneven) more children walked to school (53%) than were driven (37%), reflecting the national trend (see DfT, 2005). At least two families participating in the qualitative research had made a conscious lifestyle choice to not own cars:

No, I have never driven, I don't want to drive either. For environmental reasons. There are too many of them (cars) about, especially in London. (Daphne's Dad, Common Green, Enfield)

This suggests economic explanations for non-car ownership, such as a lack of access to capital, as discussed in chapter six, were not always sufficient. A number of families were motivated by environmental concerns or social attitudes, rather than economic circumstances, to eschew car ownership or reduce car use. Hence some parents contested dominant local cultures of parenting which promoted car use. Just as others had assembled lifestyles organised around car use, some families had planned their everyday lives without cars or to limit car use:
I bought this house with the intention that they should walk to school, I think they should be able to walk there. (Kylie and Stephen's Mum, Country Wood, Enfield)

Since we moved here, a lot of things we used to do by car, we can now do on foot. (Gill and Sarah's Mum, Village Bottom, Bucks)

Photographs taken by children to show their experiences of public transport can be seen in figures 10.10 and 10.11 in appendix 10.13. These examples demonstrate not everyone unquestioningly reproduced or supported automobility. The lifestyle choices of these families can be seen as examples of growing environmental concerns within contemporary postmodern societies (Johnston et al., 2000, Jones, 2004). Kaufmann (2002) identifies these groups as ‘civic ecologists' (p71), defined as those whose values centre around the environment and who distance themselves from automobility.

Beckmann also describes a similar group:

...who conceives of spatial mobility as a social rather than a technical issue; acknowledges the ambivalence of reflexive automobilisation; views ecological issues as central; ...he or she recognises alternative means of transportation; questions traditional expertise and provides possibilities for changing mobility conduct. (Beckmann, 2001, p604)

Kaufmann (2002) acknowledges that civic ecologists are in the minority, and indeed they represented only a minority of families in my research. A more practical and commonplace way in which families reduced car use was through car sharing. Over one quarter (26%, n=75) of parents driving their children took part in car sharing. As one mother commented:

If there's a party, then we always share the driving, always. (Rebecca and David's Mum, Country Wood, Enfield)

Car sharing was seen both as a way of reducing time pressures for mothers, as discussed in chapter six, through sharing the task of escorting children (McKenzie, 1989, Dyck, 1990), but also as a way of reducing pollution through limiting the number of cars used for children's journeys. Whilst this does not challenge the dominance of automobility per-se, it does help to reduce congestion, and indicates a shift from privatised to collective forms of automobility (Urry, 2004b).

These contestations and alternatives have significant implications for the work of Urry (2000) and others on automobility. Urry has incorporated social agency into debates regarding automobility in terms of how individuals choose to adopt and adapt to automobility. However, my research raises the wider issue of social agency in relation to whether people want to adopt these contemporary processes. The lifestyle choices
to avoid or reduce car use highlights a postmodern perspective on power, that where there are exercises of power such as automobility, power is not simply repressive but also productive (Foucault, 1980b). There are always opportunities for individuals to challenge and contest existing power relations (Harvey, 2000, Nash, 2001), although as chapter six has discussed, the ability to achieve this is often dependent on broader factors, such as the availability of alternative options, such as public transport.

However, there are limits to which these can be seen as alternatives to automobility. These contestations make visible complex power relations and the limits of individuals to enact social change. As Philo (1992a) states:

Geometries come alive and become energised by the real, everyday struggles that people face when seeking to negotiate their way around (often actively unhelpful) geographies of production, reproduction and consumption. (Philo, 1992a, p156)

These challenges to automobility were often enacted by more affluent families, who, according to Massey's second level power geometry of mobility, have more power to control and initiate their mobility patterns than lower income groups. Also, whilst children and parents contested automobility, chapter six has shown how unequal adult-child power relations resulted in children having limited involvement in decisions regarding their travel or power to successfully contest parents' decisions. Whilst car sharing may be a challenge to automobility, chapter five has indicated it was sometimes imposed on children rather than suggested by them. Car sharing re-enforces cars as the dominant form of travel, and does not challenge the automobility of others. Moreover, the associated reduction in congestion may simply make it easier for others to travel by car.

Furthermore, although some families did not own cars, the wider system of automobility still impacted upon their lives. Increased car use results in infrastructural changes by which facilities for children, such as commercial playgrounds, are increasingly situated on major roads and out of town centres, which are often only accessible by car (Hamilton and Jenkins, 1992). For example, in Country Wood, respondents identified that it was necessary to travel several miles to local town centres which had facilities for children. Similarly, in Suburban Royal, parents stated that aside from parks and open spaces, there was little for children in local area. Parents had to travel three miles to the centre of town to access facilities for children. Also, as chapter six has argued, car use helps to form a barrier of traffic which prevents other children from walking to school or playing in public space in their own locality (Davis and Jones, 1996, Valentine, 1997a, Joshi et al., 1999, Tandy, 1999). As Beckmann comments:
The car system has further stratified societies and polarised geographies. To access and use certain areas in and outside the city, the car is often crucial. Only if I own and drive an automobile can I conquer the 'car-only-sights' of suburban shopping malls and peripheral theme parks. At the same time that the car provides access to certain spaces, it prohibits non-drivers from taking part in different spatially bound activities. (Beckmann, 2001, p598)

That non-car owning families are influenced by the wider system of automobility illustrates its power, and the limits of individuals to contest these exercises of power. For non-car owning families, power is contradictory, since it is simultaneously both positive and enabling, but also oppressive. As Allen comments:

> It is possible to convey power as something which works on subjects as well as through them- at one and the same time. (Allen, 2003, p65)

This highlights the limitations for these families to try to enact change. Harvey states that changes in personal behaviours and lifestyles are not sufficient for wider societal challenges and transformations to occur. Rather there is a need for more collective action (Harvey, 2000). Having explored the complexity and ambiguity of families' responses to automobility, the rest of the chapter considers SRS programmes as a more collective and institutional response to cars.

### 7.5 Alternatives to automobility: 'Safer Routes to School' programmes

#### 7.5.1 Introduction

Whilst individual families have responded to automobility in a number of ways, policy makers within local and central government have developed a variety of initiatives in response to growing traffic congestion associated with automobility. This section considers SRS programmes as one example of these initiatives. It identifies a geography of SRS programmes, as initiatives need to be individually tailored to specific contexts. This section also provides a broader critique of SRS programmes, identifying how they are ambiguous processes. Whilst they offer an alternative mode of travel and can reduce congestion at the school gate, this section discusses how they are also sites of power relations, in which adults regulate and control children and their mobility, whilst leaving the mobility of others unproblematised.

#### 7.5.2 The geography of 'Safer Routes to School' programmes

The 'new realism' in transport policy has led to a shift from accommodating increasing levels of traffic towards initiatives focusing on demand management (Meaton and Kingham, 1998). A number of government policy initiatives responding to traffic
congestion, including Home Zones and Travel to Work Plans (see Biddulph, 2001, Rye, 2002) influence, either directly or indirectly, the lives of children. This research focuses upon SRS programmes as one example of policy responses to automobility.

Whilst increasingly adopted throughout many western, industrialised countries, such as New Zealand, Australia, the United States and countries in mainland Europe (Bradshaw, 1999, Kearns and Collins, 2003, Mackett et al., 2004), it is important to note SRS programmes are developed at the national and local scale to reflect different contexts and the specificities of place (Mol and van den Burg, 2004). Once more, this echoes a postmodern focus on the particularities of place and the importance of the local in reconfiguring larger scale processes. At the time of the research, each of the five schools participating were at different stages of developing a 'School Travel Plan' to reduce congestion at the school gate. Three schools had walking buses, whilst four had park and walk schemes. In one school, the 'Going for Gold' scheme gave rewards to children for walking a minimum distance to school. Participation in these initiatives were not uniform, as table 7.4 demonstrates:

**Table 7.4 Participation in initiatives to reduce congestion at the school gate**

<table>
<thead>
<tr>
<th></th>
<th>Participation in 'Safer Routes to School' programmes</th>
<th>Per cent of car drivers taking part in informal car sharing**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per cent taking part in at least one initiative</td>
<td>Per cent taking part in walking bus</td>
</tr>
<tr>
<td>Rural Hill</td>
<td>31 (n=51)</td>
<td>22 (n=36)</td>
</tr>
<tr>
<td>Village Bottom</td>
<td>19 (n=54)</td>
<td>5 (n=15)</td>
</tr>
<tr>
<td>Suburban Royal</td>
<td>14 (n=24)</td>
<td>0</td>
</tr>
<tr>
<td>Country Wood</td>
<td>36 (n=33)</td>
<td>22 (n=20)</td>
</tr>
<tr>
<td>Common Green</td>
<td>10 (n=30)</td>
<td>0</td>
</tr>
<tr>
<td>All locations</td>
<td>19 (n=192)</td>
<td>7 (n=71)</td>
</tr>
</tbody>
</table>

*out of sample of 391 car drivers
**out of sample of 391 car drivers, although 5 non-car drivers also took part in car sharing
***Question was added to the survey after the pilot

Table 7.4 indicates that whilst almost one in five respondents (19%) participated in at least one initiative, this varied across locations. Whilst 10% took part in Common Green, this rose to over one third of families (36%) in Country Wood. Overall, 7% took part in a walking bus, increasing to 22% of respondents in Rural Hill and Country Wood. Fifteen per cent of car drivers participated in park and walk schemes, rising to 41% in Village Bottom. Table 7.4 also demonstrates the popularity of car sharing, with over one quarter (26%) of car drivers taking part.
The popularity of these initiatives suggest they may be successful in offering an alternative to cars for the journey to school (see also Collins and Kearns, 2001, Kingham and Donohoe, 2002, Kearns et al., 2003). However, my research cannot identify a causal relationship between these initiatives and changes in mode of travel, as the surveys were a snapshot in time rather than an attempt to record modal shift over a longer period. Other research suggests that these initiatives can lead to a reduction in car use of between 23% and 50% (Mackett et al., 2004, Osborne, 2005).

The following sections consider in more depth the geography of SRS programmes, identifying how specific solutions were appropriate for each individual school. These sections are structured to discuss how SRS programmes respond to and counter the different factors which, as chapter six has shown, influence decisions for car use.

7.5.3 The spatial organisation of children's lives
Chapter six identified a complex relationship regarding distances between key sites of childhood, such as home and school, and the role of cars. Schools designed individual STPs to be accessible for specific catchment areas, and to respond to diverse travel patterns for those travelling different distances. For example, Rural Hill had a very successful walking bus, designed both for children living in the village and also for those from elsewhere. Starting the walking bus from a large car park at the end of the village enabled those driving from the surrounding countryside into the village to drop their children off to use the walking bus.

Conversely, the popular walking bus in Village Bottom was primarily used by children living in the village. Families driving from the surrounding countryside were encouraged to drop their children off at a park and walk site (a car park half a mile from the school) on the other side of the village, which was very popular amongst car drivers. The older age of these children, combined with a relatively safe route with wide pavements and relatively light road traffic meant many of these children walked to school with their friends without adult escort, as part of the 'Going for Gold' scheme. At the time of the research, Suburban Royal was beginning to consider which schemes might be most appropriate for the local area.

Reflecting that national policies are reinterpreted at the local level, the London Borough of Enfield did not promote some of the initiatives endorsed by Buckinghamshire County Council. Due to concerns regarding children walking to school unaccompanied, park and walk schemes were not seen as appropriate for the streets of North London. In Country Wood, a very successful walking bus was designed for families living in the village. Many driving into the village from the surrounding areas took part in car
Sharing. Highlighting that STPs and SRS programmes are not always successful, in Common Green, one of the two walking buses had just ceased operation, due to lack of volunteer escorts (a point returned to shortly).

7.5.4 The temporal organisation of children's lives
As discussed in chapter six, time constraints and other commitments of children and parents influenced the use of cars for children's mobility. SRS programmes offered time savings for parents. Rather than having to escort children to school for 9am, walking buses enabled parents to safely drop their children off earlier, saving time:

They just drop them off. Which I think is the main idea really. Drop their children and off they go. I find that useful when I have to be somewhere, all I do is say goodbye to them at 8.40 and off I go, that works quite nicely. (Angel's Dad, walking bus co-ordinator, Country Wood, Enfield)

Some mothers did say how it was good, how they appreciated it, they could leave their child knowing that their child is off to school and then they can go off and do their own thing. (Ranj's Mum, Common Green, Enfield)

SRS programmes responded to the complex, fluid and changing rhythms of families' travel patterns, as families did not have to commit to using schemes everyday, but could use initiatives as and when they could be fitted around different activities or timetables. Most schools had more than one initiative, to increase flexibility to respond to these diverse and changing travel patterns. These points suggest there was no single, simple solution for congestion generated by the journey to school. Paradoxically, as section 7.5.7 explores in more detail, whilst these initiatives offered time gains for parents, they also required commitment by parents, since schemes were planned, co-ordinated and run entirely by parent volunteers (Mackett et al., 2004).

7.5.5 Spatialised fears for children's safety
As discussed in chapter six, fears for children's safety were key factors influencing the use of cars for children's travel (see also Hillman et al., 1990, Valentine, 1997a, O'Brien et al., 2000). Successful SRS programmes needed to engage with and respond to these fears, providing different strategies to reflect local geographies of fear. In Village Bottom, the school supported the Going for Gold scheme, due to the relatively quiet roads around the school and the large numbers of older children wanting to walk together from the park and walk site. However, other schools were not willing to promote such a scheme, arguing that encouraging children to walk unaccompanied by adult escort along main roads would place them at risk. Once more, this highlights a geography of danger, as some places are seen as more hostile or unsafe for children (Valentine, 1997a, Dowling, 2000).
The walking bus initiative was seen as more effective in responding to contemporary concerns regarding children's safety. Walking buses employed strict adult-child ratios, were insured, and each adult volunteer undertook training and a Criminal Records Bureau (CRB) check. Attendance on the bus had to be pre-booked at least the night before, specifying a pick up point and time. It was compulsory for children to wear tabards, clearly identifying them as members of the bus, although section 7.5.8 below discusses this was not always popular with children. In this way, these initiatives were able to address parental concerns regarding children's safety, as one co-ordinator commented:

There's the safety aspect... safety comes first and you have to be firm with them (the children). (Angel's Dad, walking bus co-ordinator, Country Wood, Enfield)

7.5.6 Preferences
SRS programmes needed to be attractive to children and parents to counter the appeal of travelling by car, and challenge expectations of automobility. Organisers of walking buses developed different activities to encourage children to participate:

They have Father Christmas, the Easter Bunny, they come on the walking bus. (Helen, 8, Country Wood, Enfield)

Dogs were also a popular feature on the walking bus:

Figure 7.2 Photograph of dogs

Rebecca, 6, Country Wood, Enfield

Some parents got a bit funny about that at the beginning, some of the dogs are big, very soppy but big. Some people were worried about that, but the
kids love it. A new puppy has just joined and they love it. They are good with their dogs. (Rebecca and David's Mum, Country Wood, Enfield)

Another child took photographs of cakes donated to the walking bus by a local shop supporting the initiative:

Figure 7.3 Photograph of cakes

Stephen, 7, Country Wood, Enfield

A co-ordinator of the walking bus explained the different activities:

We've tried lots of things with them to keep them interested, like bringing along the dogs, there are 3 or 4 dogs on the bus some days, also trying stickers, at Christmas Santa Claus comes along the bus. We have found that that works. Children who are not even registered on the bus turn up on that day. (Angel's Dad, walking bus co-ordinator, Country Wood, Enfield)

Hence initiatives to persuade families to change mode of travel to school needed to be interesting and engaging for children. However, as discussed in section 7.5.9 below, there are multiple ways of interpreting this data. Whilst it may represent the development of a children-centred approach to transport planning, these activities were organised by adults rather than children. 'Keeping children interested' can be seen as an exercise of power by adults.

Children enjoyed walking buses when they enabled them to spend time with friends and siblings:
Yeah, walking on the walking bus, coz you can be with your friends. (Stephen, 7, Country Wood, Enfield)

You can chat to your friends... And you walk. And it's fun. (Rachel, 7, Rural Hill, Bucks)

Kearns and Collins (2003) also argued that camaraderie and friendships were central to children's enjoyment of walking buses. Friendships are also key to children's experiences elsewhere, and, as discussed in chapter five, both the opportunities to spend time with friends and to participate in enjoyable activities were key features of children's experiences of the spaces of cars. Therefore, in some respects children may have been less concerned with individual modes of travel per-se, than whether they afforded opportunities to spend time with friends or take part in enjoyable activities (Tranter and Pawson, 2001).

Whilst Kearns and Collins (2003) identify that walking buses helped to generate friendships between children of different ages, my research questioned this, as many older primary school children did not enjoy spending time with younger children:

I don't like it (the walking bus) because of the younger children. (Pete, 9, Rural Hill, Bucks)

Actually, they (older children) do have to walk slower (on the walking bus). If you have an escort at the front and another at the back, you can't have the older ones going on ahead. I think they find it quite hard to slow down and wait. (Shane and Graham's Mum, Village Bottom, Bucks)

Some of the little children are slower. With the crocodile trail, we have a range of ages, he's at the top end. I don't think... in a term or two I think he will be walking to school on his own. (Ritchie's Mum, Village Bottom, Bucks)

This relates to a broader point that different initiatives were popular for different age groups of children, as figure 7.4 indicates:
Figure 7.4 demonstrates that walking buses were most commonly used amongst younger primary school children, and used less by older primary school children, as the children explained:

There’s nobody in year 5 who does the crocodile, I think it's mostly, mainly key stage 1 do it, but key stage 2 can do it if they want to as well. (Gill, 10, Village Bottom, Bucks)

I can't see the point of it for older children, maybe small ones. (Anushka, 10, Village Bottom, Bucks)

Older children stated the reason for walking buses, to accompany children to school safely, was more relevant for younger primary school children rather than themselves. As one child explained:

When you are older, you have more responsibility, so you can walk. But the little children, they have adults there, so they can walk and be safe. (Kathy, 9, Village Bottom, Bucks)

For many older primary school children, the walking bus was seen as babyish:

I don’t think they like to walk with lots of Mums, I think they like to walk on their own... I can see that year 6 children might think it babyish because they are the biggest in the school. (Jane, 10, Rural Hill, Bucks)

Thus, both the rationale for walking buses and the expected behaviour, for example, walking in twos and holding hands, were seen as more relevant for younger children and less appropriate for older primary school children. By contrast, ‘Going for Gold’,
encouraging children to walk by offering rewards for number of walking journeys completed, was seen as more appropriate for older primary school children:

Going for Gold is more for the older children, because they can walk by themselves. (Lydia, 9, Village Bottom, Bucks)

These age-related preferences for specific initiatives can be linked to the wider ways in which childhood is structured and experienced according to age. Schools structure and reproduce important age distinctions (Alderson, 2000a). Children, in my research, appeared to be reproducing these age segregations, choosing to spend time with their own age group, a process found in other childhood spaces and contexts (James, Jenks and Prout, 1998, Smith and Barker, 2000b).

Parents and children also identified the health benefits of SRS programmes:

It was good, because if you hadn’t gone to school, if you’d always gone by car, you could get some exercise. And also it made less pollution. (Ranj, 11, Common Green, Enfield)

Psychologically I find it better taking a different way of getting to school (not driving). If you get uptight with the children, and because the journey is hectic, you carry on nagging at them, and they go into school, and you haven’t really made up, you’re still uptight. But if you cycle or walk, by the time you have got across that field, to the stile, it’s all sorted. A bit of fresh air. You get in such a better mood. And it’s better for them. So we would prefer to do it more. (Charlie and Pete's Mum, Rural Hill, Bucks)

Once more, as already discussed in chapter five and six, weather also influenced preferences for SRS initiatives. Walking buses were not popular when it rained:

When it's all wet and chucking down, the walking bus still went on, so we did that. (Kylie, 10, Country Wood, Enfield)

When it rained many children preferred to be driven to school. As chapter five discussed, a key feature of cars was their ability to offer protection from the weather. One walking bus co-ordinator explained the implications of this for the walking bus:

When it rains, people are reluctant to walk, and they easily drive... but the idea of walking is to ensure that we don’t have the congestion problems at the school. If we all jump into the car when it starts to rain, we might as well forget the walking bus. (Angel's Dad, walking bus co-ordinator, Country Wood, Enfield)

On a wider level, one parent commented that, as well as encouraging individual families to change mode of travel from cars to walking, SRS programmes had a wider effect upon local cultures of parenting and challenged expectations regarding car use:
Since the crocodile started, (parents) see, it's peer group pressure, it has encouraged a whole lot of people to walk who are not participating in the crocodile. A lot of parents do what I do, they drop their child off further away from school than they used to. That's one of the positive benefits of the school crocodile. It's very good. (John's Mum, Rural Hill, Bucks)

Harvey (2000) comments that in order to enact transformative social change, the momentum must be greater than individual families simply changing their lifestyles. The accounts in my research suggest that these programmes may be helping to challenge wider cultural expectations regarding children's travel. Whilst there are powerful expectations for automobility, these examples demonstrate these are not inevitable and can be contested.

This section has also highlighted a geography of SRS programmes, as multiple and flexible solutions are needed to respond to specific local contexts and local needs, including differing travel distances, timetables and commitments and concerns for children in different places. However, whilst these examples identify the possibilities for these initiatives to reduce car dependency and challenge the dominance of cars for children's mobility, the remaining section of the chapter considers more critically these policies and discusses some of their limitations.

### 7.5.7 Responsibility for 'Safer Routes to School' programmes

Whilst SRS programmes have been introduced by the UK government, and promoted and facilitated by local authorities, in each school they were (with the help of a local authority officer and headteacher) planned, co-ordinated and run by parent volunteers. One co-ordinator explained the significant levels of commitment and dedication needed:

> At least one day, every week, or every two weeks, a parent from a family on the walking bus should be a driver. It think it's important, so their children keep interested in it. If the parents don't show an interest, then neither do the children. (Angel's Dad, walking bus co-ordinator, Enfield)

Volunteers were not only needed as adult escorts, but also as co-ordinators, who undertook a wide variety of marketing, planning and other administrative roles:

> So we then set up a committee of the escorts, to run the crocodile trail. We both go along to the meetings, and there are six of them doing the work that the two of us used to do. They find it hard! I think it's some reflection of how much work it really takes. (Ritchie's Mum, walking bus co-ordinator, Village Bottom, Bucks)
Some parents were able to fit in their volunteer work for the walking bus with their other commitments:

I think the people who can get involved in it are people like us, we both have shift work, so we are often off at that time of day, as opposed to other people rushing off to work. So it was relatively easy for us. (Angel's Dad, walking bus co-ordinator, Country Wood, Enfield)

One benefit of such a voluntary, community led activity was to give ownership and control to parents and other community members, rather than being imposed by external officials (Kearns and Collins, 2003). Such a model of volunteer community involvement is by no means limited to SRS programmes, but reflects a more general movement in civil society towards the involvement of different stakeholders and other non-state actors in the delivery of local services (Hart, 1997, Theodore and Peck, 1999, Mol and van den Burg, 2004). However, one consequence of this was the difficulty of securing involvement amongst parents (Kearns and Collins, 2003). One parent explained how, although she thought the walking bus was a good idea, she was unable to volunteer as an adult escort:

...a lot of the Mums have gone back to work. It's a commitment, they might not have the time to do it. Because the whole thing with the crocodile is that you have to take your turn, you don't just dump your children and go to work. You have to be part of the whole thing. That is what has stopped me from doing it. I think it's a lovely idea. I think it's very sociable. (Jane and Rachel's Mum, Rural Hill, Bucks)

It is a paradox that SRS programmes offered parents time savings for their journey to work, but also required a time commitment to ensure regular and continued operation. As well as requiring time, initiatives needed local stakeholders with appropriate levels of confidence and skills to develop and manage schemes. The search for volunteers was constant:

The crocodile is brilliant, but it doesn't run itself. Children grow up, leave and there are new children who come in who need to be trained, and it's the same with parents, you need to top up the number of escorts. (Ritchie's Mum, walking bus co-ordinator, Village Bottom, Bucks)

The problems of recruiting volunteers was most acutely felt in Common Green, where a walking bus had recently ceased operation due to a lack of volunteers. Problems in recruiting appropriately skilled volunteers with free time is by no means limited to SRS programmes, but is also experienced in recruiting parent governors and other voluntary school helpers (Thody, 1998) and those running out of school care (SQW and OSCRU, 2003). This tends to result in the most viable community initiatives being located in
more affluent areas, where parents from professional occupations may have the skills and determination to develop schemes (Kearns and Collins, 2003). Furthermore, walking buses were mostly, but not exclusively run by women, reflecting their wider responsibility for organising and undertaking the escort of children (Dowling, 2000).

That the responsibility for organising and implementing local transport policy falls to groups of parent volunteers can be seen as shifting the burden from dealing with some of the disbenefits and excesses of automobility from central or local government, or businesses to individual families. Parents are given the responsibility of tackling congestion, although fewer than 1 in 5 cars on the road at 8.50am is involved in the journey to school (DfT, 2005). Although these initiatives were run entirely by volunteers, these schemes were still subject to the same legal requirements, such as insurance, CRB checks, adult-child ratios, as those employed by schools. As the next section discusses, this can be seen as an extension in the disciplinary gaze of schools and associated regulatory mechanisms (Kearns and Collins, 2003).

7.5.8 'Safer Routes to School' programmes as institutional regulation and control
Kearns et al. (2003) describe walking buses in New Zealand as deeply ambiguous, since whilst such initiatives offer a space of agency and resistance to automobility, they also represent a form of social control. Similarly, I found SRS programmes in the UK to be forms of social control, and exercises of power which challenged children's automobility. Regulation and control can take many different forms. One of the most visible manifestations of social control was the use of bright yellow tabards, which children were required to wear for health and safety purposes:

They make sure people can see you and so (adults) know who is on the walking bus. (Helen, 8, Country Wood, Enfield)

The tabard is the most essential item, for us to identify the children and also we keep a register, when we start and when we reach school, to make sure we haven't lost anybody. It's a lot easier when they are wearing the tabard, counting numbers and all that. and there's the safety aspect. (Angel's Dad, walking bus co-ordinator, Country Wood, Enfield)

However, most children disliked wearing tabards:

I always forget them and they fall off... If I didn't have to wear a tabard, then it (the walking bus) would be brilliant. (Charlie, 6, Rural Hill, Bucks)

They are... I find it quite hard to put it on. Someone has to help you... It takes half an hour trying to put in on, after an hour I go 'yey'. (Stephen, 7, Country Wood, Enfield)
Most children said the tabards set them apart from other children:

They don't like wearing the tabards... we have found that year 5 and year 6 are reluctant to wear them, because they are not cool. (Angel's Dad, walking bus co-ordinator, Country Wood, Enfield)

When you get to school, you look really funny wearing it. (Gill, 10, Village Bottom, Bucks)

These comments indicate the importance of image to children and the desire not to stand apart from peers (Kenway and Bullen, 2001). Whilst tabards were ostensibly a means of protection for children, they also acted as a form of social control, marking these children out as different, a process they found uncomfortable. The example of tabards, and of children having to hold hands and walk in twos on the walking bus, is reminiscent of Foucault's discussion of power and the regulation of bodies, describing:

The body as object and target of power... (through) the attention paid to the body, it is manipulated, shaped, trained. (Foucault, 1977, p136)

Foucault discusses that it is through these minute exercises of power that control is enacted (see also Prout, 2000a). This is but one example of how walking buses mirror other contemporary institutional spaces of childhood, such as schools and after school activities (Holloway and Valentine, 2000a), as spaces for adult control and surveillance over children. Walking buses also reinforce adult authority and the notion that children are too vulnerable to access public space without adult escort, as Kearns et al., 2003 comment:

While a development like walking school buses can lead young people to find a voice and express agency, it can also be a form of social control, or discipline in the Foucauldian sense. Thus for all Walking school buses may offer children a desirable alternative to car travel, they are dependent upon parental surveillance and are subject to adult-imposed rules. Indeed, they can be interpreted as substituting one sort of chauffeuring (driving) for another (walking). (Kearns et al., 2003, p287)

As mentioned earlier, the requirement for parent volunteers to comply with legal requirements demonstrated it was not only children who were brought under surveillance in walking buses, but also adult volunteers, who were brought under the institutional disciplinary gaze and control of schools and associated regulatory mechanisms (Kearns and Collins, 2003). As well as these external and visible exercises of power, there were more subtle ways in which these initiatives were forms of self-regulation and control. Despite volunteers' best intentions to provide alternatives to automobility, SRS programmes are also forms of self-control and regulation akin to Foucault's disciplinary gaze (Foucault, 1977). Volunteers effectively regulated, controlled and restricted their own use of cars, re-enforcing power relations which
problematised children's and mothers' use of cars. Foucault considers this internalisation of discipline as:

...a perfect exercise of power... it arranges things in such a way that the exercise of power is not added on from the outside, like a rigid, heavy constraint... but is so subtly present. (Foucault, 1977, p206)

This analysis reflects a postmodern conception of power, as operating in open ended, contradictory and unpredictable ways (Foucault, 1980b). Whilst volunteers may attempt to reduce car use, the outcome may be unanticipated, as the associated reduction in congestion makes it easier for others to continue their automobility unchallenged. Such schemes only challenged the automobility of children rather than other social groups, and did not contest the overall production of automobility as a system (Sheller and Urry, 2004). This was particularly evident in Common Green, which despite low proportions of children being driven to school, experienced high levels of traffic congestion outside the school, due to cars avoiding congestion on the North Circular Road, a major traffic artery in North London. SRS programmes are limited, since they do not address the travel patterns of others, as Kearns et al. comment:

They are highly structured initiatives that ultimately seek to control children as opposed to traffic, and have only a limited ability to address congestion and automobile dependence. (Kearns et al., 2003, p290)

Whitelegg (1997) draws upon the relevance of economic capital, but also indicates the significance of the cultural sphere, to explain these sets of power relations:

These everyday routines are often viewed as unimportant or trivial compared with the more important need to deliver workers to their place of work on time, or the objective of some politicians to increase personal motorised mobility in order to support the automobile industry or to maintain the car as status symbol for the economically successful and the symbol of individual freedom. (Whitelegg, 1997, p135)

However, the demarcations between these different types of car users is increasingly blurred, since, as chapter six has indicated, many women drove their children to school in order to reach their place of employment on time. Therefore, rather than hindering the successful operation of the economy, the traffic congestion produced by the journey to school was in part generated by the delivery to the workplace of workers who are also mothers.

Another limitation of SRS programmes was its remit to focus on children's travel to school and not to other places (Mackett et al., 2004). This is particularly problematic given that a greater proportion of children's non-school journeys (58%) were made by car compared with journeys to school (39%). As Hillman et al. comment:
The problem of children's road safety is a diffuse one. Much of the time that children spend outside their home is spent not on purposeful travel to and from school but on other journeys... a much more random activity. (Hillman et al., 1990, p15)

That resources focus on the journey to school, once more reflects that policies are focused upon reducing congestion for the benefit of others and for the economy, rather than to empower children or improve their mobility. SRS programmes also highlight the contradictions inherent in UK government policy. Whilst SRS programmes seek to reduce car use, the increased level of parental choice of schools promoted by other policies contributes to an increase in the use of cars for travelling to school.

7.5.9 Involving children in the development of 'Safer Routes to School' programmes

Whilst there were clear benefits of SRS programmes, in an article I have debated the extent to which children themselves were involved in the process of defining or implementing these schemes (Barker, 2003). National guidance does not explicitly identify nor encourage the participation of children in the development of individual SRS programmes. Whilst SRS requires 'local solutions' which build upon the partnership of schools, parents and residents, few examples of this partnership included children. Where children's involvement did occur, it was often tokenistic (Hart, 1997), limited to entering drawing competitions to design SRS logos, for example:

Figure 7.5 'Safer Routes to School' Programme logo

from Country Wood school
The example of tabards, mentioned earlier in section 7.5.8, represented a failure to consult with children on the development of policies which affect them, resulting in initiatives being unattractive to children. The requirement to wear tabards has failed to recognise the importance of peer culture amongst children (Kenway and Bullen, 2001) and the significance attached to image.

One school had new road signs, pavement paintings and signs installed around the school to inform drivers and pedestrians of the walking bus, which children saw as good examples to warn drivers:

When you walk to school, you pick people up and if you don’t know the way to school, there are little arrows on the pavement to show you. (Ranj, 11, Common Green, Enfield)

**Figure 7.6 Photographs of 'Safer Routes to School' Programme road signs**

This is the walking bus footprints which show you the path (to school). (Daphne, 8, Common Green, Enfield)

Once more, reflecting a postmodern approach to the research, there are multiple ways of interpreting these images. These can be seen as attempts to raise the visibility and presence of non-car users of streets, in order to provide more enjoyable, children-friendly pavement spaces for child pedestrians, and to warn motorists and encourage more responsible driving. Like other initiatives such as Homezones (Biddulph, 2001), this redesign of the built environment challenges the dominance of cars and increases
the visibility of children's mobility in neighbourhoods. However, these signs had been designed and implemented by adults, and children had not been involved in the process. Similarly, activities on walking buses were organised by parents who did not consult with children. These activities to 'keep children interested' were similar to those discussed in chapter five regarding keeping children occupied in cars. Whilst both sought to increase children's enjoyment, they were also forms of Foucauldian surveillance and social control. The author is aware of only one STP in which children have collected information as researchers, and have designed their own modifications to the local street environment. Despite the growing importance of school councils (Davis and Jones, 1996, Alderson, 2002) and the active promotion of citizenship within schools (see Weller, 2003), this involvement has not been extended to include school transport issues.

7.6 Chapter summary
This chapter has identified a broad spectrum of responses to automobility at a variety of interconnected spatial scales. The evidence indicates the power of automobility, with some families, including children, reproducing its dominance. Cars were embedded within local cultures of childhood and parenting as a form of everyday mobility and also as cultural icons and status symbols. Many children wanted to be driven to school, as well as holding future aspirations for car ownership. Local expectations often promoted car use as a necessary requirement for 'good mothering'.

The chapter also considered power, exploring the possibilities for challenging the dominance of automobility. Many parents and children questioned the growing dominance of cars. Whilst some felt powerless to reduce their use of cars or challenge automobility, others had developed lifestyles which were not dominated by cars. However, despite these attempts to reduce or avoid car use, people's lives were still influenced and structured by wider processes of automobility. This indicated the limits of individuals to enact social change. A postmodern perspective indicated how power was contradictory, both enabling and opening up new possibilities to contest automobility, but also as restricting, working on individuals as well as through them.

At a broader spatial scale, the chapter also explored SRS programmes as an example of policy responses towards automobility. Many families participated in these programmes, helping to reduce dependence on cars for the journey to school and highlighting that the power and dominance of automobility was not absolute. Thus, Kearns et al. (2003) state that walking buses represent 'regulated resistance to the hegemony of the motor vehicle' (p290), offering a space of agency and resistance for
children, families and local communities as an alternative to cars. The chapter has also explored the importance of place in differentiating these SRS programmes, since experiences were not uniform. A geographical approach recognises that policies need to be diverse, organised at the local level, and responsive to the specificities of place. There was no one single solution to congestion caused by the journey to school, since trips were complex and embedded within wider lifestyles, and different families required different solutions. The chapter also explores how responses to automobility at different spatial scales were not separated but interlinked. Institutional responses such as SRS programmes required the involvement of individuals, both to participate in but also to plan, co-ordinate and run.

However, the chapter also offered a more critical reading of SRS programmes. Whilst such initiatives represented a space of social agency to contest the dominance of automobility, they were also complex and ambiguous spaces which were sites for multiple exercises of power, surveillance and control. The chapter draws upon the work of Foucault (1977), as developed by Kearns et al. (2003), to demonstrate that in these programmes, adults enacted control and surveillance over children, and institutions and regulatory mechanisms controlled and regulated adult volunteers in diverse ways. Children were mostly excluded from participation in or the planning of these services. Furthermore, despite the best intentions of volunteer parents and children, they can be seen as a form of self regulation as part of Foucault's disciplinary gaze in which children and parents regulated and policed their own mobility, and which internalised notions of car use as problematic for children's mobility.
Chapter eight~ Conclusions: Exploring new geographies of children and automobility

8.1 Introduction
This concluding chapter brings together the key empirical results of the research and discusses them within the wider academic and policy related context, discussing how the research contributes to developing new knowledges in human geography. The thesis does not claim to offer a definitive account of children and automobility, since this would counter the postmodern approach which informs the research. Rather, the thesis provides one viewpoint of aspects of children's automobility within a particular set of local contexts.

This chapter is organised around three main sections. The first discusses the main findings of the thesis in the light of the original research questions. The second section reflects upon the contributions of the thesis to broader theoretical, conceptual and methodological debates and policy related issues, whilst the third discusses some possible suggestions for further research. For each, I discuss the achievements of the research, but also reflexively consider the limitations of the thesis, what I have learned from the process and how, if I were approaching the research now, I might do things differently.

8.2 Summary of key research findings
8.2.1 Situating the research
The background to this study was set by chapters two and three which reviewed different sets of literatures to place the research within the broader context. The discussion of literature on applied geography indicated how my original motivation for the research was to help to contribute to social change, by collecting data with schools to help develop a 'School Travel Plan' to reduce congestion at the school gate. Applied geography has taken many forms and been adopted by a wide range of geographers to explore different aspects of socio-spatial life. Some have worked with policy makers to evaluate services and help contribute to reform (Peck, 1999), although this has been criticised as a rather conservative approach supporting existing elites and power relations (Doyle, 1999). More radical and activist approaches seek to work with marginalised and excluded groups to contribute to social change (Maxey, 2004b).

Transport geographers have often undertaken applied geography. A review of transport geography literature indicated that mobility has become a key feature of contemporary societies (Thrift, 1996, Beckmann, 2001, Featherstone, 2004). The new mobilities paradigm, drawing upon a variety of theoretical approaches, emerged during the
course of the PhD. Reflecting that research is an ongoing, dynamic process, the thesis evolved to embrace these theoretical discussions, most particularly, a postmodern approach to automobility. A postmodern approach involves considering everyday experiences of automobility (Miller, 2001), and exploring how diverse, often overlooked social groups have differential access to, and experiences of, mobility (for example, Law, 1999, Dowling, 2000), although with a few exceptions (including current research by Ashton, 2005 and Laurier, 2005), this has rarely included children.

A review of children's geographies literature indicated how children's lives are increasingly privatised and institutionalised within the UK and other western, industrialised countries (Sibley, 1995a, Valentine and McKendrick, 1997, McKendrick et al., 2000a), and how children are increasingly escorted, often by car, to and from places by parents (Hillman et al., 1990, O'Brien et al., 2000, Jones and Bradshaw, 2000). However, whilst a growing body of research considers the impacts of cars upon children's lives, little has been written about children's experiences of travelling by car. The research drew upon these different strands to consider three aspects of children and automobility: children's experiences of cars; the role of cars in their lives and children's responses to automobility. In order to do so, the research adopted a variety of methods, including questionnaire surveys and a range of children-centred qualitative techniques such as photographs, diaries and in-depth interviews.

8.2.2 Revisiting the research questions

In this section, the original research questions are revisited to discuss the main findings of the thesis. Some findings are explicitly linked to individual questions, whilst others have broader implications which impact upon more than one research question.

i) Exploring how children experience the increasingly significant spaces of cars

This research contributes to children's geographies by exploring children's perspectives of cars as increasingly significant spaces of childhood. The majority of children lived in car owning households, and regularly undertook car journeys, mirroring trends identified by others (Hillman et al., 1990, O'Brien et al., 2000, Jones and Bradshaw, 2000). Reflecting a postmodern approach, the thesis adopted the plural term 'cars' rather than 'the car' to show how children's experiences of cars were not homogeneous, but were differentiated. Their experiences varied according to different types of cars used, journey purpose and length, as well as differences relating to gender and to age. Cars were more than simply functional spaces for children's travel, and were important sites for multiple activities including play, relaxation, homework, the consumption of commodities, as well as spaces for companionship and family life.
The thesis develops the notion of micro-political geographies of families to explore how cars are sites of complex power relations. Whilst parents attempted to regulate and control children in cars, children demonstrated their social agency by negotiating, cooperating, contesting and conflicting with parents, siblings and friends to resist the domination of adults or to transform the spaces of cars. Reflecting evidence from other spaces of childhood (see Hutchby and Moran-Ellis, 2001, Holloway and Valentine, 2003), the thesis indicates the centrality of technology to children’s experiences of cars (Thrift, 2004), and its use in power struggles between different family members. Whilst existing research has identified that cars are important commodities (Gartman, 2004), this thesis suggests cars are also important spaces of consumption for children.

The thesis suggests that cars are paradoxical, hybrid public-private spaces, which are bounded and private, reflecting wider concerns for children’s safety and the growing institutionalisation of childhood (Valentine, 1997a, McKendrick et al., 2000a). Simultaneously, cars are also permeated by wider connections with the external environment, which children watched, either to orient themselves on familiar journeys or as a resource for games, although observation of the environment produces different sensory impressions compared to other modes of travel. A postmodern conceptualisation of ‘spaces of flows’ (Graham, 1998, Mol & van den Burg, 2004) indicated how children remain connected to the external environment through the use of mobile phones to contact friends. Reflecting that cars are spaces of control and surveillance, these connections were often mediated and controlled by parents, although sometimes contested and resisted by children.

In many respects, cars were not unique spaces of childhood. The evidence suggests everyday activities, processes and power relations have been displaced from other spaces into cars (as also discussed by Laurier, 2005). Indeed, many of the familial processes discussed here may well be found in other everyday spaces. One unique feature is the scale of these car spaces. Since cars are physically smaller than other spaces of childhood (such as homes, classrooms, playgrounds), these everyday activities and processes are more focused and intense within the small scale spaces of cars.

ii) Considering the applicability of debates within the new mobilities paradigm to account for the increased role of cars for children’s spatial mobility

The research identified several factors which explained the increased role of cars in children’s lives: the spatial and temporal organisation of children and parents’ lives; fears for children’s safety and preferences of children and parents. Debates within the new mobilities paradigm demonstrated how children’s lives are subject to wider
processes. The increased use of cars was both a response to, and a contributor to, growing distances between key sites of childhood. Changing scales of existence created new opportunities for many children by making accessible spaces beyond the local, and also created new dependencies, for example, assembling lifestyles which could only be undertaken by car. Echoing the finding of others (such as Tivers, 1985, Dowling, 2000), the research suggested children's car travel is often one component of a complex chain of trips embedded within wider, time-limited lifestyles of families. The work of postmodern temporal geographers (such as Crang, 2001, May and Thrift, 2001, Lefebvre, 2004) identified how these journey rhythms are multiple, diverse, complex and subject to fluctuation and change over the shorter and longer term.

These points can be understood in relation to wider debates within the new mobilities paradigm regarding the broader respatialisation of social life as the result of time space compression (Harvey, 1989, Giddens, 1991, Bauman, 1998). Whilst the thesis primarily drew upon a postmodern approach, Marxist geographies had some use in indicating how capital structures these new spatio-temporalities for children (Harvey, 1989, Lee, 2002, Castree, 2003). The increased use of cars for children's mobility is at least in part generated by changes in the wider economic context, including demands for a more mobile workforce and the increasing participation of women in paid employment.

However, debates within the new mobilities paradigm only partially account for the increased role of cars for children's mobility. Increased car use was also linked to spatialised fears regarding children's safety, and the need to protect children from the dangers associated with public space (Valentine, 1997a, O'Brien at al, 2000). Particularly powerful constructions of childhood render children as innocent of the dangers of public space, at more risk than other groups and incompetent to deal with these threats. As a result, parents increasingly escorted their children, often by car, which was seen as more effective in protecting and separating children from these dangers. Whilst protecting children, this also is a mechanism of surveillance and control. This evidence suggests that general experiences of automobility are refracted and reconfigured in particular and specific ways in relation to childhood (Valentine, 1999).

A third reason for car use was preferences. At least some parents and children preferred to travel by car, for many reasons, including the convenience, the journey ambience, the time to chat, or the status of being driven to school or other places. The work of Dyck (1990) and Holloway (1998) showed how car use was often central to, and embedded within, local expectations regarding 'good parenting'.
iii) Exploring how Massey's power geometry of mobility can be used to consider how the role of cars for children's spatial mobility varies between different groups of children and children in different places

One key finding of the research is that there is no homogeneous experience of automobility. The thesis considered Massey's power geometry of mobility to explore how automobility was not uniform but highly differentiated. Children's experiences were fragmented by a wide variety of factors, including: place, the local economic and planning context, and local cultures of parenting; gender; social class; ethnicity; age and the micro-political geographies of families, as well as weather and the seasons.

The thesis indicates how automobility and time space compression are not aspatial, but reconfigured within local contexts (Hubbard et al., 2002, Herod, 2003). The local economic context, including women's participation in paid employment and the type and location of work, influenced whether cars were used for women's, and in turn, children's mobility. Local spatially variable expectations regarding the appropriateness of cars for children's mobility and women's participation in paid employment were also significant. The local transport planning context, including spatial variations in public transport, also influenced how children travelled. However, since this research focused on five particular London and edge of London commuter countryside locations, the findings are not generalisable to other places.

The research also explored the significance of gender. The micro-political geographies of families often positioned women as primarily responsible for escorting children (see also Tivers, 1985, Dowling, 1999, Law, 2000). This embedded women further within existing systems of patriarchy, requiring them to juggle competing and increasing demands on their time such as household tasks and paid employment in addition to escorting responsibilities. However, recognising the diversity of micro-political geographies of families, in some cases, partners or ex-partners sometimes contributed to planning or undertaking escorting duties. However, because children's experiences rather than parents were the focus of the thesis, further research, drawing upon the work of others (such as Dowling, 1999, Law, 2000) is needed to map the complex ways in which gender, local cultures of parenting, economy and place interact and combine to influence the role of cars for parents, and in turn, children's mobility.

Social class and the socio-economic status of families further differentiated children's experiences of automobility, although in complex ways. There was no necessary link between affluence and levels of mobility or car use. For many, including some lower income families, automobility was not a choice but was undertaken due to a lack of alternatives, indicating the need for research to look beyond levels of mobility towards
power to control or initiate it. However, despite existing research linking non-car ownership with social exclusion (see Urry, 2000, Gartman, 2004), the children living in non-car households did not appear to have very significantly different mobility patterns to others. This may reflect the particular geographical location of the research within or near to London, with relatively affordable and frequent public transport links.

Following the work of other social geographers (for example Dwyer, 1998, Pain et al., 2001), the research indicated the significance of ethnicity in differentiating experiences of automobility, although again in diverse ways. Families from minority ethnic groups were less likely to own cars, although those who did reported higher rates of car use for children's mobility, possibly due to increased concerns regarding safety and racism (Dwyer, 1998). However, a postmodern emphasis on diversity and difference highlighted these trends were not generalisable, as some families from minority ethnic groups were very affluent and some were very mobile. However, as the following section on further research discusses, since this was a small scale study, further research is needed to explore the wide heterogeneous experiences of families from different minority ethnic groups.

This thesis has also discussed how these differentiating factors were not independent of one another, but combined in complex, multi-layered and unpredictable ways within a power geometry of mobility. Furthermore, the relative importance of each factor was not stable nor constant but rather was fluid, due to changing social, economic and political contexts. It is perhaps ironic that whilst Massey (1993a) explicitly identifies the role of gender, ethnicity and place in differentiating mobility experiences, like many other social theorists, Massey has failed to recognise how childhood, although cross cut and fragmented by other social variables, differentiates and reconfigures general mobility patterns- a gap which this research sought to fill.

iv) Evaluating the effectiveness of 'Safer Routes to School' programmes as an example of government policy to discourage dependency on cars for children's spatial mobility

The thesis contributes to existing research by identifying a variety of responses amongst children and parents to automobility. Cars were a central feature of, and embedded within, contemporary local cultures of childhood. As well as a preferred form of everyday mobility, cars were important status symbols, and many children had aspirations to drive when old enough. Local expectations often defined car use as a necessary requirement for 'good mothering'. However, many respondents contested the dominance of automobility. Despite the popular conception of 'school run Mum' and the availability of cars for the journey to school, more children walked to school than
were driven in cars. Many parents and children were ambivalent towards automobility, and some had developed alternatives, including lifestyles which limited or did not involve car use.

At a broader spatial scale, the thesis also explored SRS programmes as alternatives to car travel. Rather than one simple solution, multiple and flexible responses to congestion generated by the journey to school were needed to reflect the diversity of families' travel patterns in different places. More critically, the thesis concurs with Kearns and Collins (2003) that these schemes represent the continuing institutionalisation of children's lives, and are exercises of power which regulate and control children. Adult escorts supervise children, reinforcing adult authority and child vulnerability. The power and surveillance of schools and local authorities influence how children travel and how parent volunteers escort them. These programmes shift some of the burden of dealing with the disbenefits and excesses of automobility from central and local government to families and local communities and also problematise children's mobility without addressing the mobility of other social groups. With few exceptions, children neither participate in nor are consulted regarding the development of SRS programmes. The research also indicated contradictions in government policy, simultaneously supporting SRS programmes, whilst offering parental choice of school which may encourage car use through increasing distances between home and school.

8.3 Wider implications of the research

As well as answering the four research questions, this section considers how the thesis contributes to existing debates and develops new knowledges in human geography. In particular, it discusses the main theoretical, conceptual and methodological points identified by the research. Since many of these are long standing discussions, it is beyond the scope of this thesis to offer solutions, but rather to contribute to these on going, broader debates.

8.3.1 Mediated (auto)mobility

This research contributes to, and critiques, existing research in the new mobilities paradigm, by demonstrating a need to consider mediated mobilities. The thesis has problematised and challenged existing research on automobility (such as Miller, 2001, Bull, 2004) for prioritising individualised forms of mobility, conceptualising cars as solitary places, and assuming car travellers are autonomous and independent. The research contributes to developing new knowledges by considering one example of mediated mobilities and how experiences of automobility differ for passengers compared to drivers, exploring relations of power and control between different car occupants.
The research indicates that children's experiences as passengers are distinct, since, unlike many other passengers, they are unable to drive. Therefore, children's experiences are also refracted in particular ways by specific power relations within the micro-political geographies of families. Whilst this thesis focuses specifically on children, it illustrates a need for broader research to consider how others also experience mediated (auto)mobility.

8.3.2 Children's geographies and social agency

The research contributes to the wider project of mapping children's geographies. It indicates how children's lives are embedded and implicated in relations of power, and how their ability to exercise power, contest decisions and transform their experiences is not constant but changes through different spaces and contexts. Within the micro-scale spaces of cars, children are social actors who contested and challenged adults' authority, and transform car spaces. However, the research also explores the need to move beyond the 'children as social actors' paradigm to consider how children are embedded within, and influenced by power relations at a variety of spatial scales. For example, within the micro-political geographies of families, there are diffuse, diverse and complex relations of power, which, echoing the findings of Sibley (1995a) and Valentine (1997b), afford some children more influence than others to shape the spaces of cars. That children co-operate or conflict with siblings illustrates relations of power within generations as well as across them. Whilst focusing specifically on car spaces, the research offers insight into broader relations between family members.

Children's experiences of the spaces of cars are also influenced and structured by broader processes, for example by designers in car corporations who design car spaces, and also wider government legislation. Beyond the immediate everyday spaces of cars, children have less power to participate in decision-making about how they travel. Although children contested their lack of involvement, there were limited opportunities for them to change how they travelled, since car use was embedded within wider, complex family lifestyles. At a broader spatial scale, the research found that whilst children could enact social agency to opt into using such schemes such as SRS programmes, with few exceptions children themselves neither participated nor were consulted in the planning or development of this particular transport policy. However, since the thesis focused on children's everyday experiences of automobility, a more detailed macroanalysis of children's lives (Qvortrup, 2000) could have been undertaken to explore in more depth how these broader contexts influence children's everyday experiences.
8.3.3 A postmodern approach to children and automobility

Children's geographies as yet has not engaged in much detail with debates regarding different theoretical approaches in human geography. The thesis develops new knowledges in children's geographies through considering the use of a postmodern theoretical approach to exploring children and automobility. A postmodern approach was particularly successful in mapping children's everyday landscapes of cars as they are experienced 'on the ground', and also considering how children's experiences are not homogeneous. That experiences are highly differentiated by gender, social class, and place contributes to a broader critique of the new mobilities paradigm by indicating how not everyone is mobile (McDowell, 2005). Furthermore, the highly differentiated accounts question the use of the singular term automobility, and suggests that further discussions might consider using the plural term 'automobilities'.

However, the research also identifies some challenges and limitations to a postmodern perspective. A postmodern approach argues that research cannot produce objective knowledge. Rather, it recognises the partiality and multiplicity of perspectives on events. This research has recognised this by reflexively discussing the multiple ways in which data can be collected and interpreted. The thesis also grapples with the complex challenges of working with a postmodern sensitivity to diversity and difference. Exploring the numerous strands of difference has often fragmented the themes explored in the data and has often made it difficult to achieve more than an illustration of the experiences of individual respondents. Choosing five case study locations made it difficult and complex to explore the diversity of experiences across these different locations. A more in-depth analysis may have been possible by exploring the diversity of experiences within only one or two locations. The postmodern sensitivity to difference also makes it more problematic to construct an argument which discusses the distinctiveness of children's experiences compared to other social groups. As Massey comments:

...a recognition that power is everywhere- and that we must pay attention to the micro-politics of power (which we must)- should not lead to a position where the real structural inequalities of power are lost, dissipated in a plethora of multiplicities. (Massey, 2000, p280)

My research responded to the need for a more grounded conceptualisation and theorisation of difference by moving away from a negative and nihilistic conception of the possibilities of postmodern research, to a more productive one, partly inspired by comments from Sharp et al.: Accepting a Foucauldian position, one which envisages the play of domination/ resistance caught within ever-knotted relations of power, does
not necessarily commit us to a kind of intellectual and political quietism: a shrug of the shoulders in the face of power's apparent all pervasiveness, elusiveness and complexity... instead there is much work to be done in conducting patient and detailed research documenting precisely how the entanglements of power arise, what they look like and how they operate. (Sharp et al., 2000, p20-1)

However, whilst a postmodern approach explores the everyday landscapes of cars and considers the different ways in which cars are experienced and used for mobility, the work of feminist and Marxist geographers also have use in indicating how children's experiences of cars are framed and contextualised both by the interests of capital and patriarchy. The research has shown that at least in part, and as for other spaces of childhood (see McKendrick et al., 2000a), children's experiences of automobility are embedded within, and structured by wider economic processes. These economic influences operate at a variety of spatial scales, from the wider structures of the broader systems of automobility, to the smaller scale everyday spaces of cars, in which children consume commodities. Although failing to explore fully the cultural significance of cars, a Marxist approach was at least partially useful in making sense of children's experiences.

Similarly, whilst there were few ways in which children's experiences of automobility were gendered, the work of feminist geographers (such as Dowling, 1999, Bowlby et al., 1998) has been useful in exploring the significance of gender and patriarchy, in relation to the employment and escorting responsibilities for parents, which impacts upon children's mobility patterns. Recognising the linkages between gender and capital, the thesis also draws upon the work of Marxist feminist geographers to consider how the influences of capital and patriarchy interconnect in particular ways in specific places. However, since the research focused primarily on children's experiences of automobility, as discussed shortly, more research could be undertaken to explore the broader contexts, including how local cultures of parenting and local planning or economic contexts help to frame children's experiences.

Therefore, this thesis is situated within contested debates regarding the comparative influences of the economic and the cultural within human geography (Lee, 2002, Castree, 2004), identifying how both have relevance. McDowell calls for:

New ways of theorizing the complex connections between the economic and the social/ cultural, between material inequalities, new social divisions and representations of power. (McDowell, 2000, p18)

Ironically, it is a rather postmodern standpoint to suggest that no one theoretical approach (even postmodernism) can entirely account for children's experiences of
automobility. Instead, the thesis draws upon specific elements of different theoretical perspectives to explore aspects of children's automobility. Massey's power geometry has been a useful way of showing how different factors such as gender, age and place interconnect, recognising the multi-layeredness of socio-spatial life:

The continuous production and reconfiguration of heterogeneity in all its forms- diversity, subordination, conflicting interests. (Massey, 2005, p61)

However, whilst Massey has never explicitly discussed power, this thesis indicates a postmodern conceptualisation of power might be appropriate, identifying there is no one set of primary power relations which determine mobility. Rather, relations of power are multiply constituted, diffuse, and present in all forms of social action, and fluid and ever changing (Foucault, 1997, Sharp et al., 2000). The concept of a power geometry is not only useful to explore the interconnectedness of different aspects of children's mobility but also the interrelatedness of different theoretical explanations to account for it. As Philo comments:

...a social world spatially constituted through nodes and channels of power-fixed nodes where power is produced and criss-crossing channels along which power is diffused and collected. (Philo, 1992a, p152)

Whilst each theoretical perspective provides insight into one aspect or axis of power relations within a power geometry of children's mobility, none have complete explanatory power.

8.3.4 Applied geography and policy implications

One of the original motivations of the research was to undertake applied geography. It is perhaps a paradox that although I managed to achieve this aim and produce data useful to schools, at the end of the process I am much more critical and cautious of this approach. Helping influential organisations to develop and implement policies was a rather conservative approach to applied geography. However, following Peck's (1999) call for applied geographers to develop thorough critiques of policy formulation, this thesis has developed a number of critiques of SRS programmes and STPs.

Although the UK is a signatory of the UN Convention of the Rights of the Child (Archard, 1993, Bartlett et al., 1999), the spirit of article 12 to involve children in decision-making in matters affecting them has not been implemented in relation to local transport policy. Children remain the recipients of adult-defined policies. The thesis has also shown that SRS programmes must be implemented with other initiatives which also question the (auto)mobility of others (for example Work Travel Plans and road
pricing schemes such as the London congestion charge) rather than simply challenging children's use of cars. The research also contributes to policy debates by indicating the need to consider children's non-school journeys, as a greater proportion of non-school journeys are made by car, compared to the journey to school. Currently, there is neither debate nor specific initiatives to make streets safer to encourage children to undertake non-school journeys by modes other than cars, although the development of Homezones is one exception to this (see Biddulph, 2001).

In addition to critiquing existing policies, the thesis also demonstrates the unpredictability of undertaking applied geography and I have explored the uncertain and ever-changing power relations with research partners (Kitchin and Hubbard, 1999). Whilst in some schools the research was well received, in others it was clear they were only interested in participating since local authorities required them to conduct such an exercise as part of the planning process.

As well as mapping these different power relations involved in applied geography, I also tried, more radically, to challenge them, through, for example, by involving parents and children in the research process and by undertaking qualitative research to explore their views in more depth. However, that these attempts were largely resisted by the research partners made me realise my approach often contributed to reproducing the exclusion of children, as much as challenging existing inequalities. If I were to undertake similar research now, I would be more cautious of working with such formal organisations, and more confident to attempt to develop more radical and more participatory approaches working more directly with children and parents, to place their experiences at the centre of the research (as suggested by Cahill, 2004).

8.3.5 Methodological developments
The thesis also contributes to wider methodological debates, including those relating to children's geographies and the development of children-centred research. When I began the thesis in 2000, qualitative children-centred methods, such as photographs and drawings, were innovative. Over the past five years, there has been increasing discussion of these methods (see Punch, 2001, Horton, 2001, Barker and Weller, 2003a), and more recently, other methods, including video observation of families in cars, have also been piloted (Laurier, 2005). The thesis concurs with other research suggesting some children centred methods, particularly photographs, drawings and in-depth interviews were broadly successful, whilst written methods, and as discussed shortly, quantitative methods, were less popular and less effective forms of communication.
Another methodological contribution of the research has been to explore how the micro-political geographies of families were not only an empirical finding but also a methodological concern which impacted upon the research process. Despite strategies to develop children-centred methods and to give children autonomy to participate, these were limited by broader, pre-existing and often deeply embedded power relations within families. Thus, the research contributes to wider critiques of participation and representation, demonstrating the need for reflexivity to map the ever-present but dynamic challenges to, and limitations of, children-centred research.

The research contributes to debates within postmodern geographies and children's geographies through exploring the possibilities of a post-positivist role for quantitative methods. Although questionnaire surveys produced data useful for conducting applied geography, they were not children-centred, failed at least in part to communicate the diversity of children's voices and experiences and tended to offer aggregated and homogenise trends which obscured intricate differences both within and between places and groups. Therefore, whilst others (such as Lawson, 1995, Rochaleau, 1995, Jayaratne and Stewart, 1995) have found it possible to reconcile quantitative methods and postmodernism, or to advocate quantitative methods for undertaking research with children (such as Qvortup, 2000, Collins and Kearns, 2001, Maxey, 2005), this thesis shows that I have found this highly problematic and not very successful. An alternative and more radical approach would have been to develop questionnaires which could be designed by and for children, although this would still require responses to be fitted into simplified categories and still aggregated trends.

The thesis has also discussed the possibilities of combining a postmodern and applied geographical approach to research. Postmodernism and at least some applied geographers attempt to give voice to those often excluded in research, and to develop participatory approaches to enable involvement in different aspects of the research. However, a number of contradictions between applied geography and postmodernism were identified, which question combining these approaches. Firstly, that STP committees resisted the greater participation of parents and children in the research process meant that focusing on applied geography limited the extent to which the research addressed the postmodern concern to map the experiences of those often excluded from research. Secondly, postmodern geographies are more concerned with relativism, diversity and difference, rather than constructing solutions for policy makers. I attempted to link the two by incorporating diversity and difference, particularly through the use of qualitative research methods, within the feedback to schools. However, this
approach failed, since the STP committees were only interested in quantitative data which showed overall trends, rather than exploring intricacies, complexities and difference.

Thirdly, the aim to produce data of benefit to communities was challenged by the postmodern assertion that researchers are not experts and that knowledge is not objective but is partial and socially produced. I drew upon the notion of researchers as ‘interpreters’ not ‘legislators’, as discussed by (Bauman, 1987). However, my experience shows the difficulty of this role in practice, since the research partners often wanted to assign the label of expert, which was difficult to challenge. Therefore, incorporating a postmodern perspective within an applied geography approach was challenging and not entirely successful.

8.4 Further research
The thesis raises some interesting questions which could be explored in more detail in further research. Whilst the research has considered differential experiences of automobility, these could be explored in more depth. For example, whilst this research has reflected the work of others in identifying how terms such as rural are not homogeneous but encompass a variety of different experiences (Matthews et al., 2000a, Halfacree, 2004a), this could be explored further to map the geography and diversity of rural children’s experiences of automobility. For example, the car experiences of children in remote, rural Cornwall may well be very distinct to experiences of children living in more affluent and accessible rural locations such as parts of Cheshire.

Secondly, the research has also explored some of the mobility experiences of children living in non-car households, identifying that it may be over simplistic to link non-car ownership with mobility deprivation. However, this finding may reflect specific circumstances, for example the relatively comprehensive public transport in London, within many of the particular localities taking part in the research. Therefore, it would be interesting to explore in more detail the geography of non-car ownership and how this impacts upon different groups of children in different places, for example, comparing children living in inner city London to those living in rural Norfolk.

Thirdly, whilst the research has begun to map some of the ways in which gender shapes children's experiences of automobility through parental roles and local cultures of parenting, this could be explored in more detail. Further research, drawing upon the research of Dowling (1999) and Law (2000), could focus more upon the role of cars in organising the spatio-temporalities and caringscapes of parents, including the roles,
expectations and responsibilities of women and men. In turn, this could explore the significance of gender, place, the local economic context, and local cultures of parenting and how these broader contexts interconnect to influence parents' mobility patterns, and hence impact upon children's experiences of automobility.

The research has not explored the experiences of disabled children in any great depth. Since disabled children are often overlooked (see Beresford, 1997, Priestley, 1998, Valentine and Skelton, 2003), further research could explore the specific mobility experiences of disabled children, compared with non-disabled children, and whether there are significant differences between disabled children attending specialist or mainstream schools.

8.5 Concluding thoughts
This research has attempted to explore key aspects of children's experiences of automobility. Despite the limitations of the research, it is clear children's lives are influenced by automobility in many different ways. Through different spaces and across different scales, I have demonstrated the processes and geographies through which children's experiences of automobility are produced. Whilst for some children this gives them more opportunities, it also represents the increasing power of adults to control children's lives. One of the key messages from the research is the non-inevitability of automobility. In their day to day lives, many families express ambivalence toward cars, suggesting the dominance of cars is not uncontested. Despite my critiques of SRS programmes, these provide a viable and visible alternative to the increasing dominance of cars. Perhaps this is a recognition that the mobility provided by cars, whilst revolutionary and offering freedom for many, cannot continue to grow unchallenged.

At the end of the process of writing this thesis, I am more aware than ever of the limitations of the study, and that writing about children and automobility is itself an exercise of power. Whilst it is perhaps beneficial to make visible children's experiences of automobility, it is also necessary to recognise that opening such debates may further problematise children's mobility and use of cars, rather than questioning the mobility of other groups. Therefore, just as we may explore and critique the role of automobility in children's lives, so we must also question it within our lives as adults.
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10. Appendices

Appendix 10.1 Introductory leaflet for parents

Department of Geography and Earth Sciences
Uxbridge, Middlesex, UB8 3PH
(Tel) 01895 203215 (Fax) 01895 203217
john.barker@brunel.ac.uk

"Are We There Yet?"
Children's Experiences of Travel

An invitation to join a research project
and information for parents

Everyday, millions of children are driven to school and other places. Many parents do so because they believe traffic and strangers make the streets unsafe for children. However, there has been no research considering children's experiences of travel. This research aims to help fill this gap by exploring children's experiences of travelling to school and other places by a variety of forms of transport. We would very much like your child and yourself to take part in this project.

Who is doing the research?

- John Barker is research officer in the Department of Geography and Earth Sciences at Brunel University. Over the past eight years, John has gained much experience of working with children.
- John is carrying out this project as part of his PhD.
- You have probably already filled in a survey about travelling to school as part of this project.

What will happen if we take part?

Your child (with your help) will be collecting most of the information.

I will give your child a disposable camera, to take photographs of the journey to school and other places-your child can keep a copy of the photos.

I will also give your child a diary, to fill in their travel movements over a week- your child might ask you to help them fill it in.

At the end of this week, I would like to come and talk with both your child and yourself about your experiences of travel.

Choosing whether to Take Part

Please talk the project over with your child to see if you are both happy to take part.

Please do feel free to ask me any questions you might have. You can telephone or email me if you prefer.

Thank you for your time

John Barker

What will the information be used for?

All the information you give me will be confidential and anonymous. Your town, school or your child's name will not be used (they can choose a pseudonym). They will not appear in any pictures. The information will be kept locked away.

The information will have a variety of uses. The information will be used by your school as part of its School Travel Plan.
Appendix 10.2 Introductory leaflet for children

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john.barker@brunel.ac.uk

"Are We There Yet?"
Children's Experiences of Travel

An invitation to join a research project

Everyday, millions of children are being driven to school and other places. Did you know

- one in ten children in years 3-6 walk to school alone?
- Nearly half of children in years 3-6 are driven to school?
- One in five cars in rush hour traffic jams are taking children to school?

However, no-one has done research to find out what children think about how they travel to school and other places - until now.

We want to find out what you think

My name is John and I am a researcher. I work in a university, where adults go to learn. I am very interested in children's lives.

I'd really like to find out what you think about how you travel to school and other places

If you took part, I'd ask you to take some photos of your journey to school and other places (you can keep a copy of the photos), and ask you to keep a short diary - your parents can help you with the diary if you want.

Then I'd like to come and talk to you about your experiences and ideas about travelling to school.

Have a think to see if you would like to take part.

If you have any questions, please do ask me! My phone number and email address are at the top of the leaflet.

Thank you

John
Appendix 10.3 Questionnaire survey

Dear Parent/Guardian,

Rural Hill School is currently developing a School Travel Plan. The Plan will develop a number of practical steps to improve children's safety on the school journey, and cut congestion at the school gate. Researchers at Brunel University are currently helping the school to collect information for the School Travel Plan, as part of a wider project examining children's experiences of travel in the UK, and how children travel to school and other places.

I would be very grateful if you, together with your child, would please spend a few minutes filling in the questionnaire below. Your comments will directly inform the development of Rural Hill's School Travel Plan. The questionnaire is designed to collect the responses for one child- if more than one child brings home a questionnaire, please fill in one for each child.

Your answers will be treated in complete confidence.

John Barker MSc, BSc Hons
Research Officer, Department of Geography and Earth Sciences

Section A: Travelling to School

1. How does your child usually travel to school?

<table>
<thead>
<tr>
<th>Method of Transport</th>
<th>Please write no of days per week the method of transport is used, for example</th>
</tr>
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<tbody>
<tr>
<td>On foot</td>
<td>2</td>
</tr>
<tr>
<td>On foot: by walking bus/crocodile</td>
<td>3</td>
</tr>
<tr>
<td>By car</td>
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<tr>
<td>By bicycle</td>
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<tr>
<td>By bus/coach/train</td>
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<td>Other (please state)</td>
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</table>

Tick all that apply
2. How does your child usually travel from school?

<table>
<thead>
<tr>
<th>Method of Transport</th>
<th>No of Days per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>On foot</td>
<td>2</td>
</tr>
<tr>
<td>On foot - by walking bus/crocodile</td>
<td>2</td>
</tr>
<tr>
<td>By car</td>
<td>3</td>
</tr>
<tr>
<td>By bicycle</td>
<td></td>
</tr>
<tr>
<td>By bus/coach/train</td>
<td></td>
</tr>
<tr>
<td>Other (please state)</td>
<td></td>
</tr>
</tbody>
</table>

Please write no of days per week the method of transport is used, for example.

3. Is your child accompanied on the journey to or from school?

<table>
<thead>
<tr>
<th>Accompanied</th>
<th>To School</th>
<th>From School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part of the way/ sometimes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If yes or part of the way/ sometimes, go to qu 4
If no, go to qu 9

4. Who accompanies your child?

<table>
<thead>
<tr>
<th>Accompanied</th>
<th>To School</th>
<th>From School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent/guardian/walking bus escort</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friend of child's age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Older brother or sister</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please state)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Why is your child accompanied?

<table>
<thead>
<tr>
<th>Accompanied</th>
<th>To School</th>
<th>From School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic danger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stranger danger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long Distance of Journey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child not mature enough</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear of bullying</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please state)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Is the trip only to take child to or pick child up from school?

<table>
<thead>
<tr>
<th>Accompanied</th>
<th>To School</th>
<th>From School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If your child travels to or from school in a car, please answer qu 7 and 8. If not, please go straight to question 9

7. Do you ‘car share’ the school journey with other parents?

<table>
<thead>
<tr>
<th>Accompanied</th>
<th>Tick one</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

8. In addition to your child, are there any other children travelling in the car during the journey to and from school?

<table>
<thead>
<tr>
<th>Accompanied</th>
<th>Tick one</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

If so, please write how many...
9. Thinking of the mode of transport your child most often uses to travel to/from school, what influences your choice of method?

<table>
<thead>
<tr>
<th>Time constraints</th>
<th>Safety of child</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial considerations</td>
<td>Physical fitness of child</td>
</tr>
<tr>
<td>Environment considerations</td>
<td>Long distance from school</td>
</tr>
<tr>
<td>No alternative methods ease</td>
<td>Close proximity to school</td>
</tr>
<tr>
<td>The weather</td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>(please state)</td>
</tr>
</tbody>
</table>

10. Thinking of the mode of transport your child uses most often to travel to/from school, how long does the journey take?

<table>
<thead>
<tr>
<th>Duration</th>
<th>Tick one</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 mins</td>
<td>20-24 minutes</td>
</tr>
<tr>
<td>5-9 minutes</td>
<td>25-29 minutes</td>
</tr>
<tr>
<td>10-14 minutes</td>
<td>30 or more mins</td>
</tr>
</tbody>
</table>

11. How might your child like to travel to/from school?

<table>
<thead>
<tr>
<th>Mode</th>
<th>Tick all that apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>On foot-own/ with friends</td>
<td></td>
</tr>
<tr>
<td>On foot- with parent/ carer</td>
<td></td>
</tr>
<tr>
<td>On foot- Walking bus/ crocodile</td>
<td></td>
</tr>
<tr>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>Bicycle</td>
<td></td>
</tr>
<tr>
<td>Bus/ school bus</td>
<td></td>
</tr>
<tr>
<td>Other (please state)</td>
<td></td>
</tr>
</tbody>
</table>

12. How might you like your child to travel to/from school?

<table>
<thead>
<tr>
<th>Mode</th>
<th>Tick all that apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>On foot-own/ with friends</td>
<td></td>
</tr>
<tr>
<td>On foot- with parent/ carer</td>
<td></td>
</tr>
<tr>
<td>On foot- Walking bus/ crocodile</td>
<td></td>
</tr>
<tr>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>Car Share</td>
<td></td>
</tr>
<tr>
<td>Bicycle</td>
<td></td>
</tr>
<tr>
<td>Bus/ school bus</td>
<td></td>
</tr>
<tr>
<td>Other (please state)</td>
<td></td>
</tr>
</tbody>
</table>

Section B: Other Journeys made by your Child

13. Does your household have a car?

| Yes                  | If yes, go to qu 14                      |
| No                   | If no, go to qu 16                       |

14. How many cars does your household have?

<table>
<thead>
<tr>
<th>Tick One</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3 or more</td>
</tr>
</tbody>
</table>
15. Is there a car available to be used for the school run?  
   Yes  
   No  

16. Does your child own a bicycle?  
   Yes  
   No  

17. Over the past seven days, how many times has your child been on a journey using the following methods of transport? Please include the trip to and from school as two separate journeys  

<table>
<thead>
<tr>
<th>Method</th>
<th>Example</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car journey</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus/ coach/ train</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please state)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. How many of the above journeys did your child make unaccompanied?  
   1

19. Who in your family usually makes decisions about how your child travels (e.g. whether child walks, cycles, uses car)  

   Please write in box

20. To what extent is your child involved in making decisions about how he/she travels  
   Child not involved- parent(s) decide  
   Parent decides mostly, child sometimes  
   Parent and child decide equally  
   Child decides

21. The following statements describe activities that children are allowed to do from a certain age. Currently, is your child allowed to...  

   a. cross roads on their own  
      Tick one  
      Yes  
      No

   b. go on their own to places other than school  
      Tick one  
      Yes  
      No

   c. allowed to come home alone from school  
      Tick one  
      Yes  
      No
d. allowed to go out alone after dark
   Tick one
   Yes
   No

e. use buses on their own
   Tick one
   Yes
   No

f. cycle on main roads
   Tick one
   Yes
   No

<table>
<thead>
<tr>
<th>Section C: About your Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>22. Are you the child's</td>
</tr>
<tr>
<td>Mother (or step mother)</td>
</tr>
<tr>
<td>Father (or step father)</td>
</tr>
<tr>
<td>Other legal guardian</td>
</tr>
<tr>
<td>Other (please state)</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>23. Are you a lone parent?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>24. What is the age of the child</th>
</tr>
</thead>
<tbody>
<tr>
<td>about whom you have answered</td>
</tr>
<tr>
<td>this survey?</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>25. Is your child a...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy</td>
</tr>
<tr>
<td>Girl</td>
</tr>
</tbody>
</table>

<p>| 26. Does your child receive free |</p>
<table>
<thead>
<tr>
<th>school meals?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>27. Is your child</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
</tr>
<tr>
<td>British</td>
</tr>
<tr>
<td>Irish</td>
</tr>
<tr>
<td>Other White</td>
</tr>
<tr>
<td>Asian/</td>
</tr>
<tr>
<td>Asian British</td>
</tr>
<tr>
<td>Indian</td>
</tr>
<tr>
<td>Pakistani</td>
</tr>
<tr>
<td>Bangladeshi</td>
</tr>
<tr>
<td>Other Asian</td>
</tr>
<tr>
<td>Black/</td>
</tr>
<tr>
<td>Black British</td>
</tr>
<tr>
<td>Caribbean</td>
</tr>
<tr>
<td>African</td>
</tr>
<tr>
<td>Other Black</td>
</tr>
<tr>
<td>Chinese</td>
</tr>
<tr>
<td>Mixed</td>
</tr>
<tr>
<td>(please state)</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>(please state)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>28. What is your home postcode?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please write in the box</td>
</tr>
<tr>
<td>(this will <strong>only</strong> be used to calculate the distance between your home and your child's school)</td>
</tr>
</tbody>
</table>
As a follow up to this study, I am also looking to talk in depth with parents and children about their travel movements in general. If you would like to take part in these discussions (to be arranged at a time and place convenient to you), please fill in your details below:

Parent name

Contact number

If you or your child would like to add any further comments about travelling to or from school please write them below

Thank you for taking the time to complete this questionnaire. Please return to your child's school teacher by xxxx
Appendix 10.4 Participants in the qualitative research

<table>
<thead>
<tr>
<th>Location</th>
<th>Pseudonym</th>
<th>Ethnicity*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Hill</td>
<td>Charlie, 6, Pete, 9, and Mum</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>John, 8 and Mum</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>Jane, 10, Rachel, 7, and Mum</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>Liam, 9, and Mum</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>Wendy, 7, and Mum</td>
<td>White British</td>
</tr>
<tr>
<td>Village Bottom</td>
<td>Ritchie, 9, and Mum</td>
<td>White British/ White other (European)</td>
</tr>
<tr>
<td></td>
<td>Kathy, 9, Lydia, 9, Mum</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>Gill, 10, Sarah, 7, Mum</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>Anushka, 10, Mum</td>
<td>White Other (European)</td>
</tr>
<tr>
<td></td>
<td>Shane, 9, Graham, 7 Mum</td>
<td>Black/ Black British Caribbean</td>
</tr>
<tr>
<td>Suburban Royal</td>
<td>Daniel, 9, Mum</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>Tom, 8, Mum</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>Therese, 10, Mum</td>
<td>Black/ Black British African</td>
</tr>
<tr>
<td>Country Wood</td>
<td>Angel, Dad</td>
<td>White Other (Greek/ Turkish)</td>
</tr>
<tr>
<td></td>
<td>Rebecca, 6, David, 7, Mum</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>Helen, 8, Mum</td>
<td>White British/ White African</td>
</tr>
<tr>
<td></td>
<td>Nicole, 6- No interview</td>
<td>Black/ Black British Caribbean</td>
</tr>
<tr>
<td></td>
<td>James, 9, Mum</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>Kylie, 10, Stephen, 7</td>
<td>White British</td>
</tr>
<tr>
<td>Common Green</td>
<td>Daphne, 8, Dad</td>
<td>White British</td>
</tr>
<tr>
<td></td>
<td>Ranj, 11, Mum and Dad</td>
<td>Asian/ Asian British</td>
</tr>
<tr>
<td></td>
<td>Julie, 10, Mum</td>
<td>Black/ Black British African</td>
</tr>
<tr>
<td></td>
<td>Pat, 7- No interview</td>
<td>White British</td>
</tr>
</tbody>
</table>

*using categories from 2001 census
Appendix 10.5 Layout of diary

This Travel Diary Belongs To
Name_____________________
Age_______________________
Town______________________

At the end of every day, please fill in where you have been and how you travelled there.

On the left hand side of each page, please write down each day how you have travelled to school and other places.

On the right hand side of each page, you can draw/write something about a trip you made. For example, you could draw something about your favourite part of the journey, or write about something annoying that happened - it's up to you!!!

If you have any problems with filling in this diary, please give me call on 01895 203215, or email me at john.barker@brunel.ac.uk

Thank you for taking time to fill it in!

John

Day One: Today is _________________

Please circle the picture if you travelled this way today

Please write where you went

Please write who you went with

by car

by bicycle

on foot

by bus

by train/ tube

How were your journeys today? - this is your space to draw or write something about your travel today

Did you take any photographs today?

Yes or No

__________________________________________________________

What did you take them of?

__________________________________________________________
Appendix 10.6 Interview schedule

_Interview Schedule:_

Questions aimed initially for children- can then ask similar questions for parent:

1. Can you talk through the photos and the diaries, showing the journeys you have made over the past seven days?

2. What's it like travelling by car?  
   Is it fun? What is fun about it?  
   What do you like to do in the car? (e.g. talk, play games, watch the view, sleep)  
   Where do you like to sit in the car?  
   How could it be made more fun?  
   What is bad/ boring about being in the car?

3. Does your enjoyment of the car depend on where you are going (e.g. is going to school by car the same as going away on holiday by car?)

4. Do you travel with your siblings? What are they like to travel with?

5. Do you travel in the car with friends/ other children? What is that like?

6. Who controls what goes on in the car? Are there any rules in the car? Are they fair?

7. Who makes decisions about what method of transport is used/ whether car is used or not?

8. Why do you travel by car?

9. Do you travel by other methods? e.g.  
   walking?  
   cycling?  
   public transport (buses, trains)?  
   What do you think of each of these methods?

10. Do you use the walking bus/ Going for gold scheme? What do you think of them? Are they a good way to travel to school?

11. How would you prefer to travel to school and to other places?
Appendix 10.7 Extract of feedback to schools

Department of Geography and Earth Sciences
Uxbridge, Middlesex, UB8 3PH
(Tel) 01895 203215
(Fax) 01895 203217
john.barker@brunel.ac.uk

Travel to School Survey: Results for Rural Hill School

Introduction
By the end of November, 166 replies had been received (approximately 280 distributed). The response rate is 59%, very good for a survey of this type.

Current travel to school patterns
Children travel to school from a wide variety of localities (map 1). Approximately 54% of the sample travel from Chesham, 24% from Rural Hill. The remainder come mostly from (anonymised) Green (5%), Orchard (anonymised) (5%), (anonymised) Green (4%), (anonymised) Hill (3%) Children also come from as far as Amersham, Berkhamstead, and Stoke Mandeville.

To travel to school, children cover an average of 1.6 miles. For those walking the average is 0.5 miles, and 1.9 miles for those travelling by car.

Travelling to and from school
The table below highlights the method of transport children currently use to travel to and from school:

<table>
<thead>
<tr>
<th>Method of Transport</th>
<th>To School</th>
<th>From School</th>
</tr>
</thead>
<tbody>
<tr>
<td>car</td>
<td>55%</td>
<td>70%</td>
</tr>
<tr>
<td>Walk</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Walking bus</td>
<td>15%</td>
<td>0</td>
</tr>
<tr>
<td>Bus</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Uses more than one method throughout the week</td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Travelling by car is by far the most popular method, accounting for more than two thirds of all children on the journey home from school. A much smaller proportion of children walk to school, and a similar proportion use the walking bus in the morning. Age of child, and gender of child, is not a significant determinant of method of travel.
Possible Ways Forward: Information for the School Travel Plan

Children were asked how they would like to travel to and from school. Almost two thirds (65%) stated they would like to walk to school. The table below shows these results in more detail:

<table>
<thead>
<tr>
<th>Mode</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>On foot- on their own</td>
<td>34</td>
</tr>
<tr>
<td>On foot- with parent</td>
<td>36</td>
</tr>
<tr>
<td>On foot- on crocodile trail</td>
<td>30</td>
</tr>
<tr>
<td>By car</td>
<td>34</td>
</tr>
<tr>
<td>Cycle</td>
<td>36</td>
</tr>
<tr>
<td>Bus</td>
<td>13</td>
</tr>
</tbody>
</table>

**Car sharing:**
Currently, 10% of car users are involved in informal car sharing. 64% of car journeys to the school in the morning and 77% of journeys in the afternoon are solely to drop off/pick up the child(ren). Map 4 highlights the origin of these car trips—most, although not all, begin in Townham. Thus, increased car sharing from Townham is one possible strategy.
Buses:
Eighteen per cent of families showed some interest in principle for their child to travel to school by bus. Map 5 illustrates the location of these families. The most significant demand for this is in Townham.

Cycling:
Over one third (36%) of children would like to cycle to school. A number of parents in the survey called for safer cycle routes- both on and off road. Although this is not possible in all cases, map 6 indicates the distribution of these families. Many come from Rural Hill, and from all over Townham.
The walking bus
Although 15% of children currently use the walking buses, 30% of children would like to. Map 7 shows the location of those families that would like to use a walking bus. As the map shows, these families are spread throughout the district, too far for walking alone. Thus, these families might be able to drive for part of the journey, and use a walking bus for the final leg of the journey.

Other suggestions by parents include:
An afternoon crocodile
Crossing supervisor for those walking to school
Pavements needed
Ban parking near school
Townham Road traffic calming
Appendix 10.8 Summary of report for participants

‘Geographies of the School Run’:
The Journey to School, the Car and Primary School Children's Independent Spatial Mobility

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October 2002

Cars are playing an increasingly important role in society, and a growing number of children are being driven to school and other places. Cars on the escort education journey, or ‘school run’ accounted for up to 18% of cars on the road during the morning peak period. One response to growing traffic congestion on the school run is the development of ‘Safer Routes to School’ programmes and initiatives such as the Walking Bus. The project sought to explore children and parents’ experiences of such initiatives and more generally their perspectives of the increasing use of the car for children’s journeys.

Summary of Results

• The journey to school is an increasingly complex, diverse set of spatial movements. Walking is still the most popular mode of travel to and from primary school. Up to six out of ten primary school children walk at least part of the way to school. Many children’s mode of travel to school differs from the mode of travel from school, whilst others use more than one mode of travel per journey. Up to one third of children also use different modes of travel on different days of the week.

• Almost one in five (18%) respondents (rising to 37% in some schools) take part in initiatives that reduce dependence on the car and congestion at the school gate, including those supported by ‘Safer Routes to School’ programmes, including Walking Buses, Going for Gold, park and walk schemes, and car sharing.

• Eight out of ten parents and eight out of ten children would prefer to walk to school. Two thirds of those currently driving to school are interested in changing their mode of travel.

• There are significant differences between the travel experiences of different groups of children, including variations between lone parent and two parent families, ethnic groups, age groups and children in urban and rural areas. Few differences with respect to gender were found.

• Almost half of children taking part in the survey are not involved in decision making about their travel. Children walking to school are more likely than those being driven to school to be involved in making decisions about how they travel.
About the Study
The study was conducted in 5 primary schools in a variety of socio-economic locations in Buckinghamshire and North London. A questionnaire survey was distributed to each family in the schools to record information about children’s travel to school and other places and socio-demographic background data. In total, 1006 replies were received, giving a response rate of 51%, although this varied between individual schools.

The research was carried out in partnership with School Travel Plan officers, headteachers and governors. Each school received detailed written and verbal feedback, providing information about current travel to school patterns and also identifying respondents’ interests in initiatives such as the Walking Bus.

In addition, 30 families took part in in-depth research. Children filled in week long travel diaries, and used disposable cameras to record where and how they travelled to particular places. After this week long period, in depth interviews were carried out with children and their parent(s) to discuss their experiences of travelling to school and other places.

Understanding the School Run
As the proportion of primary school children being driven to school has increased from 20% in 1985 to 37% in 1998 (DTLR, 2000), the school run has increasingly been seen as a significant contributor to peak hour congestion.

This research demonstrates that the school run is a complex, diverse set of spatial movements. There are a variety of ways in which primary school children travel to school, as table 1 highlights

Table 1: Primary School Children Most Frequently Used Mode of Travel to and from School

<table>
<thead>
<tr>
<th>n=1006</th>
<th>To School</th>
<th>From School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Most often used method %</td>
<td>Most often used method %</td>
</tr>
<tr>
<td>On foot:</td>
<td>On foot 48</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Walking bus 5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Walking bus and car 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>On foot and by car 6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total on foot</strong> 61</td>
<td>53</td>
</tr>
<tr>
<td>By car:</td>
<td>By car 37</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>By car and on foot 6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Car and walking bus 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total by car</strong> 45</td>
<td>49</td>
</tr>
<tr>
<td>By bicycle</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>By bus/ public transport</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Figures add up to 100% due to double counting ‘on foot and by car’

The table illustrates the complexity of the journey to and from school. Walking is still the most popular mode of travel to and from primary school.

‘it’s kind of more fun… we can play around, and we don’t have to worry about being stuck in traffic’ Lydia, 9

For many families, the journey to and from school is characterised by frequent change. For almost one quarter of respondents (21%) the mode of travel to school differs from mode of travel from school. Furthermore, a significant minority of respondents (8%) use more than one mode of travel during each journey to school.

Almost one third (32%) of respondents use different modes of travel on different days of the week. Furthermore, there are differing levels of car ownership, availability for the school run and actual use for the journey to school.

Most primary school children (96%) are escorted at least part of the way to and from school. Influencing factors include that the children are not considered mature enough to travel alone (identified by 63% of respondents), traffic danger (58%), and stranger danger (54%).

Those walking cite proximity of the school (identified by 61% of respondents walking to school), children’s health (47%), ease (43%) and the environment (35%) as factors influencing their decision to walk. Drivers identify time constraints (65%), safety (42%), long distance (36%) and
no alternative (36%) as factors influencing the decision to use the car. Outside the journey to school, the majority of primary school children travel by car.

Almost half of children taking part in the survey (47%) are not involved in decision making about their travel. Fourteen percent of children are involved equally with parents in the decision making process. Children walking to school are more likely to be involved in making decisions about how they travel.

'Safer Routes to School' Programmes

The research highlights that almost one in five (18%) respondents (rising to 37% in some schools) take part in initiatives that reduce dependence on the car and congestion at the school gate, including those supported by 'Safer Routes to School' programmes.

Three of the five schools had a Walking Bus. Participation in the Walking Bus varied between individual schools. In two schools, almost one quarter of respondents (22%) regularly used the bus:

‘you see all your friends, you can talk’ Andy, 6

‘when you walk to school (on the walking bus) you pick people up, and there are little arrows on the pavement to show you’ Ranj, 11

Walking buses are most popular with younger children. Older children (especially those in year 6) thought the walking bus was not appropriate for their age and described it as ‘babyish’.

'I can see that year 6 children might think it babyish because they are the biggest in the school' Jane, 10

Furthermore, 6% of respondents (rising to 14% in some schools) take part in park and walk schemes, and 17% of car drivers take part in car sharing.

The research also shows a significant potential for changing modes of travel to school. Eight out of ten parents and children would prefer to walk to school, as demonstrated in graph 1:

**Graph 1: Preferred Mode of Travel to School**

Six out of 10 of those currently driving to school are interested in changing their mode of travel. Four out of ten of those currently driving prefer to drive.

**Travel and Mobility amongst different groups of Children**

The research found significant differences between the travel experiences of different groups of children, including

- different types of families
Children of lone parent families are more likely to walk to school, and are less likely to have no alternative to their current mode of travel. Lone parents also report lower rates of car ownership—although those with cars are more likely to use them for the school run.

- different ethnic groups
  Although ethnic minority families report lower levels of car availability for the school run, those with cars are more likely to use them for the journey to school. Ethnic minority children undertake fewer non-school journeys than white children. Ethnic minority children are less likely to be able to undertake a journey on their own. Ethnic minority parents are more likely to cite fears of bullying as reasons for accompanying their children.

- children of different ages
  Younger children (aged 4-6) are more likely to be driven to school than 7-11 year olds. Children’s independence both on the journey to school and other places increases with age. Older children are more likely to be consulted on decision making about travel.

- gender
  Few gender differences were found with respect to children’s spatial mobility or travel to school patterns. However, women, either on their own or with assistance from their partner, are predominantly responsible for planning and organising children’s travel, and escorting children.

- rural and urban areas
  Rural children undertake more car journeys to school and other places per week than urban children. However, some rural children are more likely to be able to undertake at least part of the journey to school on their own. Urban parents are more likely to escort their children because of fears of traffic, stranger danger and bullying.

There are also different experiences of children within rural areas. Whilst some children live in villages where they can walk to school and other places, and have some degree of independence, other rural children seldom walk as a means of travel, have very little or no independent mobility, and have travel patterns centred around the car.

Diagram 1 below summarises the key features influencing mode of travel for the school run.

For further information...
Further information and the full report is available from

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Appendix 10.9 Photographs of different cars

Figure 10.1 Photograph of a Rolls Royce

Great… a Rolls Royce. (Pete, 9, Rural Hill, Bucks)

Figure 10.2 Photograph of an old car

This was our old car… we have a better one now. (Gill, 10, Village Bottom, Bucks)
Appendix 10.10 Photostories of travelling by car

Figure 10.3 Photostory of trip to Townham

This is the roundabout... we go swimming near there... and there is a really steep hill down to here, and this is the theatre, we are going to the theatre soon... and then we went to town for the Christmas lights. (Jane, 10, Rural Hill, Bucks)

Figure 10.4 Photostory of trip to Lakeside shopping centre

We were going to Lakeside and we went to Megabowl. Here's a view from sitting behind Mum outside McDonalds... and this is when you have to go through the barrier to pay, it's £1, the toll booth on the bridge... and this is the road near Lakeside. (Daniel, 9, Suburban Royal, Bucks)
That's when we went to town, this is on the way to the swimming pool... and we went past the petrol garage. (Helen, 8, Country Wood, Enfield)
Appendix 10.11 Photographs of blurred landscapes

Figure 10.6 Photograph of traffic on the motorway

Traffic whizzes past. (Anushka, 10, Village Bottom, Bucks)

Figure 10.7 Photograph of horses

This is blurry… this is the horses we see on the way to school. (Wendy, 7, Rural Hill, Bucks)
Appendix 10.12 Photographs of traffic

Figure 10.8 Photograph of parking problems at school

(This is) parking at school. (Charlie, 6, Rural Hill, Bucks)

Figure 10.9 Photograph of traffic outside home

There's always traffic... when you try to cross the road at home. (Ranj, 11, Common Green, Enfield)
Appendix 10.13 Photographs of public transport

Figure 10.10 Photograph of a bus

It's warmer going by bus. In cars you can't move around and in buses you can. You can see more when you are upstairs on the top and you don't have to wear seat belts. (Daphne, 8, Common Green, Enfield)

Figure 10.11 Photograph of the train station

Helen, 8, Country Wood, Enfield: This is the station…
Helen's Mum: Yes, we walk past this everyday…
Helen: Yeah, sometimes we go on the train… I like that.