

Making walking and cycling normal: key findings from the understanding walking and cycling research project

**Colin G Pooley, Lancaster Environment Centre, Lancaster University
c.pooley@lancaster.ac.uk**

It is widely recognized that there is a need to increase levels of active and sustainable travel in British urban areas. The Understanding Walking and Cycling (UWAC) project, a collaboration between the universities of Lancaster, Leeds and Oxford Brookes funded by the Economic and Physical Sciences Research Council (EPSRC) 2008-11, has examined the factors influencing everyday travel decisions and proposes a series of policy measures to increase levels of walking and cycling for short trips in urban areas. This short paper summarises the research methods used, and outlines key results and policy proposals. The research focus is on understanding how individuals and households make everyday travel decisions, particularly the factors that prevent the use of more active and sustainable forms of transport (such as walking or cycling) even when individuals may be otherwise well-disposed towards sustainable travel.

A wide range of both quantitative and qualitative data was collected in four English towns (Leeds, Leicester, Worcester, and Lancaster). These were chosen to reflect a range of social characteristics, urban environments and existing interventions to promote active travel. Two separate questionnaire schedules were prepared, one focusing on walking and one on cycling. Questions were designed to collect data on the experience of and attitudes towards either walking or cycling and schedules were sent to a sample of households in all four study areas stratified using location and the index of multiple deprivation to produce a cross-section of the population. There was no attempt to specifically target walkers or cyclists. 15000 postal questionnaires were distributed evenly across the four areas with a response rate of almost 10% giving 1,417 usable returns (798 walking and 619 cycling). The sample of respondents was broadly representative of the total population. Spatial analysis of the four case study towns consisted of detailed land-use mapping and identification of the network of all routes that could be used for walking and cycling (which can differ significantly from the road network). Multiple Centrality Analysis (MCA) was then used to assess connectivity within the city. Network buffers of 800 metres for walking and 2500 metres for cycling (roughly the average acceptable distance travelled over 10 minutes to access everyday activities) were developed and used to calculate local and global measures of connectivity as well as prevalence of everyday services within walking and cycling distance of the home. These indices could then be correlated with self-reported data on levels of walking and cycling provided by the questionnaire survey to assess the extent to which land use and connectivity influence levels of walking and cycling.

80 semi-structured interviews were undertaken with people selected (mainly) from their questionnaire responses to be broadly representative of the population structure and travelling characteristics of the population of each of the four towns. 40 interviews were undertaken in households and probed attitudes to walking and cycling and the reasons why people chose particular modes of travel, and 40 interviews were conducted as either walking or cycling 'go-alongs'. Respondents were accompanied on a 'usual' journey and the interview focused on the motivations for travelling on foot or by bike, on route selection and on the experience of the journey. Half of the mobile interviews were on foot and half were undertaken whilst cycling, and a small number of the cycle journeys were also recorded visually with a head cam. Household ethnographies were undertaken with 20 households (5 in each town). In each urban area one location was selected – designed to reflect particular characteristics – and all respondents were recruited

from that location. This allowed the researchers to immerse themselves in the local community and begin to understand the ways in which people moved around. The purpose of the ethnography was to observe and understand the nature of everyday journeys within a community and this was done using a combination of research tools including interviews, go-alongs, mobility inventories, observations, mapping exercises and community participation. The precise nature of the ethnographic research varied across the four districts in recognition of the need to engage different communities in particular ways. Analysis of a large quantity of text was undertaken through careful reading and coding, together with a technique known as Q Methodology which was used to help identify key themes.

Key findings of the research are that whilst attitudes to walking and cycling as expressed in the questionnaire and interviews are mostly positive or neutral, many people who would like to engage in more active travel fail to do so due to a combination of factors. These can be summarised as:

- Concerns about the physical environment, especially with regard to safety when cycling or walking. From our analysis of the influence of the physical environment on walking and cycling it is clear that traffic is a major deterrent for all but the most committed cyclists. Potential cyclists, recreational (off-road) cyclists and occasional cyclists are discouraged from using their bicycles for everyday urban journeys because of their fear of cars and heavy goods vehicles. For pedestrians, the major factor relates to footfall. Empty streets are perceived to be more dangerous and, again, although committed walkers are not deterred many potential or recreational walkers restrict their journeys on foot because of their perception of risk. For both walking and cycling the availability of local facilities and the structure of the built environment, although not insignificant, were not major factors determining levels of walking and cycling.
- The difficulty of fitting walking and cycling into complex household routines (especially with young children). Our research shows that, under the conditions which currently prevail across urban Britain, household and family commitments are significant factors in restricting the extent to which people use walking and cycling for everyday travel, even when their own values and attitudes incline them towards more sustainable forms of transport. For most people there is no single factor that restricts the use of more sustainable travel modes, rather it is a combination of circumstances including the logistics of organising and moving with (sometimes tired) children, pressures of time and other commitments, the ready availability of the paraphernalia needed for walking and cycling and parental concerns about safety. Unless such factors are explicitly recognised and tackled strategies to increase levels of walking and cycling for everyday trips are likely to have limited success.
- The perception that walking and cycling are in some ways abnormal things to do. Most people prefer not to stand out as different, but tend to adopt norms of behaviour that fit in and reflect the majority experience. In Britain, travelling by car is the default position for most people. Our research makes clear that the extent to which a household finds it difficult to incorporate walking and/or cycling journeys into its everyday routines reflects the degree to which car use has become normal, and habitual. We suggest that as walking and cycling are made more normal, more households will develop more strategies and systems to more easily accommodate walking and cycling into their ordinary, everyday movements. Ethnographic observation of households in which walking and cycling, and not driving, were usual modes of transport demonstrates this to be the case.

The key message that comes from this research is that at present in Britain using the car for short trips in urban areas is convenient, habitual and normal. It is what people expect to do, what most people expect others to do, and what many other people who have yet to benefit from car ownership aspire to do . Alternatives to the car – especially cycling and walking – are perceived to take too much effort, need planning and equipment that causes hassle, and may be risky and uncomfortable. They also run the risk of being perceived by others as eccentric or odd. These are all powerful reasons for not walking and cycling and for using the car for most short trips in urban areas.

Solutions to this conundrum are obvious but difficult to implement because they require integrated policy and extend well beyond the usual remit of transport policy and planning. It is argued that to achieve any significant increase in levels of walking and cycling it is necessary to reverse the balance of power between different transport modes. In short, it is necessary to make travel by car for short trips in urban areas more difficult and, most crucial, make it feel abnormal and exceptional. In contrast, policies have to be put in place that make walking and cycling easy, safe, comfortable, and accepted as the normal and obvious way of moving around urban areas for most people. We identify several specific areas where policy change is needed.

First, it is essential that the urban environment is made safe for cyclists and pedestrians. This requires the provision of fully segregated cycle routes on all arterial and other busy roads in urban areas. It is clear from the research that most non-cyclists and recreational cyclists will only consider cycling regularly if they are segregated from traffic and that pedestrians are hostile to pavement cyclists.

Second, pedestrian routes must be made as welcoming as possible to increase footfall. This could include widening pavements, removing street furniture that obstructs pavements and ensuring that pavements are well lit, well maintained and kept free of leaves and ice.

Third, there need to be effective restrictions on traffic speeds, parking and access on all residential roads and other routes without segregated cycle and pedestrian paths so that both cyclists and pedestrians feel that they have a safe and convenient environment in which to travel. This could include 20mph speed limits and resident-only access by car in some areas.

Fourth, the system of legal liability on roads used by the public should be changed to protect the most vulnerable road users (cyclists and pedestrians). One approach would be to adopt 'strict liability' so that pedestrians or cyclists injured in an accident involving a motor vehicle do not have to prove fault in seeking compensation. Forms of 'strict liability' are adopted in much of continental Europe and while not changing criminal responsibility they place a civil responsibility on drivers to obtain insurance that will pay vulnerable victims independently of fault. This may act as an incentive for car drivers to behave in a way that protects the most vulnerable road users.

Fifth, there need to be changes in the spatial structure and organisation of the built environment, enforced through planning legislation, to make accessing common services and facilities on foot or by bike easy. This would require the development of more neighbourhood shopping centres within walking or cycling distance of most people, restrictions on out-of-town developments, provision of secure bicycle parking facilities and the provision of cycle storage in most homes.

Sixth, there need to be wider societal and economic changes to give people the flexibility to travel more sustainably. Policies (that already exist in many countries) could include the greater use of flexi hours so that walking and cycling could be more easily fitted into a household routine, more family-friendly welfare policies so that in families with small children one parent could afford to reduce working hours and thus

be less constrained by time commitments, and more equitable educational provision so that most children attended a school close to home.

Seventh, it is necessary to change the image of cycling and walking. To a great extent this should be consequential on the above changes: as more people walk and cycle then more people will accept it as normal. However, campaigns to promote walking and cycling as normal and something accessible to all and not dominated by super-fit or unusually committed specialists should also be adopted.

Clearly it is not possible to implement immediately all the solutions outlined above, but some can be put in place relatively easily and at minimal cost (for instance changes to legal liability and improved traffic management). While there are costs attached to the provision of segregated cycle routes these are small compared to the cost of new road schemes. Most crucially, we believe that there needs to be a coordinated and integrated approach to the delivery of active and sustainable travel in Britain with a real commitment from a wide range of governmental, charity and private-sector organisations. While improvements to infrastructure alone would be welcome, they are unlikely on their own to make a large difference to levels of active travel. A much more significant package of measures is necessary to create an urban environment where a significant proportion of the population feel confident cycling and believe that walking or cycling are the obvious and sensible choices for everyday travel. Only in this way will Britain achieve the levels of active travel currently seen in some other north-west European countries.

For further information see:

Pooley, C., Tight, M., Jones, T., Horton, D., Scheldeman, G., Jopson, A., Mullen, C., Chisholm, A., Strano, E. and Constantine, S. (2011) *Understanding walking and cycling: summary of key findings and recommendations* (Lancaster: Lancaster University). Available at:

http://www.lec.lancs.ac.uk/research/society_and_environment/walking_and_cycling.php

Other publications arising from the research include:

Pooley, C., Horton, D. Scheldeman, G., Harrison, R. (2010) 'Shaping the city for walking and cycling: a case study of Lancaster (UK)' *Built Environment* 36 (4) 448-61

Pooley, C., Horton, D. Scheldeman, G. Tight, M, Harwatt, H. Jopson, A. Jones, T., Chisholm, A. (2011) 'Household decision-making for everyday travel: a case study of walking and cycling in Lancaster (UK)' *Journal of Transport Geography* 19, 1601-7

Jones, T., Pooley, C., Scheldeman, G., Horton, D., Tight, M., Mullen, C., Jopson, A, and Whiteing, A. (2012) 'Moving around the city: discourses on walking and cycling in English urban areas'. *Environment and Planning A* (in press)

The full research team was:

Principal Investigator: Colin Pooley (Lancaster University)

Co-investigators: Miles Tight (Leeds University); Tim Jones (Oxford Brookes University)

Core researchers: Dave Horton and Griet Scheldeman (Lancaster); Alison Chisholm and Emanuele Strano (Oxford Brookes); Ann Jopson, Caroline Mullen, Helen Harwatt (Leeds).

Project administrator: Sheila Constantine

Additional research was provided by: Tony Whiteing, Helen Muir, Matthew Page and Emma Bill.

February 9th 2012