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1 *Introduction*

"For transport policies to be sustainable they need both to be designed to be compatible and contribute to sustainable development and be broadly acceptable to the general public. Those involved in formulating and implementing transport policy need to understand not only public attitudes to transport policy options and how these attitudes vary between subgroups, but also more fundamentally why different people have certain attitudes and where these come from. This understanding is necessary if policies are to be formulated and presented in such a way as to gain public support and if policy makers wish to try to change attitudes and thus travel behaviour"
(Taylor and Brook, 1998)

1.1 *Research Background*

London Transport (LT) is seeking to understand the scope for affecting attitudes to transport in London, through effective marketing and information campaigns within the future Transport for London (TfL) transport strategy. Llewelyn-Davies was commissioned in February 2000 to research attitudes to transport in London for LT.

The remit reflects changing responsibilities in London, in particular the absorption of London Transport within the new Transport for London (TfL), which will have much broader concerns for modes other than buses and the Underground. This study covers all modes of travel in the capital.

London Transport requested an investigation of the following:

- The attitudinal levers which can be successfully exploited to encourage the single occupant car user to switch to walking, cycling or public transport;
- Attitudes which underpin the existing choice of modes;
- Principal factors causing attitudinal levers to vary amongst people
- How people decide what modes to use;
- Relative importance of each journey leg in terms of a marketing campaign to alter modal use.

1.2 *Study Methodology*

The study is in two stages, as follows:

- **Stage 1**: reviewing what is currently known, including academic, public and internal data sources

- **Stage 2**: gathering information from LT's fellow transport agencies on this topic, covering their internal data sources, any current or planned investigations and their organisation's views on transport attitudes

This draft final report presents the initial results of the literature review and the findings from the interviews with representative transport agencies.

Stage 1 – Literature Review

With a timeframe of only four weeks, filtering of the literature has been essential. As advised by London Transport and Peter Jones (University of Westminster), we have concentrated on the satisfaction with existing levels of services, and on what improvements and communications are regarded as being necessary to encourage walking, cycling and public transport.

A number of sources have been used, namely:

- research databases such as the British Library and the London Research Centre's 'Urbadisc';

- materials already collected by Llewelyn-Davies and London Transport;

- journals and papers produced within university research departments;

- good practice papers and data from national research programmes;

- transport organisation's reports, and;

- online surveys such as the BBC/MORI survey.

Much work has been done in analysing the findings from the transport modules of the British Attitudes Survey. However, these are nationally focused and thus somewhat limited when applied to the unique context of London (in particular Central London). Nevertheless, nationally based research reports offer interesting insights into many of the contradictions and inconsistencies between attitudes and behaviour.

In total we reviewed in depth over 30 articles and reports, highlighting key issues in relation to the study objectives as well as the strategic marketing solutions being advocated and implemented. The full literature list considered runs to over 200 articles.

As the transport policy context in general has changed so much in the last few years, we have concentrated mainly on material published within the last 5 years.

Stage 2 – Key Actor Interviews

The preparation and gathering of information and views from LT's fellow transport agencies was carried out in close association with LT. The process involved: telephone conversations to find out contacts and the remit of the transport organisations, setting up and arranging the interviews, verifying the scope and key points of discussion and finally carrying the interviews out and writing up the discussion points.

Representatives from all the main modes and transport organisations were targeted to ensure a comprehensive approach. These organisations interviewed were as follows:

- The Pedestrian Association

- London Cycle Campaign

- Shadow Strategic Rail Authority

- Freight Transport Association

- Traffic Director for London

- London First

- RAC Foundation

- AA

- Association of London Government

- London Planning Advisory Committee

- Transport Committee for London

The remainder of this paper is structured as follows:

- Chapter 2 - Conclusions and Recommendations

- Chapter 3 - Travel Trends

- Chapter 4 - Key Issues from the literature review

- Chapter 5 - Key issues from the Key Actor Interviews

In addition, Appendix 1 presents the detailed literature review, Appendix 2 the detailed interview responses and Appendix 3 the bibliography.

2 Summary and Conclusions

2.1 *Introduction*

This summary chapter draws out issues and conclusions from the literature review and interviews. It suggests future TfL marketing and information campaigns for London need to adopt an increasingly sophisticated approach to encourage a shift towards walking, cycling and public transport. Further research is also required to better understand existing behaviour and inform marketing campaigns.

2.2 *Marketing Strategy Criteria*

A fully fledged marketing and promotion strategy would need to satisfy a number of criteria. The following suggestions are offered:

- A strategy based on a clear understanding of why people travel, the factors that influence their travel choices and the extent to which these are amenable or resistant to change (i.e. elasticities);

- Linked to policy objectives (such as promoting the switch from car to other modes for journeys under 5km);

- Pitched at the appropriate level to match current levels of public understanding of the issues;

- Targeted at the particular groups of people who it is thought have the potential for change (e.g. those moving house or job; those with marginal attachment to cars);

- Include scope for addressing specific problems at the local level (e.g. targeting a railheading problem in south east London, or an interchange problem at Seven Sisters/Finsbury Park);

- Include a strategy for prioritising between different modes and trips (for example to solve potential conflicts between bus, walk and cycle use).

The literature review reveals useful information that will inform such a marketing strategy. However, existing material has been derived from sectoral interests rather than from the need to support an integrated approach. The latter will be required by TfL.

A broad view is taken by the representatives of some of the organisations targeted for interview. Even so, perspectives are influenced by responsibilities. Again the creation of TfL will require a more integrated approach.

2.3 *The Literature Review*

The literature on attitudes research tends to fall into one of two categories. The first is provided from a sectoral viewpoint (e.g. to promote walking or use of the Underground). The second is to illuminate opinions related to transport changes (e.g. to measure the degree of car dependence, or to assess support for road pricing). Despite a large volume of literature, there are gaps, such as the propensity to switch modes. There is little consideration as to the relative weight attached to different factors in the whole journey. There is also an apparent lack of understanding of the importance of habit and lifestyle change. However many lessons can be drawn from reviewing user group attitudes and from comparisons with other fields such as the health sector. Various publications and key messages are important:

- The RAC (1995) argue that car dependence can be seen as a continuum, with a 20-60-20 split. Here, 20% of journeys are absolutely necessary by car and unavoidable. 20% are undertaken by car, but would be better carried out by another mode, and 60% are somewhere in between. Campaigns should initially be targeted at the marginal 20%

- Fergusson et al (1999) draw lessons from attitudinal work in the health sector. Attitudinal models such as the trans-theoretical model are useful in underlying states and processes, and emphasising different stages requiring different types of intervention.

- The INPHORMM research (1998) applies attitudinal models used in the health sector to the transport field. The model has five processes which are needed in order for lasting behavioural change to occur: awareness, acceptance, attitudes, action and assimilation

- There is a broad consensus that interventions need to become more sophisticated in their approach, targeting the 'right' people at the 'right' times

- Individuals not contemplating change are difficult to reach. They are likely to react defensively or negatively to 'blanket' messages about their behaviour

- Attitudinal models do not contribute to identifying mechanisms and the type of support needed for change, or indeed differentiate between modes. They do however help to structure the potential interventions

- Research in the Netherlands (Teertoolan et al, 1998) reveals that promoting environmental awareness alone does not encourage a larger altruistic switch to alternative transport means

- Projects at the local level, such as travel blending (Ampt, 1997), may prove effective in reducing car use

- If attitudinal campaigns aimed at radical changes in behaviour are to be successful, they need to relate to changes at the policy and implementation level

2.4 *The Interviews*

The interviews with transport organisations were extremely useful in understanding the discrete nuances between different policy lobbying positions. It is clear that perceptions differ between organisations, even between those representing the alternatives to the car, i.e. walking, cycling and public transport. This will become increasingly important for TfL, which will have responsibility for promoting all modes in London. Rather than being solely concerned with promoting public transport use, TfL will need to structure its approach according to some guiding set of principles and priorities (perhaps a hierarchy for the promotion of different modes). A number of issues can be drawn from the interviews:

- People do understand the trade off between personal car use and the quality of the environment. However, they may not feel able or willing to alter their travel behaviour. It is widely perceived that individual action will not result in any change in overall conditions;

- There has been a hardening of the motorist lobby in recent years. The AA, RAC and British Road Federation see Government on the backfoot and are taking advantage of this;

- National Government is perceived to lack the confidence to do what is required. Yet there is a need for political leadership to provide support for implementation at the London level;

- Low budgets are provided for facility provision and marketing campaigns;

- The whole journey needs to be considered. The walk or cycle to the public transport stop is often the 'weakest link' in what is generally considered a public transport trip. Improved pedestrian or cycling provision can therefore influence public transport usage;

- LPAC believe there is support for congestion charging, initially in the centre of London and rippling out to the rest of the city in the long term.

2.5 *Greater Sophistication in Approach*

It is possible to outline an approach that targets individuals and groups in a more sophisticated manner than is used presently in marketing transport (Fergusson et al, 1999). A theoretical framework, such as the 5 'A's (Jones, 1998), can be helpful in identifying what needs to be done to encourage, promote and reinforce change.

A targeted approach would include:

- Analysis of travel data to ascertain stage 'location', i.e. assess where Londoners are on the 5 'A's continuum, including consideration of the geographical differences within London;

- Campaigns will then need to be tailored to reach those in the differing stages. Initial work might focus on those considering change (the contemplators) to move through the action to maintenance stage. All groups should however be targeted in the long term, including habitual car users;

- Specific barriers to moving from one stage to another will need to be identified, and help provided to overcome the barriers. A number of agencies could provide support at different times (as below);

- Integration of all modes, not focused solely on the bus or tube. Emphasise the door to door 'journey components'. *"The tube journey begins at the front door.";*

- Link campaigns to implementation of improvements in the transport system, e.g. new bus fleets and station refurbishments;

In addition, people need to be targeted at times of particular lifestyle change. Fergusson et al (1999) set out the current interventions in travel behaviour; listing actors, target audiences and behaviours. A wide range of actors are involved, some fully engaged in the 'White Paper project', but others less so. Examples include DETR, DVLA, the Department of Health, local authorities, schools, local education authorities, hospitals, the police, vehicle manufacturers and sales organisations, public transport operators, business interests, the media, non-governmental organisations, pressure groups and the public. Target groups, behaviours and interventions all differ according to actor involved. There is significant scope for a more coherent approach, involving improved coverage and innovative interventions. This is a role TfL could undertake.

Currently lobbies are working against each other in an unhelpful manner. For example, on last year's 'Cycle to Work Day', the RAC wrote the following press release for the Evening Standard:

"On your bike if you dare! Drivers tempted to celebrate Cycle to Work Day by donning clips and helmets had better watch out ... cycling to work is 10 times more likely to end in an accident than commuting by car ..."

Major life events are important as stimuli for changing travel behaviour. Well designed interventions by appropriate actors could improve the likelihood of desirable choices being made. Again Fergusson et al (1999) provide a commentary on these issues. Life events include: change of address, car, employment, birth of children, children attending/moving or leaving school, acquisition of driving license, license endorsements, traffic or parking violations, violent attack while travelling, traffic accident, marriage or divorce, illness and finally (literally) death. A number of opportunities are presented with these events. For example, new householders could be provided with a pack of information about local transport

routes (as happens in Vienna). As such, travel habits could be influenced before they develop.

2.6 *Future Research Agenda*

Further research is needed in a number of areas to better understand existing behaviour and inform 'behavioural change' programmes:

Marketing campaigns need to be focused, with different campaigns addressing individual households, different modes, priorities and policy aims

- There is great potential in influencing travel behaviour by a better understanding of how life changes affect behavioural change. Also, evidence on variability in travel behaviour suggests that targeting those who sometimes use greener travel modes, and reinforcing this, could be effective;

- People who are continually contemplating change (the chronic contemplators) need to be identified and given encouragement to move on to the preparation and action stages;

- There is a need to tackle habit. Individuals do not consider all options in a rational manner before making every single journey. Indeed, most use a certain mode for a certain journey out of habit. A targeted campaign may be useful in improving awareness and options for those 'habitual users' of transport;

- Understanding the dynamics of car use within a household is important to reducing car use. For example, if a commuter is able to use flexi-time at work, the 'day away from the office', although having no commute journey attached, may be filled with a leisure trip. Such dynamics need to be appreciated before the amount of travel can be reduced;

Understanding the nature of support needed for behaviour change

- Individual support needs differ, but little is known at this level. Travel blending may be a useful approach to replicate;

- Targeted information, again little is known as to the circumstances in which information is required and how to best target information to meet the needs of individuals;

- The existence of peer pressure and support needs to be identified, and possibly exploited, in support of changing travel behaviour;

- A number of organisations can be identified to help in the co-ordination of effort;

Better understanding of travel behaviour

- A number of questions remain. Time spent travelling has remained remarkably static over the years, do individual time budgets exist? Are there time thresholds over which people will not undertake journeys? What is the nature of excess commuting and travel? What are the causes of variability in trip patterns?

- Which journeys can be identified as the marginal 20% (RAC, 1995)

- What is the role of company car drivers? How can the large mileage drivers be tackled? They do have a disproportionate impact on overall travel patterns;

- Car travel by non-drivers and people in households without cars is also interesting, and seems to be larger than expected, especially in rural areas (Skinner and Fergusson, 1998);

- What is the role of car free housing and green travel planning? Which groups are likely to participate in initiatives such as these?

It should be continually borne in mind that increasing motorisation is not inevitable. Experience elsewhere in Europe, in cities such as Amsterdam, Groningen, Zurich and Stockholm, have shown it is possible to breach the trend of traffic growth. A sophisticated marketing campaign, packaged with real investment in walking, cycling and transport and some form of charging regime for car usage, can start to reduce dependence on the car and achieve a reduction in travel.

3 Travel Patterns and Trends

3.1 Background

This chapter briefly considers recent changes in travel patterns in London and the UK, providing a context for the attitudinal review work.

Transport policy has undergone enormous change in recent years. The Transport White Paper (DETR, 1998) signalled a new approach to transport at the national level. Walking, cycling and public transport are to be encouraged, with targets set for increasing cycle use (Department of Transport, 1996b) and rail use (DETR, 1999). The White Paper also suggested future targets could cover walking, bus use and road traffic levels (although the latter has since received less favour).

3.2 Economy and Employment

Growth in transport demand is strongly correlated to overall trends in economic activity. It is therefore useful to look at key indicators in the London economy (LT, 1999):

- London provides employment for 3.7 million people who either live in London or commute from outside its boundaries;

- Only 23% of Londoners work in the centre. The rest (77%) work in inner and outer London, or outside its boundary;

- Gross Domestic Product (GDP) per head in London is consistently higher than the UK average;

- Resident's average earnings in London are by far the highest in the UK at over £500 per week, compared to the UK average of just over £380 per week;

- Claimant unemployment in London is just over the UK average – 5.3% in London compared to 4.6% for the whole UK. Some London boroughs have rates of unemployment of nearly 15% (Haringey, Lewisham and Newham);

- London's population has seen uninterrupted growth during the 1990s. The latest population estimate is 7.1 million, the highest for over 20 years;

- More than 40 million people a year visit London for the day, and more than 20 million make overnight stays. Visitors from overseas contribute more than £7 billion to the national economy (AA, 1998).

Transport problems are having an adverse impact on the environment and economy. The cost of congestion to the London economy is £5 billion each year.

3.3 *Travel Patterns*

The travel patterns of people in London are very different to other areas in Great Britain. Londoners travel about a quarter less distance than those nationally, are less likely to own and use a car, and are more likely to walk and use public transport. Key patterns (DETR, 1998 and 1999) are shown below:

- Distance travelled per person in London during 1995/97 averaged 5,150 miles per year, less than the national average of 6,666 miles;

- Car ownership growth in London has been flat over the past decade, with actual falls in numbers of vehicles in recent years. Under 2.3 vehicles were registered in London in 1997;

- Overall in London, only 46% commuted by car in 1998. This compares to 71% nationally;

- In central London, only 13% of the million workers commuted by car;

- The proportion of those travelling by car and working in outer London (69%) was only a little below the national average;

- 70% of those working in central London travelled by train, with 38% using the underground and 32% surface rail systems;

- Rail and underground transport networks are strongly radial. Amongst London residents, nearly 60% of radial trips to the central area use rail. This drops to only 6% for orbital trips;

- In London as a whole, fewer (8%) than the national average (11%) walked to work;

- Just 2% of all London journeys are by bicycle. This compares to Oxford and York (20%), Cambridge (28%) and other European cities such as Delft and Munster (40 to 50%);

- Fewer London households (29%) own a bicycle than the average of 40% in Great Britain;

- The average journey to work took 41 minutes for all London workers, 55 minutes for those in central London, compared to 25 minutes nationally;

- A total of 226 people were killed on London's roads in 1998, 277 in 1997 and 251 in 1996. The majority of those killed each year are vulnerable road users (pedestrians and cyclists);

- Average city centre speeds are down to under 11 mph, the same as those achieved by horse drawn carriages a hundred years ago (LCC, 1997).

4   Key Issues from the Literature Review

4.1   Introduction

This chapter presents a summary of the main issues which have emerged from the detailed literature review. It considers general attitudes to transport, attitudes to specific modes, attitudes to modal shift, and the apparent differences in the relative strength of key attitudes.

4.2   General Attitudes to Transport in London

There are noticeable gaps in the literature and research on attitudes to transport, particularly in relation to understanding the motivations and the actual propensity to switch modes. However many useful lessons can be gained from reviewing user group's attitudes and from comparisons with other subject fields such as psychology and behavioural theory. This section introduces some of the general thinking behind attitudinal research, highlighting some best practice ideas and lessons learnt from monitoring awareness campaigns.

The 1995 RAC report on motoring, argued that car dependence could be seen as a continuum which ranges from journeys that are constrained and have to involve car usage, to those which hardly have to be done at all. They suggest a 20-60-20 split, wherein 20% of journeys are absolutely necessary and unavoidable, 20% are marginal and 60% are somewhere in between. The report suggests there is a need to target campaigns at particular journey purposes as well as particular groups. To some extent, this is the rationale behind workplace and school travel plans. The report recommends more research work could be done to identify and target campaigns at the marginal 20% of car journeys.

Related investigations by Cairns et al (1998) set out to understand why a reduction in highway capacity often did not lead to the predicted traffic chaos. Their results show that travel behaviour is more dynamic in nature than was previously realised. Variations are large in terms of time, route, mode and frequency of journey, even from day to day. Changes in personal circumstances, such as changing employment, moving house, getting married or having children can also speed up the rate at which people's travel behaviour changes. If reliable targeting and effective interventions can be

devised, greater scope for interventions to change behaviour in a positive direction than is generally assumed may be possible.

Lessons from other research fields such as the health promotion campaigns offer useful insights on how to target campaigns effectively. Fergusson, et al (1999) highlight the importance of habit in determining certain types of behaviour pattern. Force of habit can override good intentions or rational analysis, and can be best challenged when external factors force some sort of re-evaluation. Further interesting issues were raised:

- Undue emphasis on the problems caused by specific behaviour patterns may be misplaced. A positive message is needed. Empowering individuals to change is important, and 'blaming the victim' should be avoided;

- In addressing behaviour and attempting to change it, focusing on individual decision making has its limitations. A range of external influences are also critical, such as the needs and aspirations of other household members and peer pressure;

- Individuals not contemplating change are difficult to reach, but still need to be addressed. They are likely to react defensively or negatively to 'blanket' messages about their behaviour;

- Maintenance of a change in behaviour is also important, but often overlooked. Relapses into former patterns are initially quite likely when obstacles are encountered, so continued support and advice is valuable in securing long term changes;

- There is a broad consensus that interventions need to become more sophisticated in their approach, targeting the 'right' people at the 'right' times. A blanket message is unlikely to be very effective, and may even be counterproductive;

- Attitudinal models, such as the trans-theoretical model are useful in outlining underlying states and processes, and emphasising different stages requiring different types of intervention. Moving individuals forward through the stages of change is seen as important in the long term.

The European Union funded initiative (INPHORMM), constructs a similar theoretical framework for behavioural change as referred to above. The model is a continuum of five processes which are needed in order for lasting behavioural change to occur: **Awareness, Acceptance, Attitudes, Action** and **Assimilation**. Once awareness has been raised, individuals need to accept the need for change, before a change in attitudes will come about. Then, when attitudes to travel have changed, action in the form of behavioural change can

occur. Finally, if the change is to be a lasting one, then the change needs to be maintained. This is known as 'assimilation' in the model, referring to the process of including new behavioural patterns into individual's routines and habits.

The model is useful for describing the processes involved in changing transport behaviour, although not as sophisticated as some used in the health promotion field. It does not, for example, contribute to identifying mechanisms and the type of support needed for change. Furthermore it does not differentiate between modes. The model can however help to ensure that campaigns are 'pitched' at the right degree of awareness and understanding for the target audience.

4.3 *Attitudes to using particular transport modes*

This section presents an assortment of observations on using different modes in London, emphasising what people like and dislike about different transport options. User based transport research to date has focused on seeking out the opinions of direct sub market groups, with a view to making the service more attractive to existing and potential users. This is particularly evident for buses and the Underground, the traditional remit for London Transport. Research efforts to understand other modes such as walking and cycling, concentrate more generally on the barriers to encouraging greater use. The AA report "*Transport in the Capital*" is the only known publication that has reviewed attitudes to all modes in the capital. This section therefore draws heavily upon this report. Inevitably the attitudes or views expressed here will reflect the brief of the commissioning body as well as the familiarity with transport issues of the participants chosen for the focus groups. They still however provide a useful account of current opinions. These findings could be fed into information campaigns accentuating the positive, as well as more structural reforms.

4.3.1 *Bus*

- Whilst people think that the Underground is reliable and easy to use, many people feel safer on and prefer to use the bus, usually because of less crowding and claustrophobia; "*I actually like being on the bus as you can see the streets around you and things going on. I am a bit of a day dreamer so I tend to just like looking out of the window. I find it relaxing*" (BRMB International, 1997);

- Common complaints about the bus service were directed at the legibility of the bus map for London; reliability, level of pricing and the inaccuracy of travel information. References were made

in many reports to only those that had 'mastered' the bus system being able to understand it (AA, 2000);

- Attitudes tend to be more negative about peak hour services than non peak hour services. This may reflect differences in perceptions of quality (e.g. reliability needed for work journeys) rather than actual quality differences;

- Park and ride provides an interesting example of people's perception of bus travel. Most users don't see themselves as actually using a bus when taking the connecting coach service.

4.3.2 *Underground (including the DLR)*

- The Underground is generally seen as more reliable and faster than the bus. However like the buses (LT, 1997), there are also significant perception gaps. Underground trains are usually thought by non users to run less frequently, with ticket prices perceived as higher than in reality;

- There is also a lack of awareness of the types of tickets that are available such as the weekend and family Travelcard. "*Around a third found it difficult to know where and when you can use different tickets, that there are too many ticket options and that they do not know which zones to buy tickets for*" (LT, 1997);

- The Underground is popular especially outside peak hours, for journeys without too many changes and for leisure trips in the evening. Overcrowding was the most common criticism, particularly during peak hours.

4.3.3 *Trains*

- Usually people think that public transport is slower than it really is, although rail has a better image than buses in this respect;

- Like the buses, the rail network is however seen as less legible than the Underground and like buses there is poor perception of the service during peak hours (AA, 1997).

4.3.4 *Cycling*

- The DETR (1999) advocate that an extensive communication programme at the local level is continually needed to convince potential cyclists that cycling is a practical transport option as well as offering desirable community benefits.

4.3.5 *Walking*

- Instead of being seen as the key leg in a multi stage journey, walking is often regarded in policy and research papers as incidental to 'moving around in busy daily lives'.

- Focus group participants in the Transport in the Capital report for the AA said they were more comfortable walking around in the local community than in central London, for reasons associated with personal security;

- The DETR (1999) have also published research exploring the public's views on the issue of public safety and perceptions of safety. The report highlights the key factors which makes people feel unsafe as pedestrians. These include: people hanging about (57%), poor lighting (56%), places for strangers to hide (39%), lonely places (46%), drunks (45%), subways (24%), and uneven pavements (35%).

4.3.6 *Car*

- Negative concerns such as lack of car parking spaces and expense associated with the car, have not outweighed peoples' perception of the comfort and convenience offered. These will vary according to location, journey purpose, time of day and other factors. "*Parking is not my strong point. I hate it in London, trying to find somewhere to park is just horrendous. Parking on meters is just expensive, plus fines for parking on yellow lines. But in general parking costs aren't too bad*";

- Common justification for using cars also includes: the weather; carrying shopping; having young children; being late; length of time; being too lazy to walk; restricted mobility; not feeling safe to walk at night; buses not very frequent; buses not going right to the cinema; and the car is quicker (DETR, 1999).

4.3.7 *Taxis*

- Taxis are most frequently seen as very accessible and convenient, giving the benefits of the private car. They offer door to door and 'get in and go' convenience. Local favourite mini cab companies are usually relied on for the outward journey, and black cabs are seen as safer, especially by women, for the return journey (AA, 1997).

4.3.8 *Freight*

- People blame much of the pollution and to a lesser extent traffic congestion on lorries. Possible measures to reduce their impact

are out of town shopping freight depots for transferring deliveries to smaller vehicles, restricting delivery times, and better enforcement of vehicle standards to reduce congestion from lorries. There are some calls for better use to be made of rail and waterways (AA, 1997).

4.4 *Attitudes to Modal Shift*

Very little has been commissioned on the effect of attitudinal levers on causing people to switch modes, such as the marginal trade-offs and the thresholds for changing patterns of behaviour. This is particularly evident when compared to the predominance of research focusing on people's reactions to traffic restraint policy levers.

"The links between attitudes and behaviour have not been fully realised. To date, there has been little by way of research-based evidence in the transport sector for policies seeking behavioural change" (Ferguson et al 1999).

What is therefore presented here is a limited amount of research, which has looked at attitudes to shifting travel behaviour from car dependence. This is combined with a mixture of opinions and justifications for using particular modes and suggestions for encouraging modal shift.

4.4.1 *Behavioural Research on Car Dependence*

- Research in the Netherlands revealed that promoting environmental awareness alone does not encourage a larger altruistic switch to alternative transport means. Indeed the findings suggested that it could have a negative dissonance effect, making people justify their existing behaviour patterns. Therefore more is needed to encourage action as well as enlightenment; (Tertoolen et al 1998);

- Concern about traffic growth usually is seen more as a national issue. Most people see themselves as victims rather than perpetrators of the problems of traffic congestion and environmental pollution. According to a recent poll carried out for the RAC (Mori, 2000), 60% of drivers view air pollution as a major problem, whereas 32% only believe it is a critical problem requiring immediate attention;

- Combined with a lack of connection between concern and action, there is still a resistance to giving up the perceived benefits of the

car in favour of other modes. Many people perceive their 'noble efforts' as being for some-one else's benefit, i.e. they get out of their car so that some one else can enjoy less congestion on the roads;

- The issue of individual voluntary sacrifice making no perceptible impact on the problem is clearly understood (Cullinane, 1992) and is used as justification for inaction at the individual level. This does not however translate into universal support for radical action at the city –wide level (Ferguson et al, 1999).

4.4.2 *Justifications for Using Particular Modes*

- 75% of those interviewed in the 'near market' report (BRMB International 1997) said that they could manage without a car if they had to, and 66% said they would use public transport more if it was reliable.

- In the 1994/5 LTHS Study, non users of buses were almost exclusively car users (86%) and a further 90% lived in a household with a car. In the 'Perception Gaps' study (LT, 1995), those who are least likely to use public transport are estimated to be those between 35-44 with access to a car. Preference for the car was cited as being the key reason for rejection of the Underground for off peak leisure use. The logic behind this being that once people have invested in a car they often feel an obligation to use it;

- Some of those who say they are dependant on the car feel it would be possible to switch to public transport, but say that they have to drive every day because of their 'essential car user' status. This makes them believe that they are contractually obliged to drive to work every day (Lethbridge, 1999);

- Many people simply highlighted a general thoughtlessness in their choice of mode, commenting *"I don't think about it, I just get in the car"* along with "*we have a car, why not make full use of it*" (DETR, 1999).

4.4.3 *Suggestions for Encouraging Modal Shift*

- Much could be gained by a positive advertising campaign stressing the benefits of using alternative transport modes, as many of the issues are very similar across the user and social groups. LPAC and MTRPU guidance on walking suggests that greater attention needs to be paid to the environmental and health benefits of walking. *"People's attitudes can be changed through awareness campaigns amongst the public and planning*

and transport professionals alike, as well as by providing more accurate information. Awareness campaigns need to stress the opportunities for and advantages of walking and the disadvantages of using the car unnecessarily." (LPAC, 1996);

- 'Attitudes to cycling' published in 1998 by TRL, argues that social marketing of the advantages of cycling, such as health and convenience, need to replaced with a strategy which makes people actually identify with the user groups. Social stereotypes of cyclists as poor, weak eccentric, social failures, needs to be challenged. " *In a very close analogy to smoking we need strategic initiatives to break the habit. It is very difficult to get people to contemplate change by attacking the very behaviour they rely on. Auto addicts need to be weaned off their twice daily hit and this will not be achieved by the rather simplistic notion, that by advertising the personal and environmental benefits of cycling, people will travel more"(Surveyor 1998);*

- Frequent suggestions from focus groups taking part in the 'Pedestrian Safety Study' for the DETR (1999) included: secure waiting areas; greater road space priority to buses and taxis; less crowding on urban transport services; comfortable, quality and accessible services; greater availability of clearly understandable timetable information; more 'hail and ride' services in the evening to prevent waiting at shelters; more park and ride facilities; and the greater use of CCTV surveillance;

- Improving understanding and accessibility of the system as a network were the major concerns of the focus groups. "*Gaps are reported to be in the availability and provision of coherent travel planning before and during trips. Information on service delays on trains and tube provision of alternative route options were highly criticised. A strong case was made for pictogram driven signing systems throughout the site*" (UEL, 1999);

- Comparisons from other cities in Europe, reveal that innovative measures to change people's awareness and action through better and livelier information are already underway. For instance in Vienna new householders are provided with a pack of information about transport routes, with the aim of changing habits before they develop;

- In Paris and Lisbon, more information is available on buses to enable people to know where they are on the route, along with lively advertising campaigns targeted at young travellers;

- Investment to increase the carrying capacity of the system, particularly at peak times, will also be needed to provide a

suitable journey experience right across the system. This will encourage new users to assimilate and break old habits. The AA report ' Transport in the Capital' (1997) suggested that Londoners see infrastructure investments as being long overdue. Also, confusion about the objectives and integration of the various transport initiatives in London is leading to frustration and continued car use.   The report advocates that huge investment is needed to counter balance the last 20 years of neglect.

4.4.4 *Attitudinal Differences Across Social and User Groups*

A multitude of ways of segmenting the market have been presented in transport research reports, ranging from frequency of use to mobility, age and gender. The London Transport reports reviewed generally focused on collecting data using frequency of use, followed by a break down of the findings by age and social group. This could lend itself to criticisms of social exclusion (Henderson 1998).

According to Taylor and Stokes (1995), who analysed the findings from the British Social Attitudes Survey, level of qualifications, car ownership and travel behaviour have a particularly significant effect on travel behaviour. Generally people who are better qualified, particularly with A levels, and those people who travel regularly by public transport are more supportive of anti-car options. Respondents in car owning households are significantly less supportive.   However the liberalising environment of higher education may be counter-balanced by self-interest at work. Notably income and class are not considered relevant.

Familiarity with the service plays a key part in people's understanding of the service delivery elements such as price, safety, reliability, and the LT customer helpline.

Those most apt to misrepresent journey times were 45-60 year olds and those with the shortest journey times (zones 1-3). Those who misunderstood the frequency mostly included zone 6 residents and social class ABC1 grades. Concern was also highest about safety on the Underground by zones 4,5 and 6 (LT, 1997). The Harris Centre LTHS research also found that non users with a more favourable opinion of buses were likely to be male, aged between 25-64.

The BRMB report (1997), attempted to segment further user groups in what it defined as the 'near market': those for whom public transport is a practical option but not an option they choose to take. Understanding the size and character of each of the sub groups was

deemed important to gain a feel for the level of intervention needed. These user groups were described as:

- **Value Seekers** (18%) - whose main concern is value for money
- **The Concerned** (23%) - who are wary of PT on safety grounds
- **Motorheads** (12%) - who are committed to their cars
- **Bus Lovers** (26%) - already use PT heavily and would find it difficult to use it more

A recent study published by the University of East London ('MIMIC', 1999) on the interchange at Stratford in East London, explored views of local residents, the elderly and disabled, through key actor interviews and focus groups. They saw a need for infrastructure improvements, as well as clearer information and guidance to make public transport more accessible and thus more convenient than the car. *"Clean, warm, comfortable and safe waiting areas and good retail facilities are of popular concern for elderly users, women and children. Within existing facilities, the bus station is singled out for criticism by many users, with operator's perceptions of bus stations varying from pride in what has been achieved, to acceptance that the environment falls short of the model created by airport terminals and motorway service stations".*

The DETR have moved towards targeting users such as teenagers. For instance the recent publication (1999) 'Young People and Crime on Public Transport' suggests that there are limited differences between sexes when it comes to feeling safe when waiting at bus stops late at night. The causes of uneasiness reflects a similar study on adult perceptions, which identified a combination of design features, isolation, absence of CCTV and lack of information and signage. Such experiences during teenage years may feed into future justification for dependence on the car.

Segmentation of the market is therefore policy driven as much as a numbers game. The decision has to be taken as to whether London Transport continues to market to existing users, i.e. those who already have favourable attitudes to public transport or target the specific needs of social groups and infrequent users.

4.5 *Conclusions*

A number of conclusions can be drawn from the literature review. The key levers that will change people's attitudes to the car and encourage more people to switch to sustainable modes of transport are: continual communication of information and an understanding

of the timing and responsiveness of different types of user groups to promotional campaigns.

Any future attitudinal strategy seeking to encourage modal shift should address:

- The gaps in awareness about the improvements to the service, such as revised frequency and upgrades

- The transfer of knowledge of how to use services, for example, use of bus maps

- Journey information on how to use the system as a whole, rather than for specific routes could also be improved. The MIMIC study found that there *"is a conflict between the new view of marketing public transport as an integrated network in London and the existing paradigm of presenting transport products as single entities"*.

The responsiveness and assimilation of different types of user groups to campaigns seeking change in travel behaviour will of course require more than an awareness of the problems caused by traffic congestion and pollution. Sensitive timing and targeting will be crucial to gaining support for establishing a positive change in behaviour patterns. An understanding of the current levels of acceptance will be a substantial part of this.

It is suggested that campaigns need to be targeted at the level just beyond the one which is judged to have been already reached. For instance, in many parts of London, people are at Stage 1 (Awareness) and are therefore more receptive to marketing strategies targeted at Stages 2-3. Campaigns based on Stages 4 and 5 may be less effective at the moment.

Partnership with the local authorities and other Government departments such as health (who have for example been promoting 'Run for your Life' campaigns), could prove a very useful way of reaching different social user groups.

A review by the DETR of the attitudinal surveys carried out by local authorities reveals the considerable level of response, and the variety and types of methods of research being undertaken to meet local government needs.

A number of key questions are becoming evident. For example a clear understanding of **who gives the message**, and **where it is targeted**. Many actors may be in a position to deliver effective information and active support to people wishing to change their travel patterns. Yet not all are being mobilised to do so. Some are even giving undesirable advice, which might be modified.

Further research into behavioural inconsistencies such as cognitive dissonance; the relative importance of attitudes in determining choice; the marginal trade-offs and thresholds, is still required to fully understand the factors that can cause people to change their ordinary mode of transport. Likewise a clearer picture of where Londoners are on the attitudinal scale (the 5 A's and what factors can ease transition from 'awareness to assimilation'. A decision of course will have to be taken as to what behaviours / cohorts are to be targeted and with what types of intervention. Inevitably some groups are harder to target than others.

Such a campaign would need to be of such a strength and impact to counterbalance the large resources being currently invested in stressing the benefits of car ownership through car promotion and advertising. It would also have to be seen to be backed up with real investment in infrastructure improvements aimed at improving walking, cycling and public transport.

If policies aimed at radical changes in behaviour are to be successful in contributing to a more sustainable transport system, interventions will need to be applied on as broad a front as possible. The application of a proven theoretical framework will be useful. In the absence of such an approach, policies to promote alternative modes to the car will continue to rely on general information giving, or the 'leap of faith' of providing new facilities for the alternative modes, in the hope that they will stimulate the desired behaviour.

5   *Key Issues from the Interviews*

5.1   *Introduction*

This chapter presents a summary of the comments made in the interviews with LT's fellow transport agencies. It considers the organisation's views on a number of areas including: the relative merits of different modes; the factors causing a switch between modes; perceptions of modes by non-users; changes to attitudes over time; the keys to influencing change; attitudinal levers and perceptions as to why mode shift is not being realised. A more detailed write-up can be found in Appendix 2.

5.2   *The Relative Merits of Different Modes*

The benefits recounted most often in the interviews for walking and cycling were convenience, cost, speed, health and independence, with equal proportions of importance. Interestingly very few individuals state 'environmental consciousness' as a reason for choosing walking or cycling.

The Pedestrian Association highlighted the imbalance between attitudes to walking, and its importance in relation to other modes. Walking is the second largest proportion of "main mode" trips after the car, and is the most important mode in terms of all trip stages. Far more attention, however is paid to public transport (as if this could work without walking!), and even to cycling, which actually accounts for a very small proportion of trips.

Further, there is an often (and yet a well known) mis-perception about the time it takes to walk to places. For example visitors to London often take the tube, say from Covent Garden to Leicester Square. Generally distances are often perceived as greater than in reality. *"It's closer than you think!"* remarked the Pedestrian Association.

The London Cycle Campaign noted the number of barriers people give for not cycling. These include: the perception of safety risk; amount of traffic; current low levels of cycling (a critical mass has not yet been reached); weather; topography; facilities at interchanges; security of bike storage at destinations (such as bike parking at town centres, swimming pools, cinemas, workplace); and lack of shower facilities. A large number of these are not perceived as barriers in areas with cycling cultures.

There are a number of good practice examples. 'Happy Computers' in Tower Hamlets has 25% of employees cycling to work. A £20 per month incentive is available to cyclists, in addition to facilities such as cycle lockers. Encouragement comes from the Chief Executive, who is a cyclist. At the 'Argent Group Plc' in Oxford Street, showers, changing facilities, towels, and free light batteries are all available. As a result the company has 60% of its staff commuting by bicycle, creating a healthier and fitter workplace. Again, the Chief Executive is a keen cycling advocate.

The London Cycle Campaign also see the availability of information as crucial. People are often not aware that they are able to cycle around London on the LCN, on quiet back roads.

The Shadow Strategic Rail Authority perceives reliability, punctuality, cleanliness, security and the ability to get a seat as important for heavy rail passenger use. Rail is however, not served by a good orbital network, and therefore not suitable for radial journeys. In particular, there is poor connectivity awareness for non-simple journeys, which puts people off using services and encourages car use.

80% of freight is carried by road, and the Freight Transport Association gave a number of reasons for this, including:

- easy access to most destinations
- door to door service
- highway flexibility in case of production line delays
- extra loads easily accommodated

Conversely, rail provides a fixed system in terms of time-tabling and routes. Flexibility is not available for additional loads or delays in the production process. Economies of scale are however present for bulky, low cost goods. Multi-modal movement provides an effective combination of road and rail. In terms of rail freight, cost competitiveness is the main market driver. The FTA quoted a general threshold to make freight transfer competitive, of the rail journey needing to be greater than 25 miles.

5.3 *Facilitating a Switch Between Modes*

The FTA believe many businesses are locked into a working pattern (at least in the short term) which mitigates against modal shift. They state that the recent rise in fuel duty had little effect in terms of mode transfer. Road hauliers ended up squeezing their margins rather than shifting to rail. The capital costs/service elements involved in switching are just too great. The FTA would lobby for freight traffic

to be exempt from congestion charging, claiming goods vehicles (like the bus) are an essential user. Charging would be "*a tax on business*".

The RAC Foundation and AA perceive convenience, comfort, safety, economy (marginal cost of the car) as the main benefits of car usage. "*It is wise to get your money's worth if the initial purchase has been made.*" They also gave the infamous Stephen Norris quote/mis-quote as a common reason given for not using public transport "*Why would I wish to share public transport with the great unwashed?*"

The AA believe the following issues are important as barriers to increasing car usage :

- Space - there is not much room left in London for more cars in terms of road and car parks

- Congested network - the road network can't take much more, notably the outer boroughs have noticed the greatest car growth whereas the central areas have stabilised.

5.4 *Perception of Different Modes by Non-Users*

The AA described car users (as perceived by non-car users) as a "*selfish, antisocial bunch, who pollute the environment and obstruct other forms of transport*". They saw strong support for the new Underground stations, such as those on the Jubilee Line. "*The larger platforms, more light and airy designs, break the preconception of the tube as being dirty, smelly and full of anti-social people.*"

The London Cycle Campaign believed that the stereotypical 'motorhead' and some pedestrians see cyclists as "*the biggest menace on the road*". However, they could (or should) be perceived as a friend by car drivers, i.e. '*one less car on the road*'. There is a general lack of understanding towards cycle usage. 'Incredulity' is a common reaction to people who have chosen to cycle into central London, reflecting a lack of awareness of facilities. For example, green advance cycle boxes at junctions – nobody seems to have explained the reasons for them to motorists. However, 11 out of 12 cycle fatalities last year in London were killed by left turning vehicles. Traffic reduction is the key, with an increasing volume of cyclists required to provide a critical mass beyond which safety problems will reduce.

Bus problems are perceived primarily to be reliability, comfort and customer care. The Traffic Director was concerned by this being derived from people who are already on the bus. The key issue being to look at ways of persuading non-users to switch.

The car is perceived by non-users to be noisy, polluting, invasive and dangerous. However, the RAC/AA question how many 'non-users' there are. A huge amount of car dependence is found in people who don't own cars, involving lifts to shops and work.

5.5 *Change of Attitudes over Time*

There is general agreement amongst the transport organisations that awareness has increased. Cycling and walking have become part of the transport agenda. Environmental consciousness has rise in recent years amongst the public, and even major retailers are becoming interested in a "green" image. There is a great chance to push the economic and environmental 'win-win' situation, the green-gold coalition (Goodwin, 1995). LPAC believe that people are more sympathetic to sustainable solutions, but that public transport is not good enough to support this or change behaviour. Buses are the key element to improve in the short term. They add that LT has focussed too much on the Underground, and on Central London. Therefore there is a need to spread investment around London, and in particular towards outer London. This will help meet local non-work needs better. There appears to be cross-party concern about the government backtracking on White Paper issues. Traffic reduction has slipped off the agenda. However, in London there is support, and there is a need for, real reduction of traffic volumes.

5.6 *The Keys to Change*

What factors induce a mode switch? LPAC stress the need to consider the whole trip. Deterrents are caused by the weakest or poorest leg of the journey (e.g. the dangerous walk home from the station, the unreliable bus, the train that does not run after 11pm). Trip chains are often over-emphasised, e.g. 50% of car school trips return straight home without any other trip purpose.

In relation to multi-legged journeys, the weakest link needs to be improved. No matter how much money is spent on public transport services, if the 'walk' or 'cycle' link is not good (perhaps in terms of safety perceptions) then there will be no increase in mode share for public transport.

The introduction of some form of charging regime is crucial and the key ingredient missing from Local and Interim Transport Plans, with additional funding hypothecated into new facilities for walking, cycling and public transport. Also of crucial importance is land use planning. LPAC remarked *"If distances are too long or it is difficult to*

walk between facilities, then you will never get people walking." A policy environment would also need to include parking control at the destination trip-end and removal of incentives like the company car allowance.

5.7 *Are the Messages Failing to Get Across?*

LPAC members see London at the forefront of the transport agenda, but are concerned about cross border competition. The outer Boroughs are especially worried by this. Therefore, there is a need for a strong national message. Other key messages are:

- People do understand the trade off between personal car use and the quality of the environment. But they may not feel able or willing to do anything about it

- It should be noted that the usual car ownership model cannot be applied in London (wealth does not correlate with car ownership to the same degree as elsewhere). Non-car lifestyles are possible in London, and for many are even desirable and deliberately chosen. This puts London ahead of much of the rest of the UK

- There has been a hardening of the motorists lobby in recent years. The AA, RAC and British Road Federation see Government on the backfoot and are taking advantage of this. There is a fragile consensus amongst the public that can easily be lost

- National Government lacks the confidence to do what is needed. There is a lack of political leadership which is required for implementation at the London level

- There is a serious lack of policing of local policies by central Government.

5.8 *Attitudinal Levers*

The interviews revealed a number of avenues which are open to LT in the development of their marketing campaign. These include:

- Explain what is lost by driving - e.g. poor health; pollution in the car (cyclists wear pollution masks but are exposed to less fumes than people in cars – do we need car drivers with masks?)

- Long term community gains must be planned, including "rebalancing of the city", such as pedestrianisation of Trafalgar Square.

- Public transport operators are generally uninterested in how people get to their stops. Yet the vast majority of Underground passengers walk to and from the station

- Dislike of the walk to the bus stop can influence people's mode choice, e.g. perceived or real security issues, quality of pavements and crossings. *"The tube journey starts at your front door"*

- Improved awareness of current provision for cyclists

- Highlight role models showing cycling can be cheap, quick and fun and provide good examples in terms of companies with high cycle usage

- Highlight the health links for walking and cycling and target convenience, cost, speed and possible other factors which may encourage the latent demand

- Develop the 'carrots' and 'sticks'. *"People's perception of no restraint till you've put public transport in first isn't really the point here. To make it work, you need the restraint, and it will hit some car users and some frontage occupiers. We need to massage the pain through. Unfortunately, one of the lessons of LBPN is that when the going gets tough, the local members bottle out."*

- Increase the awareness of where public transport can get you and highlighting the hidden opportunities and possibilities

In terms of freight, the FTA perceive an attitude problem amongst van drivers and companies. There is still a belief that they should be able to stop wherever and whenever they like. The classic quote being *"I've got a job to do!"*. BT drivers will park on a yellow line rather than at a meter because they can get reimbursement for a parking penalty ticket, but not for a meter charge (as no receipt is provided).

5.9 *Moving the Agenda Along ...*

LPAC reiterated that this is a long and slow process. They compared developments in the transport policy field to *"A tanker changing course – even though we have turned the helm and started to move, we are still going in the original direction*." Further reasons for the slow progress in encouraging walking, cycling and public transport were put forward in the interviews, as below:

- A lack of understanding in the public generally;

- The Government is afraid to take on the car lobby, reduce speeds and target traffic reduction;

- Politicians are good at *"do what I say, not what I do"*;

- Lack of confidence to take decisions;

- Lack of clarity of message/direction from politicians and policy makers;

- Low budgets are associated with facility provision and marketing campaigns;

- Essentially there is a basic lack of understanding of how modes interact. "*The certainty of 'can do the journey' makes it much easier to hop in the car. Therefore there must be more assurance about the door to door delivery and public transport connections between tube/rail and bus*". This is as much a feature of getting the messages right as it is changing the reality. Service providers need to continue to improve the service;

- The ROCOL report found (interestingly) that people trusted road user charges to fund public transport improvements more than they trusted the Treasury to fund them;

- LPAC believe that there is support for congestion charging in the centre of London initially, rippling out to the rest of the city in the long term;

- FTA view that freight delivery should be excluded from traffic reduction targets and congestion charging. They are currently lobbying for freight traffic to be exempt from charging regimes (ROCOL suggested they would charge £15 to get through the cordon as a daily entry charge. This was justified by improvements to the reliability of network and time savings). The FTA don't agree;

- The RAC believe that because motoring costs are already so high, people think "*well, blow it I am going to use my car anyway*". The AA also see the pollution argument as becoming less believable as cars are getting cleaner.