

## Chapter 4

### **Balancing social justice and environmental justice: mobility inequalities in Britain since circa 1900**

**Colin G Pooley,**

#### **Introduction**

The production of societies and economies that embody principles of both social and environmental justice is an almost un-contestable aspiration, but agreement on how such goals might be met is often illusory. Achieving both social and environmental justice in transport and mobility seems particularly difficult as, in some respects at least, the two concepts conflict with each other. Thus while much of the literature on social exclusion in transport focuses on the need to improve access for all to the dominant transport modes, issues of environmental justice might argue for restrictions on personal mobility to reduce vehicle emissions. Clearly, any restrictions that operate through a price mechanism run the risk of increasing rather than decreasing mobility-related social exclusion and thus of contravening principles of social justice (Hine, 2003, 2012; Lucas, 2006; 2012, Preston and Raje, 2007; Preston, 2009). This chapter, first, explores the concepts of mobility-related environmental and social justice in more detail, focusing especially on the ways in which these concepts may be applied to short trips in urban areas over approximately the last century and, second, develops an argument that at various points in the twentieth century there were opportunities to produce a transport infrastructure that delivered more socially and environmentally just patterns of everyday mobility, but that such opportunities were lost as subsequent decisions reinforced existing mobility inequalities. The paper focuses on two specific forms of urban transport: trams and bicycles. In each case the chapter examines the paradoxes that concepts of social and environmental justice present, it assesses the historical context in which each has developed, and it argues that alternative paths that would have delivered greater social and environmental justice were possible. In conclusion, the paper outlines a policy framework that might avoid such opportunities being missed in the future, thus ensuring that present-day planning learns from past experience.

#### **Mobility-related environmental and social justice**

Environmental justice is not straight-forward to define and has evolved significantly since it developed as a concept in the USA in the 1980s. The origins of the concept of environmental justice, and its theoretical and empirical underpinnings, are explored in a number of extensive reviews (Agyeman and Evans, 2004; Walker and Bulkeley, 2006; Walker, 2009). Agyeman and Evans (2004, 156) cite the Commonwealth of Massachusetts definition of environmental justice:

Environmental justice is based on the principle that all people have a right to be protected and to live in and enjoy a clean and healthful environment. Environmental justice is the equal protection and meaningful involvement of all people with respect to the development,

implementation and enforcement of environmental laws, regulations and policies and the equitable distribution of environmental benefit.

They argue that this has the advantage of combining 'procedural' and 'substantive' aspects while also stressing the need for equitable distribution of resources. In a more recent paper, Walker (2009) focuses especially on the spatial aspects of environmental justice, arguing for a pluralistic approach to both the definition of and theoretical underpinnings for the analysis of environmental justice.

Relatively few papers focus explicitly on the environmental justice implications of transport and mobility (though many more include transport-related issues briefly or implicitly), but the topic is explored most fully in the context of the unequal distribution of vehicle-related emissions (Mitchell and Dorling, 2003; Buzzelli et. al., 2004; Pearce et. al., 2006; Harvard et. al., 2009). All studies demonstrate clearly that the environmental impacts of vehicle exhaust emissions are unequally distributed with strong socio-economic gradients, and with those who produce the least pollution themselves often suffering the worst consequences of pollution produced by others. In turn, this is displayed in differential mortality and morbidity rates across urban populations. At the city level there are many other negative consequences of vehicle use that are felt disproportionately in particular locations and, most usually, by the poorest and most vulnerable in society. This is the case not only with regard to road traffic accidents (Azetsop, 2010) where children are particularly vulnerable (Hillman et. al., 1990), but also with respect to noise pollution and the negative impacts that traffic congestion has on the urban environment and the health of urban residents (Davies et. al., 2009; Barregard et. al., 2009; Selander et. al., 2009). Environmental justice implications of motor vehicle use also have global ramifications. Some 25 per cent of the UK's greenhouse gas emissions come from the transport sector with road transport accounting for 70 per cent of transport-related emissions (European Commission, 2009). While other forms of transport (air, rail, ships) all contribute towards greenhouse gas emissions, motor vehicles (located overwhelmingly in the richest countries of the world) thus make a significant contribution to global climate change with the consequences felt most severely in some of the poorest nations (Parry et. al., 2007). Application of environmental justice principles at both the global and local scales would lead to the restriction of motor vehicle use and/or the reduction of harmful emissions from vehicles.

There is an extensive literature on the social justice implications of mobility and everyday travel, mostly focusing on concepts of social exclusion. One widely used definition is that:

Social exclusion is a complex and multi-dimensional process. It involves the lack or denial of resources, rights, goods and services, and the inability to participate in the normal relationships and activities, available to the majority of people in a society, whether in economic, social, cultural or political arenas. It affects both the quality of life of individuals and the equity and cohesion of society as a whole. (Levitas et.al., 2007, 9).

In the context of everyday transport it is interpreted primarily as those people who are unable to travel freely (due to poverty, disability and/or poor access to public transport) to such an extent that it impairs their ability to participate fully in the economic, social and political life of their community. It may restrict access to work and education, reduce interaction with friends and family, and lead to limited choice of food sources, thus impacting upon diet and health (Hine and Mitchel, 2003; Lucas,

2004, 2012; Preston and Raje, 2007; Lucas and Stanley, 2009; Cerin et. al., 2009). It includes the concept of 'forced car use' where due to (often rural) inaccessibility those on low incomes are forced to own a car to carry out everyday tasks when they can ill-afford to do so, thus impacting on their ability to allocate money to other activities (Currie and Sensberg, 2007; Currie et. al., 2009; Johnson et. al., 2010; Shergold and Parkhurst, 2012). Policy responses to such issues in developed countries are usually framed in terms of both providing improved public transport and ensuring that all those who need to do so are able to access the dominant mode of everyday travel: the motor car. Thus Lucas (2006, 808) argues that pricing policies to reduce car use are 'undesirable within a society that aims to promote social progress for all sectors of society' and that they could 'force people into inactivity and disengagement from society.' The extent to which car use is deemed essential for most people in twenty-first century Britain has also been underlined by the recent Joseph Rowntree Foundation report on minimum acceptable income levels which, for the first time, considered car ownership to be an essential requirement for families outside London (Davis et. al., 2012). In this sense policies to counter transport-related social exclusion could be seen to be incompatible with those used to promote both global and local environmental justice, though Kenyon et. al. (2002) counter this to some degree in their exploration of virtual mobility solutions to social exclusion, and Stanley and Vella-Brodrick (2009) argue that current conceptions of social exclusion as applied to transport are too narrowly focused.

Such issues have rarely been directly tackled in an historical context; though there has been some research on the health and (by implication) environmental justice implications of factors such as urban air quality and road traffic accidents. For instance, in a US context the dominant role of the automobile in American culture and urban structure has received extensive attention (Frost, 2001; Schrag, 2004; Blanke, 2007; Ladd, 2009), and in the UK Luckin has provided a detailed examination of a range of accidents and other problems within an urban context, including the impact of road traffic accidents in the interwar years and the response of urban authorities (Luckin, 1993; Cooter and Luckin, 1997; Luckin and Sheen, 2009). The role of sound in the urban environment, including problems of noise pollution, has also received limited attention (Garroch, 2003; Payer, 2007), while Ishaque and Noland (2005) review the historical development of pedestrian facilities in Britain, emphasising their marginalisation within urban road space. However, most such papers focus mainly on the institutional and regulatory issues raised in the context of urban areas, and rarely explicitly link pollution or noise caused by traffic (or other sources) to social and environmental justice. This chapter examines the twin issues of environmental and social justice in the context of key moments of change in urban transport policy in the mid-twentieth century, and suggests implications for twenty-first century policy formation. I argue that better understanding of past processes can usefully inform current practices in transport policy.

### **Sources of evidence**

Evidence discussed in this chapter is drawn from three research projects on different aspects of everyday mobility in the past and the present.<sup>1</sup> For full details see Pooley et. al. (2005), Pooley and Turnbull (2000, 2005) and Pooley et. al. (2013). This section provides a very brief overview of methods and data sources. Full details are provided in the relevant publications. Data on travel to

---

<sup>1</sup>. 'The journey to work in twentieth-century Britain' funded by The Leverhulme Trust, 1996-99; 'Changing patterns of everyday mobility' funded by the ESRC, 2000-2004; 'Understanding walking and cycling' funded by EPSRC 2008-2011.

and from work in the twentieth century were collected in two ways. First, existing contacts with family historians and genealogists were used to collect data on 12,439 individual journeys to work reconstructed from life histories of people living in all parts of Britain and who began work after 1890. Second, more detailed information was collected through 90 in-depth interviews with respondents living in three cities (London, Manchester and Glasgow) and who (mostly) began work in the period 1930-50. These data were used to construct both quantitative and qualitative profiles of changes in the journey to work over the twentieth century. A follow-on project focused specifically on the everyday travel of children in the second half of the twentieth century. Data were collected from in-depth life-history interviews with four cohorts of respondents: those born 1932-41, 1962-71, 1983-84 and 1990-91. In each case respondents were asked to reconstruct their everyday mobility at ages 11, 17/18, mid-30s and mid-60s as appropriate. In total 156 interviews were conducted with respondents in Manchester and Lancaster. Using these data it was possible to examine changes in the everyday mobility of children from the 1940s to the present. The third project used a multi-method approach to examine the ways in which household decisions about everyday travel for short trips in urban areas are made in the twenty-first century. Attention was focused especially on the practices of walking and cycling with respondents drawn from four case study towns: Leeds, Leicester, Worcester and Lancaster. Data were collected through a large-scale questionnaire survey, spatial analysis of land use and of the permeability of the urban areas and, especially, via in-depth interviews whilst walking and cycling, household interviews and ethnographies. This rich data set has revealed the complexities and contingencies involved in decision-making for everyday travel, and it has allowed the formulation of policy recommendations to promote more sustainable travel in urban areas. In this chapter data generated from these projects (and focusing particularly on the city of Manchester, UK) are drawn on selectively to provide evidence to support the core argument about persistent inequalities in the provision of transport infrastructure in Britain over the twentieth century.

### **The tram: a ubiquitous and accessible form of public transport**

‘Well, there was only one way in those days and that was by tram which was excellent, ... there was one along every ten minutes into the city centre. A very good service.’ (R04, Manchester, male, 1930s).

‘I mean the trams were very very frequent, all from Altrincham through to Manchester. I mean it was a tremendous tram service. There was one every two to three minutes.’ (R14, Manchester, male, 1930s).

In the first half of the twentieth century the tram provided a relatively cheap and convenient form of mass public transport in many British towns and cities. In this paper it is argued that large-scale provision of urban public transport by tram came nearer to meeting the needs of both social and environmental justice in transport provision than most other forms of urban public transport. The tram was convenient, in that many cities had a dense network of lines that linked residential areas to workplaces; it was affordable by all but the very poor; it was used by both men and women and by people of all ages; and 20<sup>th</sup> century electric trams were relatively environmentally friendly, producing minimum pollution in the urban environment, though there were, of course, emissions from electricity generating stations together with noise pollution from the trams themselves. Evidence from a case study of Manchester is used to briefly substantiate some of these points. Manchester Corporation ran one of the densest networks of tramlines in any British city in the early-

twentieth century with by 1926 some 258 miles of track on which ran 892 tram cars and carrying 318 million passenger journeys in 1926 (Manchester Corporation Tramways Department, 1926). The Manchester trams were well integrated with the network in the neighbouring authority of Salford so that travellers could move easily around the whole conurbation, and there was a particularly extensive network of suburban lines linking the city centre to suburban industrial and residential areas (Simon, 1938; Gray, 1967; Frangopulo, 1977). Thus, in the early twentieth century, development of the tram transformed Manchester (and many other cities) from an environment in which all but the wealthy walked to most destinations to one in which mass public transport was available to the majority of the population. If principles of both environmental and social justice had been applied to public transport provision in Manchester in the 1930s then the tram network would have been maintained and extended. Instead, annual passenger journeys fell from their 1926 peak of 318 million to 201 million a decade later and just 89 million in 1946, and trams ceased running in Manchester in 1949 until the reintroduction of a (limited) modern light rail network in 1992 (Manchester Transport Department Annual Reports (MCTranspD), 1928-46; Knowles, 1996). Why was this opportunity to continue to provide relatively equitable transport around the city missed?

As in many other British cities, from the 1930s the Manchester trams were increasingly marginalised by road transport in the form of both the motor bus and the private car. As early as 1929 Manchester Corporation began to replace some tram routes with motor buses (prior to that although the corporation had run some motor buses they had been seen as secondary to the tram network), and in the year 1930-31 some 39 miles of tram route were converted to motor bus operation. By 1941 64.6 per cent of passengers on Manchester Corporation's public transport system travelled by motor bus with just 23.9 per cent travelling by tram and a further 11.5 per cent on the newly-introduced trolley buses (MCTranspD, 1931-41). There were multiple motivations for this change. First, although private car ownership was still low, motorised transport (whether private or public) was increasingly seen as the future. It was appropriate for a modern city whereas trams were seen as old fashioned and contrary to the spirit of change that existed in the 1930s. Second, trams were seen as causing traffic congestion because they travelled on fixed routes and thus obstructed motorised vehicles, thus slowing traffic flow. Private motorists objected to trams on these grounds and Manchester Corporation viewed the motor bus as more flexible and better able to provide services to new suburban estates. This was expressed especially forcefully in the Manchester Press by the chairman of Manchester's traffic congestion committee following the failure of a new traffic management scheme: 'If there was any failure in the scheme today it seems that it was due to tram cars. We should all like to rid ourselves of tram cars, but it will take time' (Manchester Evening News, 7th June, 1938). Third, from the perspective of Manchester Corporation motor buses were cheaper, both because they did not require the infrastructure of a fixed route (particularly important with the provision of new suburban routes where motor buses could run on existing roads), and because the Corporation felt it could legitimately charge higher fares for motor buses than for trams (which had traditionally been subsidised) because they offered a more modern form of transport (Clay and Brady, 1937/38; Bruton, 1927; MCTranspD, 1935, Simon and Inman, 1935; Eyre, 1971; MCTranspD, 1931-41).

Although most respondents in Manchester spoke enthusiastically about the tram service in the 1930s (as evidenced by the quotes at the start of this section), there were some people for whom the tram was inconvenient because they lived far from a route, and one respondent compared trams

unfavourably to trolley buses because of their noise: 'The trams were always a bit rattly, ... they had trolley buses after the ... trams, and they were much quieter' (R24, Manchester, male, 1940s). Most travellers also transferred their journeys from the tram to motor buses relatively easily so that by 1950 the Manchester bus network was carrying 417 million passenger journeys, some 30 per cent more than the trams carried in 1926. Thus there is little evidence that the switch from trams to motor buses as the main means of mass public transport in Manchester excluded large numbers of people, though fares did increase, but the significance of the change lies more in the associated social and cultural assumptions that motor vehicles were superior to the tram, thus reinforcing the growing path-dependent movement towards a society dominated by the automobile. In other words, the move from tram to motor bus was one of a number of factors that privileged motor vehicles and thus, it can be argued, also encouraged increased use of the private car. These changes to public transport in Manchester can therefore be seen as part of a wider process that marginalised non-car users, increased inequalities in access to transport, and produced significant negative environmental effects in urban areas. Despite the introduction of a light rail system to Manchester in 1992, and recent extensions which enable up to 90,000 passenger journeys daily on the network (Transport for Greater Manchester, Metrolink, website), the modern tram network by no means replaces that which existed in Manchester in the 1920s.

### **Cycling as mass urban transport**

'Well it [cycling] was really the only way. Cause there was such a tremendous detour using public transport and walking that, well the time factor ... (R14, Manchester, male, 1930s).

'Used the cycle. For leisure as well, but it was very handy going into town when the/well money was short for a start ... so going by bike was very much cheaper. Save all the bus fares. ... Yes, you've got freedom on a bike. You can go when you want and the speed you want. Admitted it was a bit difficult when it was pouring down with rain, but I had a cape and sou'wester'. (R24, Manchester, male, 1930s/40s).

In terms of environmental justice cycling is an almost perfect means of transport: it produces no pollution at the point of use (though a full life-cycle analysis should incorporate the environmental costs of manufacture and disposal of bicycles), and compared to other forms of transport it produces few negative externalities (though conflicts with pedestrians in shared space are not negligible). Cycle enthusiast might also claim that cycling meets principles of social justice, and the CTC (the UK's national cyclists' organisation) states its aim as 'Making cycling enjoyable, safe and welcoming for all' ([www.ctc.org.uk](http://www.ctc.org.uk)). Although entry costs are certainly lower than for driving (though by no means negligible), and cycling saves on bus or tram fares, cycling does require both a level of physical fitness that not all people have, together with the confidence to cycle on busy urban roads. In this sense, it can be argued that cycling provides a less inclusive means of travel than cheap and frequent public transport such as the tram system of the 1920s. Certainly, levels of cycling in Britain today indicate that travelling by bike is not perceived by most people as a viable option as nationally only two per cent of trips are undertaken in this way (National Travel Survey, 2013). However, in much of continental Europe (especially The Netherlands, Belgium, Germany and Scandinavia) bicycle use in urban areas is very much higher (Pucher and Buehler, 2008) and in Britain in the 1930s and 1940s levels of cycling, amongst men, at least, reached a level where it could be argued that the bike provided a form of mass transport that met at least some of the principles of environmental and social justice. Using a range of examples the experience of cycling in the mid-twentieth century is

now explored with a view to identifying opportunities for developing cycling as a an environmentally and socially just form of mass travel in twenty-first century Britain.

Nationally over 20 per cent of all journeys to work undertaken by men in the 1930s and 40s were by bike, and during these decades cycling was the single most important means of travelling to work for men. Women were less likely to cycle than men but even so approximately 10 per cent of journeys to work by women were by bicycle in this period. Overall, in Manchester 16.3 per cent of all journeys to work (by men and women) were by bike in the period 1920-39, and 18.6 per cent in the period 1940-59 (Pooley and Turnbull, 2000; Pooley et. al., 2005). This volume of cyclists in Britain's roads was not seen as unproblematic by all, and there was considerable debate in the national press in the 1930s about the regulation of cyclists, the excessive number of road accidents involving cyclists, and the provision of dedicated road space for those travelling by bicycle. These issues came to a head in December 1934 when the first dedicated cycle lane in Britain was opened by the Minister of Transport, Hore-Belisha. This was a 2.5 mile stretch of 8ft 6in wide concrete cycle path alongside a section of Western Avenue in Middlesex (now the A40), provided for the 'greater convenience and safety of cyclists' (The Times, December 15<sup>th</sup>, 1934, 9). The Minister called the road a 'perfect example of arterial road construction' in which 'The two cycling tracks which had been provided gave effect for the first time to the principle that classes of traffic should be segregated in accordance with the speed at which they travel. Such segregation assured the comfort and enhanced the safety of vehicles of every class' (The Times, December 15<sup>th</sup>, 1934, 9). Other similar schemes were also under consideration at this time – for instance on the new Coventry by-pass (The Times, December 12<sup>th</sup>, 1934, 11) and also in initial plans for a new north-south route through Lancashire, although the road was never completed in this form (The Times, December 5<sup>th</sup>, 1934, 11; Pooley 2010). However, cycling organizations saw the provision of segregated routes as an assault on the rights of cyclists to use the road and the National Cyclists' Union in particular objected strongly to the cycle paths. Their fear was that the use of cycle paths would be made compulsory for cyclists and they expressed the view that 'The only way to deal with road problems ... was to remove the cause of the danger, namely excessive speed, having regard to prevailing conditions and inefficient driving, and not by depriving any class of road users of its rightful use of the highway' (The Times, December 15<sup>th</sup>, 1934, 9). The Minister responded that 'He did not know why it should be considered less reasonable to provide cycle paths for cyclists than to make pavements for pedestrians' (The Times, December 15<sup>th</sup>, 1934, 9).

The safety of cyclists, and their potential conflict with motorists also arose in other ways, including concern about cyclists in the new Mersey Tunnel (opened 1934) where they were accused of poor lane discipline and of slowing the flow of traffic (The Times, December 24<sup>th</sup>, 1934, 6) and with regard to their use of rear lights (rather than reflectors). There were regular press reports on road traffic accidents involving cyclists; with cyclists accounting for 18.4 per cent of fatalities in 1933 (1,324 deaths). Although at the time this was viewed as excessive (The Times, December 15<sup>th</sup>, 1934, p9), it is almost exactly the same percentage as the number of trips made by bicycle (reported above). For comparison in 2011 there were 107 cyclists killed in road traffic accidents on British roads, representing 5.6 per cent of all road fatalities (DfT 2010). Given that only about two per cent of trips are made by bicycle today it could be argued that the 1930s were relatively safer for cyclists than twenty-first century roads. It can also be argued that one reason for this relative safety was the greater volume and visibility of cyclists as road users. These issues were debated throughout the

1930s, and in 1938 the National Committee on Cycling in a memorandum on the Report of the Transport Advisory Council on Accidents to Cyclists stated that:

It does not feel that any practicable scheme for segregating cycle traffic can materially affect the safety of cyclists. It is pointed out that almost half of the accidents to cyclists take place at cross-roads where cycle paths are impracticable, and that cycle paths are only possible where cycle traffic is comparatively light. All new and reconstructed roads of sufficient width, it is suggested, should have lanes marked off primarily for cycle traffic. Where a cycle path already exists, an experiment might be made of throwing the path into the present highway, while marking off a suitable strip as primarily for cycle traffic. (The Times, November 21<sup>st</sup>, 1938, 9).

Thus in this period the merits of separating (either completely or partially) cyclists from motor vehicles were hotly debated with the main cyclists' organisations resolutely against segregation. For the most part this has continued to be the case, until a combination of research (including that cited in this chapter) and media focus on cycling safety has led to a more widespread acceptance that wherever practicable separated cycle lanes should be provided on busy urban roads. This is slowly beginning to happen in parts of London, but in most towns and cities progress remains slow.<sup>2</sup>

Evidence from oral histories of everyday travel in the mid-twentieth century gives two contrasting views of cycling. For some respondents (mainly men) cycling was a fast, convenient and cheap form of everyday travel which gave independence and avoided crowded trams and buses, but for others (mainly but not exclusively women) cycling was unattractive due to the physical effort required (especially where there were hills), exposure to the elements and concern about bicycle theft. However, few respondents in the 1930s and '40s expressed concerns about road safety which suggests that the views of politicians of the time were not necessarily representative of the general public. In addition to the two quotes at the start of this section a range of such views from respondents in Manchester and London are given in Box 1.

It was only in the 1980s that respondents began to cite road safety as a key factor that inhibited utility cycling (though not off-road leisure cycling) as stated by this respondent: '*I have always thought it [cycling] was really dangerous and it kind of terrified me a bit*' (RJ97, small town, female, 1980s/90s). This coincided with the most rapid growth in car ownership and traffic in towns, creating road conditions that were unattractive to most cyclists. Although travelling to work by car was the single most important mode by the 1960s with approximately one third of the modal share, it was the 1990s before over half of all journeys to work were by car (Pooley et. al., 2005). Such views have been strongly reinforced by current research on everyday travel in the twenty-first century. Interviews and household ethnographies demonstrate that, with the exception of a small number of committed cyclists, most people are unwilling to cycle on busy urban roads. By far the most common response when asked about cycling was for respondents to request more investment in fully separated cycle lanes. A selection of responses from participants from four English towns is given in Box 2.

---

<sup>2</sup> . For instance The Times cycling safety campaign (see The Times, Cities fit for cycling website), the Cycling Embassy of Great Britain website, and the vision for cycling in London produced by The Mayor of London and TfL (TfL, 2013).

From the above discussion it can be argued that cycling both in the past and the present has a contested relationship with concepts of social and environmental justice. Even in the 1940s, when cycling was relatively common, it appealed only to certain segments of the population (mainly men who viewed the bicycle as giving them more freedom and independence). It was never a fully democratic form of everyday transport. While concerns about the safety of cycling were current (especially in political circles) in the 1930s, these crystalized much more strongly among the general population by the 1980s, so that on-road cycling rapidly became associated with unacceptable levels of risk.

**Box 1: Views on cycling 1930s-50s**

I'm afraid I never liked travelling on trams. ... they were never very comfortable and if you went on the top deck it was very uncomfortable because there was smoking on the upper deck. I would sooner ride a bike. (RJ32, Manchester, male, 1930s)

If I'd got to look particularly smart for some reason to see somebody, and you've got to keep yourself spick and span. Can't always do it on bicycle, it depends on the weather, so any things like that would have changed the routine. (RJ41, London, male, 1940s)

No, I couldn't [cycle], my mother couldn't have afforded one in the first place and I never thought about a bicycle at all. ... no use up here at all because it's so hilly. (R19, Manchester, female, 1930s)

I didn't use a bicycle to go to town. I don't think really there was anywhere to put it you know. (R32, Manchester, male, 1930s)

No, I didn't. Well I cycled a lot for pleasure but never cycled to work, no. ... I don't no why I didn't. I just never. (R20, Manchester, female, 1940s).

Shift work, yes. ... Those times were so that you didn't clash with the manual workers when they were changing shifts. You changed shifts different times to them and of course/and the bike it was so good it gave you that freedom of not having to wait for buses. It would have been easier to use public transport if you had worked normal hours. (R06, Manchester, male, 1950s)

Well I had ridden a bicycle to school and it was just slightly easier. I didn't have the long walk to the bus stop. ... I didn't have to change buses, it was just easier to go on the bike. (RJ03, London, female, 1950s)

## **Box 2: Present-day views on separated cycle lanes**

I think my main issue for not cycling would be because I don't want to go on the roads. (P130, Leicester, male)

If there were cycle lanes ... I certainly would cycle more. (P79, Worcester, male)

The cycle lanes are very haphazard, they start then stop, people park in them. (P177, Leeds, female)

I love going round these cycle ways, I feel safe, I feel it is safe. Not keen on the road, particularly when lorries are coming past. (P86 Worcester, female)

Cycle paths are a joke as most cyclists know cycle paths I think in some ways increase rather than decrease the danger to cyclists by giving the appearance of safety so yeah designated cycle routes, that are separate to pedestrian paths as well because pedestrians and cyclists don't get on very well. (P176, Leeds, male)

Paradoxically, national cycle organisations – largely representing committed and confident cyclists – have since the 1930s often adopted a stance that can be seen as elitist and exclusionary. Their (understandable) position that cyclists have a right to use the road and that roads should be made safe for cyclists was at odds with the views of many politicians and transport planners in the 1930s, and also conflicts with the views of many occasional or potential cyclists today. It can be argued that to make cycling truly socially inclusive there is need to create an environment where all actual and potential cyclists feel safe and that, in recognition of the current road and traffic conditions in Britain, the only way to do this at least on busy arterial roads is to construct dedicated cycle lanes that are separated from pedestrians and traffic. Current conditions for cycling inevitably lead many cyclists to utilise pavements to avoid traffic but this leads to conflict with pedestrians. It can be argued that, in doing this, cyclists are also contravening principles of environmental justice in that they are significantly reducing the quality of the urban environment for pedestrians.

### **Policy issues: lessons from history**

The dominance of the automobile in the late-twentieth century, and the associated concept of automobility, is well documented (Sheller and Urry, 2000; Urry 2004). I have argued elsewhere that there could have been alternative pathways, with restrictions on car use from the early-twentieth century enabling public transport to remain dominant and requiring cities to be planned for people rather than for cars. Furthermore, I have argued that such a scenario would not necessarily have reduced the ability of people to travel, although it would have required changes both to people's expectations of everyday movement and to the structure of cities, with more facilities provided close to residential areas (Pooley, 2010). This chapter has focused explicitly on issues of social and environmental justice and has argued that two key periods of change in urban transport – the removal of trams as a form of mass public transport and the decline of cycling for everyday journeys – represent periods in which, if the course of history had been different, it would have been possible to create systems of everyday urban transport that more closely met the needs of both social and environmental justice. Motor buses were less accessible to all than trams and, crucially, the switch to motorised public transport also privileged the private car in urban planning; failure to develop fully separated cycle lanes has since the mid-twentieth century contributed to a decline in cycling in the face of increasingly busy (and dangerous) main roads.

Taking into account lessons from the past century – especially with regard to the rise of motor vehicles and the decline of both cheap and attractive public transport and of cycling – together with contemporary research on everyday travel, what policy implications can be suggested for the twenty-first century. It is clear from historical and contemporary analyses that most people choose to travel around towns and cities in a way that they (and they hope others) will perceive as normal. In the 1920s travel by tram was routine. As one respondent quoted above said ‘there was only one way in those days and that was by tram’, and for many men at least cycling was also seen as the obvious choice in the 1930s and ‘40s. As also quoted above, one respondent used almost identical words with regard to cycling: ‘Well it [cycling] was really the only way’. By the late-twentieth century travel by car had become normal (‘the only way’) for most people; or as one respondent from as early as the 1960s stated: ‘There might have been the odd days [I cycled] but in the main once you got the car you know. It was far more convenient.’ (RJ31, London, male, 1960s). The degree to which car use is today viewed as normal and expected was summed up neatly by one contemporary female respondent from Leeds: ‘People still assume that there’s something wrong with you if you don’t drive’ (P121). The problem is that although in twenty-first century Britain most households can aspire to car use, some individuals (especially those on restricted incomes, children, the elderly and anyone who does not to drive) are excluded; while motor vehicles contribute significantly to the unequal burdens of environmental pollution at both the local and global scales. In other words, what is ‘normal’ is also socially and environmentally unjust. One message from both past and present data is thus that if we wish to create a system of everyday travel in urban areas that meets principles of both social and environmental justice, we must first create conditions in which such travel options appear to be normal and rational: again to quote the two respondents from the 1930s ‘the only way’.

It is recognized that such aspirations would require very significant changes to the principles and assumptions that underpin contemporary urban and transport planning in Britain at both the national and local level; and it is also accepted that current conditions do vary in different parts of the UK, and thus that solutions may need to be adapted to local circumstances. However, it is suggested that a three stage approach could begin to shift both public and policy attitudes towards transport patterns that are both accessible to all and that create minimal environmental harm (Pooley et al. 2013). First, it is argued, there needs to be substantial investment in infrastructure: fast, frequent, accessible and attractive public transport in urban areas (the modern equivalent of the tram network that existed in many British cities in the 1920s), together with attractive and fully segregated spaces for pedestrians and, at least on busy roads, for cyclists. Second, there needs to be significant and enforceable restrictions on car use in urban areas including such measures as 20mph zones in residential areas (and especially on residential streets where segregated cycle lanes are not possible), together with congestion charging and/or road pricing schemes appropriate to the locality. Third, and most difficult, it is argued that there need to be changes in society that can only be partially introduced and enforced by legislation. Such attitudinal change includes giving respect to the most vulnerable road users (pedestrians and cyclists), and creating working and living conditions (and the associated expectations of everyday life) that enable people to travel more sustainably (which in some cases may mean travelling more slowly). Such attitudinal changes can be encouraged by both national and local action (for instance by changing legal liability in road accidents to protect pedestrians and cyclists; through family-friendly social policies and more flexible working hours; and through the decisions of local planning committees with regard to the siting of facilities), but

primarily they must be endorsed and embraced by the majority of people. In other words, only when forms of everyday travel that are both socially and environmentally just are seen as normal ('the only way') will they become the default (or majority) choice for the travelling population. It has been argued that in the past there have been (brief) periods when such aspirations have been almost achieved. Better understanding of how mobility-related social and environmental justice has been created in the past should produce more socially and environmentally just transport policies in the present.

### **Acknowledgements**

Thanks to Jean Turnbull, Mags Adams, Dave Horton and Griet Scheldeman who have all contributed directly to the research quoted in this article. Thanks also to colleagues at the universities of Leeds and Oxford Brookes (especially Miles Tight, Anne Jopson, Caroline Mullen, Tim Jones, Alison Chisholm and Emanuele Strano) who have contributed to different parts of the Understanding Walking and Cycling project. The research quoted in this paper draws on interviews with a large number of people in seven different towns and cities: many thanks to all respondents for their willingness to give up some of their time. This research was funded at various times by The Leverhulme Trust, the ESRC and the EPSRC. Thanks to all three organisations for their support.

## References

- Agyeman, J. and Evans, B. (2004). 'Just sustainability': The emerging discourse of environmental justice in Britain. *The Geographical Journal*, 170, pp. 155-64.
- Azetsop, J. (2010). Social justice approach to road safety in Kenya: addressing the uneven distribution of road traffic injuries and deaths across population groups. *Public Health Ethics*, 3, pp. 115-27.
- Barregard, L., Bonde, E. and Öhrström, E. (2009). Risk of hypertension from exposure to road traffic noise in a population-based sample. *Occupational and Environmental Medicine*, 66, pp. 410-15.
- Blanke, D. (2007). *Hell on wheels: the promise and peril of America's car culture, 1900-40*. Lawrence: University Press of Kansas.
- Bruton, F. (1927). *A short history of Manchester and Salford*. Manchester: Sherratt, 2<sup>nd</sup> edition.
- Buzzelli, M., Jerrett, M., Burnett, R. and Finklestein, N. (2004). Socio-spatial perspectives on air pollution and environmental justice in Hamilton, Canada, 1985-1996. *Annals of the Association of American Geographers*, 93, pp. 557-73.
- Cerin, E., Leslie, E. and Owen, N. (2009). Explaining socio-economic status differences in walking for transport: an ecological analysis of individual, social and environmental factors. *Social Science and Medicine*, 68, pp. 1013-20.
- Clay, H. and Brady, K. (eds.) (1929). *Manchester at work: a survey*. Manchester: Civic Week Committee.
- Cooter, R. and Luckin, B. (eds.) (1997). Accidents in History: injuries, fatalities and social relations. *Clio Medica*, 41 (Amsterdam and Atlanta: Wellcome Institute Series in the History of Medicine).
- Currie, G., Richardson, T., Smyth, P., Vella-Brodrick, D., Hine, J., Lucas, K., Stanley, J., Morris, J., KInnear, R. and Stanley, J. (2009). Investigating links between transport disadvantage, social exclusion and well-being in Melbourne – preliminary results. *Transport Policy*, 16, pp. 97-105.
- Currie, G. and Sensberg, Z. (2007). Exploring forced car ownership in metropolitan Melbourne. *Australasian Transport Research Forum 2007*. (Available at: [http://www.atrf.info/papers/2007/2007\\_Currie\\_Senbergs.pdf](http://www.atrf.info/papers/2007/2007_Currie_Senbergs.pdf).)
- Davis, A., Hirsch, D., Smith, N., Beckhelling, J. and Padley, M. (2012). A minimum income standard for the UK in 2012: keeping up in hard times. York: Joseph Rowntree Foundation. Available at: [http://www.minimumincomestandard.org/downloads/2012\\_launch/mis\\_report\\_2012.pdf](http://www.minimumincomestandard.org/downloads/2012_launch/mis_report_2012.pdf)
- Davies, H., Vlaanderen, J., Henderson, S. and Brauer, M. (2009). Correlation between co-exposure to noise and air pollution from traffic sources. *Occupational and Environmental Medicine*, 66, pp. 347-50.
- Department for Transport (2012). *Reported Road Casualties, Great Britain, 2011*. London: TSO.
- European Commission (2009). *EU Energy and Transport Figures: Statistical Pocket Book*. European Communities: Brussels.
- Eyre, D. (1971). *Manchester's buses 1906-1945*. Manchester: Manchester Transport Museum Society.
- Frangopulo, N. (1977). Tradition in action: the historical evolution of the Greater Manchester County. Wakefield: Manchester Education Committee.
- Frost, L. (2001). The history of American cities and suburbs: an outsider's view. *Journal of Urban History*, 27, pp. 362-76.
- Garroch, D. (2003). Sounds of the city: the soundscapes of early modern European towns. *Urban History*, 30, 5-25.
- Gray, E. (ed.) (1967). *The tramways of Salford*. Salford: Trustees of Salford Transport Museum Society, 2<sup>nd</sup> edition.

Harvard, S., Deguen, S., Zmirou-Navier, D. , Schilinger, C. and Bard, D. (2009). Traffic-related air pollution and socio-economic status: a spatial autocorrelation study to assess environmental equity on a small area scale. *Epidemiology*, 20, pp. 223-30.

Hillman, M., Adams, J. and Whitelegg, J. (1990), *One false move ....: a study of children's independent mobility*. London: Policy Studies Institute.

Hine, J. (ed.) (2003). Social exclusion and transport systems. *Transport Policy* 10 (special issue), pp. 263-342.

Hine, J. (2012). Mobility and transport disadvantage, in *Mobilities: new perspectives on transport and society*, edited by M. Grieco and J. Urry. Farnham: Ashgate, pp. 21-40.

Hine, J. and Mitchell, F. (2003). *Transport disadvantage and social exclusion: exclusionary mechanisms in transport in urban Scotland*. Aldershot: Ashgate.

Ishaque, M. and Noland, R. (2006). Making roads safe for pedestrians or keeping them out of the way? An historical perspective on pedestrian policies in Britain. *The Journal of Transport History*, 27, pp. 115-137.

Johnson, V., Curie, G. and Stanley, J. (2010). Measures of disadvantage: is car ownership a good indicator. *Social Indicators of Research*, 97, pp. 439-50.

Kenyon, S., Lyons, G., and Rafferty, J. (2002). Transport and social exclusion: investigating the possibility of promoting inclusion through virtual mobility. *Journal of Transport Geography*, 10, pp. 207-19

Knowles, R. (1996). Transport impacts of Greater Manchester's Metrolink light rail system. *Journal of Transport Geography*, 4, pp. 1-14.

Ladd, B. (2009). Cars and the American city: Review Essay. *Journal of Urban History*, 35, pp. 777-82.

Levitas, R., Pantazis, C., Fahmy, E. Gordon, D., Lloyd, E. and Patsios, D. (2007). *The multi-dimensional analysis of social exclusion*. Bristol: University of Bristol. (Available at: [http://webarchive.nationalarchives.gov.uk/+http://www.cabinetoffice.gov.uk/media/cabinetoffice/social\\_exclusion\\_task\\_force/assets/research/multidimensional.pdf](http://webarchive.nationalarchives.gov.uk/+http://www.cabinetoffice.gov.uk/media/cabinetoffice/social_exclusion_task_force/assets/research/multidimensional.pdf)).

Lucas, K. (2004). *Running on empty: transport, social exclusion and environmental justice*. Bristol: The Policy Press.

Lucas, K. (2006). Providing transport for social inclusion within a framework of environmental justice in the UK. *Transportation Research A*, 40, pp. 801-9.

Lucas, K. (2012). Transport and social exclusion: where are we now? *Transport Policy*, 20, pp. 105-13.

Lucas, K. and Stanley, J. (2009). International perspectives on transport and social exclusion. *Transport Policy*, 16 (special issue), pp. 19-142.

Luckin, B. (1993). Accidents, disasters and cities. *Urban History*, 30, pp. 648-73.

Luckin, B. and Sheen, D. (2009) Defining early-modern automobility: the road traffic accident crisis in Manchester, 1939-45. *Cultural and Social History*, 6, pp. 211-30.

*Manchester Evening News* (1937-38; 1957). Manchester Central Library, transport press cuttings, F388.4M1.

Manchester Corporation Tramways Department, (MCTramD) (1902-1928). *Annual Reports*, Manchester: Manchester Corporation Minutes.

Manchester Corporation Transport Department, (MCTranspD) (1929-1965). *Annual Reports*, Manchester: Manchester Corporation Minutes.

MCTranspD (1935). *A hundred years of road passenger transport in Manchester, 1835-1935*. Manchester: MCTranspD.

- Mitchell, G. and Dorling, D. (2003). An environmental justice analysis of British air quality. *Environment and Planning A*, 35, pp. 909-29.
- Parry, M., Canziani, O., Palutikof, J. van der Linden, P and Hansen, C. (eds.) (2007). *Climate Change 2007: impacts, adaptation and vulnerability. Contribution of working group II to the fourth assessment report of the Intergovernmental Panel on Climate Change*. Cambridge: Cambridge University Press.
- Payer, P. (2007). The age of noise: early reactions in Vienna, 1870-1914. *Journal of Urban History*, 33, pp. 773-93.
- Pearce, J., Kingham, S. and Zawar-Reza, P. (2006). Every breath you take? Environmental justice and air pollution in Christchurch, New Zealand. *Environment and Planning A*, 38, pp. 919-38.
- Pooley C. (2010). Landscapes without the car: a counterfactual historical geography of twentieth-century Britain. *Journal of Historical Geography*, 36, pp. 266-275.
- Pooley, C. with Jones, T., Tight, M., Horton, D., Scheldeman, G., Mullen, C., Jopson, A. and Strano, E. (2013). *Promoting walking and cycling. New perspectives on sustainable travel*. Bristol: Policy Press.
- Pooley, C. and Turnbull, J. (2000). Commuting, transport and urban form: Manchester and Glasgow in the mid-twentieth century. *Urban History*, 27, pp. 360-83.
- Pooley, C. and Turnbull, J. (2005). Coping with congestion: responses to urban traffic problems in British cities c1920-1960. *Journal of Historical Geography*, 31, pp. 78-93.
- Pooley, C., Turnbull, J. and Adams, M. (2005). *A mobile century? Changes in everyday mobility in Britain in the twentieth century*. Aldershot: Ashgate.
- Preston, J. (2009). Epilogue: Transport policy and social exclusion – some reflections. *Transport Policy*, 16, pp. 140-42.
- Preston, J. and Raje, F. (2007). Accessibility, mobility and transport-related social exclusion. *Journal of Transport Geography*, 15, pp. 151-60.
- Pucher, J. and Buehler, R. (2008). Making cycling irresistible: Lessons from The Netherlands, Denmark and Germany. *Transport Reviews*, 28, pp. 495-528.
- Schrag, Z. (2004). The freeway fight in Washington DC: The three sisters bridge in three administrations. *Journal of Urban History*, 30, pp. 648-73.
- Selander, J., Nilsson, M., Bluhm, G. Rosenlund, M., Linqvist, M, Nis, G. and Pershagen, G. (2009). Long-term exposure to road traffic noise and myocardial infarction. *Epidemiology*, 20, pp. 272-79.
- Sheller, M. and Urry, J. (2000). The city and the car. *International Journal of Urban and Regional Research*, 24, pp. 737-57.
- Shergold, I. and Parkhurst, G. (2012). Transport-related social exclusion amongst older people in rural Southwest England and Wales. *Journal of Rural Studies*, 28, pp. 412-21.
- Simon, S. (1938). *A century of city government.*, London: Allen and Unwin.
- Simon, E. and Inman, J. (1935). *The rebuilding of Manchester*. London: Longmans.
- Stanley, J. and Vella-Brodrick, D. (2009). The usefulness of social exclusion to inform social policy in transport. *Transport Policy*, 16, pp. 90-96.
- The Times*, (1934-1938). <http://gale.cengage.co.uk/times.aspx/>.
- Urry, J. (2004). The 'system' of automobility. *Theory, Culture and Society*, 21, 25-39.
- Walker, G. (2009). Beyond distribution and proximity: exploring the multiple spatialities of environmental justice. *Antipode*, 41, pp. 614-36.
- Walker, G. and Bulkeley, H. (2006). Geographies of environmental justice. *Geoforum*, 37, pp. 655-59.

**Websites**

CTC: The UK's National Cyclists' Organisation: <http://www.ctc.org.uk/>

Cycling Embassy of Great Britain: <http://www.cycling-embassy.org.uk/>

National Travel Survey 2013: <https://www.gov.uk/government/statistics/national-travel-survey-2013>

The Times, Cities fit for cycling: <http://www.thetimes.co.uk/tto/public/cyclesafety/>

Transport for Greater Manchester, metrolink:

<http://www.metrolink.co.uk/futuremetrolink/Pages/default.aspx>