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The Lived Experience of Transport Structure: An Exploration of Transport's Role in People's Lives

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ABSTRACT This article is oriented towards the tensions between the local character of the lived experience of transport and the more general view taken in transport policy studies. The article presents research conducted in 2002–2005 into the lived experience of transport structure: it represents a social transport policy approach to the phenomenon of suppressed journeys and barriers to travel. The research was funded by the Department for Transport with the primary goal of exploring the complexities associated with travel among different social groups and across different geographic locations. Two case studies were undertaken, one in a rural location and one in a peripheral urban location in Oxfordshire. Analysis of the case-study materials resulted in a number of findings, the most pertinent of which is that there is a major consultation gap between users of the transport system and planners of that system. Additionally, existing methodologies in transport and travel under-record and under-represent the barriers to mobility experienced in the routine of everyday life within contemporary Britain.

KEY WORDS: transport exclusion, suppressed journeys, social inclusion, transport barriers

Introduction: Researching the Lived Experience of Transport Structure

Within the mainstream discourse of transport, the measurement of transport demand dominates discussions of the quality of the transport experience (Banister, 1980, 2005). This article moves outside this dominant discourse to focus on the lived experience of transport structure and transport organisation in the United Kingdom: the research on which this article was based was undertaken under ESRC/Department for Transport/ODPM funding (Rajé, 2006a). The research explored the complexities associated with travel for different social groups and investigated the ways in which transport affects people's ability to access services and participate in activities.

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In respect of social transport policy frameworks, the research reached five main conclusions – conclusions that are replicated elsewhere by others in the emerging literature on suppressed journey analysis. Firstly, it is necessary, and important, to probe more deeply than is conventional in transport policy research to obtain a true reflection of transport's role in people's lives both in terms of journeys undertaken and journeys foregone, suppressed or not undertaken. Secondly, there is an 'experience' gap between the experiences of transport system users and the understandings of users' experiences held by planners and policy-makers - this experience gap is compounded by the gender-bias and ethnic composition of the transport planning profession (Hamilton et al., 2005). Thirdly, there is an existing 'consultation' gap, characterised by planning that is inconsistent and often perfunctory, rather than planning that is truly participatory (Hodgson & Turner, 2003) – for example, formal consultation is often not audited for representativeness (Beuret et al., 2000; Bentley, 2005; Rajé et al., 2004a). Fourthly, there is a 'communication' gap, whereby a lack of awareness among the planning and policymaking community of local needs leads to interventions that are unnecessary or exacerbate existing problems (Rajé et al., 2004a). Finally, the research revealed that it is important to look at the heterogeneity of experience of the transport system and beyond the limits of socio-demographic categories when investigating transportrelated social exclusion (Anable, 2005).

The empirical research was conducted through two case studies: the first case study was of an urban peripheral neighbourhood, Barton, in Oxford; and the second case study was of a small rural town, Charlbury, in West Oxfordshire. An essentially qualitative methodology was adopted using interviews, focus groups and an analysis of publicly available web-based discussions (see Table 1) – although these were set in the context of quantitative materials available on these areas from the official ACORN¹ database (see endnote profiles for Barton² and Charlbury;³ small area statistics of the official census data; the national Index of Deprivation and local planning reports) – innovatively for transport and travel research, the Q methodology (Stephenson, 1935; Barry & Proops, 1999) was used to frame the ways in which participants perceive that transport impacts on their lives. The Q methodology establishes systematic patterns by identifying individuals who share attitudes and gives a structure to subjective opinion and has the potential to uncover insights into major social groupings' construct of transport in terms of behaviour

| Table 1 | . Primary | data | sources | and | methods | of | informant | intera | action |
|---------|-----------|------|---------|-----|---------|----|-----------|--------|--------|
| | | | · | | | | | | |

| | Number of informants by method | | | | | |
|-------------------|--------------------------------|-------------|------------------------|-------|--|--|
| Location | Interview | Focus group | Web forum ^a | Total | | |
| Barton | 23 | 14 | _ | 37 | | |
| Charlbury | 16 | - | 15 | 31 | | |
| Other Oxfordshire | 7 | 16 | 11 | 34 | | |
| Total | 46 | 30 | 26 | 102 | | |

^aNumber of people whose views were taken into account for this thesis (i.e. not number of people using the forum).

responses rather than social-demographic categories. The Q methodology permits the framing of discourse structures from individual, subjective contributions. Statements extracted from interviews, the planning and academic literature and other sources are presented on individual cards to respondents from the target population who then sort these statements into patterns of agreement and disagreement. These materials are inputted into a program (PQMethod) that then facilitates the identification of patterns of subjectivity. By this method, the patterning of communication gaps, experience gaps, participation gaps and representation gaps can be identified.

This article begins with a brief overview of the research: the detailed methodology of the research is provided elsewhere (Rajé, 2006a–c). However, the main objective of this article is to present the implications of the research findings and, as such, the remainder of the article focuses on placing the findings in a wider context.

Background: Transport Interventions and Social Equity

The overall aim of the research commissioned by the Department for Transport was to assess the potential for transport interventions and investments to deliver, for everyone, reliable, safe and integrated transport that respects the environment. The specific objectives were: to investigate the ways in which transport impacts on people's lives; to determine how different social groups make transport choices; to determine the probable impacts of transport interventions and related measures on these different social groups; to investigate the geographical dimensions of transport choices and impacts; and to assess, for two different areas (one urban, one rural), the extent to which particular interventions will promote social inclusion. It was envisaged that the research would produce an improved understanding of the extent to which transport investments can promote social inclusion.

Previous social exclusion and transport research in the United Kingdom had examined macro-scale interventions such as public transport system impacts (e.g. TRaC at the University of North London, 2000; Social Exclusion Unit, 2003). Indeed, empirical work by this researcher and colleagues looking at social exclusion and road-user charging (Rajé et al., 2003a, 2004a) had shown that, while researchers may have wanted to discuss large schemes or interventions, research participants had much more local and personal concerns. They wanted to discuss issues such as an inability to access hospitals, lack of transport information, and the deterrent effects of gangs of youths on buses or prostitutes at bus stops. The discussion of micro-scale effects and transport and travel barriers such as these is largely absent from the literature. Yet, it is the day-to-day and local experience of the transport system that has the greatest impact on people's ability to access social and economic opportunities. In other words, it is micro-scale needs and effects that should be targeted through policies that seek to increase accessibility and lessen transportrelated social exclusion (Rajé & Grieco, 2004). Travel-related social exclusion has necessarily a first-stage local manifestation. Given this essential characteristic, bottom-up approaches can more effectively meet the needs of people and communities, and it is only through their adoption that transport-planning and policy-making can be a driver of social inclusion.

With the desire to examine the local or micro-level effects of transport, planned transport interventions were sought that could be examined with a view to determining how they may affect local people's accessibility to key services and activities. As a result, Barton was chosen because, in undertaking previous research (Rajé *et al.*, 2003a–c), the physical severance of this peripheral urban estate from the city of Oxford by high levels of surrounding traffic had become apparent and raised the researcher's concerns that a planned roundabout improvement scheme at the main access junction to the estate may not be beneficial to the estate's residents (Rajé, 2004).

A desire to include a case study in rural Oxfordshire led to a search for a location that had a planned transport intervention that would impact on local people. It was also important that a number of transport options (other than sole reliance on the car) were available to local people so that their choices and experiences within the context of rural dwelling could be explored. With a Home Zone planned for one of the residential areas of the town and a mainline railway station a short distance from its centre, Charlbury was considered to meet the case-study location objectives.

Thus, the urban case looked at the potential severance effects (physical and social) for local residents of planned changes to the large roundabout that provides access to the estate and would cause increased turning delay (Rajé, 2004). It also specifically sought views and insights into the experiences of elderly residents and young adults, particularly those with children, about their use of the transport system in general.

The rural case, meanwhile, looked at the potential impacts of a Home Zone⁴ for residents of the streets where it is planned. It also sought to obtain the views of other residents of the town on their use of the transport system generally, giving particular regard to the differences in experiences of those with access to a car and those without.

Policy and Institutional Implications of the Research: Contextualising the Findings

On the basis of the evidence presented in the research, even though transport does not appear as a dominant concern on initial interview, it does appear an important social exclusion issue when people are probed more deeply about their daily lives and the constraints that they experience, and is confirmed by the Q methodology previously described.

As a consequence of this probing, a number of interesting findings emerged. Firstly, there is a paradox between claimed autonomy and the observed dependence on others of transport system users. People report a high degree of autonomy in the decision-making that surrounds their travel, yet the research revealed that there are help structures that play an essential part in accomplishing travel. It is necessary, and important, to probe to obtain a true reflection of transport's role in people's lives, and this necessarily means a discussion of journeys that have not been undertaken and the explanations of the foregoing of such journeys. Critical health journeys are foregone and the foregoing of such journeys must be the starting point of probing actors' own accounts more deeply.

Secondly, the microcosms of experience described by the respondents in the research indicate that there is dissatisfaction among users and disengagement among institutional actors within the public realm. There is an 'experience' gap between the

experiences of transport system users and the understandings of users' experiences among planners and policy-makers. The experience of an elderly Charlbury resident (Box 1) was replicated many times within the research and surfaced within the Q methodology.

Box 1. Taking account of an affected resident's views

"I've lived here 26 years and we bought our bungalow 20 years ago. The council are planning to put 5 trees in by the pathway in front of my house as part of this home zone. I wrote to them when they asked for comments saying I didn't want the trees because they will block the window. I'm 81 and sitting at my window and looking over Wychwood Park is what I enjoy now that I can't get out much. I told them they were going to obscure my window on the world. Also, my husband used to win prizes for the garden and I still have a vegetable patch. Those trees will obscure the vegetables.... I've got heart trouble, so I can't walk to the shops. I drove until I was 76 but there's a time when you have to be sensible. With this home zone, I feel they've walked right over me. I've had a lovely view and it'll take the sun off my bungalow. 5 trees is far too many. Then there's the wall too. That may not be too bad, depends how the youth use it. There have been accidents here. It is a bad spot but on the main road not these side streets. They widened the road after I came here now they want to narrow it. Can't see the reason. Things are bad enough here with kids breaking things. If they put those trees in, they'll vandalise them too. We don't want this zone, we don't want more vandalism. I feel I'm being treated like I don't matter. I mean I hear they are deciduous trees. Well, who's going to clean up the leaves? I sweep up the ones from the tree that's there now and in the cold, more leaves will just be unsafe. Other people round here have told me they don't want this either and people say they'll put down poison to kill the trees... Also, in the dark with trees it will be dangerous for people especially women to walk. My neighbour works at Co-op and has a shift at 6 in the morning. I don't think she'll feel safe walking amongst the trees. People have been attacked in Charlbury – it's not like people think it is here.

It is a waste of time (the home zone). On the options sheet they sent us, there was no option to say we didn't want it. So now they say people in Sturt and Hughes wanted it but we just had to choose the least bad of the options. It is unfair that I've said 4 times I don't want it and they just won't listen."

Thirdly, despite policy-makers' assertions (Oxfordshire County Council, 2005) that public participation is a key element in effective transport planning, the involvement of local people in the process does not appear to be a priority in all scheme design projects. There is a 'consultation' gap, characterised by transport planning that is inconsistent and often perfunctory, rather than transport planning that is truly participatory. The perfunctory quality of consultation is indicated by the limited character of the official reporting on consultation around the Home Zone in Charlbury (Table 2).

Fourthly, by relying on new and sometimes untested tools (such as accessibility modelling; Titheridge, 2005), which lift evidence to technical levels far removed from

Table 2. Summary of consultation responses provided in report to the committee, Oxfordshire County Council – Charlbury Home Zone Stakeholder Consultation Responses

| Stakeholder | Response |
|---|---|
| Police | Disappointed no proposals for play area Suggest walls are designed to prevent use by youths for seating Suggest trees are not placed in such a way as to provide hiding places for those committing car crime |
| Fire and Rescue Service Charlbury Town Council | No concerns about scheme – happy to accept 3.5 m pinch-points at junctions. Support the scheme and the views of residents Request that memorial tree at entrance to Hughes Close be retained Suggest walls are topped to avoid people sitting on them Space for two notice boards must be retained |

Source: http://www2.oxfordshire.gov.uk/hlpdownloads/TI281004-10.htm

daily experience and interrogation by the public without necessarily ensuring that the correct evidential assumptions have been made. In such a process, the needs of local people and communities may become lost in the design of interventions and policies. There is a 'communication' gap, whereby a lack of awareness among the planning and policy-making community of local needs leads to interventions that are unnecessary or exacerbate existing problems and the evidential bases for which are often unintelligible to the public.

Fifthly, the concerns, challenges and issues of any one social group may be very different from those of other social groups and, surprisingly, emerging from the Q methodology members of very different social groups may indeed have very similar experiences to members of other diverse social groups. Interestingly, in this research there were crossovers between urban and rural and also between older and younger social categories. It is important to look at the heterogeneity of experience of the transport system and beyond the limits of socio-demographic categories when investigating transport-related social exclusion; there may be heterogeneity within categories as well as across categories.

In the following, the interpretation of these findings is set within a framework that addresses theoretical, methodological and policy and planning implications in turn.

The Prevalence of the Autonomous Traveller?

One of the main findings of this research is that people report a high degree of autonomy in the decision-making that surrounds their travel. This requires contextualisation. While it had been anticipated that participants would report that they negotiate, for example, around the schedules of other members of their household or with others in other households (as other researchers have found; see for example, Jones *et al.*, 1983; Pickup, 1989; Grieco *et al.*, 1989), almost all participants reported that they are the only ones involved in the decisions they make about travel. This may have been anticipated in single-member households, and also among people who always have a car available to them or those who do not have childcare responsibilities, but was unexpected among those participants who use the

public transport system, do not have ownership of a car and may have childcare needs.

The purportedly high levels of autonomy may reflect wider social phenomena such as a rise in the individual as central in our society (Etzioni, 1993). It may be the case that in an increasingly mobile society, individuals have grown accustomed to seeing themselves as isolates and have become conditioned into independent decision-making when it comes to travel. Steg and Tertoolen (1999), writing about determinants of car use, associate use of a car with habit and lifestyle, and indicate that individual choice and behaviour are determining factors in car dependence. The importance of the individual and the link to travel behaviour suggests that, in an increasingly mobile society, even those without access to a car have habit-forming and lifestyle factors that centre on the autonomous individual as the key travel decision-maker. As we have come to expect mobility as a way of life, our desire to travel whenever and however we need to has become almost hard-wired into our psyche.

In addition, the research findings indicate that there is a possibility that the autonomous choice phenomenon that seems to be prevalent in our travel decision-making transcends traditional social categories and has become a part of an atomistic, twenty-first-century culture. This research could not distinguish a particular social group, defined by say ethnicity, age or gender, which was most characterised by independence of decision-making. Rather, it was commonplace for most participants to report that they did not refer to anyone else when making their decisions around travel.

However, when the wider context of people's travel needs and trip-making patterns was examined, dependence on others to access goods, services and facilities was much more evident than the participants' perceptions of the independence of their decisions would suggest. Notwithstanding the first responses from participants that solitary journeys and solitary transport decision-making were taking place, the research revealed that there are help structures that are concealed yet play an essential part in accomplishing travel. When asked directly about the decisions they make about travel, participants were quick to point out that such decisions were individually determined. However, in-depth discussion with the same individuals revealed a different patterning to the ways in which journeys were made: lift-giving, exchange of favours and reliance on others were all described in the context of travel. Later we describe the reliance on social networks to achieve travel objectives, while here our purpose is to reflect on the possible reasons for the apparent conflict between stated and actual actions with regard to transport and travel.

While people's perception is as functioning individuals, further exploration in fact reveals that there is a pattern of exchange. The discordance between statement and action has methodological implications for the researcher since it is necessary to explore in greater depth the ways in which people travel if the true nature of decisions and exchange are to be revealed and understood. National opinion polls results, based on two general questions, suggested that transport was not a dominant concern among people in the United Kingdom (MORI, 2005), and initial responses in the rural case study in this research appeared to substantiate this claim. However, further reflection on the overall research findings indicates that transport is indeed an important concern and points to the need to ask the right questions and to probe

for clearer insights. While the work of TRaC at the University of London (2000) and Lucas *et al.* (2001) also appeared to confirm the unimportance of transport among people who are socially excluded, taken as a whole this research's findings suggest that this may be a myth generated by a combination of simplistic questioning, a lack of probing for understandings and a moral pressure among participants to conceal the help structures upon which they depend.

The latter may be a cognitive trick to preserve dignity and exude self-sufficiency to the researcher, who may be viewed by the participant as threatening or successful, rather than reveal acceptance of informal support that the participant associates negatively with dependence and coping strategies. As a consequence of the potential inaccuracies in insights obtained without probing, it is likely that there has been an under-recording of the true nature of transport problems in the United Kingdom: suppressed journey analysis has clearly been neglected within the transport academy with grave consequences for social transport policy understandings (Vigar, 2002; Banister, 2002). This has implications for the literature around transport and social exclusion that is largely reliant upon perfunctory rather than in-depth understandings and thus liable to perpetuation of ambiguous conceptions of transport needs in society.

The Linkage between Transport Networks and Social Networks

This research examined both the impact of the spatial structure of the social network on an individual's demand for travel and how the nature of, and the extent to which, social networks supply or facilitate travel. This builds on a concept that Altschuler *et al.* (2004) raise when examining the findings of their qualitative investigation of local services and amenities, neighbourhood social capital and health. Altschuler *et al.* found that, in lower income neighbourhoods, there was evidence of residents utilising social capital in an effort to procure that which they were not able to purchase with financial capital; namely, a neighbourhood whose liabilities far outweigh its amenities.

The idea that social capital or social networks can be used to facilitate the acquisition of something that is unattainable through other means is equally applicable to transport. As Payne (2000, p.5) reminds us, our lives are primarily based on sociality:

... our day-to-day life is a social one. Our very survival depends on a complex, largely invisible, taken-for-granted web of group activities that produce, deliver and regulate the production and consumption of goods and services. We cannot exist in isolation from one another ...

Banister (1980, p.4), describing latent demand for travel as 'an extension of the concept of mobility', alludes to the importance of social networks in substituting travel by another on behalf of an individual who has a latent demand for travel:

... should one or more of the demand or supply assumptions be relaxed; this would usually result in an increase in demand, but there is no reason why movement should not be degenerated (e.g. through the introduction of mobile

services or a neighbour doing a shopping trip for a group of old people rather than they themselves doing it.)

In this case, neighbourhood social capital is facilitating the satisfaction of the elderly peoples' need to access goods that they would have had to travel to obtain if their personal network could not make the supply of goods possible by alternative means. The findings of this research highlight the practice among participants of the satisfaction of travel demand through social network substitution that Banister portrays in the quote above. Specifically, for the less mobile, social networks can provide an alternative to public transport.

While this research was not conceived as being comparative, the ways in which different people transact their daily activities of life can help illustrate how they negotiate around the transport system they have available to them. For the less mobile, connectivity to satisfy their day-to-day needs can be supplied through a 'vector': someone else accessing the goods or service on their behalf – i.e. this other person may carry out an errand on behalf of the less mobile. For others, there is a reliance on 'lift-giving' and combining of trips with others. In contrast, for those who are not presented with mobility difficulties, access to goods and services can be extremely selective. For these people, spatial and time-based challenges may be largely overcome by the propensity for a car to allow them to travel where they want to when they want to.⁶

Connecting the Macro Policy Environment and Micro-level Atomistic Data Analysis

This research has examined local and individual experience of the transport system. It deliberately looks at micro-level data centred on individual citizens to provide understandings of day-to-day needs, which can then inform macro-level policy-making and planning.

Micro-level analysis helps those involved in the macro-level policy environment understand the problems and contexts in which policies and interventions have to work. In addition, micro-level investigation facilitates the operation of policy to be displayed from the point of view of the system user. In this way, micro-level atomistic data build evidence that can be fed into macro-scale policy and intervention development. This represents a re-ordering of policy-making from a top-down to a bottom-up approach.

Transport planning has, traditionally, emphasised strategic needs. For example, the Headington roundabout (Barton) changes discussed in the urban case study have been designed with the perspective that the roundabout is a node on the strategic inter-urban road network and with little regard being given to the mix of uses it is put to on a daily basis in its role as a facilitator of local access to a wider urban network. A re-focusing of orientation to take account of local and, arguably, atomistic needs can mean that policies and interventions make better use of available, limited resources as they take account of local communities' as well as more dispersed needs (Rajé, 2004).

The UK Government's Modernising Government White Paper published in 1999 defined policy-making as 'the process by which governments translate their political vision into programmes and actions to deliver "outcomes" – desired changes in the

real world' (Stationery Office, 1999, p.12). In other words, policy-making is about achieving real changes in people's lives and all policy decisions should be demonstrably rooted in knowledge and research that reflects local experience and practice. Top-down policy-making and analysis often ignores the realities of how policies affect people. But, at the same time, bottom-up approaches can be accused of generating information that is too locally specific. However, with transport being organised at a macro level but implemented locally, it is essential that the 'local' is central to transport policy-making and analysis.

In order to illustrate the importance of micro-level understandings to macro-scale policy-making, the findings of this study in relation to car availability are discussed here. These findings suggest that, in analysing the social impacts of transport, the most useful categorisation may be car availability versus non-car availability. In a mobile society where car travel is dominant and much of transport planning such as road building and service location decisions have strengthened its dominance, access to a car can affect the choices an individual is able to make and thus affect his quality of life. Looking at social groups delineated by indicators such as gender, age and ethnicity, the ultimate difference in experience of the transport system is determined by whether the individual member of each of these social groups has access to a car or not. Notwithstanding cultural differences between these different social groups that may influence their travel needs, it is car availability (or lack thereof) that operationalises how the different needs can be satisfied. Other authors have drawn attention to the centrality of car availability to an individual's ability to satisfy their social needs and gain access to the facilities and services they need in a mobile society. Banister (2002) describes the lack of access to a car for some as being a problem with a car-based society. Lucas et al. (2001) suggest that the Labour Government's agenda for transport notes differential access to cars in a cardominant society as potentially contributing to the social exclusion of some. Similarly, households without a car, in a society in which household car ownership is the norm, are described as 'socially excluded' in the report by TRaC at the University of London (2000) on social exclusion and the availability of public transport, since 'they cannot fully participate i.e. behave as the vast majority of society behaves' (TRaC at the University of London, 2000, p.76).

While this research corroborates the link between car access and an ability to participate in society, an important caveat must be attached to this assertion – and this is what makes this a valuable illustration of the way in which micro-scale understandings can inform macro-scale policy-making. As this study has shown, in general, car availability facilitates flexibility over time and space constraints, enabling access to services, facilities and social activities. However, the study provided cautionary, anecdotal evidence that, for some individuals, the car can act as an unwelcome social isolator: a young female participant described living in relative isolation from others in her neighbourhood, as her regular activities involved travelling a distance in her old car to care for her infirm mother. The argument against macro-level approaches works in two ways in relation to this finding: firstly, aggregate, social category approaches to investigating transport-related social exclusion may not have revealed this highly-individual experience; and, secondly, macro-level policy-making generally assumes that access to a car facilitates social participation.

Instead, the unwanted social isolation of the individual with a car underlines the importance of looking at individual needs with respect to transport issues and the need to move away from the conventional category approaches that have pervaded the transport and social inclusion literature thus far. Church et al. (2000, p.195) also provide an instructive statement on the use of a category approach, which accords with, and intensifies, the views expressed here:

Firstly, particular social groups may not be homogeneous in terms of their material affluence, or activity patterns, which will affect transport needs and accessibility preferences. Secondly, the reasons why individuals may be disadvantaged in relation to transport are often multi-dimensional whereas this approach often encourages a focus on a particular dimension of the problem, such as age, which may not fully acknowledge the interaction with other social and economic factors. Thirdly, these studies rarely consider detailed geographical factors, such as the relations between residential location, where the activities that they want to participate in are located, and their need and ability to move between the two.

These views about the inappropriateness of social category approaches expressed by Church et al. with respect to transport and social exclusion can also be found among authors writing about social exclusion from other perspectives. Commins (2004, p.60), writing about what he perceives as a lack of concern for examining the issue of rural social exclusion in European Union member countries, states that there has been 'a heavy emphasis on the problems of certain social categories (e.g. the unemployed, older people) or on the problems of urban communities'. In his criticism of such social category approaches, Commins writes that:

... in policy discussions which focus on social categories (e.g. the unemployed, youth, women) there is an implied view that the nature of their problems (and the solutions thereto) can be the same for the members of any category, irrespective of whether they live in rural or urban areas. (Commins, 2004, p.61)

The Value of Web-based Talk

This research reveals that Internet for aand electronic talk can yield useful insights into local concerns and are a valuable, although under-utilised, resource for the transport researcher. Using electronic media cuts down on the transaction costs of communication and enables dialogue over barriers of time and geography. Analysis of data from Internet for a can be likened to listening to conversations at local coffee mornings where valuable understandings of a community's concerns can be obtained. In this research, the overall methodology was greatly complemented by the use of Internet for athat helped structure the fieldwork focus. The benefits of the approach in exposing current concerns are likely to be equally helpful in other research on the social aspects of transport.

The web-based forums were very useful in transcending the initial statements by potential participants that transport was not an issue for them. The Internet conversations provided an alternative view, indicating that there were local concerns about transport issues, thus serving as a measure of prevailing transport issues through what could be described as 'virtual probing' – discovering the real concerns in a community rather than accepting the cursory indication from potential participants that they did not experience any difficulties using the transport system or were entirely self-reliant with regard to the their travel decisions or simplistic public authority accounts that indicate that citizens are not concerned about transport. Web-based discussions of transport provide an increasing challenge to traditional transport planning processes.

The 'Experience' Gap: Disengagement and Dissatisfaction among UK Transport System Users

It is apparent from the microcosms of experience described by the respondents in this research that, in terms of transport, there is some dissatisfaction among users and disengagement among institutional actors with the public realm. Skidmore and Craig (2004, pp.12–13) have drawn attention to the requirement for public involvement and participation in the shaping of public services generally:

[P]eople will not be satisfied by what the public realm has to offer unless and until they become more active participants in shaping it. Improving the quality of the goods and services the public realm provides, like health and education, and reaffirming the values that underpin it, like trust, openness, solidarity and legitimacy, depends on finding ways to mobilise new forms of participation by citizens.

Practical and active participation in transport decision-making should place people at the centre of the process. Skidmore and Craig (2004, p.13) suggest that, in order to start with people, there must be an understanding of 'the lives they lead, the values they hold, the relationships they care about and the interests that motivate them'. These are the fundamental insights that would help give transport planning and policy-making a much more people-focused orientation. From the empirical evidence in this research, it appears that, in order to achieve this focus and better fulfil individual and community needs, there should be a reconnecting of people with the institutions that make transport policy and develop interventions.

This reconnection can be facilitated through the development of improved understandings of user needs. Bentley (2005) suggests that the rhetoric around public services reform has tended to start from the abstract rather than the real experience of users, and this is explicitly the case for transport among this study's participants. It is probable that this apparent gap between real user experience and the shapers of policies is not unique to the cases studied in this research. For example, while much policy attention and consultancy monies have been invested in the creation of accessibility planning tools in the United Kingdom, there is little evidence of how the products of this investment have changed people's experience of the transport system.

One way in which real user experience could be better revealed, and thus any changes after intervention for the user be more usefully gauged and measured from a baseline position, is through the enhancement of an approach called the Household Activity—Travel Simulator (HATS). HATS was developed at the Transport Studies

Unit at Oxford University in the 1980s. HATS comprises of a set of display equipment that forms part of a household in-depth interview, which has some of the features of unstructured or semi-structured techniques, but in other respects is highly structured. The simulator seeks to depict the household's pattern of activities in time and space and enable an exploration of hypothetical questions through the consideration of possible responses among the household group (Jones *et al.*, 1983).

In this technologically advancing era, an electronic form of HATS would have the potential to reveal time and space patterning of activity and travel needs, and thus provide a solid basis for policy and intervention planning that enables repeated measuring of such patterning after the introduction of interventions/policies over a future timeline. Such an approach would facilitate the re-shaping of transport planning to place the user at the centre, thereby helping overcome a criticism that has been levelled at the public realm, which is encapsulated in the following quote from Leadbetter (2004, p.28): '... the asymmetry at the heart of public services: professionals and providers have the budgets, power and information; users do not'. Electronic HATS has the potential to rebalance the power relationship inherent in transport planning towards the system user and his/her needs: such approaches can break down the institutional barriers between planners and users. This type of approach would provide transport planners with insights that would enable them to better understand, and then solve, local community transport and access problems at the same time as dealing with city-wide and regional transport problems.

Inconsistency between Policies of Different Local Authority Departments

The research revealed that there are inconsistencies across local authority departments and these impact on the community they serve. For example, despite Oxfordshire County Council (2005) stating that they have a commitment to weaving social inclusion issues through all Council policy and activity, the planning decisions made by that authority around a gated community in Barton do not appear to reflect that doctrine. In addition, in terms of transport, the authority states that it promotes public transport usage and the lessening of dependence on car travel. However, the development in question is not well located for access to non-car transport networks and its marketing clearly indicates that one of its main attributes is its proximity to the inter-urban road network. The granting of permission to build a gated community (Graham & Marvin, 2001) in a deprived neighbourhood may be interpreted as perpetuating and extending socially divisive and exclusionary features in the built environment.

Although these findings are unlikely to be unique to the case study described in this research, they do help to elucidate the 'silo-esque' nature of current local government institutions and provide a concrete example of the way discrepancies across policy areas can be manifest in local communities.

The 'Consultation' Gap: Consultation for Consultation's Sake?

There is evidence (for example, Rajé, 2003; Rajé *et al.*, 2004a, b) to suggest that, despite the assertion by the then Department of Environment, Transport and the Regions that public participation is a key element in effective transport planning, involvement of

local people in the process does not appear to have been a priority in all scheme design projects. Some of the participants in this research suggested that they felt that although public exhibitions about the roundabout proposals had been held, they were not optimistic that their views would be taken into account or needs met by the redesign.

The importance of effective consultation is heightened when one considers hard-to-reach groups such as people from ethnic minority backgrounds, the elderly and the young. Innovative approaches are needed to overcome current barriers to consultation with harder to reach groups. Indeed, as the work of Needham (2002, p.711) indicates, transport itself can be a barrier to participation in consultation. Needham, reporting on consultation in Oxford, not only highlights problems councils face in expanding consultation, 'but also shows how it can be used to entrench existing power relations':

This demand problem (i.e. lack of willingness to participate in consultation) is likely to be particularly intense among the 'hard to reach' groups that Oxford has sought to target. Officers' efforts to increase participation among young people, ethnic minorities and poorer communities have had only limited success. In part, this reflects an assumption that lack of participation indicates lack of interest, with officer efforts directed at mobilizing interest in consultation rather than tackling entrenched problems that limit participation. Childcare and transportation needs, for example, were not mentioned. The council publishes some public documents in languages other than English, but the selection of languages reflects earlier waves of immigration into the area rather than the current situation. Translation facilities are not offered at area committee meetings, perhaps recognizing that invitation letters sent out in English are unlikely to encourage attendance by non-English speakers.

The importance of public consultation becomes increasingly clear as the detail of travel and transport experiences, such as those revealed in this research, is reviewed. Effective consultation requires that schemes pay attention to public suggestions for improvement and that consultation not simply be used as a one-way street of providing information on that which has already been decided:

It is quite clear that some organisations are simply going through the motions of public participation in response to the exhortations and veiled threats of various government pronouncements on the topic. It is equally clear, however, that many organisations see recent innovations as an opportunity to address some of the shortcomings of existing democratic practice. These organisations are actively seeking to renew democracy through the imaginative use of various techniques, at the heart of which is a simple belief that more participation must be better for democracy than less. (Pratchett, 1999, p.632)

The 'Communication' Gap: Towards more Aware Planning

It would be erroneous to suggest that there is a total absence of awareness among planning and policy-making practitioners of the needs of local residents and the

importance of seeking to address issues that communities face on a daily basis. After all, these practitioners are themselves residents of communities and may share some of the concerns of people affected by their decisions. Increasingly, more sophisticated tools are being developed to help planners make decisions that are more finely-tuned to local needs. One of these tools, which became available in 2005, is Accession – a bespoke accessibility planning software tool developed by transport consultants MVA on behalf of the Department for Transport to assist local authorities in England in preparing accessibility strategies in second Local Transport Plans. However, it should be noted that the Department for Transport does not require local authorities to use the software (Titheridge, 2005). It has also been suggested (Titheridge, 2005, p.8) that the software may only help local authorities perform one part of the task of accessibility modelling:

Accession seems to provide all the tools necessary for local authorities to be able to carry out the mapping audits required as part of the accessibility planning process. However, it does not seem as if it is particularly geared towards helping local authorities with the third stage of the process – option appraisal. An accessibility analysis tool could be developed which helped local authorities to:

- Identify the full range of potential solutions available for tackling a particular problem:
- b) Model the positive and negative and wider impacts of each option;
- c) Help identify potential barriers to implementation of each option; and
- d) Assess the value for money of each option.

Given apparent doubts about the robustness of tools such as Accession, the importance of participatory consultation to conception and construction of socially focused transport schemes is heightened. There is a potential in over-reliance upon new and untested tools for the needs of local people and communities to be lost in the design of interventions and policies.

Conclusion: Creating Transport Transparencies

Transport policy has been characterised as having no coherence in its discourse and no consistent storyline (Vigar, 2002) and as lacking in any clear direction (Banister, 2002). There is also a perception of a divergence between professional transport planning and public discourses that this research evokes. This has also been discussed by Whittles (2003) in his work on urban road pricing. Whittles (2003) argues that the divergence urgently needs to be resolved. He suggests that sociological techniques can be the bridge between the two opposing perspectives. The research upon which this paper is based (Rajé, 2006a) seeks to contribute to a literature that helps to bridge this gap in the field of transport and social exclusion.

In this research, it is suggested that by adopting more sensitive and people-focused communication and treating citizens with appropriate respect, the professional transport planning sphere would greatly benefit from the insights obtained and be in a better position to deploy limited financial resources to meet real local needs. By bridging the perceptible discourse gap, quality of services could be improved and public bodies become more accountable and responsive to community need. Such an approach can empower citizens and lead to a rebalancing of public infrastructure to meet the common good of all residents.

Transaction of daily activities requires negotiation around the transport system. This research has shown that, for the less mobile, social networks can provide an alternative to public transport. For the more mobile, the availability of a car to one person can result in hidden displacement effects for another. Women who are largely dependent on walking can become 'tired'. However, for these women, walking stretches limited household budgets that may be even more constrained if they had to cover the costs of public transport fares also.

This research contributes to the on-going discussion of transport's role in preventing people participating in activities. The research indicates that transport can act as a barrier to access to activity participation on a number of levels. The transport barrier can be spatial, when a service or activity is only available to a potential participant at a distance and therefore requires travel. If a viable means of transport to the activity location is not available, then transport becomes a factor in limiting activity participation. The barrier can be temporal, when a transport service is available to link potential participant with activity location but not at a time that allows the trips to and from the activity to be made. The barrier can be informational, when someone wishes to take part in an activity but cannot find out how to travel there, cannot understand the available travel information or does not realise that an available transport service operates within an accessible corridor of the origin and/or destination.

The research has also revealed a much more insidious way in which transport may limit activity participation: through the development of transport policies and solutions without due consideration of local needs. Lack of participation, whether intentional or involuntary, by the affected public in need definition, comparative proposal evaluation, scheme design and subsequent evaluation, means that citizens may be rendered impotent in their control of interventions that will ultimately impinge upon their ability to participate in activities. Disregard for local needs results in transport investments and policies that are inappropriate, do not alleviate prevailing barriers to activity participation and, therefore, work against the objectives of social inclusion. Interventions should give due regard to the resolution of challenges that are currently experienced in a community rather than being developed in the absence of local perspectives. Meaningful community engagement with stakeholders from across the spectrum of activity needs and lifestyles is an important aspect of inclusive planning.

The research indicates that it is necessary for transport investment to be appropriate and responsive to locally identified need for it to be successful in increasing activity participation. In the absence of apposite local focus and tuning to specific needs, any transport investment may be in danger of introducing additional barriers to accessibility for some more vulnerable people in an affected community (Rajé, 2007). It is also clear that, for some, a high level of investment is not the requirement. Instead, they need tailored solutions that make obstacles to participation surmountable. These obstacles may be in many forms; for example, for the information-deprived, personalised travel planning may be a key solution.

This research has shown that there is a need for transport policy and practice to be informed by local experience. An appreciation of the plurality of individual lived experience of transport, both poor transport and good transport, can engender among the planning and policy-making practitioners an empathy for how people's lives are affected by the systems they design. It is only through sustained interaction with people in local communities that real needs and experiences can be revealed. There is little benefit in involvement of local people if such involvement is only perfunctory in nature. The local transport plan process requires that consultation takes place with the local public. However, within the process there is an opportunity for obfuscation of the detail of such consultation: an authority could consult with business leaders, active community groups and motivated members of the community, yet, some people from the affected public may never hear about the authority's plans or even that consultation may be taking place because appropriate channels of communication, for example with ethnic community members, may not have been adopted. Despite its inadequacies, such consultation could legitimately be reported by the local authority to have taken place, although the character of the exercise would not be reported.

A more transparent and inclusive approach to service planning and policy-making can be mutually beneficial to the transport system user and the practitioner. Leadbetter (2004, p.19) suggests that 'a new organising logic for public provision' that places the user at the centre of service design and delivery could be beneficial in the development of high-quality services. As McCarthy and Thomas (2004, p.15) indicate, 'the right kinds of transparency' can help to rebuild public trust in institutions and also 'improve organisational performance itself'.

The research has provided a number of examples of ways in which transport can negatively impact on people's lives and has warned of the dangers of investing in measures that do not assuage these negative impacts. In terms of the two transport interventions examined closely in this research – the roundabout improvement and Home Zone – there appears to be little expressed desire in the two case-study communities to see the schemes implemented. In both areas, there is some doubt as to the need for the interventions and the consultation process has not helped to engender local support. Instead, the consultation exercises for both interventions may have been counter-productive, resulting in research participants expressing some doubt with respect to the credibility of the planning institutions involved.

In terms of social inclusion, the research gave little evidence that either intervention would actively promote a resident's participation in activities or ability to access services. The findings suggest that other forms of transport intervention such as personalised travel marketing schemes, lift-sharing and individualised solutions (e.g. car clubs, demand responsive transport) would be more appropriate for increasing activity participation and meeting social inclusion objectives.

In conclusion, it was envisaged at the outset that the research would produce an improved understanding of the extent to which transport investments can promote social inclusion; in fact, the research indicated that there is a stage before transport investment that requires urgent attention. Consultation of a fuller and more representative character is required before any transport investment is made; furthermore, there is a need for the upgrading of travel and transport research

methodologies to better reflect the lived experience of difficult and suppressed journeys. The measurement of mobility of itself is not sufficient.

Notes

- 1. ACORN is a geodemographic tool used to identify and understand the UK population and the demand for products and services. ACORN categorises all 1.9 million UK postcodes, which have been described using over 125 demographic statistics within England, Scotland, Wales and Northern Ireland, and 287 lifestyle variables. (http://www.caci.co.uk/acorn/whatis.asp).
- 2. See Appendix A for the ACORN profile for a central Barton postcode.
- The ACORN¹ profiles of two distinct postcodes within the town are helpful in providing an insight into the two disparate communities in Charlbury.
 - The first shortened profile (http://www.upmystreet.com/inf/msc/det/?l1=ox7+3px, accessed 19 February 2005) is for Church Lane, Charlbury (OX7 3PX). This is a centrally located street with St Mary's Anglican Church at one end, made up of old, stone, terraced houses with on-street parking. See Appendix B for the Charlbury ACORN profile of Church Lane
 - The second profile (http://www.upmystreet.com/inf/msc/det/?l1=ox7+3ss, accessed 19 February 2005) is for Sturt Close, Charlbury (OX7 3SS). This is one of two streets on the eastern side of the town where a Home Zone is proposed. The housing stock is local authority built semi-detached and terraced dwellings built in the 1960s. See Appendix C for the Charlbury ACORN profile of Sturt Close.
- 4. Home Zones are an attempt to strike a balance between vehicular traffic and everyone else who uses the street the pedestrians, cyclists, business people and residents. Some see Home Zones as a way of 'reclaiming' local streets from a traditional domination by cars. Others see it more modestly as a way of trying to restore the safety and peace in neighbourhoods that are becoming overwhelmed with speeding traffic. Home Zones work through the physical alteration of streets and roads in an area. These alterations force motorists to drive with greater care and at lower speeds. Many countries support this with legislation allowing the Home Zones to enforce a reduced speed limit of 10 miles an hour. The benches, flower beds, play areas, lamp posts, fences and trees used to alter the streets and roads offer many additional community benefits to the Home Zones and are considered to enhance the beauty of an area and increase the housing prices.
 - Home Zones, while on the surface they offer substantial benefits to and area, are the source of some controversy. It has been reported that such schemes have delayed the response rates of the emergency services to the streets within the Home Zone. Other reports describe local authorities being inundated with complaints from residents demanding that the road humps and chicanes be removed as they are causing huge tailbacks through the streets. People have shown concern that encouraging children to play in roads, even specially adapted roads such as Home Zones, has introduced a danger that was not previously there. It has also been reported that the residents of a Home Zone in America are actively campaigning to have the road alterations removed as they can no longer park near their houses (http://www.homezones.org/concept.html).
- 5. Two interviewees overall (out of 39 in both case studies) referred to the need to consider arrangements with other people before they could travel. One was an elderly woman with a disabled husband: she had to arrange for someone to care for him if she was leaving the home. The other was a young single mother of two who described her reliance on baby-sitters (her mother and sister) to look after the children when she went to the gym (located towards Oxford about 2 km from her home). Despite having to negotiate around their arrangements, both interviewees still described themselves as the primary decision-makers with respect to their travel. However, when the wider context of people's trip-making was examined, dependence on others to access goods, services and facilities was much more evident than the participants' perceptions of the independence of their decisions with respect to travel would suggest.
- 6. The use of support networks can be very important in accomplishing travel where public transport does not provide adequate services. These support networks can be the lifeline to essential goods that may not be available locally or that may be too expensive at the local shop for someone on a low income. During an interview with an elderly participant in Barton, her retired friend delivered her bread and milk, which he buys for her regularly at the Somerfield supermarket in Headington.

He travels by bus to the supermarket to shop because both he and his friend find the general store on the Barton estate too expensive and the range of goods poor or 'not fresh'. In contrast, the availability of one's own car and provision of accessible private non-residential car parking in the urban centre allows one retired study participant from Charlbury the luxury of making choices of quality goods on a much wider spatial scale. He described his choices thus:

I've got a parking space in Oxford [at my old department] so I can chose to come into Oxford by car if I want to ... I go to Witney to shop at Waitrose but always buy my bread in Oxford [at Maison Blanc]. I buy certain things in certain places.

These simple examples illustrate that the car bestows a power to transact business and access goods over far wider horizons. The car-owning retiree travels between relatively distant locations on his own in pursuit of the goods he chooses to obtain to suit the flexibility his disposable income confers. In contrast, the public-transport-dependent retiree does not have the financial resources (or, possibly, the desire) to travel longer distances to obtain the goods to satisfy his needs. Instead, his resources are used to travel a relatively short distance and to use the regular trip to provide a service for a friend. In this way, the social connection between the two elderly residents of Barton means that one can rely upon the other to source better quality goods beyond the local area and thereby circumvent her lack of access to transport.

7. It is recognised that, for some, the time they spend alone in their car provides a desirable break from other distractions and responsibilities. It is not those who see the car as a 'welcome' social isolator who are of concern here.

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Appendix A. ACORN Profile for a Central Barton Postcode

"Type 42: Council Areas, Young Families, Some New Home Owners

(3 per cent of the population live in this ACORN Type)

Likely characteristics

These blue collar neighbourhoods contain many young families. They tend to be located in industrial areas with a bias towards the North, Wales and Scotland. Typical towns are Corby, Easington and Scunthorpe. The level of population mobility is relatively low with fewer than average recent home movers.

| Heavy ITV viewing | High |
|--------------------------------|--------|
| Microwave purchases | Medium |
| 2+Car ownership | Low |
| Ownership of stocks and shares | Low |
| Buying home with a mortgage | Low |
| Population aged 0–14 | High |

Demographics

The demographic profile of these neighbourhoods is characterised by young couples with children. There are also above average proportions of households without children but with 3 or more adults. The proportion of single parent families is 88% above average. There are relatively few elderly people.

Socio-Economic Profile

The unemployment rate is 70% above average. The proportion of people employed in manufacturing is 63% above the national average. There are above average levels of skilled manual, semi-skilled and unskilled occupations; in particular, the proportion of unskilled workers is twice the national average. 22% of workers are machine operatives - this is well over twice the national level. People are much less likely than average to travel to work by car, and more likely to travel by bus or on foot.

Attitudes

Were they to go on holiday, these people would be much less likely than average to want to try new destinations each time or to get off the beaten track. They are much less happy than average with their standard of living. They tend to look for the lowest prices when shopping and to budget very carefully.

53% of homes are rented from the council – 2.5 times the national rate of council rental. While the level of owner-occupancy is below average, this still accounts for 41% of homes, with 30% of homes being purchased. A significant proportion of the council housing stock was purchased by tenants during the 1980s. The housing in these areas is very homogeneous – over 93% of homes have 3-6 rooms and the tow main dwelling types are semi-detached houses and terraced houses.

Durables

Car ownership levels are slightly below average; 47% of households have no car. Cars tend to be much older, smaller and less expensive than average. A

number of Durables are purchased more frequently than average in these neighbourhoods - computer games and games systems, keep fit equipment, cookers, washing machines, tumble dryers and fridge freezers. 72% more homes than average are installing new central heating but rates of double glazing installation are below average.

Financial

Incomes in these areas are relatively low, the income profile peaking in the under £10,000 band. Ownership of all types of Financial products is very low, except hire purchase agreements where the penetration is 38% above average. Ownership of investment products is particularly low.

Media

Ownership of both satellite and cable television are above average. There are 3 dominant daily newspapers -

The Sun, The Mirror and The Daily Record. The News of the World, The Sunday Mirror and The Sunday People are the most widely read Sunday papers with the Scottish Sundays also having strong readership levels. ITV viewing and commercial radio listening are both very heavy.

Leisure

People in ACORN Type 42 are almost 50% less likely than average to go on holiday. They go out to pubs and clubs frequently, but are much less likely than average to eat out. They are not at all sporty – only fishing has a significantly above average participation level. Bingo is extremely popular.

Food and Drink

People in these neighbourhoods are much more likely than average to do grocery shopping daily and on foot. They tend to be heavy users of freezer centres and of frozen foods, in particular items such as fish fingers and beef burgers. The diet here is not a healthy one as consumption of fresh foods, particularly fruit, is very low. These people are extremely heavy users of tinned steak and sausages. They also consume crisps, snacks, colas, bacon and cigarettes much more heavily than average. Consumption of most alcoholic drinks is below average, except for lager and vodka." (Source: ACORN © CACI Limited 2003 available at http://www.upmystreet.com/inf/msc/det/?l1=OX3+8BT accessed 170704)

Appendix B. Charlbury ACORN profile of Church Lane

Type 14: Older professionals in suburban houses and apartments (1.48% of the population live in this ACORN type)

Likely Characteristics

This type is well represented in Outer London (Bromley, Barnet and Kingstonupon- Thames) and Manchester (Trafford), Aberdeen, Stirling and Home County towns such as Guildford and St Albans. Family Income: High

Housing – with mortgage: Medium Interest in current affairs: High Educated to degree: Very high Couples with children: Medium

Have satellite TV: Low

These are affluent people living in largely suburban areas. Households tend be a mixture of couples, families and singles, but with fewer children and more retired people than the UK as a whole. People tend to be well educated, and employed in senior managerial and professional occupations.

Property is a mixture of houses and flats. The houses tend to be large, with four or more bedrooms, with slightly more semi-detached than detached and terraced. Flats are a mixture of purpose built and converted, some of which are privately rented. Reflecting the slightly older age profile of the people in this type, more of the houses are owned outright.

Car ownership is high with two cars being very common. One of the cars is likely to be a high value company car.

These affluent individuals have high incomes as well as high levels of savings and investments. They are also characterised by high credit card limits and high credit card usage. They make investments using financial advisers and brokers, as well as directly using the Internet. Internet banking is very common. All the major broadsheets are read, and interests include fine arts and antiques, theatre and good food and wine. Eating out is also popular.

Appendix C. Charlbury ACORN profile of Sturt Close

Type 49: Large families and single parents, many children (1.33% of the population live in this ACORN type)

Likely Characteristics

This type is found in most major urban centres including Belfast, Londonderry, Motherwell, Falkirk, Newport, Ipswich and Walsall.

Family income: Low

Housing – with mortgage: Low Interest in current affairs: Very low Educated to degree: Very low Couples with children: High Have satellite TV: High

These are some of the poorest young families in the country.

They have exceptionally high numbers of children and a very young age

profile.

The level of single parents is three times the national average.

Housing is mainly three bedroom terraces, or sometimes semis, rented from the council. For the larger families, this means some overcrowding.

Unemployment is very high with a significant number of young people never having worked. With many single parents not working, the number of wage earners is low and so, inevitably, are incomes. A number of households are in debt.

People have to be careful shoppers. Clothes come from catalogues, street markets or supermarkets. Like other younger people, what spare money they do have is spent on going out to pubs, cinema and nightclubs. Otherwise, they spend their time at home watching TV.