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Policies for promoting walking and cycling in England: a view from the street

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Abstract

Transport policies to increase active and sustainable travel in Britain have focused mainly on persuading people of the health benefits of walking and cycling for short trips, and have assumed that if people can be persuaded that more active travel has personal benefits then behavioural change will follow. Research reported in this paper, based mainly on detailed qualitative research in four English towns, argues that the complexities and contingencies that most people encounter in everyday life often make such behavioural change difficult. Attention is focused on three sets of factors: perceptions of risk; constraints created by family and household responsibilities; and perceptions of normality. It is suggested that unless such factors are tackled directly then policies to increase levels of walking and cycling will have limited success. In particular, it is argued that there needs to be a much more integrated approach to transport policy that combines interventions to make walking and (especially) cycling as risk-free as possible with restrictions on car use and attitudinal shifts in the ways in which motorists view other road users. Such policies also need to be linked to wider social and economic change which, in combination, creates an environment in which walking or cycling for short trips in urban areas is perceived as the logical and normal means of travel and using the car is viewed as exceptional.

Key words:
Walking
Cycling
Risk
Family
Normality
Policy

Highlights:

- Most British people find it hard to incorporate active travel into everyday routines
- Perceptions of risk are a major deterrent especially for cycling
- Family and household constraints frequently prevent walking and cycling
- Walking and cycling is not seen as a normal way to travel
- Transport policies need to recognize these constraints more explicitly

Total word count: 8,074

Policies for promoting walking and cycling in England: a view from the street

1. Introduction

There has been substantial recent emphasis on the promotion of active travel in the UK, with a series of reports from government and other bodies making the case for people to walk or cycle for short journeys (DfT/DoH 2010; DfT 2010; www.travelactively.org.uk). Arguments for increased levels of walking and cycling have focused especially on the perceived health benefits of active travel as part of a strategy to reduce levels of obesity in the UK (NICE, 2006; Ogilvie et al 2007). The arguments in favour of walking and cycling have thus been constructed more in terms of personal gains in health, and potential reduction of pressure on health services, rather than as a case for walking and cycling as sensible travel options in their own right. Actions to promote walking and cycling have focused mainly on making this form of travel easy and attractive through the development of new infrastructure and the provision of cycle training, especially for children. This approach has been exemplified by the past work of Cycling England, the establishment of the Cycling Cities and Towns programmes, and the Sustrans Connect 2 initiative (www.dft.gov.uk/topics/sustainable/cycling; DfT, 2011a; www.sustrans.org.uk/what-we-do/connect2). Underlying all these activities is an assumption – often implicit – that if walking and (especially) cycling are made sufficiently easy and attractive then people will automatically shift short journeys from the car to more active modes and that they can be 'nudged' into travel behaviour that is better for them and for the environment (Thaler and Sunstein, 2009; John, 2011).

However, there is increasing evidence that such approaches are rarely effective because they fail to take into account the complex sets of factors that prevent people adopting behavioural change. In particular, it can be argued that even when people believe that a different set of behaviour is appropriate – such as walking or cycling rather than using the car – they rarely put these beliefs into

action because of other constraints on their behaviour (Shove 2010; House of Lords 2011). Without more active interventions to not only make walking and cycling easier and attractive but also to make the alternative of car use harder and less acceptable, it is unlikely that significant modal shifts will be achieved. However, recent policies have been reluctant to adopt more interventionist approaches relying instead on persuasion and promotion of active travel mainly on health grounds. While in part such reluctance to intervene may be political – an unwillingness to promote policies that would be unpopular with some parts of the electorate at least – it is argued that it also stems from a failure to appreciate fully the existing constraints that make it hard for people to change travel modes (Mackett 2001, 2003; Jarvis, 2003; Alfonzo 2005; Anable 2005). Research reported in this paper focuses on the views of a wide cross-section of travellers about their everyday travel for short trips in urban areas, and highlights the complex reasons why people do not regularly walk or cycle even when they are otherwise well disposed towards this form of transport. Policy implications that follow from these research findings are then outlined. The paper adds both evidence and specific policy recommendations to existing academic discussion of sustainable urban transport (for overviews see Banister, 2005, 2007; Cox, 2010).

It is notable that where policies have been developed that are more interventionist there has also been the most obvious change in levels of walking and cycling. This is most clearly the case in parts of central London where the introduction of congestion charging in 2003 (Richardson 2004; Leape 2006) together with an existing urban infrastructure that militates against car use and, by the standards of most British towns, a good public transport system has led to a reduction in car use and an increase in levels of walking and cycling for short journeys (TfL 2008). This has been reinforced by investment in cycle lanes (for instance in the London Borough of Camden: www.camden.gov.uk/ccm/navigation/transport-and-streets/cycling-in-camden), the introduction of a cycle hire scheme (www.tfl.gov.uk/roadusers/cycling/14808.aspx), and the promotion of cycling for utility travel both by the Mayor of London (TfL, 2010a) and by a number of active campaign

groups including the London Cycling Campaign, Cycle Training UK, the CTC, Sustrans and Living Streets. Congestion charging has so far been largely rejected outside of London (the only exception being a small scheme in Durham) and the most widely adopted interventionist measure that could potentially make urban streets both safer and more attractive for cyclists and pedestrians is the introduction of 20mph zones in residential streets. These are gradually being introduced in many parts of the country (www.slower-speeds.org.uk/20s-plenty).

However, valuable as such schemes are, it can be suggested that their impact is likely to be limited unless more attention is paid to the views and concerns of all travellers. The increase in cycling in London remains concentrated in a relatively narrow socio-economic and demographic band, and is focused mainly on the central city (TfL 2010b, 2010c). Outside of this area cycling rates remain low and Whitelegg (2011) has recently argued that much more aggressive measures to restrict car use in London are necessary if more widespread adoption of non-car travel is to be achieved. While high profile campaigns by existing and committed cyclists and cycle organisations have clearly had some impact, and are an important part of the total picture, it can be argued that the attention paid to the views of this committed minority has deflected attention from the experiences of everyday travellers who currently do not cycle and who rarely walk. Research reported in this paper focuses on a much wider range of views to suggest a more radical set of interventions that may be necessary to achieve any substantial change in the ways in which most people travel in urban areas.

2. Methods

Data reported in this paper are drawn from a large EPSRC-funded project that used multiple methods to examine the experience of walking and cycling in four case study towns in England. In summary, the project aimed to explore ways in which walking and cycling are incorporated into the everyday routines and practices of households and individuals, to assess how decisions about everyday travel (especially with regard to walking and cycling) are constructed, and to examine the

ways in which walking and cycling are viewed by the travelling public. Our aim was to study a wide range of people, including those who rarely or never walk or cycle, and to focus on short trips in urban areas that could reasonably be undertaken on foot or by bike. Four case study towns were identified: Leeds, Leicester, Worcester and Lancaster. These were selected to represent a cross-section of English urban areas outside London, with varied social characteristics, and each with different levels of existing intervention to promote walking and cycling. Four principal methods were employed: a postal questionnaire survey sent to 15000 homes examining experiences of and attitudes towards walking and cycling; spatial analysis of the connectivity of all usable routes and of land uses in the four case study towns; 80 interviews with households and individuals both in the home and on the move whilst walking and cycling on commonly-used routes in the urban areas; and 20 household ethnographies designed to probe in more detail the ways in which everyday travel was embedded in household routines. This paper draws principally on the latter two methods (with more details given briefly below). Further information about all the research methods used can be found in Pooley et al (2011).

Interviewees were selected from questionnaire respondents to represent a cross-section of the population in the four study towns. 40 interviews were undertaken in households, exploring attitudes to walking and cycling and the reasons why people chose particular forms of everyday travel, and 40 interviews were undertaken as 'go-alongs' or mobile interviews while walking or cycling (Ricketts et al 2008; Carpanio 2009). These focused on the experience of travelling through the urban area and recorded the respondents' responses to the everyday situations they encountered whilst walking or cycling. Interviews were divided equally between the four study areas and half of the mobile interviews were undertaken on foot and half whilst cycling. Mobile interviews can pose particular problems as it is not always easy to carry on and record a conversation whilst travelling (Fincham et al 2009). Cycling in heavy traffic posed especial difficulties and the interviews were supplemented with additional material both before and after the journey.

The ethnographic study was designed to allow researchers to embed themselves as closely as possible in participating households and to observe and record everyday travel decisions at close quarters (Silverstone 1991). Households were selected by a variety of means: initially from questionnaire responses but also by snowballing and word of mouth in the field. In each city one locality was selected for detailed study so that all households included in the ethnographic study encountered a similar urban structure. In total five households were researched in each town and the intention was to use a range of methods to collect data. These included observations, interviews (both household and while travelling), travel diaries, mapping exercises, mobility inventories and community participation. On average three months were spent collecting data intensively from households in each area. In practice the precise methods used varied substantially from area to area and had to be adapted in the field to suit local circumstances. For instance, whereas in largely middle class areas most respondents understood the purpose of the research and were happy to welcome researchers into their homes for sustained periods, in more working class and/or culturally diverse districts the research was sometimes met with a mixture of suspicion and non-comprehension, and access to the homes of respondents was much more limited. None-the-less we did collect broadly comparable data from all areas and in total the interviews and ethnographies have generated 262 separate transcripts with some 1.5 million words of text. All data have been transcribed and coded, and then analysed using the text analysis programme Atlas ti together with detailed reading of responses by all members of the research team. Quotes used in this paper to illustrate key points have been chosen to reflect a range of opinions: it is not appropriate to try to quantify the qualitative textual responses. All names cited in the text are pseudonyms.

3. Results

In this paper we focus on the ways in which respondents characterised their views on walking and cycling as a means of everyday travel, and on the constraints and barriers that routinely prevented people from travelling on foot or by bike even when they expressed views and values that inclined

them towards environmentally sustainable and active travel modes. Fuller discussion of results can be found in Pooley et al (2011) and Jones et al (2012). Many questionnaire respondents did have broadly positive views about walking and cycling with little variation between the study areas. In particular respondents said they would find walking enjoyable, that it would benefit their health and that it would reduce pollution. For cycling most felt travel by bike would be good for their health, would save money and would contribute less to pollution, but rather fewer said they would find cycling enjoyable (Table 1). Interview and ethnography respondents (especially in Leicester) also cited many actual and potential benefits of more active travel irrespective of whether they used these modes frequently. A selection of quotes is given in Box 1, but the main themes that emerge are that walking is particularly linked to enjoyment, independence, fitness and connection to the environment whereas cycling offered convenience, health benefits and for some women was seen as a safer form of travel than walking or public transport because the respondents felt less vulnerable to potential attack. However, whilst linking both walking and cycling to many positive attributes respondents (and often the same respondents) also identified many reasons why, in practice, they rarely travelled on foot or by bike. For this paper we characterise these as the three Rs: Risk, Relatives and Reputation.

Risk is a relative concept, interpreted in varied ways by different individuals in different places (Beck 1999; Adam et al 2000), but one theme that emerged very strongly from the analysis was the extent to which many respondents considered that it was unsafe to cycle on most urban roads due to the dangers from motorised traffic. Safety concerns were more muted from walkers but were also present – especially from female respondents – with many respondents varying their routes according to the time of day and avoiding quiet streets where they felt more at risk of assault. Such concerns did not mean that respondents never walked or cycled, but they restricted what they did with many stating, for instance, that they only cycled off road or on quiet streets and thus would not consider cycling to work in busy rush hour conditions. Road safety concerns, especially for cyclists,

were also expressed by parents on behalf of their children with some respondents who were themselves keen cyclists expressing severe reservations about allowing their children to cycle on urban roads. A selection of responses is given in Box 2. Although routine monitoring has shown that levels of cycling have increased in most designated Cycling Towns and Cities (DfT 2011) there is little evidence from our research that interventions in the physical environment to provide cycle lanes and improve junctions has had much effect. Indeed, some respondents in Lancaster (a Cycle Demonstration Town 2005-11) expressed concern about the quality of the physical environment and the safety of on-road cycle lanes that were perceived as too narrow, and too easily encroached on by motorised vehicles. From the spatial analysis of connectivity and land use carried out concurrently with the surveys there was also little evidence that levels of walking and cycling were greatly increased either by good connectivity or by land use factors, although journeys on foot were more likely in neighbourhoods with good and accessible local amenities (Pooley et al 2011).

The presence of significant others (relatives) plays a major role in household travel decisions, often mediating the views and preferences of other household members. The major constraints relate to the presence of small children whose ability to walk or cycle is limited by age, and of older relatives whose physical health may restrict mobility. While, in part, the constraints imposed by children relate to the perceptions of risk outlined above, just as significant are the practical problems of organising a family, of preparing them to walk or cycle, of coping with complaints about tiredness and with varied levels of ability and enthusiasm from children of different ages. For many journeys, even short ones that could be accomplished on foot nor by bike, it is simply easier to put children in the car and drive a short distance down the road. Thus respondents who would regularly walk or cycle when travelling alone rarely did so when travelling with children. Similar factors influenced travel with family members whose mobility was limited by age or infirmity. Choosing to travel by a means that was perceived as difficult for some family members could exclude them from family activities and would not be seen as acceptable. Thus respondents whose inclination might be for

active travel would moderate their behaviour to accommodate the whole family group. A selection of responses illustrating these points is given in Box 3. In addition to the composition of the family, further household constraints were posed by the home itself and the way in which it was occupied. These were revealed especially through the ethnographic research and the mobility inventories that recorded the existence and location of the material goods that people would need for a family to walk or cycle. If bicycles, outdoor shoes and clothes, umbrellas and waterproofs were not kept to hand (or did not exist in the household) then this was a further discouragement to walking and cycling.

Most people prefer not to stand out as different but would rather adopt common norms of behaviour and fit in with those around them. While some respondents were keen and committed pedestrians or cyclists and deliberately presented an external appearance and demeanour that conveyed this message, most did not have a strong mobility identity but preferred to adopt norms of behaviour that would be seen as unexceptional. In 21st century Britain travel by car is the normal or default position for most people (over 60% of all trips are by car (DfT 2011b) and thus it is not surprising that most people who do not have a strong identity as a pedestrian or cyclists would normally travel by car. Moreover, many respondents suggested that travelling regularly on foot or by bike would be perceived as odd and that they did not wish to have a reputation that set them apart from the majority of people when it came to everyday travel. Even those who travelled regularly on foot or by bike reported that they were sometimes ridiculed, and had a reputation for being eccentric. However, they were also sufficiently committed walkers or cyclists to ignore these views. A selection of responses illustrating these points is in Box 4. It is argued that unless walking and cycling for short trips in urban areas are normalised within British society it is most unlikely that a large number of people will use these travel modes, even if other policies are encouraging them to do so.

Much policy discussion about sustainable and active travel tends to link walking and cycling together as forms of travel that are both good for the environment and good for health. However, our analysis suggests that in many respects walking and cycling are distinctly different and that there may need to be different policy initiatives to promote them. This can be illustrated with regard to the three themes discussed above. The risks associated with walking are certainly different from those associated with cycling. For cyclists the greatest perceived danger is from road traffic whereas for pedestrians who, for the most part, already have segregated (if imperfect) road space in urban areas, the main perceived risk is from other pedestrians. Family and household constraints also differ for pedestrians and cyclists. Cycling requires more investment in equipment; it also takes up more storage space and takes more effort and skill than walking does. Whereas almost everyone learns to walk at an early age some people will never learn to ride a bike, and thus accommodating all household members on journeys by bike will be much more difficult than persuading relatives to walk. Following from the above, it can also be argued that walking is an activity that most people undertake at least some of the time whereas cycling is an activity that some people never undertake (in our questionnaire survey 23.4% of respondents said that they had never undertaken a journey by bike). Moreover, questionnaire respondents were also more likely to enjoy walking than cycling. It can thus be suggested that walking is already seen as a relatively normal activity whereas cycling is not, and thus it should be easier to increase the number of trips and their distance for journeys undertaken on foot than it is to increase levels of cycling, though cycling offers more capacity for modal switch for longer urban journeys. However, it can be suggested that to achieve a large increase in walking there would need to be substantial changes to urban structure and life styles, as the number of journeys that most people currently undertake that could reasonably be switched to walking is limited by factors of both distance and trip purpose (for instance it is usually too far to walk while carrying shopping home from the supermarket).

4. Policies

The key message from our research is that in the towns studied using the car for short trips in urban areas is convenient, habitual and normal whereas alternatives to the car – including walking and cycling – are seen as inconvenient, potentially risky and odd. These are all powerful reasons for using a car and for not engaging in more active and sustainable travel. Solutions to this problem are obvious but difficult to implement because they require quite fundamental change not only in the ways in which we travel but also in the structure and organisation of urban life. They also require coordinated action from public and private bodies at a variety of spatial scales and involving departments and organisations that do not routinely work together. We identify five sets of policy recommendations that we consider would meet the concerns expressed by respondents, though all of these specific options were not necessarily discussed in detail during the collection of data.

First, there is need to create a safe physical environment for both pedestrians and cyclists where people can walk or cycle without feeling that they are exposed to undue risk. For cyclists we believe that this requires the provision of fully segregated cycle lanes on all arterial and other busy roads in urban areas so that there is a cycling space in which people feel protected from the dangers of road traffic. It is essential that this space is physically separated from motorised vehicles and from pedestrians, and wide enough to accommodate a large volume of cyclists travelling at different speeds, otherwise some of the problems of risk associated with road space may be transferred to the cycle routes (Hill, 2011). In residential neighbourhoods, and where it is not physically possible to segregate cycle routes, the emphasis should be on reducing traffic speeds and restricting car access to create an environment where most cyclists feel safe. For pedestrians the priority must be to create wide, well-maintained (especially in autumn and winter conditions with the clearance of leaves, snow and ice) and well-lit pedestrian routes that people are willing to use, thus increasing footfall and reducing perceived risks from strangers. Schemes to reduce road traffic (for instance through congestion charges or road pricing) should also help to create a safer urban environment but we suggest that they are not sufficient on their own: without other measures they could even

lead to an increase in road traffic speeds (as congestion is reduced) and thus to increased perceptions of risk from cyclists and pedestrians. While there are significant costs attached to the provision of segregated cycle lanes these are small in comparison to the sums spent on new road schemes, and they would have real benefits for all road users.

Second, there needs to be a campaign, backed up by legislation, to increase the awareness that motorists have of cyclists and pedestrians. The car creates a cocoon in which the motorist is isolated from the environment (Urry 2004) and most motorists (who rarely walk or cycle) have little perception of how vulnerable other road users may feel. Legal changes could include the adoption of 'strict liability' as used in much of continental Europe in which pedestrians or cyclists injured in an accident involving a motor vehicle do not have to prove fault in seeking compensation. This does not alter criminal responsibility but places a civil responsibility on drivers to have insurance that pays vulnerable victims such as cyclists or pedestrians independent of fault. This does not in itself make roads safer for cyclists, but could act as a real incentive for car drivers to behave in a way that protects other road users (Fedtke, 2003). Other possible changes include alterations to the driving test to place more emphasis on the vulnerability of other road users – possibly even requiring new drivers to spend some time on a bicycle – together with publicity campaigns to raise awareness of cyclists and pedestrians. Such changes could be implemented relatively easily by national government and are almost cost-free.

Third, there need to be changes to the spatial structure of cities so that it is easy for people to undertake most of their everyday activities within a short distance of their home rather than having to undertake regular long journeys. It will never be possible to remove all long journeys – and travel to work is the most resistant of everyday trips – but changes in planning controls to favour local neighbourhood shopping developments rather than out of town shopping malls, together with the provision of more social, health and educational facilities (all of similar quality) close to where most

people live, would all contribute to a reduction in everyday travel distances and would make walking and cycling more possible for many people. Building regulations also need to be adjusted to make it compulsory for all new dwellings to have convenient storage facilities for bicycles, and wherever possible such facilities should be retro-fitted to existing properties. Such changes will only come slowly, and require the cooperation of a wide range of different parties, but could be spearheaded by bold local authorities wishing to be in the vanguard of promoting sustainable urban travel.

Fourth, alongside spatial change there also needs to be social change. This is much more difficult to achieve, but unless we move towards a social and economic environment in which active travel modes such as walking and cycling are seen as achievable by most people for at least some trips then the car will continue to dominate urban areas. Some changes can be implemented relatively easily. These could include more use of flexible working so that families can stagger travel times and use travel modes that they may, initially at least, perceive to be slower or less convenient. Community-based schemes for child care and school transport could also reduce the need to travel, while the introduction of more family-friendly social welfare policies could allow one parent temporarily to reduce working hours so that travel with young children becomes easier and family constraints are reduced.

Fifth, and following from all the above, there is need to create an environment in which travelling on foot and by bike is seen as normal. The corollary of this is that travelling by car for short trips in urban areas is seen as abnormal and even anti-social. Given changes outlined above such normalisation should occur naturally, but it could be reinforced by advertising campaigns promoting the virtues of active travel and the negative effects of travel by car in urban areas. Most simply, there is need to convey the message that walking and cycling for short trips in urban areas is something that most people can do most of the time and is not the preserve of super-fit specialists.

This message is not anti-car ownership, but it is arguing for more responsible and restricted car use, especially in urban areas where there are realistic alternatives available to most people.

5. Conclusions

Research reported in this paper forms a small part of a much larger project that has used multiple quantitative and qualitative methods to investigate attitudes to and experiences of walking and cycling in four English towns. It has focused especially on the views of a wide range of travellers as revealed to researchers through intensive research using a spectrum of qualitative methods. The messages coming from these respondents are remarkably clear. Most people recognize the potential health and local environmental benefits of walking and cycling for short trips in urban areas, and most people say that they enjoy walking. However, most respondents also identify a range of factors that make it difficult not to use the car even for short journeys. These factors have been summarised as concerns about safety (risk), constraints created by household and family responsibilities (relatives) and concerns about how walking or cycling may be perceived by others (reputation). Even those who did cycle or walk regularly often identified similar issues, but they have been able to develop strategies which enable them to at least partially overcome the problems. Respondents were not asked directly to propose solutions, but we suggest a series of policy implications that follow from these findings. The main message for policy makers is that strategies that focus only on part of the problem – for instance the provision of improved cycle infrastructure – are unlikely to be successful on their own as the factors that prevent even those with a desire to adopt more active forms of travel from doing so are too complex and embedded in everyday life. There needs to be a much more coordinated programme of infrastructural, legislative, spatial, social and economic change to create an environment in which choosing to walk or cycle for short trips in urban areas becomes the obvious and expected thing to do.

Such proposals may seem idealistic or utopian, and they are certainly some distance from current British government policy on sustainable transport (DfT 2011c). However, many other continental European countries have adopted at least some of these measures and in such countries levels of cycling in particular are notable higher (Pucher and Buehler, 2008; 2010). Britain already has levels of walking that are comparable to or higher than most other European countries, but there is scope to increase this substantially and to demonstrate how walking as a means of transport can be normalised within urban areas. The evidence provided by this research does not provide much that is in itself completely new: many other studies have identified the various barriers to walking and cycling outlined above (for instance Mackett 2001, 2003). What is new is the extent to which such views are shown to come directly from a wide cross-section of the travelling public, and the ways in which in-depth qualitative analysis has allowed the experience of everyday travel to be situated within the context of the lives and communities of our respondents. One message that also comes through very clearly is that although it is possible to produce the generalisations outlined above, at the individual and community level there are many complexities and contingencies that create an almost unique mix of circumstances that influence how and why individuals and families travel. It is impossible to unravel all these complexities, but the embedded and contextual nature of everyday travel, as demonstrated in this research, does emphasise the need for policies that go beyond transport and embrace the intersections between everyday travel and the wider social, economic, spatial, cultural and environmental processes that constitute the twenty-first century city.

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Table 1: Positive attributes of walking and cycling (mean scores)*

	Leicester	Lancaster	Leeds	Worcester
If I make, or were to make, journeys on foot:				
It would benefit my health	1.5	1.5	1.5	1.5
I would find walking enjoyable	1.9	1.9	1.8	1.9
It would mean I contribute less to local air pollution	1.9	2.1	2.0	1.9
I would get a sense of freedom	2.0	2.1	2.1	2.0
I would find it relaxing	2.1	2.1	2.0	2.0
Sample size	*167*	*244*	*200*	*187*
If I make, or were to make, journeys by bicycle:				
It would benefit my health	1.6	1.6	1.6	1.7
It would mean I contribute less to local air pollution	1.8	1.9	1.9	1.9
More cycle lanes would make me feel safer	1.8	2.0	1.9	1.9
It would save me money	1.7	2.1	2.1	1.8
It would mean I contribute less to climate change	2.0	2.1	2.0	2.0
Sample size	*121*	*193*	*175*	*130*

Source: questionnaire survey in four case study towns

*Respondents were asked to place their response to each statement on a scale from 1 to 5 where 1=strongly agree; 3=neutral; 5=strongly disagree. Thus a mean score of 1.5 shows a high degree of agreement with the given statement. Cases where a statement scored 2.0 or less in at least two towns are included in the table.

Box 1: Positive attitudes to walking and cycling

Walking through an area gives you a better insight into that area than driving (Vince, Leeds)

Walking is calming, allows you to think through problems, clear your mind (Pierce, Leicester)

Because it is good for health and definitely fresh air we can get, so definitely walking is good exercise. (Rose, Leicester)

I would always choose to walk simply because I would spend that amount of time in traffic so I might as well be out making the journey and feeling like I'm accomplishing something rather than sitting there getting wound up in a car. . . I save a lot of money by walking places and plus it's an exercise thing really. (Tim, Leicester)

Walking gives me full control over movements. In a way I can control everything. You don't rely on anybody, you only rely on yourself.. .I like to think through the day, talking to myself and planning for the next day, it's a thinking and planning activity. Very relaxing, wind away all the stress and pressures of the day. (Molly, Leicester)

The advantage of walking is that you know exactly how long it's going to take you. (Audrey, Lancaster)

I meet people I know when walking which is what you miss if you drive. (Jen, Worcester)

If I cycle then I get a bit of fresh air and I feel kind of a bit alive when I get to work, whereas if I get the bus and it's full of coughing people I sort of feel a bit negative and un-refreshed when I get to work. (Joe, Leicester)

I get fed up of being behind the wheel. That's where for me where cycling comes in. If I've been either behind my desk all day or behind the wheel it's nice to get out and do a bit of exercise. Once you've got your cycle and your crash helmet, and your training shoes and your shorts and your tee shirt, you've got nothing to pay for. (Dick, Leicester)

Cycling gives women a bit more security rather than walking … [and makes them feel] more independent, particularly those without access to a car. (Jit, Leicester)

I am able to maintain the fitness level for those sports through my daily work out of cycling to and from work, it would be much more difficult otherwise and with a busy young family and very busy job, I would really struggle to fit in sort of a gym membership. (Jara, Leicester)

I do my best thinking when on the bike in the morning. (Nadia, Lancaster)

Cycling is the quickest way of getting around town. If I'm in a real rush get on the bike. (Moses, Worcester)

Box 2: Perceptions of risk when walking and cycling

I am not comfortable at all with cycling. I am always scared of the traffic around me. (Molly, Leicester).

If you want to be really safe and that then you'd have to ride on the pavement. (Neela, Leicester)

As a cyclist you're not really recognized as a road user but you can't use the footpaths so its bit frustrating. (Raj, Leicester).

'My ideal would be if it were possible, transport wise, for cycle paths to be absolutely physically removed from roads as in a proper kerb separating cyclists from traffic so that cyclists didn't have to use the pavement but weren't sharing the road with cars then cycling would definitely be an option and I'd find ways around the other inconveniences of cycling. But as I say, with cyclists having to mix with traffic it just seems crazy.' (Holly, Lancaster)

There's just no way I'd cycle in the city centre, and there's no way I'd let my kids cycle there either. It's too dangerous. (Sandra, Leeds)

Of course I want my kids to cycle. I love cycling. They can get free training which'll make them better cyclists. But a big part of me hates the idea of them riding on the roads, so I do wonder why we're bothering to teach them. It's like creating a false expectation, isn't it? (Brian, Lancaster)

I wouldn't tend to go walking at night generally. (June,Worcester).

I feel very vulnerable walking some places because I can't run. (Jen, Worcester).

I feel safer going through that street where there's a lot more people around, rather than that road where you've got the cars but you don't really have many people walking it. (Patrick, Leeds).

There are places where it is risky walking. The pavements are pretty bad in places. (Vince, Leeds)

There's some places I wouldn't go on my own. And there are some places I perhaps would go if I was in a car (Dick, Leicester)

I know the good areas and the bad areas in the city and I always make sure I am walking with someone, or that I am walking at the right time. (Anju, Leicester)

Box 3: Family and household constraints on walking and cycling

We'd like to [cycle more] but when children are smaller it's actually, there's very few places where they can safely cycle, in terms of roads … [Cycling as a family] … that's very difficult while my youngest is still on stabilizers and not confident. I don't want to put her on a road with much traffic … We have one family car and that does most of the work, carries the kids and so forth but whenever possible, at weekends, I try to get my kids cycling with me. (Jason Leicester).

As the kids got older they liked it [walking] less and less. (Dick, Leicester).

[When you have children] You don't have any sleep and you just can't do it [¾ of an hour journey each way]. You can't get up at half six every day and go to work. (Cassie, Leicester).

It's [cycling] not their choice a lot of the time. [They] want to ride in but can't because a lot of the time mum's taking them to school and dropping them off…and then she's going off to work so they can't cycle in. (Anna, Leicester)

Children influence walking routes (both through wanting (insisting) to go a particular way and through parents wanting to take them a nicer/safer/less polluted way). (Hailey, Leeds).

With the demands of family and work and everything there's not much time or energy [for walking and cycling]. (Percy, Worcester).

I think time between activities makes a difference, even though it may be a short journey, we probably wouldn't walk or cycle because we've only got so much time to get from one place to another. (Noah, Worcester)

Usually I go with the car because of convenience, less time, because sometimes J [age 3] is tired when I pick him up from nursery and I would have to carry him, and I have my books as well, and when there's two of them… In the week [I use the car] for two days a week, at some point I might even try just walk with the kids, but it's usually because with the two kids they have different energies, and R runs and J is a bit more like staying here and hanging round here and there, so that creates some kind of tension and also I'm on pressure to get on time to work, then it's really much more convenient to just strap them on the seats and take them and leave them and that's it. Apart from that I would just walk. (Don, Lancaster).

Box 4: Images associated with walking and cycling

The whole thing with transport and not having a car, I do feel like a second class citizen, there's definitely a sense that as a pedestrian and a cyclist you are definitely second class citizens. (Jim, Lancaster)

People still assume that there's something wrong with you if you don't drive (Bob, Leeds).

The [cycle] helmet is a problem for me. Because … I just think it would make my hair a little squashed. (Lara, Leeds)

The general reaction or when I say I cycle to work or whatever they say 'oh do you' as though it's unusual. (Don, Worcester)

You do get a sense of some people thinking oh, you're a bit weird because you're going up on the bike you know. A bit odd. (Sally, Worcester).

Cycling seems to be growing...but you still seem a bit of an oddity. (Richard, Leicester)

It's not a cool thing for a girl to be on a bike. (Anju, Leicester)

I probably would cycle if I didn't worry so much about image and public opinion - me arriving at a meeting hot and sweaty. (Joe, Leicester)

Cycling [to work] wouldn't be very practical that's the main thing. Because we've not got any showers there and you don't want to arrive at work all hot and sweaty. (Dick, Leicester)

I asked someone why he cycled and he said 'I wish I could afford a car'. It looked to me as if he was out of work. (Devaraj, Leicester)

Walking boots and skirts and bare legs in summer are out – in winter I'll wear boots with trousers. (Jan, Leeds)

I get called the bag lady, because I walk everywhere and I have quite a lot of stuff with me. (Steph, Leeds)

There is a colleague in personnel who walks maybe slightly further and we have a bonding, we like to talk about it together that we both walk and how much we enjoy it. (Percy, Worcester)