

Road Safety Research Report 98

Strapping Yarns: Why People Do and Do Not Wear Seat Belts

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EXECUTIVE SUMMARY

The Transport Research Laboratory (TRL) worked in partnership with SHM and Future Featuring Ltd to identify who does not wear a seat belt, and to outline the different reasons behind why they do not. The work programme was funded by the Department for Transport and comprised an innovative approach based on pulling together the three organisations and using their respective strengths to address what remains a significant road safety problem. Ever since seat belts were first introduced in the UK, a lot of effort has been directed at persuading people to wear them, but it is widely accepted that many more lives would be saved and serious injuries prevented if more people used their seat belts when travelling.

The project provides a better understanding of the usage of and attitudes towards seat belts among the population at large. The first phase of the work programme investigated who does and who does not wear a seat belt, on what occasions and began to describe why. This phase of the research has involved collating data from the pertinent literature, in-depth accident studies, road-side observational surveys, and key informant interviews, firstly with road safety experts and then with infringers who were identified as those who, at least occasionally, do not use their seat belts. From the accident studies, unbelted vehicle users were found to be significantly over-represented when fatalities were investigated, for example evidence from the Co-operative Crash Injury Study (CCIS) (Cuerden, 2006) showed that approximately 30% of car drivers who were killed in recent years were not wearing their seat belts. From comparison studies with seat-belted car drivers in similar crashes, it is estimated that at least half of those killed would have survived if all had worn their seat belts.

The Phase 1 fieldwork identified that there are a variety of reasons given by people for not wearing a seat belt. These vary from simply forgetting to on that occasion, to those who are opposed to seat belts because they think of them as inconvenient or even dangerous. The accident data, literature review and seat-belt surveys all paint a very similar picture of the broad characteristics that are related to non-seat-belt use. Some of the groups of occupants identified as having low seat-belt wearing rates included:

- young men, and men in general;
- rear-seat passengers; and
- goods vehicle and company car drivers.

Other characteristics associated with low seat-belt use rates were journeys taken late at night or early in the morning, or people driving in urban areas with relatively low speed limits.

The second phase of the research programme involved a qualitative series of workshops with members of the public. The discussions and exercises were designed to allow the project team to analyse further the motivations behind conscious decisions to wear or not wear a seat belt. In addition, the workshops provided a much richer understanding of habits of wearing and not wearing a seat belt, and the contexts associated with each. There are clear situational and person-related factors that have direct influence on the choice to wear or not wear a seat belt. This part of the work highlighted that there are inconsistent seat-belt wearers, not non-seat-belt wearers.

The third phase of the project quantified the key findings of phases 1 and 2. A questionnaire survey of 2,000 people was developed and undertaken to capture the public's responses. Analysis of these data has allowed the causal contexts, behaviours and motivations regarding the non-wearing of seat belts to be measured, and distinct groups of people were identified as most likely not to use a seat belt all of the time.

The overall research programme was structured to identify opportunities to positively influence seat-belt wearing behaviour, which might be exploited by future communication campaigns and contribute towards reducing road-user casualties.

The work confirmed that the majority of people in the UK are seat-belt wearers. However, there is a significant minority, estimated to be approximately 14% of the adult population, who are inconsistent seat-belt wearers. A cluster analysis identified three sub-groups of the inconsistent wearers, each with distinct demographics. Further, they were asked to review a list of seat-belt related statements and say which one would most make them stop and think and each group had a different ranking order. This is likely to make encouraging greater seat-belt compliance challenging and may require some specific targeted actions.

The group 'When I need to' represented the largest cluster – 5.2% of the sample – and was made up of an almost even proportion of drivers and non-drivers. This group was predominantly associated with young people.

Given the evidence from the accident data which highlights the high crash liability of the young, it is recommended that the largest casualty saving would be achieved if this group's seat-belt wearing rate increased.

From the qualitative work, a proposed strategy which may be employed to encourage more people to wear seat belts would involve providing them with an occasion to think about their own seat-belt wearing behaviour. This would be a different approach than that used by advertisements so far, which often provides people with more and stronger reasons to wear a seat belt. Potential approaches could involve:

- pauses for thought ('why wouldn't you?') rather than compelling reasons ('you should');
- multiple talking points as conversation fodder;
- minor consequences as well as major ones; and
- the positives of seat belts as well as the negatives of not wearing one.

However, it is very important not to forget the **back seat** where wearing rates are lower for **all** clusters, including those with high wearing rates in the front seat. Our qualitative work suggested specific features of the back seat, which make the back seat more like a 'sofa'. There are often specific characteristics when you are in the back seat, for example (for adults) outings, special events, etc. It is recommended that a separate (if complementary) campaign could tackle these issues, targeted at the whole population.

1 INTRODUCTION

Ever since seat belts were first introduced in the UK, a lot of effort has been directed at encouraging people to wear them. However, there are still large numbers of people who do not wear seat belts, despite the widely accepted view that this is dangerous behaviour. This project included an extensive literature review which highlighted many independent and impartial studies which have quantified the effectiveness of seat belts, with respect to preventing killed and seriously injured (KSI) road casualties. New work undertaken as part of this research programme estimated that:

- of the 1,612 car occupants killed on GB roads in 2006, 34% were not wearing seat belts; and
- further, 350 lives could have been saved in 2006, and over 1,000 serious casualties prevented, if all car occupants were seat belted.

To make such estimates, like-by-like crashes were compared involving belted and non-belted car users, which allowed the seat-belt effectiveness to be quantified. In addition, the demographics of the non-belted car users were compared with those of the belted and high-risk groups identified.

Other sources of information reviewed included road-side observational surveys, police enforcement trends and a new questionnaire study. This highlighted that simple headline observation data (surveys) conceal more complicated patterns of behaviour, attitudes and motivations with respect to seat belts. For example, surveys suggest driver wearing rates of 95%, but only 90% of drivers claimed **always** to wear a seat belt. Further, only 81% of drivers completely agreed that not wearing a seat belt in the front is dangerous and only 75% agreed that they both 'have to' and 'want to' wear a seat belt.

The problem is not associated with 'consistent non-wearers' but 'inconsistent wearers'. The findings of this study strongly suggest that a substantial proportion of people only wear their seat belt in certain circumstances. We found no clear evidence of 'consistent non-wearers'

This research identifies that the number of people in a car and the nature of the journey are important factors which can influence seat-belt wearing. It is important not to focus on single-occupancy vehicles only; from analysis of an in-depth car occupant injury study,¹ some 46% of cars with KSI occupants (versus 32% of cars with slightly injured occupants) had at least one passenger. Interestingly, only 11.7% of drivers with a single passenger were unbelted, compared with 16.3% of drivers on their own and 15% of drivers with more than one passenger.

1 Co-operative Crash Injury Study (CCIS), see www.ukccis.org.

The research study was designed to gather evidence from as many sources as possible to identify the groups of people who are most likely to be inconsistent seat-belt wearers. Then, the contexts which may be the most effective at changing their behaviour and increasing seat-belt wearing rates were explored.

1.1 Aims and objectives

The main aim of the seat belt research project was to identify who does not wear a seat belt, and to outline the different reasons for why they do not. This was to provide a better understanding of the usage of and attitudes towards seat belts among the population at large, with the following broad aims:

- To understand who does and who does not wear a seat belt, on what occasions and why.
- To analyse the motivations behind conscious decisions to wear or not wear a seat belt.
- To gain a better understanding of the habits of wearing and not wearing a seat belt.
- To identify opportunities to influence behaviour which might be exploited by communication campaigns.

Further objectives of this study included investigating the following factors:

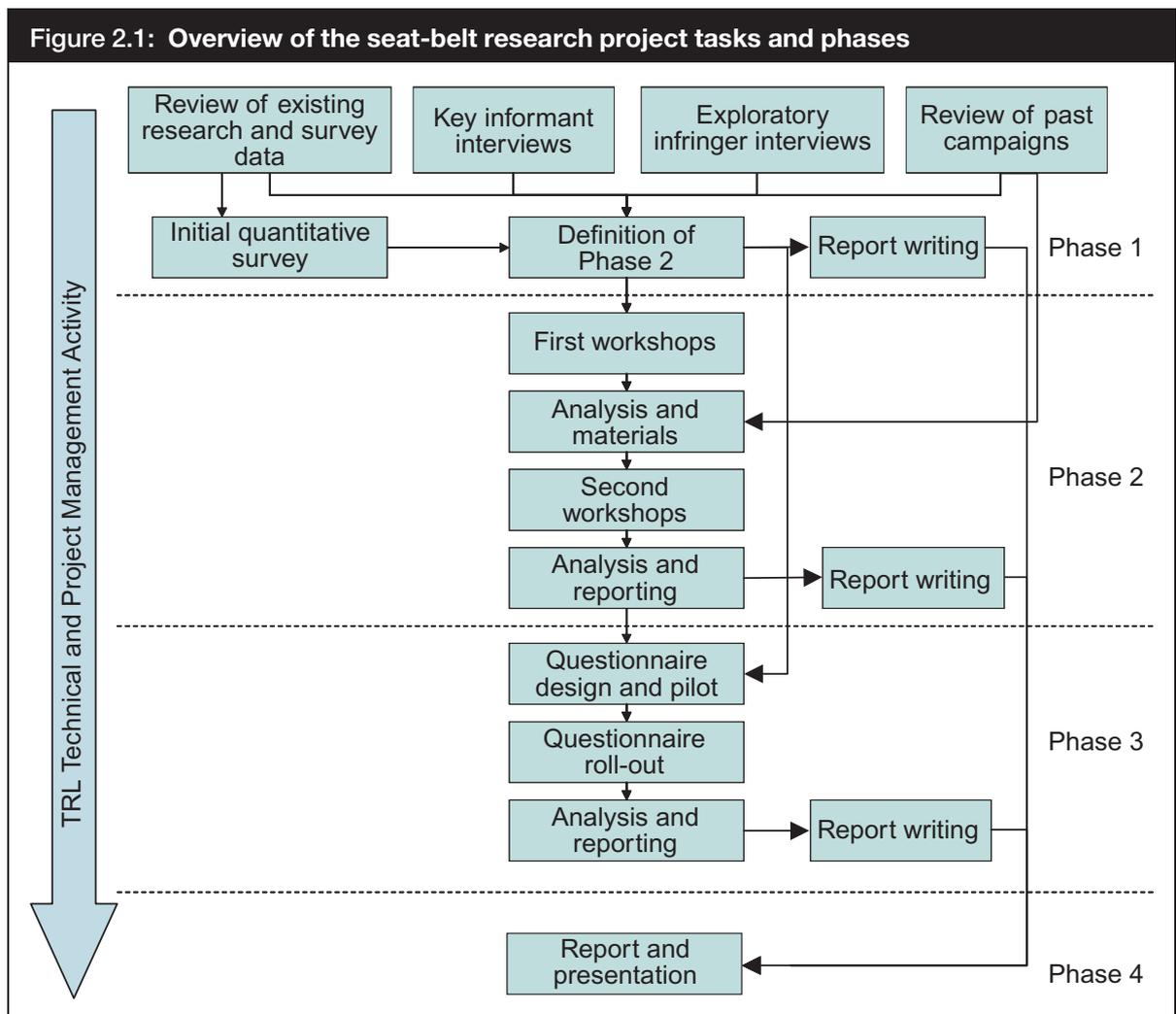
- Whether seat-belt usage is increasing or staying the same, by population group.
- Whether usage habits differ according to vehicle type.
- Whether journey purpose has an effect, for example driving for work versus leisure use.
- Perceptions of risk and enforcement.
- What motivational imperatives are at play – want to; need to; could not be bothered; did not think of it.
- Conscious decision versus unconscious habit.
- Whether behaviour changes if a journey is interrupted.
- What consequences are most likely to motivate people – accidents, fines, etc.?

The research questions addressed by this project are simple to define but complex to undertake. There were three main phases of the work programme, which were divided with respect to the specific organisation best qualified to undertake the technical lead role of each. TRL, SHM and Future Featuring were responsible for the technical management and delivery of Phases 1, 2 and 3 respectively (see Figure 2.1).

2 METHODOLOGY

There were three main phases of the work programme, each designed in light of the previous one(s) (Figure 2.1). Initially, information was sourced and reviewed to identify what was already known about people who do not wear seat belts. This involved a comprehensive literature review, new analysis of the UK's in-depth accident studies and a survey of knowledgeable groups to ascertain their experiences, evidence and views ('key informant' interviews). In addition, a pilot questionnaire study was undertaken to investigate how attitudes and motivations relating to wearing seat belts may be tested, and members of the public who had just been stopped by the police for not wearing a seat belt ('infringers') were interviewed. The evidence gained through Phase 1 was used to help develop the structure of the qualitative phase (2) of the study.

Phase 2 of the project incorporated two qualitative workshops which involved the public, with the same respondents contributing to each workshop. There were five different groups, each comprising approximately 10 people. The workshops were a



couple of weeks apart and developed a pragmatic segmentation of seat-belt wearers and inconsistent seat-belt wearers. A model was created based on the findings of the workshops to outline the factors that may influence someone to use or not use a seat belt on any given occasion.

Some of the different accounts relating to seat-belt wearing that were given in the qualitative (Phase 2) work were selected and incorporated into a questionnaire. In Phase 3, this questionnaire was used in a survey of nearly 2,000 people, the results of which allowed a segmentation of the participants with respect to their characteristics and their self-reported seat-belt wearing behaviour. Further, 12 different statements were created which were designed to stimulate people to think about seat-belt wearing. The participants were asked to rate the different statements and select the one which would make them ‘stop and think’ most.

The research study was formed of three major broad activities which spanned the project’s phases and collectively resulted in the identification of the complicated patterns of behaviour, attitudes and motivations associated with seat-belt use. The principal methodologies are summarised below:

- review of existing literature, survey and accident data, police infringer statistics;
- qualitative research – interviews and workshops; and
- quantitative research – questionnaires.

The detailed description of the methodologies relating to the above stages is outlined in Sections 2.1 to 2.3 respectively.

2.1 Review of existing data

2.1.1 *Literature review*

An extensive literature review was undertaken, exploring previous research on who does not wear seat belts and why. The review noted methods which have been used to encourage seat-belt use, including possible engineering solutions. This was supplemented by a review of previous advertisements designed to encourage seat-belt wearing.

2.1.2 *Review of existing seat-belt use survey data*

The UK’s Department for Transport commissions bi-annual seat-belt surveys where road-side observers record whether or not seat belts are used by vehicle type, seating position, gender and approximate age of the vehicle user.

2.1.3 Review of the UK's in-depth accident studies

Three of the accident databases held by TRL which record whether or not a seat belt was used were investigated. This included quantitative analysis using the Co-operative Crash Injury Study (CCIS) (Mackay *et al.* 1985) and the Heavy Vehicle Crash Injury Study (HVCIS) (Knight *et al.* 2008) accident databases, and investigation of case examples from the On The Spot (OTS) study (Cuerden *et al.* 2008).

2.1.4 Thames Valley Police data on seat-belt related fines

A summary of anonymous data provided by Thames Valley Police, who record details of the people who are fined for not wearing a seat belt, was also analysed.

2.1.5 Approaches to seat-belt advertising

The project team collaborated with advertising agency AMV bbdo and reviewed the historical approaches that have been applied to seat-belt advertising. The project reviewed international adverts and categorised them with respect to their approach.

2.2 Qualitative research

2.2.1 Exploratory research phase: infringer and key informant interviews

In order to guide the design of the main phase of research, initial exploratory research was undertaken, comprising:

- 30 interviews with people who had just been stopped by the police for not wearing a seat belt ('infringer interviews'); and
- six interviews with people who, through their role, have an insight into the kinds of reasons given by people for not wearing seat belts ('key informant interviews').

We recognised interviews were unlikely, in and of themselves, to provide much insight into the reasons why people do or do not wear seat belts. There are a number of very strong reasons to question the reliability of drivers' and passengers' accounts of their own seat-belt wearing behaviour under any circumstances – let alone in a situation where they have just been stopped by the police on account of that behaviour. These include the following:

- Widely documented biases exist in people's description of their own behaviour. In particular, people are more likely to attribute their own behaviour to the situation than to their own disposition.
- In any given research intervention, the participant may have additional motivations to represent their behaviour to the researcher in specific ways, for example:

- not wearing a seat belt is illegal, creating a motivation in many circumstances to claim that this was a ‘special case’ which can be overlooked; and
- other motivations carry negative evaluations which participants may wish to avoid – for instance, many people are disinclined to admit that their own behaviour is influenced by ‘peer pressure’, though they readily describe this phenomenon in others.
- Participants may not actually know why they did something, especially when habits are involved, but they may generate explanations in order to keep the researcher happy. By way of comparison, consider how you would answer if you were asked why you put your clothes on this morning – or, to match the seat belt example even more closely, why you **did not** put a hat on.

The interviews were very important, however, in helping us to understand more about the explanations people **give** for wearing or not wearing a seat belt, which was, in turn, critical input into the design of the process for workshops in the main phase of qualitative work. These explanations fell into three broad classes, which are discussed in turn in the rest of this section:

- habit failure;
- perceived reasons not to wear a seat belt; and
- perceived lack of compelling reasons to wear a seat belt.

2.2.2 *Qualitative research design and methods*

2.2.2.1 **Sample**

The main phase of research was focused on five groups, each comprising 10 people who admitted they did not always wear a seat belt, recruited on the basis of a mix of demographic characteristics (e.g. gender), driving habits (e.g. driving for work) and responses to questions about their patterns of seat-belt wearing and attitudes to seat belts. The groups were deliberately designed to maximise the participation of groups and individuals who are likely to be targets of communications or other campaigns, for example because they are believed to be more likely to be non-wearers.

The review of existing data (detailed in Section 2.1) was used along with the findings from the exploratory research interviews (Section 2.2.1) and the initial quantitative research (Section 2.3.1) as the rationale behind the selection of the five groups recruited. The groups are specified in Section 4.2 (findings from the qualitative workshops).

2.2.2.2 Workshop process

Each group participated in two two-hour workshops, three weeks apart. One of the benefits of this approach is that it provides an opportunity for preliminary findings to be tested further with groups, and for questions identified after the first workshop to be taken back. Broadly, the first of the two workshops was focused on the reasons why people do and do not wear seat belts, while the second was focused on possible ways to change behaviour.

The greater part of the first workshop revolved around the discussion of characters created by the participants. This is a simple technique which allows mitigation of some of the aspects of skew and misreporting which arise when people try to discuss the reasons for their own behaviour (see above). Participants are asked to develop a realistic character whose behaviour they are confident they can explain, drawing freely on their experience of themselves and those they know, within certain limitations set by the topic of the workshop. To make the character concrete, participants first select a photograph from a large range and provide some minimal biographical detail. This character then becomes the basis for a less personalised discussion of behaviour, usually providing a basis for participants to talk about their own behaviour in a more objective fashion as well. The technique is not perfect – participants may ignore key requirements (e.g. create a character who always wears their seat belt when they have been told to create a character who does not); or they may not pay sufficient attention to the need for the character to be one they can explain; or they may treat the exercise as a joke. Most participants, however, engage with the exercise very seriously when it is properly explained and find it a helpful and intuitive way of engaging with complex questions around motivation and behaviour.

In this workshop, participants were asked to observe the relevant recruitment criteria for that group – for example, participants in the ‘Drivers for work’ group were told that their characters should be people who drove for work. Otherwise, the only other requirement on characters was that they should not **always** wear a seat belt.

Participants were then asked to think about the situations in which their characters would be more or less likely to wear a seat belt. This way of phrasing the question in terms of situations and probabilities was partly prompted by the findings from the exploratory research. However, it was also designed to create a baseline around the relatively clear-cut distinction between wearing and non-wearing before digging into the more complex issues of distinctions between habit, decision making and so forth (see the discussion of research needs above). Participants were prompted with a list of possible types of difference between situations, which was based on the findings from the exploratory research. As ancillary questions, participants were asked to estimate the amount of time their characters would not wear a seat belt (as a percentage), and to list some reasons their characters might give for non-wearing if stopped by a policeman and to identify whether these were real reasons or excuses.

After creating their characters, a discussion was led in which participants presented and compared their characters (introducing, where appropriate, comparisons with themselves), and discussed the possible reasons for their characters' patterns of behaviour. They were also asked to consider briefly what might change their characters' behaviour, although mostly as an introduction to the topic of behaviour change prior to the second workshops.

In the second workshop, groups were engaged more fully in the question of behaviour change. Participants in workshops are unlikely to be experts in this topic, and their concrete suggestions for how to change behaviour are often naïve or misguided, although they can also be inventive and interesting. The point to be remembered here is that, while they are not experts in behaviour change, participants are, in an important sense, **experts in their own behaviour and the behaviour of people like them**, and they put this expertise to use in tackling questions of behaviour change. By watching how participants go about solving problems, and listening to the justifications they offer for their proposals, it is possible to gain a great deal of additional insight into their motivations and mindsets even when the solutions suggested are not themselves very good.

The second workshop was constructed around two activities. In the first activity, participants were asked to consider an analogous situation – trying to persuade various characters working on a building site to wear their hard hats. The characters used as stimulus material were based on the findings from the first workshop. The decision to use an analogy was guided by a recognition that, if participants were asked to think about seat belts, they would be constrained by the types of advertisement they had already seen on television. The strategy was far more successful in some groups than others. In one group, where two participants worked on construction sites, the approach backfired by producing proposals even more constrained by what really happens on construction sites. In other groups, the strategy prompted the kind of creative thinking it was designed to bring about.

In the second activity, participants were asked to review a list of statements about seat belts, select those that resonated most for them, and discuss the reasons for their choice. This activity was deliberately included as a 'safer' complement to the riskier first activity.

In addition to these two activities, the opportunity was taken to ask participants to reflect on changes in their own behaviour, including any changes they had noted in their seat-belt wearing behaviour since the previous workshop. A number of participants reported changes, either at the level of their awareness of advertisements and messages about seat belts, or at the level of actual behaviour. Where this happened, the second workshop provided an excellent opportunity to explore the mechanisms of behaviour change as they happened.

2.3 Quantitative research

The survey research in this project took place in three stages. All three stages were conducted using the British Market Research Bureau (BMRB) Omnibus service. The methodology employed is face-to-face interviews with a representative sample of the UK adult (age 15+) population. It has been used by the Department for Transport for its annual THINK! tracking surveys since 2006. Table 2.1 shows the sample sizes involved.

	Total	Drivers	Non-drivers
Stage 1 (October 2007)	963	703	260
Stage 2 (November 2007)	2,019	1,362	657
Stage 3 (January 2008)	1,995	1,290	705

2.3.1 Stage 1 – pilot survey (initial quantitative survey)

Stage 1 of the survey work comprised a pilot survey conducted in October 2007 to test the hypothesis that seat-belt wearing (compliance) correlated with motivations to wear, as expressed by agreement that:

- wearing seat belts is something ‘I **have** to do’; and
- wearing seat belts is something ‘I **want** to do’.

2.3.2 Stage 2 – additions to annual THINK! tracking survey

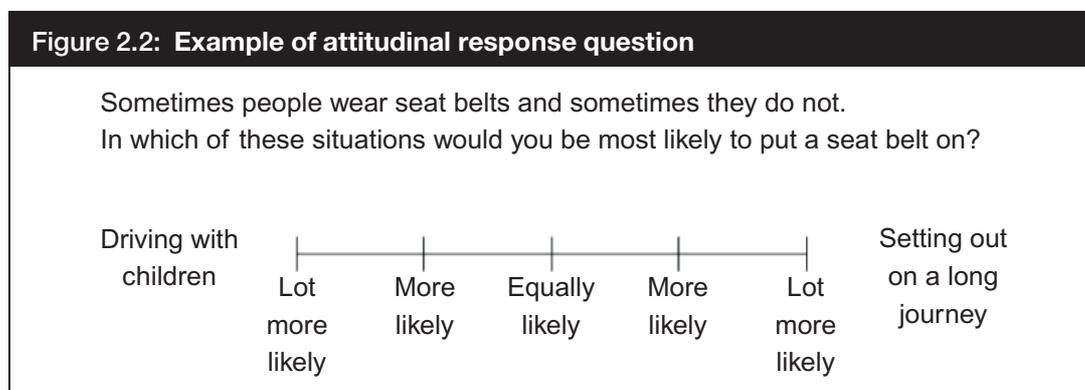
After successful piloting in Stage 1, the same questions were added to the annual THINK! tracking survey in November 2007. The October and November survey results were then merged and a segmentation of seat-belt use by motivations to wear were conducted on the combined sample (Section 5.1 and Appendix 4). The same November survey was also used to identify whether smoking in the car had any influence or relationship with the wearing of seat belts (Appendix 5).

2.3.3 Stage 3 – main quantitative research study

The final stage formed the main body of the quantitative research, and took place in January 2008 when:

- 20 driving situations that could influence seat-belt wearing (identified by the qualitative research) were measured for their effect and frequency of experience (in a typical week); and
- 12 seat-belt related facts and statements that could make people think about seat-belt wearing (screened in the qualitative research) were measured on their ability to make the respondent ‘Stop and Think’.

The evaluation of the driving situations was conducted according to a Scalar Conjoint design. This provided a statistical measurement of participants' attitudes with respect to seat-belt wearing by asking them to consider pairs of driving situations and scenarios, and to say whether they would be more likely to wear a seat belt in one situation or the other. An example is shown in Figure 2.2.



Of the 190 possible pairs that could be made from the 20 driving situations selected, each respondent was asked to consider just 20 pairs. Across the whole sample of respondents, however, all possible pairs were considered. Each situation derived a score from the comparisons in which it was involved, and these scores were then aggregated to give a hierarchy of influences. Respondents sharing similar hierarchies were then grouped together using cluster analysis and the characteristics of each grouping or 'cluster' were analysed.

The seat-belt facts consisted of statements such as:

- you are twice as likely to die if you do not wear a seat belt; and
- once one person puts their seat belt on, everyone else in the car is more likely to do so. The first person to put their seat belt on may literally be saving everyone else's life.

The 12 statements were divided into blocks of four, and respondents were asked to choose one statement from each block that was most likely to make them 'Stop and Think'. The three 'winners' from this process were then presented again for respondents to make their final evaluation. The lists of driving situations and seat-belt statements are supplied in Appendix 6. The results of the Stage 3 survey are detailed in Section 5 and Appendix 8.

3 REVIEW OF EXISTING DATA – WHO DOES NOT WEAR SEAT BELTS?

3.1 Summary of literature review

The four groups with the most available literature with respect to non-seat-belt use were:

- males:
 - drivers; and
 - front-seat passengers;
- rear-seat passengers – male and female;
- commercial vehicle occupants; and
- fleet drivers (driving for work).

The amount of agreement in the literature raises concerns for these groups' safety, and it is thought that there is scope to target them in an attempt to reduce casualties by encouraging them to wear seat belts.

Suggestions of methods for encouraging the use of seat belts were discussed and fall into the following categories:

- enforcement programmes;
- incentive schemes;
- punishment schemes;
- information campaigns; and
- reduced discomfort.

If, in fact, the majority of non-users of seat belts are aware of the benefits of seat belts, but have not developed a habit of seat-belt use in all situations, their behaviour may be more amenable to a seat-belt reminder system. However, less subtle systems or approaches may be needed to reach the smaller group of 'hardcore' non-users. There is some evidence in the literature to support the concept of inconsistent seat-belt wearers, those who conform and wear a seat belt at least some of the time.

3.1.1 *Recommendations from the literature*

Recommendations made in the literature largely centre around providing drivers with prompts to make sure that they wear their seat belt, i.e. the use of seat-belt reminder systems. A summary of possible recommendations are as follows:

- The incorporation of effective seat-belt reminder systems is seen as a high priority for early action (ETSC, 2001).
- Euro NCAP can provide an immediate incentive for manufacturers to develop and install simple systems and then to continue to develop more advanced ones (ETSC, 2001).
- When experience of effective systems is available, consideration should be given to enacting legislation for their mandatory fitment (ETSC, 2001).
- Every new van should come with a seat-belt reminder system fitted as standard to encourage van drivers to wear their seat belts (TRB, 2003).
- Passenger seat reminder systems should be developed to ensure that both front- and rear-seat passengers wear their seat belts as well as drivers (TRB, 2003).
- Research and development into the introduction of seat-belt interlocks in the private sector is encouraged. For example, courts should consider the use of interlocks for drivers who have driving convictions linked to risk-taking behaviour or people who drive for work, so have higher exposure to risk (TRB, 2003).

It was also considered important for future strategies to consider the issues associated with people circumventing seat-belt reminder systems. This can be achieved by routing the belt webbing behind the occupant or behind the seat, or plugging a spare tongue into the buckle. As it is relatively easy to circumvent the reminder, it is feasible that they will not have much affect on ‘hardcore’ non-users.

No research was found which recommended ways of altering negative attitudes towards the use of seat belts. However, it is considered that the development of a seat-belt awareness training course similar to the Speed Awareness and National Driver Improvement Schemes (which have been found to be effective in targeting unfavourable attitudes towards speeding and drink-driving) may be a good mechanism to improve seat-belt wearing attitudes.

3.2 Review of existing seat-belt use survey data

A regular series of surveys are undertaken by TRL on behalf of the Department for Transport at six-monthly intervals, which record car occupant seat-belt and other restraint use. Although the results may not be strictly nationally representative, they should give useful insights into national patterns of restraint use. A report has been published (Broughton, 1990) which describes the survey methodology and presents results from the first three surveys, while a more recent report has presented results from 1998–2002 (Broughton, 2003). The most recent leaflet presenting results (LF 2102 (revised) (TRL, 2007)) has been summarised and the trends presented below.

The wearing rates were higher for women than for men, and higher on high-speed roads (non-built-up roads, where the speed limit exceeds 40 mph) than on slower roads (roads in built-up areas, where the speed limit is at most 40 mph). Wearing rates tended to rise with increasing age, and to be highest among older drivers (at least 60 years old). Overall wearing rates were higher for front-seat passengers than for drivers, but otherwise the results were similar (see Tables 3.1 and 3.2).

Table 3.1: Wearing rates (%) by sex and age, October 2007

	Driver			Front-seat passenger				Rear-seat passenger			
	17-29	30-59	60+	0-13	17-29	30-59	60+	0-13	17-29	30-59	60+
Male	91	91	95	97	86	92	96	96	64	58	76
Female	97	97	97	98	94	96	98	95	70	70	76
Either	94	94	96	97	91	95	97	96	68	66	76

Table 3.2: Rear-seat wearing rates (%) by sex and age

	October 2006			August 2007			October 2007		
	0-4	5-13	14+	0-4	5-13	14+	0-4	5-13	14+
Male	98	89	60	97	90	67	98	94	64
Female	97	91	68	98	90	73	98	93	72
Either	97	90	65	97	90	70	98	94	69

Rear-seat passengers' belt-wearing rates for adults (14 years or over) are significantly less than for the front seat occupants (Tables 3.3 and 3.4). The occupancy rates mean that there are far fewer rear-seat passengers, but nonetheless the statistics are striking. The surveys are currently undertaken in daylight hours, and there is some evidence that cars used for social journeys in the evenings may be associated with an even greater proportion of non-belted rear passengers.

The wearing rates for van drivers and passengers were slightly higher than found in previous surveys, 72% and 61% respectively. The wearing rates of lorry and bus/coach drivers had also increased, to 29% for lorry drivers and 19% for bus/coach drivers

3.2.1 *Seat-belt wearing rates in London*

A seat-belt survey conducted by Transport for London (Davenport, 2007) revealed that seat-belt wearing rates in London were found to be well below rates found in Department for Transport surveys in other urban areas, with only 82% of car drivers in London observed to be wearing them, compared with 92% in the Department for Transport survey. For front-seat passengers the rates were 80% in London compared with 94% in the Department for Transport survey. For rear-seat passengers the

Table 3.3: Wearing rate (%) by age and seating position					
		April 2006	October 2006	August 2007	October 2007
Driver	17–29	94	93	95	94
	30–59	93	93	94	94
	60+	95	95	96	96
	All	93	93	94	94
Front-seat passenger	0–13	98	95	95	97
	14+	94	95	93	94
	All	95	95	93	95
Average number per car		0.32	0.30	0.31	0.29
Rear-seat passenger	0	97	98	95	98
	1–4	97	97	97	98
	5–9	91	91	91	95
	10–13	92	88	88	92
	14+	69	65	70	69
	All	85	84	84	86
Average number per car		0.17	0.17	0.20	0.17

Table 3.4: Wearing rate by speed limit (%), October 2007				
Speed limit	Males		Females	
	≤ 40mph	> 40mph	≤ 40mph	> 40mph
Driver	89	94	96	98
Front-seat passenger	89	94	94	97
Rear-seat passenger aged 0–13	95	97	94	97
Rear-seat passenger aged 14+	56	70	63	77

difference was even greater, with only 49% wearing seat belts in London compared with 84% from the Department for Transport survey.

London data showed that 17% of the drivers surveyed were not wearing a seat belt; of these, 39% of non-wearers were female (43% of those observed were female).

3.3 Review of the UK's in-depth accident studies

The characteristics of crashes involving non-seat-belted occupants are summarised in Table 3.5. The groups are split into two sections: the top half of the table considers the characteristics of the occupants themselves, such as age or gender; the lower half of the table looks at other characteristics, such as seating position or the time of the accident. The table has been sorted in a descending order by the first column, which shows what proportion of unbelted people is accounted for by that group. The second column shows the percentage of all people (regardless of belt use) included in the group, and the final column shows the belt-use rate of each

group. This table only includes the groups for which the Co-operative Crash Injury Study (CCIS) can be used to estimate the proportion of unbelted occupants accounted for by that group. The exception is the 'Vehicles 10 years or older' group, for which the On The Spot (OTS) study has been used to estimate the proportion of unbelted occupants in the group.

Some of the groups and characteristics of occupants and their crashes which were identified as being associated with low seat-belt wearing rates included:

- young men, and men in general;
- rear-seat passengers;
- late night and early morning crashes;
- older vehicles;
- teenage passengers (14 to 16 years); and
- goods (commercial) vehicle drivers.

Table 3.5: Summary of groups investigated from in-depth studies (%)			
Occupant group %	Proportion of unbelted occupants	Proportion of all occupants	Seat-belt wearing rate (all severities)
Males	70	60	81
Females	30	40	88
Male drivers aged 30–50	16	15	85
Male drivers aged 17–25	15	12	82
14–16-year-olds	5	2	57
Female drivers aged 17–25	4	5	90
Vehicles 10 years or older	38*	27*	†
Rear-seat passengers	28	13	58
Accidents on C-roads	28	23	80
Accidents from 00:00–03:59	17	8	64
* Percentage calculated using OTS, rather than CCIS.			
† Seat-belt wearing rates between CCIS and OTS cannot be compared.			

3.3.1 *Seat-belt effectiveness*

Analysis of CCIS and the national STATS19 accident databases has shown that seat belts are effective at preventing fatal and serious injuries, and that there is a huge potential benefit of raising seat-belt wearing rates in the UK. Seat belts were found to be about 60% effective at preventing fatal injuries, and about 32% effective at preventing serious injuries. If everyone in the UK wore a seat belt, it is estimated that over 350 lives and 1,000 serious casualties could be saved every year.

Finally, it has been shown that even small increases in seat-belt wearing rates can lead to large benefits. If seat-belt wearing rates in the UK could be raised by an

average of 1%, the benefit of the lives and serious injuries saved would be equivalent to £14.4 million per year.

More details are given for seat-belt effectiveness and the likely benefits of increased seat-belt use in Appendix 2 and Appendix 3 respectively.

3.4 Thames Valley Police data on seat-belt-related fines

Thames Valley Police cooperated with the study and provided anonymous data related to 11,026 people who had been fined for non-seat-belt use between 1 January 2007 and 24 September 2007 (Table 3.6). Approximately 87% of these were drivers not wearing a seat belt, which would be expected as about 70% of the vehicles observed in the road-side surveys only had a driver (Table 3.3). Front-seat passengers represented 8% of those fined. Eighty-six per cent of the infringers were male, with 13% female. Half of the infringers were 33 years old or younger, which shows a bias towards the younger population not wearing seat belts. The same distribution of ages could be seen for both male and female infringers. When split down by seating position and ages, it could be seen that female rear-seat passengers of age 25 to 30 had the highest frequency of non-belt use in this category, whereas for female front-seat passengers, the age of non-belt use peaked at 18 to 25, dropping off after this. Male front-seat passengers' non-belt wearing peaked at 20. Male and female drivers had similar distributions of ages, peaking between 18 and 30 years and gradually reducing with age after this. The large proportions of males and younger drivers may be due to the selection process and ticket issuing undertaken by the police.

Seat-belt wearing offence	Gender			Total
	Male	Female	Not known	
Driver not wearing	8,432	1,134	40	9,606
Front passenger not wearing	757	144	24	925
Rear passenger not wearing	219	94	10	323
Child in front passenger seat not wearing	30	21	0	51
Child in rear passenger seat not wearing	82	39	0	121
Total	9,520	1,432	74	11,026

3.5 Approaches to seat-belt advertising

Broadly, seat-belt advertising fits into the categories below, or a combination of them.

3.5.1 *Reminders*

These include visual mnemonics (e.g. the child's hand across his father's chest which looks like a seat belt, the clunk click visual/audio of a seat belt being done up) and, in some cases, focus on an enforcement message (e.g. 'don't wear your seat belt and you will get a ticket'). Straplines include 'Remember your seat belt', 'Click it or ticket', 'Never forget: clunk click', 'Always wear your safety belt' and the particularly memorable 'Clunk click, every trip'.

3.5.2 *Emotional consequences*

These tend to focus on the devastating human consequences of a crash, for example a story where the child is left behind crying, his father at the front, having been killed. Relationships between people are often established to ramp up the emotion. Straplines include 'No seat belt, no excuse' and 'Buckle up for yourself and the people who love you'.

3.5.3 *Physical consequences*

This approach highlights the potential physical consequences of an unbelted crash. These often focus on the debilitating consequence to one's self, rather than others. Owing to the regulations concerning the positive representation of disability, it is an approach that is unlikely ever to be used in the UK. Straplines or key messages include 'Why would you ever get into a car without putting on your seat belt?'.

3.5.4 *Testimonials/reality*

This approach uses real stories. These tend to be told by either survivors (who were belted) or by people left behind. Straplines include 'Always wear your safety belt', 'Get it together, buckle up' and 'Buckle up for yourself, and for the people who love you'.

3.5.5 *Physics of a crash*

Advertisements that use this approach show (and in some cases explain) in very graphic detail what happens inside and outside a car when a crash happens, and therefore the implications of not wearing a seat belt. One of the advertisements in this vein uses an expert to add credibility and authority. Another uses a cartoon dummy to demonstrate that if you are unbelted, there are effectively two crashes that occur (the car hitting something and you hitting something). Another common

approach is to compare the human body in a crash to a ‘missile’ or ‘human pinball’, or to make a comparison of what the force of an unbelted body being thrown forward is equivalent to. Straplines include ‘Buckle up. Save a life’.

Within the above five categories there are a number of different creative approaches. Some use humour and a light-hearted approach, others use shock and emotion. Some tell a fictitious story, some are based on people’s real experiences.

3.5.6 *Some common approaches and devices*

- Sliding doors scenario, where a crash and its consequences are shown twice, both with and without the seat belt being worn. A variation on this theme is where the action is run backwards, again demonstrating the potential consequences of not wearing a seat belt.
- Showing what not wearing a seat belt is equivalent to in terms of force.
- Reframing the issue to make not wearing a seat belt selfish (e.g. ‘the guy without the seat belt did the damage’, ‘you drive your child unbelted and without a legal child restraint? How selfish can you get?’).
- A creative twist. For example, the voiceover narrates as you see a happy couple in a car together: ‘the woman will leave the man very soon but he doesn’t know yet. Nor does she’. The viewer thinks it is an affair they are referring to, and then the woman who is not wearing a seat belt is thrown from the car. Another example is Julie, which is set up as a horror film – ‘Like most victims Julie knew her killer’. The viewer thinks it is the van following her car, in fact it is her son who is sitting behind her, and crushes her to death because he was not wearing a seat belt.
- Using small children to deliver the message for emotional engagement.
- Using an expert doctor/scientist to add credibility.
- Using ‘statistics’, for example:
 - ‘If you have a collision at 25 mph unbelted, it’s like falling from a two-storey building. At 40 mph it’s like falling from six stories, at 60 mph it’s like falling from 12 stories.’
 - ‘In a crash at 30 mph, an adult back-seat passenger without a seat belt is thrown forward with the ‘force of 3.5 tonnes, the weight of an elephant’.’

4 QUALITATIVE RESEARCH – WHY PEOPLE DO AND DO NOT WEAR SEAT BELTS

4.1 Exploratory research phase

The interviews with road safety professionals and other experts with insight into the kinds of reasons given by people for not wearing seat belts ('key informants'), together with the interviews with people who had just been stopped by the police for not wearing a seat belt ('infringers'), resulted in explanations which fell into three broad classes:

- habit failure;
- perceived reasons not to wear a seat belt; and
- perceived lack of reasons to wear a seat belt.

4.1.1 *Habit failure*

As anticipated, many of the infringers explained their non-wearing by claiming that they were generally in the habit of wearing their belt but that, on this occasion, something had happened to cause that habit to fail (hence 'habit failure'). Being in a hurry or having been distracted were common reasons given. While there was no way of objectively validating or challenging these explanations (this was not the object of the exercise anyway), the researchers involved noted how hard it was to believe that they were being told anything more than an excuse – a reaction shared by the police at the scene. For instance, one respondent claimed they had been distracted because 'the BT man had been out earlier that morning', the kind of explanation which stretches credibility. Interestingly, more solid grounds for the researchers' cynicism were provided by the participants in the later workshops. When asked what the characters they had created (see below) would say if stopped by the police, most suggested the kinds of habit-failure line heard in the exploratory research, and readily agreed that these were excuses, not real reasons.

This is not to say that habit is not a critical factor in seat-belt wearing. A number of key informants and others involved in this research commented on the somatic aspect of their seat-belt wearing, for example 'I feel naked without it' and 'I feel strange if I'm not wearing it'. This kind of deeply embedded habit is something we would clearly like to encourage in all drivers and passengers, precisely because it is very unlikely to fail. However, someone who can (claim to) be distracted by a BT man clearly lacks a habit of this kind. That is, most instances of claimed habit failure, even if sincere, actually signal a **habit lack**.² Or, as one teenage boy participant in our workshops put it: 'No, it's not I forget. I just don't think about it'.

2 We are not trying to argue here that habits never fail, just that they do not fail often enough and easily enough to account for the prevalence of habit-failure excuses among infringers.

The only way someone is likely to develop a habit is through consistent performance of the action, i.e. we need to get current non-wearers to wear their seat belt every time they get in their car in order to turn them into habitual wearers (who will then continue, **without** the need for intervention, to wear their seat belt every time they get in their car). This will not be achieved merely by the removal of BT men. Instead, we need to identify ways of **actively prompting non-habitual but habit-forming seat-belt wearing behaviour**.

4.1.2 *Reasons not to wear*

The two other broad classes of explanations given by infringers for non-wearing are helpful here. Some explanations involved positive **reasons not to wear** a seat belt, normally appealing to some kind of inconvenience or discomfort (Table 4.1).

Table 4.1: Reasons not to wear a seat belt	
Reasons not to wear	Explanation given
It is inconvenient	I cannot reach the glove-box easily It messes up my jacket I have to lift the arm-rest to put it in
It is physically uncomfortable	It cuts my neck It is not made for people my size/height I have a scar etc.
It is emotionally uncomfortable	It makes me feel trapped/constrained I have visions of hanging upside down

As an aside, it is worth noting that a number of informants offered a ‘rationalised’ version of some of these feelings, offering arguments that seat belts are in fact dangerous (because they can break your collarbone or because they can trap you in a burning car). A number claimed to know of cases where people would have lived if they had not been wearing a seat belt. One argued that the fact a seat belt would save his life was the main reason for not wearing one: ‘I’d rather be dead than quadriplegic’. Such responses may suggest that there is still work to be done educating people about the real risks of wearing and non-wearing; but caution is needed here. It is very hard to know whether arguments such as these are real reasons not to wear a seat belt or post-rationalisations of non-wearing behaviour. Only the former can readily be corrected by better information: the latter, by contrast, can be remarkably resistant to facts – along with the ‘urban myths’ they feed on and support.

4.1.3 Lack of reasons to wear

Other explanations turned on a **lack of reasons to wear** a seat belt, normally as a result of some aspect of the situation such as the vehicle type or journey type (Table 4.2).

Table 4.2: Lack of reasons to wear a seat belt	
Lack of reasons to wear	Explanation given
Vehicle context	There are airbags, etc. You feel safer in a van – higher up [position in car?]
Journey type	It is only a short journey I nearly walked I would wear it on the motorway

As an aside, it is again worth noting that, mirroring the ‘rationalised’ accounts of reasons not to wear a seat belt discussed above, a number of key informants cited stories of religious fatalism (sometimes linked to Islam, in particular) being used to provide a blanket justification for non-seat-belt wearing. While described to us second-hand, this line of argument was not encountered first-hand in our research, and we do not therefore feel able to comment on it further. If it is in fact used, then it would be reasonable to suppose that it too is a post-rationalisation of non-wearing behaviour, unless the individual in question applies similar fatalist logic to all other risk-management behaviour in their life.

Supposing for a moment that at least some of the explanations in Tables 4.1 and 4.2 can, at least sometimes, be taken at face value, then a sensible strategy to prompt non-habitual but habit-forming seat-belt wearing behaviour might consist of two strands:

- removing reasons not to wear (e.g. by making people more aware of ways of adjusting seat belts); and
- supplying reasons to wear in situations where they are lacking.

In the main phase of qualitative work, therefore, we set out to explore these possibilities in more detail, and to provide a more robust and comprehensive understanding of reasons to wear and not to wear, and the situations in which both are present or lacking. The link between reasons to wear and situations was particularly helpful as a structuring device for workshop exercises (see below).

As well as exploring further the types of reason and situation identified by infringers, we were also interested to investigate further the ways in which the presence or absence of other people might impact on seat-belt wearing. This factor was barely mentioned in the explanations offered by infringers, but key informants

suggested that others could play a critical role in making seat-belt wearing more or less likely.

4.2 Qualitative workshops recruitment specification

There were five workshops and the participants were selected based on their responses to questions about their patterns of seat-belt wearing and attitudes to seat belts. Further demographic criteria were applied on the basis of a mix of demographic characteristics (e.g. gender) and driving habits (e.g. driving for work), and these were designed to reflect the groups identified in the review of existing data (Section 3), who were identified as those who more frequently than others did not wear seat belts.

The five groups were defined as:

- young men group (ages 18 to 30 years, mostly drivers);
- drivers for work group (ages 25 to 50, all drive for work, both genders, all drivers, mixture of different vehicles – cars, vans and heavy goods vehicles (HGVs));
- women group (ages 18 to 50 years, some with children and some without);
- teenager group (ages 15 and 16 years, both genders); and
- passenger group (ages 18+ years, frequently travel as a passenger, both genders, drivers and non-drivers).

4.3 Findings from qualitative workshops

'It depends who I'm in the car with as well. What sort of journey it is. I may get a lift just down the road, just going out to the local pub or something like that, then I don't think about it. Not because I don't want to wear it because if I actually thought about it I would put it on but I don't, I just don't think about it at all, I just get in the car, I'm talking or having a chat or whatever and because you're only going a short distance you sort of forget. Whereas if it's a longer journey, then I don't know why, but I will put it on straight away. Sounds a bit strange that but I'm just aware more if I'm going on a long journey. Right, I'm going to be sitting in the car for a while and I just always reach for my seat belt whereas if it's only a short journey, I just don't think about it.' [M, young men group]

As the quotation above illustrates well, there may not be a single clear reason why an individual does or does not wear a seat belt on any given occasion. Different factors interact with each other, covering both physical features of the journey and its social context. In this section of the report, we catalogue the different types of factor apparent in the accounts given by participants in our workshops.

4.3.1 Discomfort

Discomfort and inconvenience were common themes in participants' complaints about seat belts. The following section of dialogue between participants in one of the workshops is fairly typical:

'It digs in my neck.'

'I can imagine that some of them do.'

'It catches your boobs as well sometimes.'

'It does, not very flattering.'

'My mum's four foot, ten and a half and weights 15 stone, so you can tell what she's like. And when she used to be in the car with me, I had to buckle her up and she used to be complaining like hell, so I used to stick her in the back then and put a cushion between her and the front seat.'

'You're forever pulling it.'

'Well, you sit there like that because it digs in my neck.'

'And being pregnant as well.' [F, passenger group]

Other complaints included the ways in which seat belts crease clothes and the challenges of making them work with some child seats:

'And then, when you get there, the other side, you have creases right down your front, where it's crushed you.' [F, drivers for work group]

'By the time you've got your booster seat in, the space on the car seats hides the seat belt clip. By the time you put another one in; it's hidden. You've got to fit another one in the middle; it can't be done.' [F, drivers for work group]

Participants who drive for work and need to get in and out of the driver's seat frequently also discussed the inconvenience of the seat belt in these circumstances:

'I'm an ice cream man. And it's virtually impossible to wear a seat belt, obviously, selling ice creams, because I'm up and down all the time. But in a car, I wear a seat belt when I remember. Because a lot of the time, with my job, I never think of a seat belt, and in the car I do.' [M, drivers for work group]

'I hate the seat belt with multi-drop, because you're in and out all the time. It's just a waste of time. In the car, I wear a seat belt most of the time.' [M, drivers for work group]

For **back-seat** passengers, seat belts bring two additional kinds of discomfort, which are related to the sorts of things that people **do** in back seats. First, a number of

participants commented on their tendency to turn sideways or sleep in the back seat, and the consequent inconvenience of seat belts:

'I tend to sit at an angle at the back, and you can't do that with a seat belt [. . .] Especially if I'm on a long journey, I'll probably take a pillow and have a kip.' [F, passenger group]

'If you're, say, in the backseat and you've got no one sitting next to you, you'd want to, say, put your legs up on the other side and just lay across the backseat rather than be upright with a seat belt on.' [M, teenager group]

Secondly, when not turned sideways or sleeping, passengers in the back find that seat belts get in the way of their talking to the people sitting in the front – and can also be irritating for those in the front seat turning back to talk to them.

'If you're sitting in the back, it's because someone's in the front, so you're talking to them.'

'It's easier to lean forward [. . .] You get left out, in the back, so you stick your head in the middle.'

'Friends to turn round and talk to, even if you're in your parents' car, if you want to turn round and talk to your friends or they want to turn round to talk to you.' [F, teenager group]

Clearly then, for many people, wearing a seat belt can be a source of discomfort. It is worth noting, however, that putting on a seat belt can also **remove certain kinds of discomfort**, for example a person nagging you to wear your seat belt or (which is virtually the same thing) a seat-belt alarm. As we shall see in subsequent sections, however, putting a seat belt on in response to these kinds of discomfort is not just a matter of removing the discomfort, it is also an action with social meaning.

4.3.2 *Situational 'risk analysis'*

'You kind of subconsciously do a risk analysis before you get in, don't you? With the distance and you're going somewhere you know. I don't think you actually think of it in that way but most people do.' [M, young men group]

One of the most interesting overarching findings from the qualitative work was the insight it provided into the **situational** nature of people's seat-belt wearing behaviour. For those of us who consistently wear seat belts, and feel 'naked' without them, it can be hard to understand that others may be far more selective in their wearing behaviour. At least one participant experienced this kind of difficulty after listening to her fellow participants for two hours:

'I just think the whole thing is bizarre, from my own personal experience. If genuinely you forget to put your seat belt on, you genuinely forget to put it on for whatever reason, you're busy, you're running late; all those sort of circumstances. But to consciously take your seat belt on and off halfway through a journey, I find it completely bizarre. I think it's most strange [...] I can't put myself in any of these situations, where I'd be driving along and actively taking my seat belt off, or actively putting my seat belt on because I was going faster, or turning onto a different road, or slowing down.' [F, passenger group]

For most other participants, however (and remember that participants were specifically selected on the basis that they were not consistent seat-belt wearers), the idea of wearing a seat belt in some situations but not others made complete sense.

4.3.2.1 Journeys, roads and conditions

One of the very common situational factors identified by participants was the length of the journey, with many stating they were much less likely to wear a seat belt on a **short journey**:

'I do have a seat belt all the time when I'm driving, unless I'm just doing a short journey, like to the bottom of the road to the garage or something.'
[F, passenger group]

'Because it's just down the end of the road or something, even though they could walk, but if they drive they may just think, oh, its just two minutes.'
[F, teenager group]

'I think if it's a short journey I won't bother, I won't even think about it, but if it's a long journey or something like that then you might do it.'
[M, young men group]

A number of participants made the link between short journeys and **familiar journeys**, arguing that it was familiarity that was the real reason why a seat belt felt less necessary:

'If you're driving a short distance you're normally around your own area that's familiar to you whereas if you're going long distances, you're going somewhere where you've perhaps not been before or as often.' [M, young men group]

'Yes, I was going to say it's like, that popping into the local shops sort of thing, the shop is sort of there in view or whatever and you kind of know the hazards. You go so many times, you know how many people are crossing the road, you know everything about it. So it's a safe bet in that respect.' [M, young men group]

'I think it's the fear of other drivers, rather than something that's local and familiar to him, like familiar streets, familiar towns.' [F, passenger group]

'You feel safer, you know where you're going, and you can estimate, as you were saying, you do a risk assessment in your head, and you think about it, and you could do the A1 all day and every day; you know where you're going.' [F, drivers for work group]

A particularly striking example of unfamiliar roads as a reason for wearing a seat belt is **driving abroad**:

'[. . .] he doesn't wear it here and we all notice as soon as he gets in a taxi, it can be for a night out or it can be four o'clock in the morning, the first thing he'll do is reach for a seat belt in a foreign country [. . .] You have to prepare yourself for anything. He went away in April and there's no drink-driving law, I think it was in Barbados and he was always reluctant to get in the car because he hated driving in another country, he drives all over the UK but as soon as he comes to another country the first thing he does is reach for a seat belt.' [M, young men group]

'[She] would be more likely to wear it if she was in a different country [. . .] because she's old fashioned so she thinks everybody else's driving abroad is worse, and not as good in some countries as it is in this country.' [F, teenager group]

As these two quotations illustrate, however, driving abroad can prompt seat-belt wearing for two subtly different reasons. In the first quotation, it is the unfamiliar nature of the situation and unknown level of risk which provides a reason to wear a seat belt – in line with the previous examples. In the second quotation, by contrast, the issue is a known but high level of risk. Familiarity can make you more inclined to wear a seat belt, not less, if you believe the situation you are familiar with is a dangerous one. For instance, some roads may be **known to be dangerous**:

'[I'm] more likely to wear a seat belt if it's a dangerous road. Because there's one that I go across, the A68, which is notorious, it's a horrible road, and I do always wear my seat belt there.' [F, drivers for work group]

For many people, **driving on a motorway**, **driving fast** and **driving in heavy traffic** are examples of familiar situations which require seat-belt wearing. As in the quotations that follow, they often overlap in people's explanations:

'Motorway driving. That's the time I will always wear it.' [F, women group]

'Because if it's on the motorway there's loads and loads of cars and there's more crashes on the motorway than there is on the main road.' [F, women group]

'[. . .] if it's a fast motorway journey [. . .] or going on a large main road, and you're going quite fast, you've got a lot of cars around you, you could be quite open, so if the car in front of you suddenly stops then you don't have much time to react so you could go straight into the back of them. If you've got more chance at speed, colliding with someone, then you might feel that you want to wear a seat belt more.' [M, teenager group]

'While he's driving fast or if he's going into a different lane, and there's a lot of traffic, and he's doing a long journey, he would tend to put his seat belt on, and that's probably the only time he would do.' [F, passenger group]

One participant, by contrast, drew attention to the dangers of **country roads**:

'[. . .] but there's more chance that something could happen in that, especially on country roads, so I would always wear the seat belts in there.' [M, drivers for work group]

Adverse conditions, such as **bad weather** and **driving at night**, were also a factor for some participants:

'[If] it's raining or foggy or stuff then you definitely think where's my seat belt? You'd definitely notice if it's not there.' [M, young men group]

'So it wouldn't matter if I knew the road, I just always feel worse when the light's really bad.' [F, drivers for work group]

4.3.2.2 Drivers

The **driver** is also an important feature of the situation for passengers (although as we shall discuss in the next section, the identity of the driver can also have other more complex effects on seat-belt wearing behaviour). A **familiar driver** who is believed to be safe may provide grounds for not needing to wear a seat belt as a passenger:

'It depends who is driving.'

Facilitator: *'[. . .] give us an example of what makes the difference. Give us an example of someone you always wear it with, and someone you don't.'*

Female participant: *'He's going to say a woman.'*

'Women drivers, definitely, I'll probably put my seat belt on, if I don't know them that well. If I know that they're good drivers, then I probably

won't. *If I got in the car with my dad, I wouldn't bother.*

Facilitator: *'What is it about your dad?'*

'I know he's a really good driver.' [M, drivers for work group]

'It's trust basically, because if I got into a car with somebody I didn't really know I'd have the belt on. My girlfriend, when she's driving, if we're only going a short distance I know she's a good driver, the trust is there.'

[M, young men group]

'As a passenger I always go on experience, as I was saying before – age and experience as well. If I'm in my uncle's car, my uncle's been driving for 20 years, I don't think about it as much but if it's my mate's car [. . .]'

[M, young men group]

As the last quotation shows, however, and just as with roads, familiarity can work the other way when a driver is **known to be dangerous**:

'Well when I get in my mate's van, because he drives like – well the boss's van – which he drives like a fool, I stick it on straight away but other times I'm just like I just driving and I'm "oh shit, I forgot my seat belt".'

[M, young men group]

'My son that's in the forces, when he comes home, I'll buckle up straight away because nought to 60 is one second with him. If it's got 250 mile an hour on the clock, it does 250 mile an hour. But, a lot of the time I just get in, sometimes I forget and sometimes I don't want to [. . .]' [M, passenger group]

Also, in the case of a **professional driver**, unfamiliarity may not be a bar to feeling safe if the driver is believed to be safe by virtue of their role:

'Do you know, I feel safer in a taxi [. . .] Because they're on the road 24/7, you think, he knows this, he knows what's going to come around the corner, and he can see round bends.' [F, passenger group]

4.3.2.3 Vehicle type and seating position

As we have seen in the previous sections, the nature of the journey, road and conditions and the identity of the driver can all play into the 'risk analysis' which guides a driver's or passenger's situational behaviour. One key factor not discussed so far, however, is the relationship between the individual and the vehicle itself. For instance, certain **types of vehicle** may make an individual feel safer:

'He drives a Jeep, so he would be less likely then, because he would feel as though he was up in the air, and free. If he were travelling alone, he wouldn't wear it.' [F, drivers for work group]

'You're more likely to in a small car because you feel more vulnerable, whereas if you're in a big car you feel like if you were hit, more damage would be on the smaller car than it would be on yours.' [F, teenager group]

The most important example of an individual feeling safer, however, relates not to vehicle type but to the position of the person in the vehicle. Participants across all the workshops discussed the feeling of safety sitting in the **back seat**, with solid seats in front of you, compared to the relative feeling of vulnerability as a front-seat passenger with the road in front of you:

'When I'm in the back of a car I just don't tend to put the seat belt on. I don't know why, maybe it's to do with spacing or something like that. You just feel more – you don't feel like you're going to go through a windscreen or something like that. I don't really know what it is.' [M, young men group]

'I just think about the obvious thing about going through the windscreen in the front, but you never think you're worried in the back. You just think you're going to hit the back of the seat.' [F, drivers for work group]

'If I'm in the front seat I feel like there's something missing, I'm totally open, and I feel like I'm not secure. The back seat is totally different.' [F, passenger group]

'If they're in the front passenger seat they'd be more likely, if there was to be a crash, to go straight through the windscreen and onto the road or into another car. If you're in the backseat it's still obviously like not good but you'd only go into like the front seat or something so it wouldn't be like as traumatic or as like painful. Well, you know what I mean.' [F, teenager group]

It is worth stressing that these participants were honestly reporting their real feelings of being in the back seats, and were **not** displaying ignorance of the real risks of being in the back seat in the event of an accident.

4.3.2.4 The police and the risk of a fine

'There isn't another reason for a seat belt, it's to prevent you from harming, to prevent you from going through the windscreen and getting killed, that's it, isn't it? Really.' [M, drivers for work group]

'It can be the fine, because there is a little bit of a reason now where nobody wants to pay.' [M, young men group]

As the second speaker in the excerpt identifies, the risk of injury in an accident is not the only risk that features in the 'risk analysis' around wearing a seat belt. For many, the **likelihood of getting caught** is a key element of the situation – with the judgement often drawing on similar factors to those already discussed (familiarity, road type, length of journey, vehicle type, time of day, position in the car, etc.):

'[. . .] if you live in a village for long enough, and you know the local bobby, I guarantee he wouldn't stop you for a seat belt' [M, drivers for work group]

'Mine would be more likely to wear his seat belt in the city centre, because there's more chance of being spotted.' [M, drivers for work group]

'Possibly the shorter the length of time you're in the car, the less chance there is of you being spotted.' [M, drivers for work group]

'I wear it anyway, because I know I'm going to get stopped anyway. I always carry my documents because I think, well, they're going to stop us because older cars, they'll look at more, but if you're in a newer car, nine times out of ten they'll not look for you.' [M, drivers for work group]

'But if she's going home late at night, she wouldn't wear it because there was no-one about when she goes home and she's less likely to get caught and stopped.' [F, women group]

'I always think, the police can't see the ones in the back.' [F, drivers for work group]

4.3.3 Other people and social meanings

As we have seen in the last section, other people can play a direct role as part of the situation on which the 'risk analysis' is conducted. For instance, one's judgement of the trustworthiness of the driver may factor into one's risk analysis as a passenger, as may spotting a police car. In this section, by contrast, we will consider the ways in which other people create a context in which the action of putting a seat belt on (or not) can have meanings which **go beyond** a mere redress for a feeling of unsafety.

Actions have social meanings, positioning the agent in a particular way with other people and fitting more or less well with the role they see themselves playing in a particular social setting. The accounts offered by participants in our workshops suggested a range of positive or negative meanings which may be attached to the

action of putting a seat belt on, making someone more or less likely to perform that action in a particular social setting.

The following are the key types of social meaning we have identified from analysis of the workshops. As will soon become clear, the different meanings overlap and blend into one another, but we have adopted a 'catalogue' approach for the sake of ease of presentation. The first four are positive meanings attached to putting a seat belt on, the next three being positive meanings attached to leaving it off.

4.3.3.1 Someone who takes responsibility for others

The most obvious way to position yourself as responsible for others is not to put your own seat belt on, but to tell/request them to put their seat belt on:

'I think that the drivers I'm always in cars with, if they haven't got seat belts on, they tell them to put seat belts on because they don't want to be responsible for hurting someone they care about or a friend of a friend.'
[F, teenager group]

We shall return to the topic of instructions and requests in Section 4.3.3.7. What we need to note here is that putting on your own seat belt can also be part of this positioning of self as taking responsibility for others:

'She'd be more likely to wear it if she had her family members in the car and that would make her think a bit more, because she's obviously responsible for other people.' [F, drivers for work group]

'I've got a baby boy, he's one year old now, and as soon as he's in the car and I'm driving anywhere and he's in the back I put my seat belt on straight away. That's the only time I can think about now that I will do it straightaway when I get into the car.' [M, young men group]

There is a slight conundrum here, which is that wearing your own seat belt as the driver does not obviously help to protect children in the back seat or other family members in the car (in the way that, say, driving more slowly or with greater care does). One possibility is that the presence of another person (and a child in particular, it would seem) increases one's overall sensitivity to risk, meaning that one is much more likely to feel unsafe and take compensating actions. Some participants suggested that this was a general phenomenon, which applies across their driving behaviour:

'They're your prize possession. Especially if they're in the back you don't want any accidents, you don't want to be there and say I caused the accident or I did that by mistake or something.'
Facilitator: *'And how does that spill over to wearing a seat belt?'*

'It's that thing about more safety.'

Facilitator: *'Everything is going on as part of that.'*

'Everything. When I've got the baby in the car I think I check the mirror even more than I ever do. When he's there I make sure everything's spot on.' [M, young men group]

'I've got two kids and my driving is totally different when they're in the car too.'

Facilitator: *'Stupid question, okay, but what's different about that situation?'*

'Just wrapping them up, just safety.' [M, young men group]

Interestingly, some participants rationalised this in terms of 'being around for their children' and suggested that this could be an argument to change people's behaviour over time:

'It's a responsibility thing as well, isn't it? You're responsible for their life in a way, but then we shouldn't deprive them of their parents either, just because we don't wear our seat belts in some respects.' [F, passenger group]

'It was a battle of, no, I've never worn it, and I never will. And his friend used to say, so you're saying to me you're going to leave your daughter without a father? And that eventually hit home.' [F, drivers for work group]

The idea of a generalised increase in sensitivity to risk was also used by one participant to explain a tendency to drive more carefully with older family members in the car:

'I think you can drive more carefully out of respect for others, depending on who's in the car, whether it be a child or maybe in some cases an elderly person as well, your grandparents or older relatives. You take your time more for the same reason, being safe and protecting them. It's all into wearing a seat belt and checking everything more often. Just doing things more carefully, just going back to where you started when you'd just passed you driving test, making sure you're doing everything because you don't want to be responsible for anything bad that happens to them.'
[M, young men group]

What is noteworthy, however, is that this participant immediately went on to differentiate his behaviour when other people were in the car:

'Whereas me, in the case I've got my friends in the car, I still drive as if it's just me in the car.' [M, young men group]

It seems that there are some people for whom it is appropriate to take responsibility (children, the elderly, family members) and others for whom it is not appropriate. We shall return to this point in later discussions.

All of the examples discussed so far have been about drivers taking responsibility for passengers. Before leaving the topic of taking responsibility, it is worth noting that there are two ways in which putting on a seat belt can position a **passenger** as someone who is taking responsibility. The first, which applies only to back-seat passengers, arises from increased awareness of the dangers of killing someone in the front seat – with the ‘Julie’ advertisement widely cited in workshops:

‘If I’m sat at the back of the car I’ll always put my seat belt on, always, because I wouldn’t want to be responsible for killing the person in front of me.’ [F, women group]

The second is interesting as many participants **wrongly believed** that the current law places the liability for front passenger seat-belt wearing on the driver and the back passenger is responsible for themselves – the UK law is clarified in Appendix 1:

‘That’s one of the reasons, if I’m a passenger in a car, I would die if somebody got three points from me not wearing a seat belt.’ [F, drivers for work group]

(Note that such people seem to be as hazy about the penalties as they are about the responsibilities.)

One of the most important ways in which the law can influence seat-belt wearing behaviour is by changing patterns of responsibility within the car, and so changing the social meanings which are attached to certain actions.

4.3.3.2 A good example

Putting on a seat belt can position someone as a good example. This meaning is highly positive for people playing the role of responsible adult (or, even more strongly, responsible parent), and is closely linked to the discussion in the previous section. Setting a good example seems to apply almost exclusively in the presence of children:

‘[. . .] I’m really conscious if there [are] children in the car, seen doing the right thing, and wear a seat belt.’ [F, passenger group]

‘When my children get in the car I want it to be automatic for them to get in and know to do up their belts and want to do it.’ [F, passenger group]

'When he's got his niece and nephews in the car because he wants to set a good example as well.' [M, young men group]

'If his grandchildren are in the car, he wears a seat belt, because the granddad's a good guy.' [F, drivers for work group]

'Anything at home, taking the family out with the kids in the car, he'd wear his seat belt. Anything to do with work, or his mates, he wouldn't. He would have like a safety thing for his family, whereas when he's by himself, he wouldn't even think about it. It's like you're always looking after your kids, your family, the people close to you that you love [. . .] The whole thing is the example he's setting them, and keeping them safe. And he's thinking, I'm keeping them safe by making them put their seat belts on. If anything happens, they're safe in the car.' [M, drivers for work group]

4.3.3.3 Not a hypocrite

Setting a good example is further linked to avoiding the risk of being positioned as a hypocrite. This applies not only when one is telling children to put on their seat belts, but also if one is asking adults:

'If I'm with children, obviously I'm telling them, put your seat belt on, and then of course I'm going to have to do it myself, so, I'm a lot more conscious of doing it.' [F, passenger group]

'I don't like people being in my car without a seat belt, but I wouldn't not put my seat belt on and tell everyone else to put their seat belts on.'

'Yes, you'd do it.'

'Set an example.'

Facilitator: *'Okay, so it is to do with that example thing, it's also kind of setting the tone.'*

'I'd say I've got my seat belt on so you put yours on as well.' [F, passenger group]

4.3.3.4 A good boy/girl

If wearing a seat belt and asking others to do so is partly about taking on the role of responsible adult, then there is, unsurprisingly, a flipside in which doing what you're supposed to positions you as a respectful child. Our teenage pre-driver group, for instance, discussed this in term of showing respect for an adult:

'If you're in the car of, say, one of your parent's friends or with an adult who isn't your parent or relative that you just know, an adult who is taking you on a journey, I reckon you'd be more likely to wear your seat belt'

because it's like you're showing respect to them in their own car I suppose, so I think you'd be inclined to wear your seat belt if you were with someone that you didn't know as well, or maybe didn't know as well, just not a relative or parent.' [M, teenager group]

Other groups noted how seat-belt wearing with parents might survive as a pattern into adulthood, applying equally to the passenger and driving seats. An analogy might be someone who swears when with friends but, without necessarily consciously thinking about it, moderates their language when with their parents:

'When the parents are in the car he just puts the belt on, not even any nagging or anything, just does it, something from childhood.' [M, young men group]

'If his parents are in the car whether he's driving or they're driving, he has to have a seat belt on.' [M, young men group]

Interestingly, they also identified other situations in which people might wear seat belts in order to position themselves (more or less sincerely) as a well-behaved person:

'And of course if the boss is in the car, or it's a big deal, and he's putting it on, then straightaway, oh, right. Must put it on [. . .] If it's a big deal, or it's the boss, then he'll do anything to impress his boss.' [M, drivers for work group]

'He still wants to be kind of respected and work's a different kind of thing to his mates and the respect he's going to get from work colleagues is different from the kind of respect he's going to get from his mates who he hangs around with, or he wants to hang around with.' [M, young men group]

'He would also put his seat belt on if it was to impress a date, if she says, it's wrong; you should always wear it, then he'll be doing it there as well.' [M, drivers for work group]

'If he's doing anything like official he'll put it on. So if he's on his way to the police station, collecting dole from the post office, job centre. If he's like had a drink but still under the limit, he'll put his belt on. You know, just in case kind of thing, just because it won't draw attention to him.' [M, young men group]

'If her MOT had gone or her insurance, that would be her reason. Any reason not to get stopped, to get picked up on certain things [. . .] she's most likely to wear one then.' [F, women group]

4.3.3.5 One of the cool kids (and different from the uncool kids)

Just as wearing a seat belt can position you as a good boy/girl, which is positive in certain social circumstances, so **not** wearing a seat belt can position you as someone who is able to step outside the rules, which is positive in other social circumstances. Our teenage group was very clear about this distinction between social settings:

'Your parents in the car because they normally are the ones that enforce the rule that you have to put your seat belt on, so you think "oh, here's my mum; I'd better put it on", rather than like if you're with an older sibling because they're seen as like cooler, in a sense, so they wouldn't like say "oh, you have to put your seat belt on", because they're not your parents; they're siblings so you'd be less likely to put one on.' [F, women group]

'You can impress someone by wearing it, which makes you more likely to wear it, and you can impress someone by not wearing it, which makes you less likely.' [F, teenager group]

The critical thing to note here is that not wearing a seat belt is a way of creating a sense of camaraderie and identification with other people:

Facilitator: *'And how's he feeling about starting to learn to drive?'*
'Excited, yes, so he can be like his friends.'

Facilitator: *'And why is it that he might not be wearing a seat belt all the time?'*

'To look cool.' [F, teenager group]

'He'd be less likely to wear it with the boys, taking the boys to work.'

Facilitator: *'Boys being his [. . .]?'*

'Workmates.'

Facilitator: *'Workmates? Why is he less likely to wear it with them?'*

'Well, he's a professional driver. He doesn't wear a seat belt at work. None of them wear a seat belt at work, so it's playing the part [. . .] He's a professional driver. He should be. But he doesn't wear it for work, so it's just a carry on.' [M, drivers for work group]

'So for the younger kids he'll wear it, just to set a good example, but for the older ones, he won't, just to look the cool dude [. . .] And it's based on somebody I do know.' [F, drivers for work group]

One participant noted how this might spread more generally across driving behaviour (perhaps by raising the threshold at which feelings of being unsafe prompt compensating action):

'I find you get the opposite that you said there with friends, with family I'd agree but when I'm in the car with some of my friends, if there's a group of, they'll drive far more recklessly than they would if they were on their own or if there were just one or two of us. They'll speed up, especially on motorways.' [M, young men group]

Not wearing a seat belt is one of a number of behaviours which mean 'I am part of this group'. It is worth separating out this meaning from a subtly but importantly different possibility, which is that not wearing a seat belt means 'I am different' – although in practice the two are often connected, since establishing difference from others is one way to establish identity with each other.

'I think he might wear a seat belt with his parents but when he's with his older brother I think they both don't and I think they both want to try and rebel against their parents telling them to, and when they're together they think they're big by not wearing their seat belt, and so it's like a they're together thing so they cannot tell their parents that they haven't and try and feel bigger.' [M, teenager group]

'With seat belts, sometimes it can be a bit of a kudos thing, I don't like to wear mine, so, as you say, jack the lad thing.' [M, drivers for work group]

4.3.3.6 A trusting passenger

The researchers working on this project have heard in informal conversations during the course of the research that not wearing a seat belt as a passenger can be a way of signalling to a driver that one trusts their driving (and putting one on, by contrast, a way of signalling mistrust). Interestingly, this topic did not come up in any of our workshops, and we are not therefore able to present verbatim evidence for it here. However, we do believe, on the basis of informal evidence, that the ways in which putting on a seat belt signals lack of trust may be important in certain circumstances.

We have also heard it suggested outside our workshops that not putting a seat belt on as a driver may be a way of showing how confident you are. We have no direct evidence, formal or informal, for this possible meaning.

This is clearly an area which would benefit from further investigation.

4.3.3.7 Someone who does not get told what to do

In one of the examples quoted in Section 4.3.3.1, a participant linked the camaraderie of two siblings to a desire to 'rebel' against authority, in that instance the authority of parents. Not putting your seat belt on can be an act of defiance, a refusal to do what you are told to do. In our workshops, this sentiment was by no means confined to teenagers:

'I just hate them. I think I hate them because you have to wear them, and I think it's more of a, you've got to wear it, so I don't want it.' [F, drivers for work group]

'He still thinks he's a confederate soldier, I think, he's got that sort of mentality that nobody's going to take over his patch, or his particular mind.' [M, passenger group]

Facilitator: *'I'm not having a go at your friend, but what is the benefit of waiting until 20 miles an hour to put it on.'*

'There isn't, you're right.'

'I think it was more of a case that he didn't want to be told what to do, rather than wait until 20 miles an hour.' [M, young men group]

'I think it goes back to the rebellion thing. I think, whether you're male or female; it's a dominance thing. I'm in charge, you don't tell me what to do.' [M, passenger group]

Some participants noted that this positioning of oneself as a person who does not bow to authority can be part of a wider self-image, with seat-belt wearing being a single instance of a general trend:

'But it's just his stubborn mind. But people are like that. For example, he smokes, and he said to my friend, because we were having dinner, he said, "Do you mind if I smoke while you're eating?". And my friend said, "No". And he said, "Good, because otherwise you'd have to eat in the garden". You know, it's things like that. He won't change his ways; he won't be told what to do.' [M, young men group]

They noted, moreover, how this positioning of oneself creates its own motivation: once you have set yourself up as someone who does not do what they are told, you have to keep proving the point:

'He was rebellious enough to say, I don't have to and the longer it goes on, the more you've got to stick to it, or you're not going to save face with your mates. If, after five years, you suddenly start to, they're going to ridicule you.' [M, drivers for work group]

'If you nag him he wouldn't wear it at all. If don't say anything to him, sometimes he will put it on, but otherwise he won't [. . .] When no one says anything, yes. If you tell him, he will never wear it.' [F, passenger group]

In one workshop, the facilitator tried to explore what it would feel like for someone with this mindset if they actually did the thing they were determined not to do. The extended passage of dialogue below, which illustrates the level of resistance

involved, picks up at a point where the facilitator has been trying to set up situations where the character in question would be wearing a seat belt, only to be told in each case that the character would find some way of avoiding having to do so:

Facilitator: *'Somebody has come and spot-welded him into the seat belt. He's wearing it. I just want to know what he [...] okay, he'd never do it; how would it make him feel?'*

Participant 1: *'Angry.'*

Participant 2: *'Yeah, he'd be really annoyed. He'd be swearing and cursing. He would be in a hot sweat, and he would just be so angry that if anybody walked in front of the car, he would run them over.'*

Facilitator: *'He'd be angry?'*

Participant 1: *'I think he would be, because if he's one of these people who thinks, I'm definitely not going to wear it, and then all of a sudden he's got to wear it, he's just going to be frustrated. He's going to be one of these angry drivers that are shouting at other people.'*

Participant 3: *'He's going to drive like a lunatic.'*

Facilitator: *'Why would he drive like a lunatic? Just because of the aggro?'*

Participant 3: *'Because he's annoyed.'*

Participant 4: *'It would be his revenge for having to wear it.'*

Participant 1: *'Ride up people's behinds, like that.'*

Participant 4: *'Yeah.'*

Participant 2: *'And he would get wherever he was going quicker, because he would want to undo that seat belt.'*

Facilitator: *'And what's making him so angry? Does he feel trapped? Or put upon?'*

Participant 2: *'He's being forced into something he really doesn't want to do.'*

Participant 5: *'I think they're like an angry child, like stamping his feet, yeah.'*

Participant 1: *'Like Kevin off Harry Enfield.'* [Drivers for work group]

As will be apparent from the discussions in this section, one of the key ways in which other people create a context for seat-belt wearing (or non-wearing) to have social meaning is by requesting or instructing behaviour. Depending on who is doing the requesting and who is being requested, however, the consequence may be a desire to show respect through compliance or an almost violent desire to defy. So who has the right to ask one to wear a seat belt? This is the topic of the next section.

4.3.4 Requests and ownership

According to the accounts given by participants in our workshops, requests and instructions to wear seat belts, by drivers or passengers, and delivered with more or

less force, are a fairly regular feature of driving with others – and are by no means limited to telling children to put a seat belt on:

'Sometimes I don't even notice and a passenger will say put your belt on.'
[M, young men group]

'When I'm with my youngest daughter, she'll say "Clip on mum", but the other two don't bother.' [F, passenger group]

'Because they've reminded me and they get in the car and it's the first thing both of them do, the two granddaughters, is to put their seat belts on. So I can't not do it then, can I?' [F, passenger group]

'Unless I remind them [my sons]. They'll say "No, I'm all right". "I said get it on, if I'm in the car, get it on."' [F, passenger group]

'I often have to nag [my husband] to put his seat belt on, if I really think it's needed.' [F, passenger group]

'It's my choice what I do in my car. But like you say, I get into my daughter's, I've got to put it on because she doesn't like it and neither does the car.' [F, women group]

'If my mum's giving me a lift anywhere she won't physically drive off unless I'm wearing a seat belt.' [M, young men group]

'I always make other people wear it in my car, even if it's my friends. Wherever they are.' [F, women group]

So who has the right to make this kind of request or instruction? Participants were in general agreement that one not only had the **right to tell children**, but a positive duty. Interestingly, this was felt to be the case even by participants who said they did not wear their own seat belts:

'The children, you have to restrain them because they've got no sense of danger, anything, so you have to restrain the kids for both your sakes really.' [F, drivers for work group]

On the other side, there was wide acceptance that children have a **right to tell adults**, and may be the only ones who can actually get some individuals to wear a seat belt:

'Well, it's the kids telling him, and saying "Dad, you should really do this". So it would be more sensible.'
Facilitator: *'Okay. Do other people tell him that he wouldn't listen to?'*

'Most other people, yeah. If it's the lads, or if he just picks up a granny from down the road, he would just tell them "Shut up".' [M, drivers for work group]

'And when he's a passenger, well, if he's with his son, his son makes him belt up, but if it's anybody else, you've got to really get on to him.' [M, passenger group]

This **reciprocal arrangement**, with requests being part of the relationship between children and adults, may explain why a few participants felt uneasy about the idea of adults ever telling each other to wear seat belts:

'I wouldn't dream of telling an adult to wear a seat belt.' [F, drivers for work group]

'It's your choice, isn't it? And if someone gets in my car, I don't say, put your seat belt on. It's their choice.' [M, drivers for work group]

'For minors it's a different issue, yes, because as an adult you're trying to be responsible for their safety, whereas I'm being responsible for my own safety, whether I choose to put the belt on or not.' [F, women group]

There is here an interesting resonance with the 'Kevin the teenager' comparison noted towards the end of Section 4.3.3.7. It may be that, for the type of defiant individual who reacts so aggressively when 'spot-welded' into their seat belt, the deeper social meaning of not wearing a seat belt is in fact **proving you are an adult**.

For a number of participants, this dislike of requests outside adult-child relationships clearly extended to the requirements of the **law**, perceived in this context as highly paternalistic:

'It's my choice. You take the choice away [by making it a legal requirement].' [F, women group]

'Why should we be dictated to? It's our life that we are putting at risk. Why should we be told that you've got to do something?' [F, women group]

Although a small number of participants did not like the idea of adults ever telling adults to wear seat belts, a larger number argued that the **owner of the space** inside the car – either the driver or the owner of the car, normally both – did have a clear right (and some felt responsibility) to request that others in the car wear their seat belts. To some extent, as the first few quotations below illustrate, this is a matter of courtesy and respect, but, as the last quotation shows, it is also linked for some to legal liabilities:

'When she's in someone else's car she'd be more likely to wear it out of courtesy to someone else.' [F, women group]

'If [name] is a passenger and you tell him to put his seat belt on, he'll hold it, and then you have to tell him again to put it on. Like I said, I think it's just because he's in someone else's car that you don't have to nag.'

Facilitator: *'It's interesting about being in someone else's car, as well. You used the expression about it being out of respect?'*

'It's not your space, is it?' [F, passenger group]

'You have to respect other people's wishes. [over-talking] If he says to you, can you do this and you're in that property [. . .] It's like when people come through our front door, I always ask them to take their shoes off. I've got a beige carpet; I don't want mud trampled in my house. If people can't respect that, then they're not really good friends, are they?' [F, passenger group]

'Well, it all depends. If I'm in my own car and somebody says, put your seat belt on; I'll just tell them to sod off. If I'm in their car and they ask, I probably would do. I do it out of respect [. . .] If you're in someone else's car, I think you feel obliged because you don't end up paying the fine. It's that person's licence that's get [. . .] and who pays the fine? They lose the points on their licence.' [M, passenger group]

The reverse is also true, with participants arguing that when they were the owner of the space, others did **not** have the right to tell them what to do:

'I'll just tell them to "Sod off"; it's my car, if I want to wear it, I'll wear it, but I never do.' [M, passenger group]

The idea of ownership is further illustrated by some discussions about seat-belt wearing in taxis, and the question of whether or not the taxi driver has the right to ask one to wear a seat belt. The short excerpt of dialogue below is illustrative of the way these debates drew in issues of ownership:

Participant 1: *'You're paying to be in that taxi, it's a service, and I think it's your right to wear that seat belt or not. I know that's not true, but I think that's what goes through people's minds.'* [F, passenger group]

Participant 2: *'Surely that's his livelihood, as well. So if he's asking you to wear your seat belt because it's his livelihood, would you not respect that?'* [M, passenger group]

The concept of ownership provides another potential interpretation of the dislike some people feel for being 'told' to wear a seat belt by the law, namely that it involves an invasion of private property, the space within their car. It may also

explain the extreme reactions which **seat-belt warning systems** can prompt in some people:

'It's just because of the chime, because the chime's quite irritating. So you don't want to hear it, I don't want to hear it more than anything else. Like friends will get in the car, like one of my friends, like I had this new car for a month and a friend got in the car and as soon as he sits down, the light comes on first, I said put your belt on and he said it won't start chiming until after 20 miles an hour. And I was like just put it on because it's irritating, it is really irritating when it comes on.' [M, young men group]

'My new car beeps now but what I know is that if you let it beep for about two minutes it stops beeping.' [M, young men group]

'My dad took the fuse out of the beep.' [M, young men group]

'There's always ways round it though for people that are stubborn. I suppose like a strange example, as I mentioned it when I got home to my dad whose car beeps, and you know when you take your car out of your garage, and leave your seat belts fastened across the seat? He left his seat belt fastened across his seat so it didn't beep. And why people would actually do that to avoid wearing the seat belt is beyond me, but people who are set in their ways of doing it, that he just left his seat [. . .] and then just sat on the seat.' [M, young men group]

4.3.5 *Emotions and personal meanings*

In the last two sections, we have discussed the ways in which other people create a context in which the action of putting a seat belt on (or not) can have meanings which go beyond a mere redress for a feeling of unsafety.

But actions can have meanings whether or not people are present. If a person is really angry, for instance, he or she is unlikely to close a door gently irrespective of whether there is anyone around. Some actions simply do not **fit** with certain kinds of emotion and mood, even though there may be nothing which physically precludes them.

We identified in participants' accounts three broad classes of emotion which did not fit seat-belt wearing. They are presented briefly below, with illustrative quotations.

4.3.5.1 **Feeling angry**

Rather like shutting a door gently, putting a seat belt on does not fit particularly well with feeling angry:

'If I'm angry I don't put the belt on. There's probably not a reason behind it, I think it is just you're feeling quite destructive, you don't really care, you've got more important things in mind than putting a seat belt on. So it's probably a combination of all those elements.' [M, young men group]

One of the participants in the teenage pre-driver workshop pointed out how not wearing a seat belt could be an expression of anger with specific people (in this case parents), an example which clearly takes us closer to the sort of social meaning discussed in Section 4.3.3:

'You'd be less likely to wear it I think if you're grumpy or stroppy or [. . .] because you just get in a car and if you're sulking then you're just like, I'm not putting my seat belt on. Like if your parents tell you to, then just to annoy them you say "No".' [F, teenager group]

4.3.5.2 Feeling busy and in a rush

It goes without saying that being busy and in a rush may, in some circumstances, lead one to forget to do something such as putting a seat belt on. At least one of the accounts given by participants, however, suggested that the issue here may be less one of forgetting than a lack of fit between putting a seat belt on and one's image of oneself as a busy, important person:

'He doesn't wear his seat belt, and he's always rushing, all the time rushing around. Just opens the door quickly, leaves the keys inside and just gets out, and does what he has to do and just gets back into the car, and drives off [. . .] When he's feeling in the right mood or something, and he wants to listen he will probably just do it [put his seat belt on], otherwise he just wouldn't.'

Facilitator: *'And what's the right mood?'*

'When he's feeling a bit happy or relaxed, no rushing [. . .] He's rushing all the time. There are always things on his mind; I think he thinks he's got the whole world on his mind.' [F, passenger group]

This is somewhat speculative. It would be interesting to explore further, however, the extent to which this lack of fit is also part of what is going on for working drivers doing a multi-drop, given how little time it actually takes to put on and take off a seat belt.

4.3.5.3 Feeling carefree and unstructured

The final theme apparent in participants' accounts is around a lack of fit between putting a seat belt on and feeling carefree:

'I'd say you're less likely to wear it if you're happy [. . .] because you don't think about them things when you're happy because you just don't think about dangerous things so you just get in the car and not notice it.'
[F, teenager group]

'It's about the sense of freedom he has when he doesn't have the seat belt on. He likes to be the guy who drives along, and the windows open, and he's free and easy and doesn't need the restrictions of a seat belt [. . .] He's a free spirit and doesn't like restrictions.' [F, drivers for work group]

This last is of some importance, as it directly relates to the mood people are in when they go out for the night – and the contrast between going out and being at night:

'You're winding the windows down, playing music as loud as they can in the car and just, yes, just carrying on the night out and a seat belt's not something you want to be doing when you're having fun and a good time.'
[M, young men group]

'He's an accountant, obviously he's got a professional job so he'll always wear his seat belt in working hours because maybe his day's a bit more structured and more regimented. And then after work he'll let that slip or it will just be an inbuilt characteristic that he'll always put it on in the working hours [. . .] I've got a job where I go in in a suit and I come home and get out of it and I'm a different person. But I've got to act a certain way going to work.' [M, young men group]

Particularly worrying is the additional effect of sitting in the **back seat**, which a number of participants linked to being more relaxed and carefree:

'You don't sit the same in the back as you do in the front, you're more relaxed.' [M, young men group]

'She will just use it like you're sitting on the sofa; she will just sit there and do her make up, so when she gets to the shop she's presentable.'
[M, passenger group]

'Every time I'm in the back it's if I'm going out somewhere, and you're preoccupied because you're going out.' [M, passenger group]

The metaphor of a suit is an interesting one, suggesting that not wearing a seat belt is a bit like (for a man) not wearing a tie. The comparison between seat belts and clothing is a useful one, in so far as it reminds us that seat belts are not just safety devices. As we have seen in the last few sections, they also carry (like clothing) social and emotional meanings.

4.3.6 *To wear or not to wear: a simple model*

We began this section of the report by noting that there may not be a single clear reason why an individual does or does not wear a seat belt on any given occasion. Different factors – of the types outlined above – interact with each other, covering both physical features of the journey and its social context.

How best to describe this interaction is a tricky question. There are at least three conceptual complexities that arise when we turn to the question of the psychological processes involved in seat-belt wearing or non-wearing:

- not wearing a seat belt can sometimes be described as an action (as in the ‘protest’ example, or when people pretend to wear one), but more often it is better understood as the **absence** of an action;
- whether someone wears a seat belt on any given occasion can be a function of (non-conscious) habit, (conscious) decision-making or a mixture of the two; and
- even this distinction between non-conscious habit and conscious decision-making is too simplistic; people may engage in non-habitual behaviour without, in any meaningful sense, having made a decision – for example, when someone else putting a seat belt on subconsciously cues me to put mine on too.

These are knotty psychological problems. For the purposes of the current research, however, we noted that things become much simpler at the level of manifest behaviour: every time someone gets in a car, they either put their seat belt on or they do not. By extension, every time a person is involved in a crash as a vehicle occupant, they are either protected or not. This is the level at which research findings must have an impact if they are to lead to a reduction in casualties and injuries.

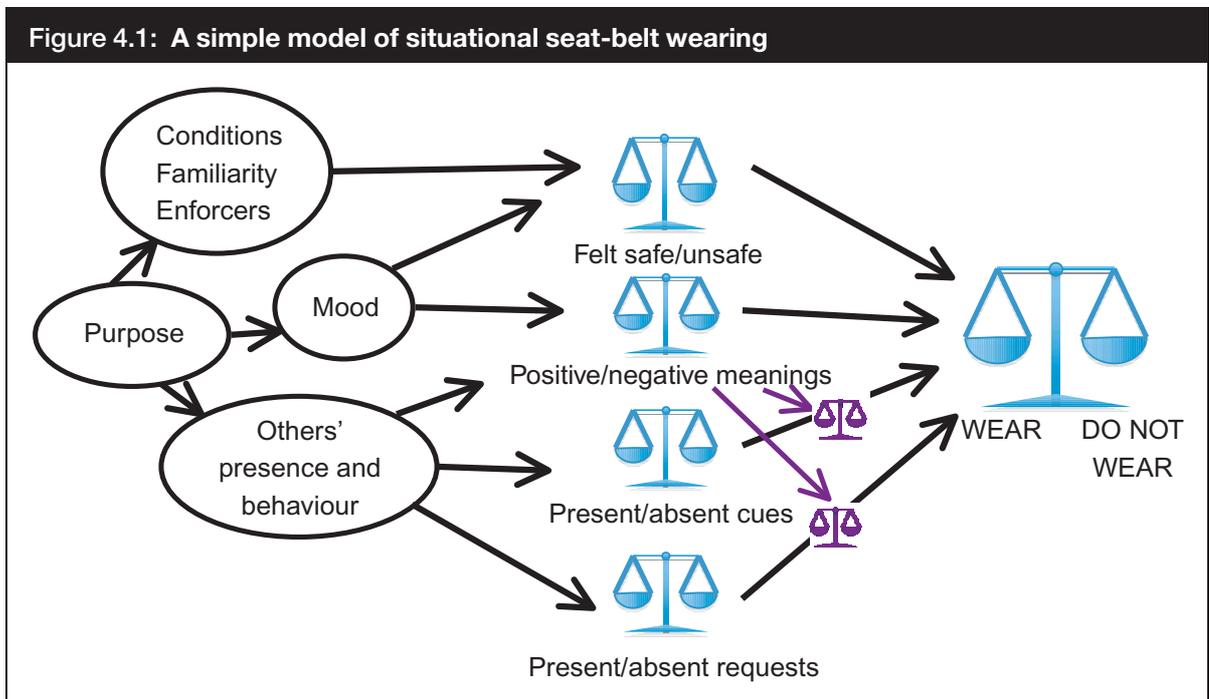
This is therefore also the level at which we constructed a simple model of seat-belt wearing behaviour as the basis for further quantitative work. The model imagines that the individual is a ‘situation-processor’, the inputs being various features of the physical and social context, the outputs being either wearing or non-wearing behaviour. Any given feature of the situation may add to the likelihood of either kind of behaviour – dependent on the particular response pattern of that individual. For instance, the feature ‘night-time’ may add to the likelihood of wearing in one individual (night = more dangerous) but add to the likelihood of non-wearing in another individual (night = less chance of getting caught). This approach is neutral regarding the best description of the psychological connection between situational feature and output (e.g. is the response to its being night conscious or non-conscious, a decision or a habit?).

The diagram below (Figure 4.1) illustrates how the features identified in our work might all fit together in practice. On the right-hand side of the diagram is the overall output – the ‘wear/do not wear’ decision – represented as a pair of scales which can

go either way depending on how aspects of the situation weigh accordingly. On the left-hand side (in the circles) are the key elements of the situation which have an impact – recognising that the purpose of the journey often underpins many other features of the situation.

In the middle of the diagram, we have represented some possible steps that might link situation to output, based on the accounts given in the workshops. However, it is important to note that these intermediate ‘psychological’ steps were not part of the model tested in the quantitative report, which focused purely on the situational inputs and behavioural output.

Please note that the model leaves out the comfort or discomfort of the seat belt, which is (presumably) a feature of all potential seat-belt wearing situations.



4.3.7 Output from qualitative to the quantitative phase

As an input to the quantitative phase of work, short descriptions of the different types of situation on the left-hand side of the model were developed, based on the accounts given in the workshops. A total of 20 statements were selected from an initial list of over 30. These were as follows:

- Purpose:
 - setting out on a long journey;
 - popping down to the shops;
 - driving somewhere for work.

- Conditions/familiarity/enforcers:
 - driving on country roads;
 - driving on the motorway;
 - driving at night;
 - driving on unfamiliar roads;
 - there are police around.
- Others' presence and behaviour:
 - driving on your own;
 - driving with children;
 - the driver puts their seat belt on;
 - the front-seat passenger puts their seat belt on;
 - the back-seat passenger puts their seat belt on;
 - there are passengers in the car but none put their seat belts on;
 - your partner/spouse/parent is in the car and asks you to put your seat belt on;
 - a friend in the car asks you to put your seat belt on.
- Mood:
 - you feel nervous;
 - you feel in a rush;
 - you are angry/upset about something;
 - you feel confident and relaxed.

These are the 20 statements referred to in Section 2.3.3, which were presented in pairs to the survey respondents in the quantitative phase of the project. The results of this phase are set out in Section 5.

5 QUANTITATIVE FINDINGS – THE SEAT-BELT WEARERS AND INCONSISTENT WEARERS

The work presented in Section 5.2 was developed based on two early quantitative studies (see Sections 2.3 and 5.1, and Appendix 4) – the review of existing data and, most importantly, the qualitative research findings. Nearly 2,000 people were interviewed and their responses were analysed and cross-referenced to their demographics and driving exposure and behaviour. The segmentation analysis resulted in five distinct groups or clusters and the respective profiles are detailed in Appendix 8.

5.1 Segmentation of seat-belt use by motivations to wear (Stages 1 and 2 survey results)

At the outset of this project it was hypothesised that seat-belt compliance was dictated by motivations to wear. If this causal link could be proven then we could identify the target audiences for remedial action to positively change their attitudes. The hypothesis was simply based on the precept that individuals only behave in a certain way if they feel they both **‘have to’** and **‘want to’**.

This hypothesis was tested in a pilot survey in October 2007 and the results were sufficiently encouraging to duplicate the same questions in the annual THINK! tracking survey in November 2007. This latter survey gave the opportunity for the greater statistical validity of a larger sample and a wider range of road safety issues to analyse.

The project set out to test the hypothesis that drivers and non-drivers are more likely to wear a seat belt if they view compliance as a **‘have to’** and a **‘want to’**. If proven, this would allow the segmentation of drivers and non-drivers by these motivations and identify their socio-demographic and motoring profiles (Tables 5.1–5.3).

A relationship was established between **‘have to’** and **‘want to’** which correlated with seat-belt wearing. Three key segments were identified:

- strongly agree wearing seat belts is a **have to** and **want to** (H+ W+);
- strongly agree wearing seat belts is a **have to** but do not strongly agree it is a **want to** (H+ W–); and
- do not strongly agree that seat-belt wearing is either a **have to** or **want to** (H– W–).

Table 5.1: Refining and profiling of segments				
Size of segment (%)	Sample	H+ W+	H+ W-	H- W-
Drivers	1,912	75	13	8
Non-drivers	903	70	14	12
The segments shown in Table 5.1 account for 96% of all drivers and non-drivers.				

Table 5.2: Driver attitudes to seat-belt use				
Completely agree not wearing seat belts in front and back is: (%)	Sample	H+ W+	H+ W-	H- W-
Dangerous	65	74	44	14
Unacceptable	59	68	44	12

Table 5.3: Non-driver attitudes to seat-belt use				
Completely agree not wearing seat belts in front and back is: (%)	Sample	H+ W+	H+ W-	H- W-
Dangerous	55	65	39	24
Unacceptable	54	64	33	22

The 'H- W-' drivers were proportionally more male, young (15 to 44 years) and social grade C2DE compared with the whole sample. The 'H- W-' non-drivers were proportionally more young (male and female, 15 to 29 years). More tabulations and findings from this earlier segmentation work are shown in Appendix 4.

The groups were summarised as:

- (H+ W+) the law abiding, 'conscientious', who are likely to be only very occasional infringers (74% of drivers, 70% of non-drivers);
- (H+ W-) the selective law abiders, 'contentious', who are likely to be occasional infringers (13% of drivers, 14% of non-drivers); and
- (H- W-) the law flouters, who are most likely to be frequent infringers (8% of drivers, 12% of non-drivers).

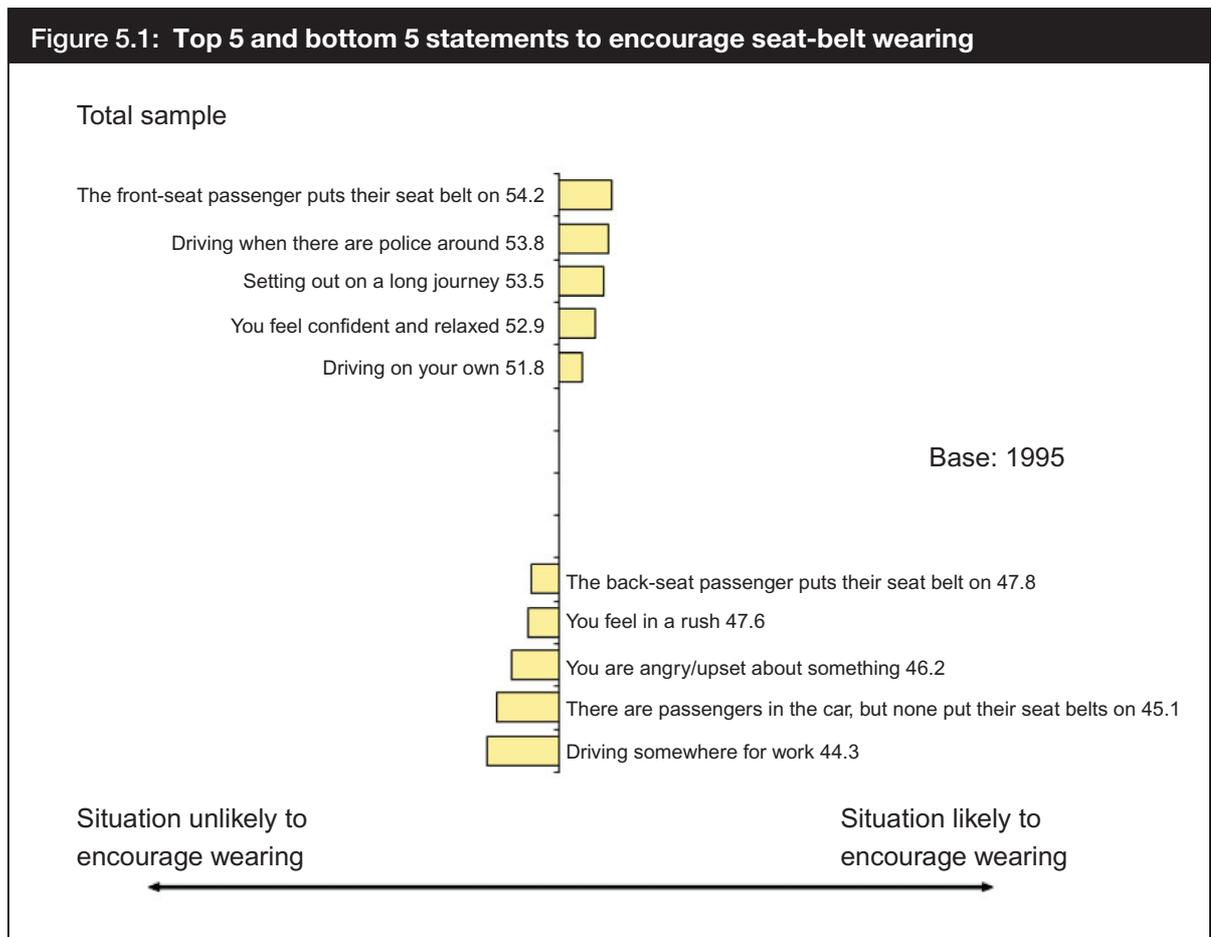
Over and above this motivational influence on seat-belt wearing is the context in which it takes place. This was the subject of the qualitative stage and the quantitative research that measured its results at Stage 3 (Section 5.2 and Appendix 8).

5.2 Segmentation of likelihood to wear seat belts by driving situation (Stage 3 survey results)

There were 1,290 drivers and 705 non-drivers in the total sample.

The 1,995 adult respondents were each asked to compare 20 random paired statements (presented in Section 4.3.7) and to decide in which situation they would most likely wear a seat belt. The scores generated from the comparisons were aggregated and a hierarchy of influences was generated with respect to seat-belt use.

The results from the total sample only delivered marginal discrimination between the different driving situations and their influence on seat-belt wearing. Figure 5.1 shows that for the total sample, ‘The front-seat passenger puts their seat belt on’ was the most likely to result in the respondent wearing his or her own seat belt according to the self-reported comparisons in the sample. ‘Driving somewhere for work’ was the least likely to encourage someone to wear a seat belt. The top and bottom statements scored 54.2 and 44.3 out of 100, respectively.



The marginal discrimination seen in Figure 5.1 is because only a minority of respondents discriminated significantly. This was expected as non-discriminators scored each pair of driving situations as having an equal influence, meaning that most people would wear a seat belt in all scenarios.

Cluster analysis techniques were used to identify those respondents who did discriminate with respect to different driving situations and their likelihood to wear a seat belt. High-level segments were derived from the sample and classified with respect to their degree of discrimination:

- some 60.1% had none;
- 21% had only minor; and
- 18.9% of the sample was classified as major discriminators.

The claimed seat-belt wearing behaviour was correlated with the discriminator segments and a strong association was found (Table 5.4). Almost all the respondents with minor or no discrimination claimed to always wear a seat belt when in the front of a vehicle. The inability to discriminate between the driving situations is, in fact, a measure of seat belt compliance, at least in the front seat.

The claimed seat-belt use rates in the rear are much lower than the front and this is in line with the literature, survey and accident data which all highlight rear seat-belt wearing rates to be significantly lower than those in the front.

Table 5.4: Claimed seat-belt use rates by discrimination segment			
Always wear seat belts (%)	Discrimination		
	None	Minor	Major
In the front as driver	98	95	81
In the front as passenger	96	91	86
In the back	79	66	58
Base	1,198	419	377

An analysis of driving situations and their influence on seat-belt wearing was conducted among all the discriminators, both minor and major, divided between drivers and non-drivers. They represented 37% of all drivers and 43% of non-drivers.

Figures 5.2 and 5.3 highlight, among the discriminators, the top and bottom five situations that encourage a seat belt to be worn.

Figure 5.2: Top 5 and bottom 5 statements to encourage seat-belt wearing for discriminating drivers

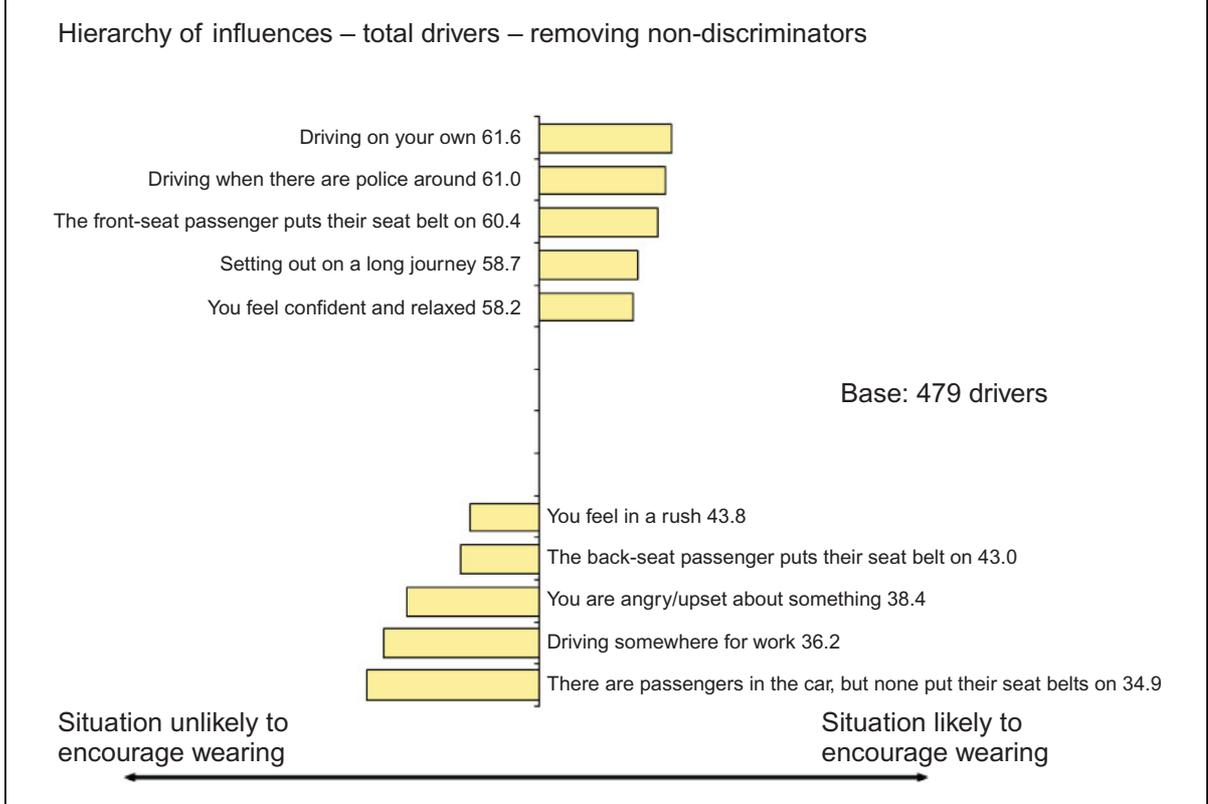
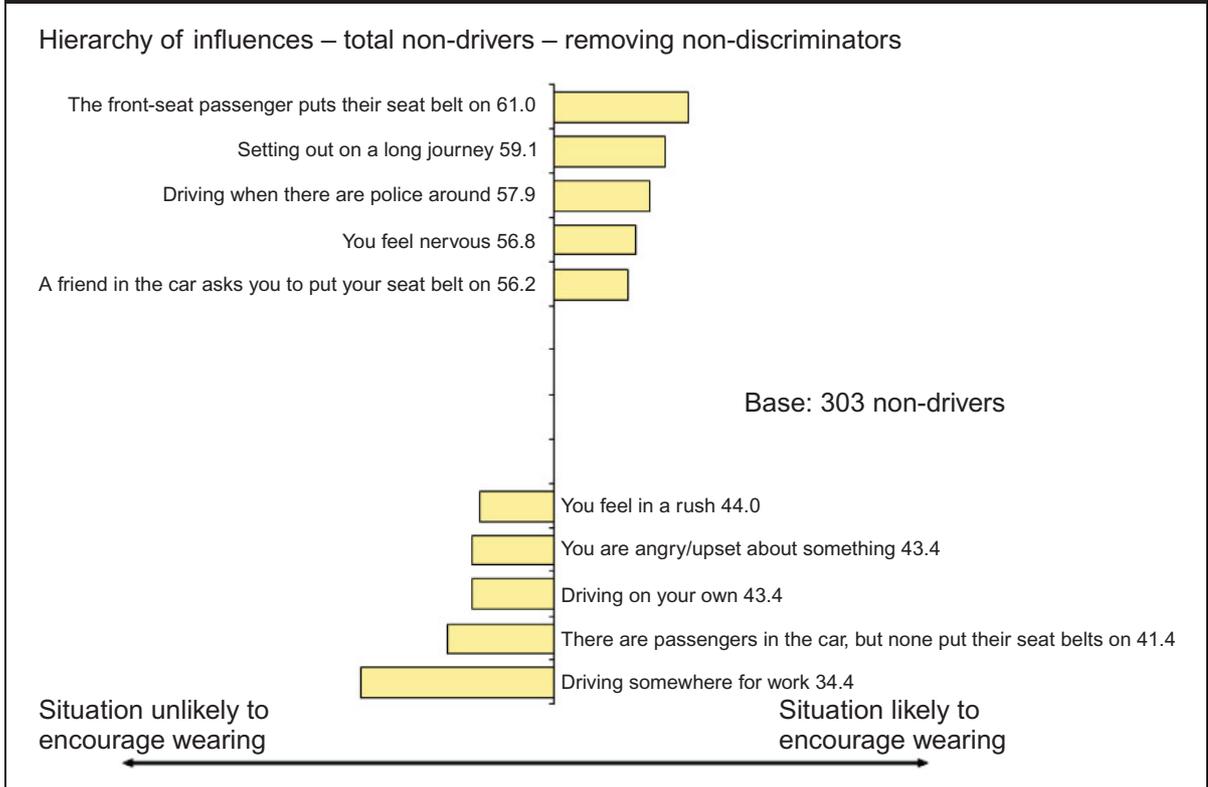


Figure 5.3: Top 5 and bottom 5 statements to encourage seat-belt wearing for discriminating non-drivers



The comparison between discriminating drivers and non-drivers demonstrated that:

- drivers and non-drivers are more/less influenced to wear seat belts by very similar driving situations; and
- drivers feel they are more likely to wear a seat belt when they are **driving on their own**.

The results of the cluster analysis follow. Such was the low level of discrimination displayed by the minor discriminators that they were grouped together with the non-discriminators in this segmentation process. Collectively, this group represented the majority (81%) of the UK population and they are referred to in the subsequent section as 'Cluster 5: Because I do'.

5.3 The characteristics of inconsistent seat-belt wearers (major discriminators)

The major discriminators were analysed further and four distinct sub-groups, each representing 4–5% of the UK adult population, were identified. Each has a different hierarchy of influence and demographic and motoring profile. The sub-groups were named in an attempt to capture the key seat-belt wearing characteristic that makes them different. In the following sections, the statistically significant profile information for each cluster is highlighted by:

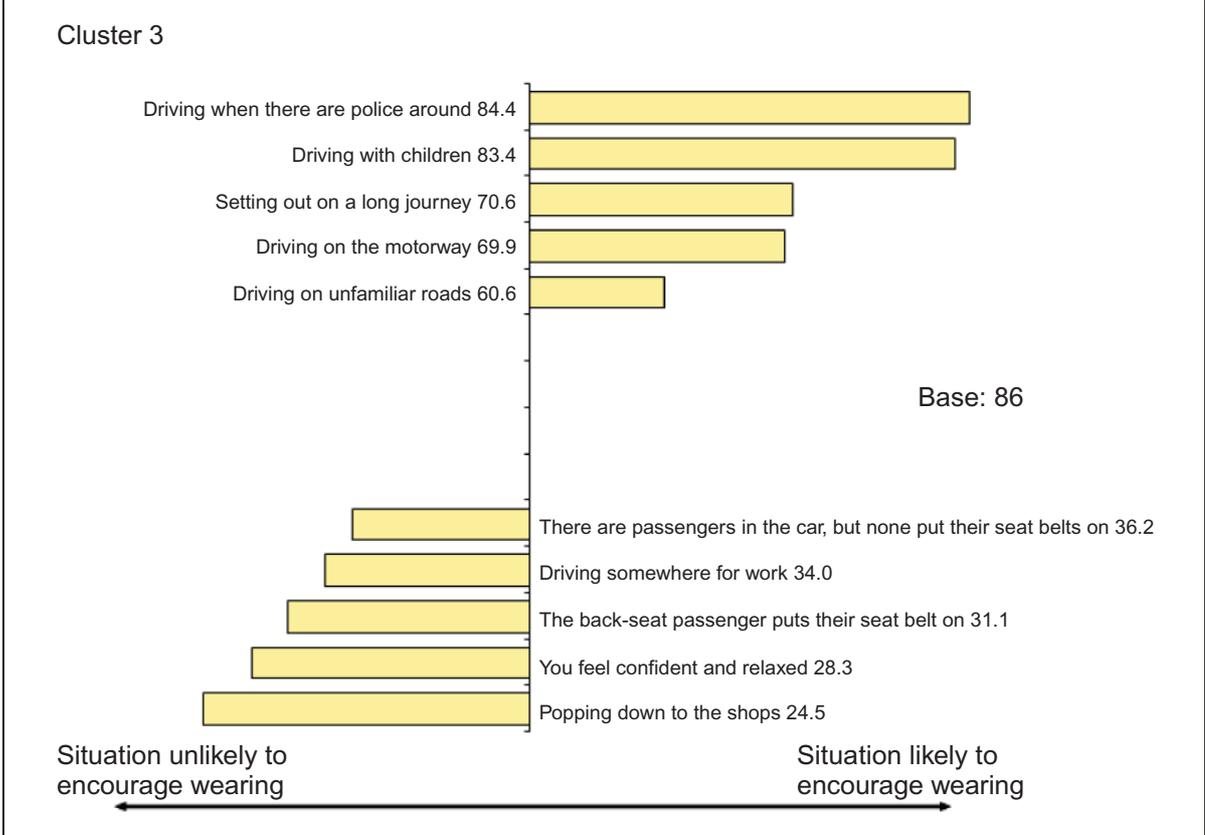
- hierarchy of influences on seat-belt wearing;
- compliance;
- attitudes;
- motivations;
- demographics;
- motoring behaviour; and
- passenger involvement.

The clusters are presented in reverse order of seat-belt compliance.

5.3.1 Cluster 3: *When I need to* (5.2% of sample)

Figure 5.4 highlights the strongest influences on seat-belt wearing (found at the top right) and the weakest (at the bottom left). Each has a score depicting its strength of influence out of 100 (the maximum). The scores are linear and therefore in this example we can say that 'police are around' is more than three times more likely to prompt wearing a seat belt than 'popping down the shops'.

Figure 5.4: Top 5 and bottom 5 statements to encourage seat-belt wearing for 'Cluster 3: When I need to'



This cluster appears to be making some form of conscious or unconscious risk assessment of each journey they make. Long journeys are more risky than short ones. Being stopped by the police is a risk (not only because of the fine for non-belt wearing but possibly also because their motoring may involve other illegal behaviours) and feeling confident and relaxed is a mind-state free from these risks. The presence of children in the car, for most drivers, is associated with greater responsibility, including a more cautious approach to risks.

This cluster is made up of an almost equal proportion of drivers and non-drivers (51% and 49% respectively). It is predominantly young (61% are aged 15–34), C1C2D (79%) and male (59%), although females are equally represented in the 15–29 age bracket.

Cluster members are the least likely to claim they always wear seat belts as drivers (53%) or as passengers in the front seat (69%). They also have the lowest level of compliance in the back seat (39%). They are also the lowest group in agreeing completely that not wearing seat belts in the front or back is dangerous (66% and 34% respectively).

Equally they have the lowest motivations to wear a seat belt. Only 79% strongly agree they **have to** and only 54% **want to** wear seat belts. Overall, this cluster has 18% of its membership without a **have to** or **want to** motivation. The earlier segmentation analysis identified that an absence of both a **have to** and **want to** was found to strongly correlate with a negative attitude to all other motoring offences and an acceptance of general anti-social behaviours (see Appendix A4.3).

As drivers they drive the highest mileage (38% drive 10,000 miles per annum or more) and 40% drive as part of their job. As a total cluster they are the most likely to travel with children or younger siblings (53% in a typical week).

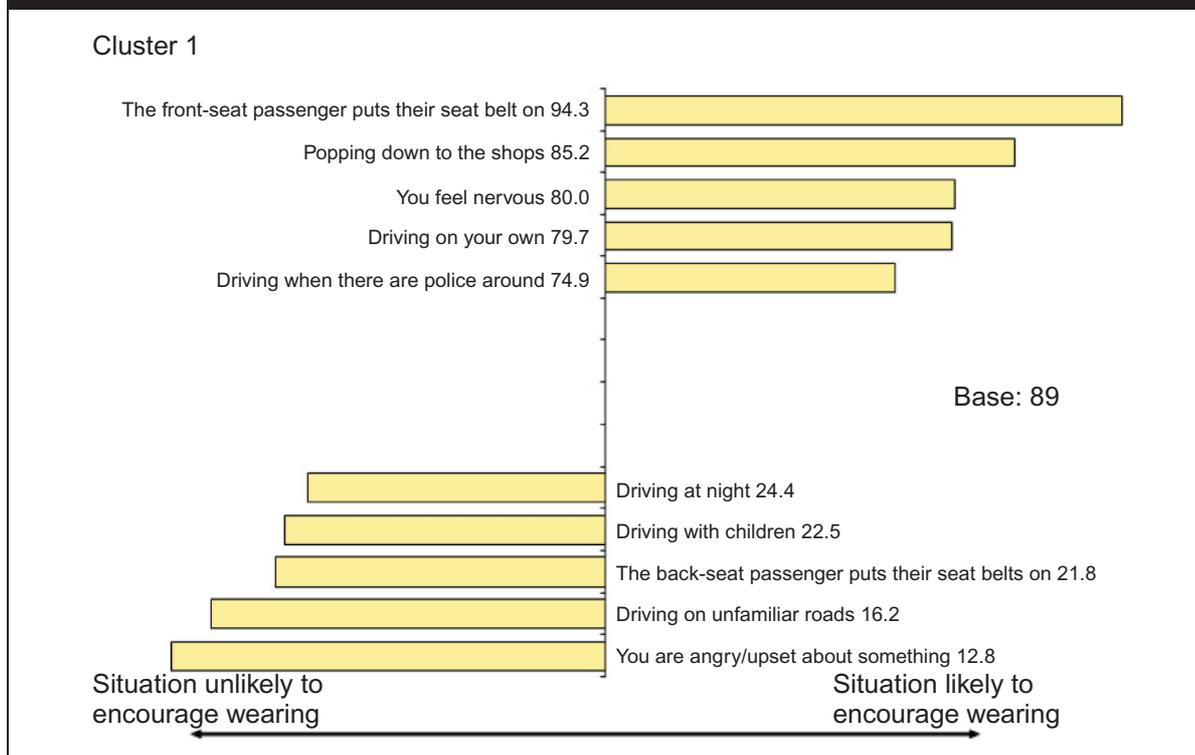
As drivers they are the most likely to drive with passengers (83% in a typical week) and travel as passengers (81%). The non-drivers in this cluster are also the most likely to be driven as passengers (86% in a typical week).

The seat-belt behaviour, attitudes and motivations, plus the high mileage and involvement as passengers (non-drivers) and travel with passengers in their vehicle, make this group the number one priority for intervention.

5.3.2 Cluster 1: When others do (4.6% of sample)

This was a difficult cluster to interpret until the motoring profile was known. It demonstrated the most extreme discrimination in selecting the 'behaviour of front

Figure 5.5: Top 5 and bottom 5 statements to encourage seat-belt wearing for 'Cluster 1: When others do'



seat passengers putting their seat belts on' as prompting their own seat-belt use. A score of 94 (out of 100) made it the most important influence for almost everyone in the cluster (Figure 5.5).

This segment is more driver-centric (61% drivers, 39% non-drivers) with a high proportion of them over 55+ (48%) and C2DE (45%).

Cluster members are the second least likely to claim to always wear seat belts. As drivers it is only 81%, as passengers in the front it is 86%, and collectively in the back seat it is only 62%. Their attitudes to seat belts are even lower. Only 73% completely agree that not wearing seat belts in the front is dangerous and 58% in the back.

Their motivations to wear, however, are similar to all motorists – 90% believe they **have to** and 77% **want to**.

What makes this cluster different is that driver members have the highest involvement in work-related driving. Sixty-four per cent drive to and from work and 42% actually drive as part of their job. The latter figure is almost twice the national average. In fact, 17% drive a van and this is also almost twice the national average.

As drivers they are much more likely to drive with passengers (82% in a typical week) than travel as passengers (66%). Only 54% of non-drivers in this cluster are passengers in a typical week. Collectively they are the group most likely to be asked to put a seat belt on by partners or friends, but they do not acknowledge this request as an important influence on their own seat-belt behaviour, unlike Cluster 4 (see below).

They are the cluster most likely to experience non-wearing passengers. Sixteen per cent drive in vehicles in which no passenger puts their seat belt on at least twice a week. This is more than three times the national average.

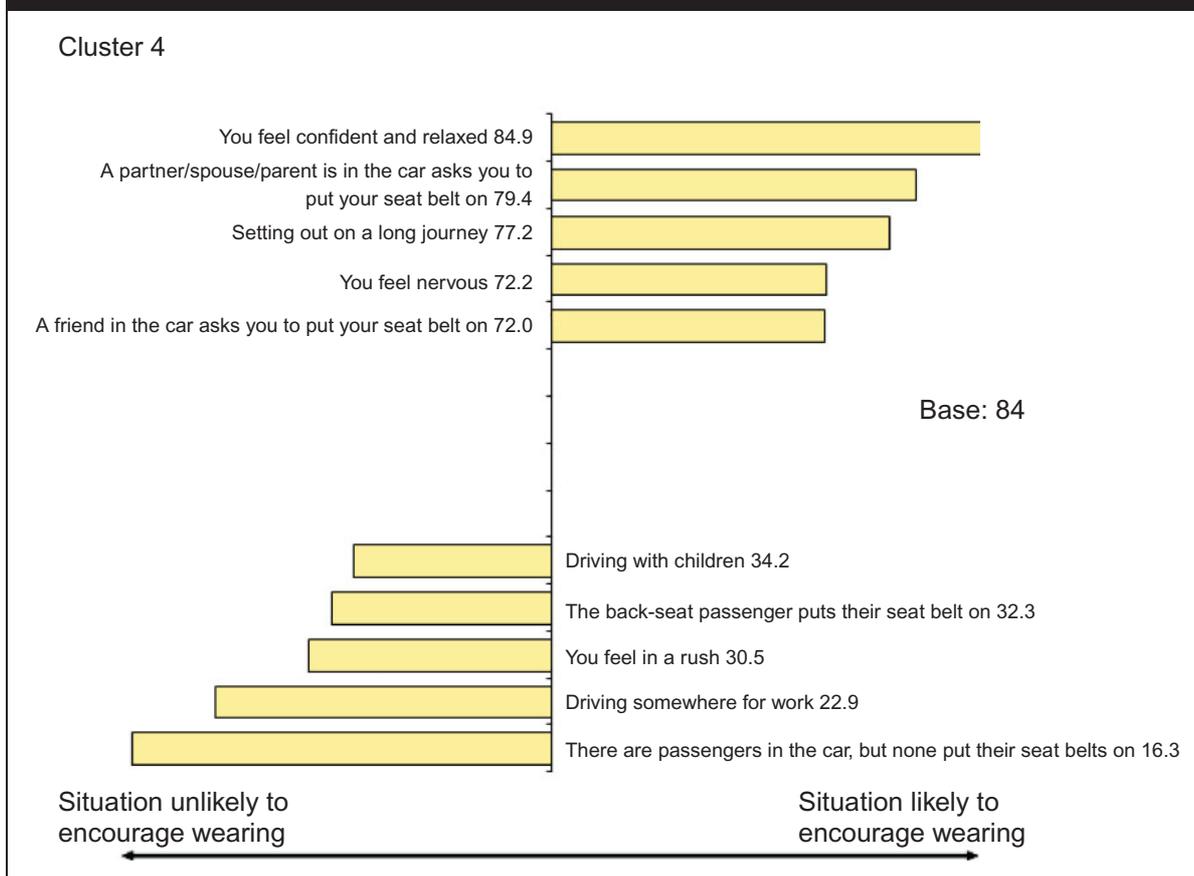
This motoring profile suggests this driver cluster is leading two lives or at least driving in two different contexts, one for work and one for leisure. In both they are influenced by the seat-belt behaviour of others who share the vehicle. We can conjecture, as discovered in the qualitative work, that when driving on their own or with their seat belt wearing partner/spouse, they generally follow suit. When driving for work with non-wearing mates, they will mimic this behaviour. They are **chameleons**.

5.3.3 Cluster 4: When I'm asked to (4.0% of sample)

The major seat-belt wearing prompts for this cluster are requests, either made by partners, spouses or friends (Figure 5.6). They need a reminder to put it on. This is

the smallest cluster made up of an almost equal proportion of drivers and non-drivers (56% and 44% respectively).

Figure 5.6: Top 5 and bottom 5 statements to encourage seat belt wearing for 'Cluster 4: When I'm asked to'



As drivers, there are proportionally more males (58%) and over 55 years of age (44%). As non-drivers they are female (57%) and more middle aged (35–54, 33%), with children in the household (40%). Both are significantly C2DE (62%).

Both drivers and non-drivers almost always wear seat belts when travelling as passengers (92% and 96% respectively), but driver compliance drops to only 83% when actually driving.

Both drivers and non-drivers have poor attitudes to the dangers of not wearing seat belts. Only 72% completely agree it is dangerous in the front and 55% in the back.

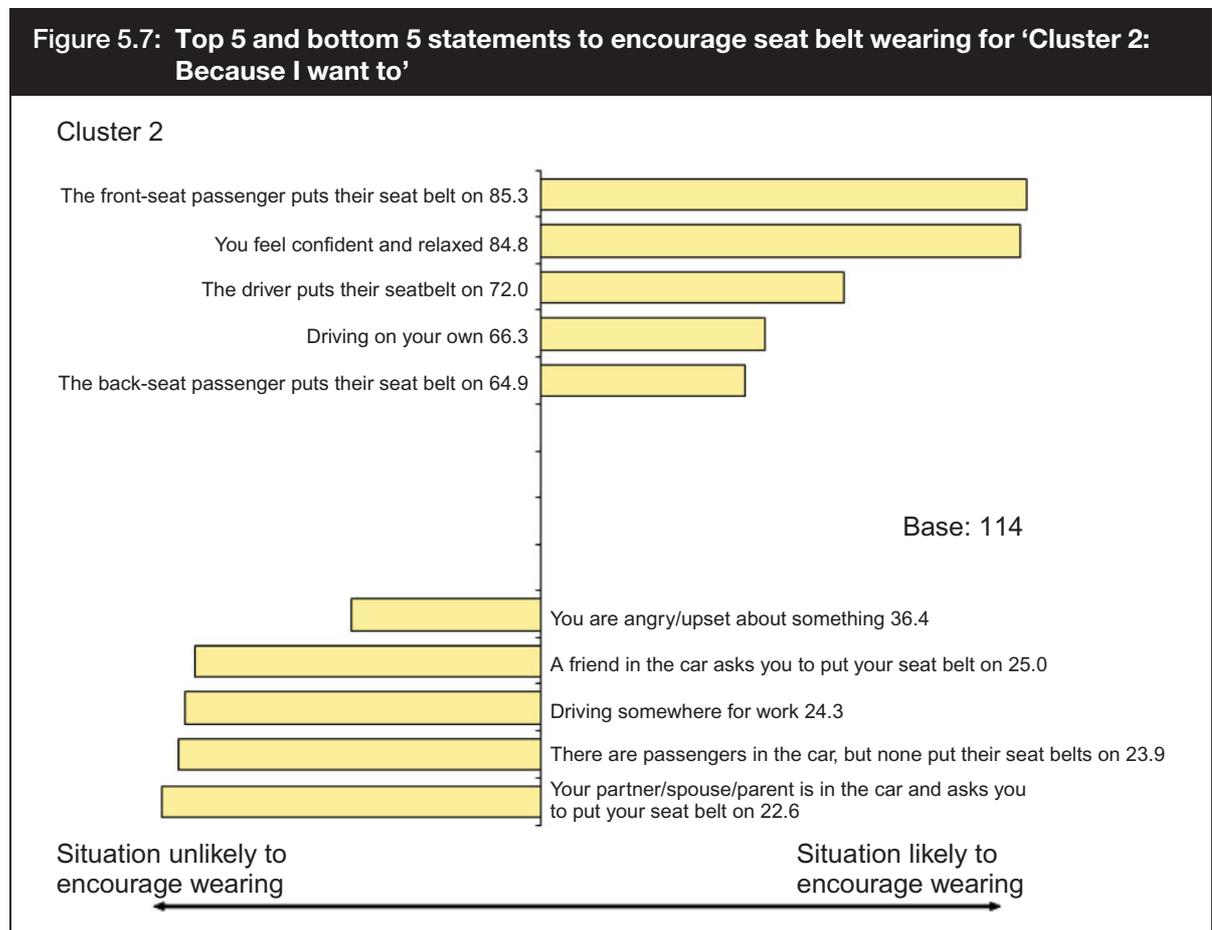
Their motivations to wear, however, are similar to all motorists: 90% believe they **have to** and 80% **want to**. It is very likely that they just forget.

What we believe drivers in this cluster lack are passengers to remind them. Only 68% drive with passengers in a typical week versus 77% for the average driver. This

problem is compounded by them driving the oldest cars – 21% have a car more than 10 years old (versus 12% on average). These cars are unlikely to be fitted with a seat-belt alarm system. Some form of surrogate ‘nagging husband/wife’ needs to be found for drivers in this cluster.

5.3.4 Cluster 2: Because I want to (5.2% of sample)

This cluster is prompted to wear seat belts by the positive behaviour of the vehicle’s other occupants and feelings of being confident and relaxed (Figure 5.7). The vast majority (75%) are drivers. They are the only significant discriminators with a **higher** than average seat-belt compliance: 95% always wear as drivers and 93% as passengers. Their only deviant behaviour at a lower level is back-seat wearing (69%).

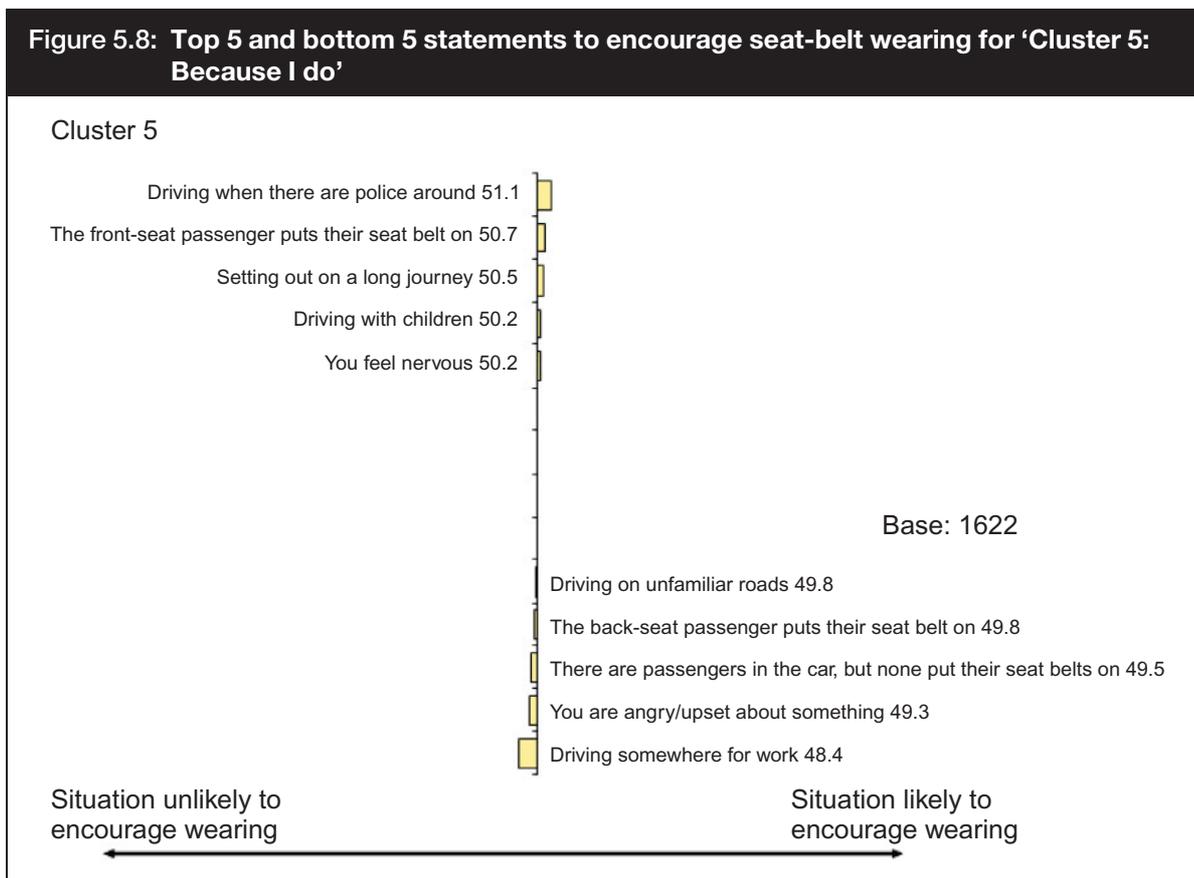


Their attitudes and motivations to wear are all higher than the average, even in regards to wearing in the back seat. They differ from other clusters by being more ABC1 (55%), with drivers who are young (56% are aged under 44). The small proportion who are non-drivers are more likely to be older females over 55 (38%).

As drivers they drive for leisure (76% in a typical week) but not for work or even commuting. Only 27% drive to and from work, half the national average. They drive

the newest cars (36% are less than three years old versus 26% on average) and drive the lowest mileage (28% drive less than 3,000 miles per annum versus 18% as the national average). The drivers have an average experience of driving with passengers in a typical week (79%) and as passengers (67%), but not in the back seat (only 26%).

5.3.5 Cluster 5: Because I do (81% of sample)



This cluster represents the vast majority of the UK population who could not discriminate significantly between the driving situations that could influence seat-belt wearing (Figure 5.8). They are the compliant drivers and passengers who claim to wear seat belts on almost every occasion:

- 92% claim to always wear as drivers;
- 95% claim to always wear as front-seat passengers; but
- only 76% claim to always wear in the back seat.

Seat-belt wearing in the back seat is a universal problem. It is quantified in more detail in Section 6.1.2, 'Back-seat belt wearing'.

5.4 Seat-belt statements and their potential to make people ‘Stop and Think’

Each respondent was asked to select the seat-belt statement that made them most ‘Stop and Think’ from a list of 12 (see Appendix 6). The results are shown in Table 5.5 and are cross-referenced by the cluster groups. The highest ranked statements per cluster are shown in red.

Statement (see Appendix 6 for full text) (%)	All	When I need to	When I’m asked to	When others do	Because I want to
1. Twice as likely to die	19	15	13	10	15
2. Three crashes without a seat belt	16	21	9	6	17
3. Children more likely to wear	13	21	12	9	10
4. Likely to be thrown out of car	10	12	7	22	7
5. Estimated to have saved 50,000 lives	9	6	16	9	15
6. Prevented casualties and injuries	9	10	13	12	10
7. First person to put on saving others	6	2	8	6	7
8. Protect from stupidity of others	5	3	5	6	3
9. Don’t care if you don’t ask others	3	2	3	3	7
10. Six out of ten with facial injuries	3	4	3	4	5
11. Safety features assume	3	2	4	1	2
12. Implications for insurance	2	1	1	6	2

Each cluster favoured different messages. The summary of their overall responses is as follows:

- Cluster 3 is more likely to ‘Stop and Think’ about messages concerning children and the ‘mechanics’ of a non-seat-belted accident.
- Cluster 1 responds to messages about ‘being thrown out of the vehicle’ and, unlike anyone else, the insurance implications of not wearing a seat belt.
- Cluster 4 is more interested in statistics.
- Cluster 2 shares most interest with Cluster 3 in the ‘mechanics’ of a non-seat-belted accident.

The overall number one choice of the total sample of drivers and non-drivers (and Cluster 5) was **‘You are twice as likely to die if you do not wear a seat belt’**. However, none of the first four clusters made this their number one choice.

6 DISCUSSION AND IMPLICATION OF FINDINGS

6.1 Who does not wear seat belts

The accident data, literature review, seat-belt surveys, and qualitative and quantitative research undertaken as part of this project all paint a very similar picture. However, although the characteristics that are related to non-seat-belt use are consistent, it is clear that there is no single group of occupants who never wear a seat belt, rather inconsistent seat-belt wearers.

The relationship between age, gender and seat-belt use seems relatively clear. For all ages and seating positions, men seem to have lower seat-belt wearing rates than women. Seat-belt wearing rates also seem to increase with age, and young males are often singled out as having particularly poor seat-belt wearing rates. It is because young males also have the highest accident involvement rate, that this group could see the largest benefit if seat-belt wearing rates could be raised.

Seating position is also strongly related to seat-belt use. Seat-belt wearing rates are much lower in the rear of the car than for drivers or front-seat passengers. Even though rear-seat passengers only make up a relatively small proportion (about 13%) of the casualties in the Co-operative Crash Injury Study (CCIS) accident database (Cuerden, 2006), their very low seat-belt wearing rates mean that they make up 28% of the unbelted casualties.

Another group of occupants who have low seat-belt wearing rates are drivers of goods vehicles. There is also some evidence from the literature and On The Spot (OTS) study (Cuerden, 2008) that company car drivers are over-represented in the group of occupants who do not wear seat belts.

Some literature concluded that people of lower socio-economic status were less likely to wear a seat belt. Although it is not possible to examine this directly using the accident data, there is some evidence that there is a drop in seat-belt use in cars over 10 years of age. This could be an indicator of the effect of socio-economic status on belt use. Further, there was some indication of this relationship in the quantitative study (see Section 5).

Occupants who display risk-taking or illegal behaviour seem less likely to wear a seat belt. This came from the literature, but is also seen in accidents in OTS where occupants were not wearing a seat belt. It was also found from the initial quantitative research (Stages 1 and 2).

The accident data have shown that occupants in a vehicle late at night or early in the morning have comparatively low rates of seat-belt use. This is likely to be related to

the characteristics of the people driving at this time because young males are over-represented in this group.

Finally, there are some characteristics of low seat-belt use that do not seem to be related to specific groups of people, instead seat-belt use appears to differ according to location. Seat-belt use is lowest on roads with low speed limits and in urban areas. This is corroborated by the seat-belt wearing rates seen in the Transport for London (TfL) survey of London, where the seat-belt wearing rates are lower than in the national Department for Transport survey (Transport for London, 2006; Transport Research Laboratory, 2007).

6.1.1 *Summary of quantitative analysis*

The cluster analysis and discrimination exercise identified three target audiences for remedial action, who represented approximately 14% of the sample. The groups were:

- ‘When I need to’ (5.2%);
- ‘When others do’ (4.6%); and
- ‘When I’m asked to’ (4.0%).

The groups share the greater likelihood of:

- being in the lower socio-economic groups (C2DE);
- being asked to put a seat belt on by partners or friends; and
- travelling with drivers and passengers not wearing seat belts.

Each has a different level of seat belt non-compliance and an explanation for this behaviour. They are different in both their age demographic, motoring profiles and response to seat-belt messages. Remedial action needs to be tailored for each target cluster.

The vast majority of the sample was found to be reasonably compliant with respect to seat-belt use in the front of the vehicle. It is suggested that further research may identify characteristics from these groups, which may be transferable to the less compliant three segments and thus be used to encourage their seat-belt wearing rates to increase. The compliant segments were:

- ‘Because I want to’ (5.2%); and
- ‘Because I do’ (81%).

None of the respondents claimed acceptable back-seat belt compliance rates.

6.1.2 Back-seat belt wearing

Seat-belt compliance in the back seat is at least 15 percentage points lower than the front, both in total and across all cluster groups. Although back seat travelling is a more occasional experience, a third of drivers and half of non-drivers travel in the back in a typical week.

There is a stronger correlation between levels of compliance and attitudes to the danger of not wearing in the back than there is in the front. Non-compliance in the back seat is viewed as ‘safe’ (not dangerous) by over a quarter of the population (Table 6.1).

Table 6.1: Back-seat belt wearing						
Back-seat belt wearing (%)	All	When I need to	When I’m asked to	When others do	Because I want to	Because I do
Incidence (travelling in back seat in a typical week)						
Drivers	33	51	30	46	26	32
Non-drivers	49	60	44	31	65	40
Compliance (always wear seat belt in back)						
Drivers	75	40	57	65	74	78
Non-drivers	67	35	73	58	54	72
Attitude (completely agree not wearing seat belt in back is dangerous)						
Drivers	71	41	51	60	76	73
Non-drivers	64	45	60	54	70	67

6.2 What benefits could increased seat-belt use have?

Analysis of CCIS data has shown that seat belts are 50% effective at preventing fatalities for front- and rear-seat passengers. The combination of a seat belt and a fitted airbag for drivers is even more effective, preventing over 65% of fatalities. Seat belts are also effective at preventing less serious injuries, with an average effectiveness of 32% for all serious injuries.

Using the proportion of unbelted occupants, it is estimated that over 500 fatalities and over 3,000 serious casualties do not wear a seat belt. Using the estimated effectiveness of seat belts, this means that over 350 lives and over 1,000 serious casualties could be prevented each year in the UK if everyone wore a seat belt. This would be equivalent to a benefit of over £600 million per year.

As a 100% belt use rate is unrealistic, the benefits of more modest increases in seat-belt use have been estimated. If the average seat-belt rate was to increase by only

0.5%, the estimated benefit would be £7.2 million per year. If seat-belt rates rose by 1%, this benefit would double to £14.4 million per year.

Although this is a relatively crude estimation, and does not take into account all the factors to make an accurate scaling from CCIS to national statistics, it does give an idea of the scale of the problem of non-belt use, and the potentially huge benefits that could be realised if seat-belt use could be increased. Indeed, there are reasons to think that this could be an underestimate. For example, this calculation only includes car occupants, and does not include drivers of goods vehicles who have been identified as a group with particularly low belt-wearing rates.

6.3 Influencing behaviour – reflections from the qualitative work

How can we persuade those who currently wear their seat belts inconsistently to do so more often, or, ideally, all the time? A natural assumption is that the basic aim of a communication campaign should be to provide people with **more and stronger reasons to wear a seat belt**. For instance, such an approach might focus on communicating the likely consequences of an accident without a seat belt in as emotionally compelling a fashion as possible. In this section, however, we shall set out the case for an approach with a slightly different emphasis on providing people with an **occasion to think about their own seat-belt wearing behaviour**.

There are, without doubt, some very serious flaws in people's current reasoning about seat belts – many of them based on misapprehensions and misinformation about what actually happens during a crash. First, some people have inflated views of how safe they are when not properly belted:

'I don't like that feeling of being belted in and I put my arm in. My husband goes mad. I put my arm in and I feel quite safe with just my arm in [. . .]'

Facilitator: *'And when you say you feel quite safe with just your arm in?'*
'Well, I do. I can hold onto it.' [F, passenger group]

'Because the driver's normally braced with his foot on the brake like that, and you're braced on the wheel and everything in a crash, rather than being like the passenger sat like that who's just going to go, whoa, straight out, whereas the driver's braced himself on the brake.' [M, drivers for work group]

'I think like the adverts are made to look like that. I don't think it's actually that real because they always make it look worse than it actually is.' [M, teenager group]

Secondly, some people question whether a seat belt would actually offer the protection it is supposed to offer:

'Yes, what's a seat belt going to do when you're like driving at about 40, 50 miles per hour? I don't know what the material is, but it can't be that strong, so it's not going to make any difference. It'll give you whiplash and that and it just doesn't make you feel safe at all. I feel more frightened of whiplash than actually having a crash.' [M, teenager group]

Thirdly, and among our participants most commonly, well-known 'urban myths' circulate which suggest that wearing a seat belt can actually be worse in many instances:

'Well I know people who have had really nasty accidents and they weren't wearing their seat belt and they'd been told that if they'd had their seat belt on, they wouldn't have got out of the car alive. If my husband had had a seat belt on he would have been dead.' [F, women group]

It would clearly be an excellent outcome of any communications campaign around seat belts if factually inaccurate views such as these were less common in the population. The question remains, however, how to achieve this outcome? The 'reasons to wear a seat belt' approach to behaviour change involves a very direct approach, seeking to supply people with a compelling version of the actual facts of a crash. But would such an approach actually change behaviour? Many of the participants in our workshops were well aware of the gap between the way they **feel** and what they **know** actually to be the case – and were clear that it was the former that drove their behaviour, not the latter:

'[. . .] to be quite honest, I know that when you think about a car crash you're supposed to think of going through the windscreen and things like that, but I never ever think "Oh, if I have a car crash", I always just think about like hitting the steering wheel, the air bag.' [F, drivers for work group]

'If I thought if I was ever in a crash I would definitely lose my left arm, because I've even done it to my friend the other day [. . .] I actually had to slam my brakes on and I found that I always put my arm out to stop the bairn going forward because she's in that car seat and her face is going to the dashboard because she's so floppy and bendy, and I actually did it to my friend the other day. And she says, "What the hell are you doing?" And I said it was just an automatic reaction for me to put my arm straight across when I was slamming the brakes on sort of thing.' [F, drivers for work group]

'It's ironic to say that the statistics have always said that you're more than likely to have an accident to do with small distance, just to go to the end of your street, yet like most of us have said I'll drive to the end of the street [without a seat belt].' [M, young men group]

'I sometimes get to the top of my estate, which takes us about [...] well, it's nearly a mile, and then I see the red light come on and I go, "Oh, I'm on a main road now, maybe I should put it on". But I don't.' [F, drivers for work group]

A number of participants commented on the striking (and unfortunate) fact about human beings that we are able not only to behave 'irrationally' but to continue doing so quite deliberately in the full knowledge that another course of action would probably be more 'rational':

'I worked with a girl who actually had gone through the windscreen on the car and I mean, the scars on her face. I thought that she had really, really, really bad acne when I first met her, until she told me she'd been through the windscreen in a car. And it was absolutely horrendous. But that still didn't hit home, because I still didn't wear a seat belt.' [F, drivers for work group]

'I know what I'm like and I know like most people, we're just like suck it and see. That's what humans are, aren't we? You can tell somebody something a thousand times; if you do this, this will do X, Y, Z. And you still get, yeah, but I'll touch it anyway.' [M, young men group]

'If I think of that advert [Julie advert], then I will put it on [in the back seat]. I'll put it on at the start of the journey, if it's a long journey like if we're driving to London to see the family and then I'll take it off if I need a bit of a snooze.' [F, passenger group]

In part, this may be a function of the extent to which people have developed the ability to separate their actions from their emotional responses in an age where 'shock tactics' are very much the norm in many forms of advertising:

'Even if I find the advert quite powerful, you know, all the ones about children dying in Africa and things like that, you think how terrible is that, but then I won't go and ring them up and donate any money or anything. So even though temporarily I'm moved by it, it really doesn't change my behaviour.' [M, young men group]

What are the alternatives to a 'reasons to wear a seat belt' approach to behaviour change? A differently nuanced approach is suggested by the experience some participants noted between the first and second workshops in this research process.

A few participants noted that the process of talking about seat belts had led them to reconsider their own behaviour:

'I felt a bit stupid, you know, the last time, because I came out thinking, I don't actually know why I don't wear my seat belt. And also I think part of it was I was saying "I won't wear it because I've been told to wear it". God, if that was my eight-year-old daughter, I would throttle her for that. And I thought, "I feel really quite stupid". It's safer, obviously it's a lot better for you and with a family you should think about these things. I really felt a bit stupid about not knowing why I didn't do it. And not having a good reason not to wear it. So now I've just kind of made it a bit more habit. I still forget, but it's more conscious that I do do it more than I don't do it.' [F, drivers for work group]

It is very important not to overstate this effect. Many participants reported no change whatsoever in their behaviour, whereas others reported only marginal changes in their awareness. The following two comments, for instance, are from participants in the same workshop as the participant above:

'I've noticed the adverts, but I haven't changed my habits.' [M, drivers for work]

'I still don't put it on, but it's made me think more about it.' [M, drivers for work group]

However, given that the research process involved no presentation of reasons to wear a seat belt, was not designed to change behaviour, and involved an explicit statement of this fact at the beginning of the first workshop, it is perhaps striking that there were any changes in behaviour at all. Without providing more or stronger reasons to wear a seat belt, the workshops seem to have provided participants with an occasion to think about their own seat-belt wearing behaviour.

Correct information still has a critical role to play in this slightly different approach. A number of those who commented on changes in their own behaviour referred to how they had paid more attention to, or thought again about, information provided, for example, through advertising campaigns. The following is an example of this process for one of the two participants quoted above:

'Before none of us took any notice of it [Julie advert], but because we've been here, you know you've sort of been a little bit involved in it and you're talking about it, and you take notice of it. The rest of the adverts, you probably never [. . .] I never watch adverts. You normally flick across to see what else is on.' [M, drivers for work group]

Accurate information, that is, remains vital, but it plays its role **after** the individual has been prompted to ‘Think!’, not as the prompt.

What might a campaign which gave people occasion to think about their own seat-belt wearing behaviour look like? Such a campaign would need to shift attention away from the direct impact of messages on individuals and on to the uses individuals could make of those messages. Put crudely, the campaign would focus on providing fodder for conversations and ammunition for arguments, rather than on actually changing anyone’s mindset. This kind of approach, which focuses on trying to get people to talk about seat belts with each other, was particularly popular in the all-important young male group:

‘If it’s being reinforced by other people rather than by figures of authority, then people might change their attitudes towards it and this whole nobody wants to be a goody-goody thing [. . .] if other people on your level are telling you to wear it [. . .]’ [M, young men group]

‘[Other people] think actually it’s a good idea to put seat belts on, and that’s when you more or less want to hear what that person had to say, especially if it was a good friend of yours or somebody you’ve known for a while and you think if they’ve changed their mind you want to listen. You want to know why, if they’ve got some new information that influenced them, thinking like that.’ [M, young men group]

Conversational fodder of this kind might well include key facts about the ‘physics of a crash’; indeed, given the poor understanding of these things which we encountered, it almost certainly **should** do so. Apart from anything else, better information about the physics of the crash would be an excellent way of equipping those who are already asking their inconsistent-wearing friends and family with hard facts to back up their requests.

However, the campaign might well cover other issues as well. There was considerable interest in the young men’s group, for instance, in focusing on ideas about one’s responsibility for other people in the car and the risks of getting caught – a point of view which is less surprising in light of findings about the pattern of response in the ‘when I need to’ cluster!

‘It’s got to be one of two things. You’ve either got to be responsible, make people be responsible for other people because obviously they don’t care about their own safety, otherwise they’d wear a seat belt. Or they have to hit them so heavily with a fine that it’s not worth running the risk.’
[M, young men group]

The idea of focusing on penalties also carried some weight with the driving for work group, although a number were clear that only penalty points would really carry a real deterrent effect for them:

'If you drive for a living and I have to drive to do my job, and if it's points it's frightening and it's not the money, it's the points, you can't afford to get points on your licence.' [F, drivers for work group]

The most significant difference between a 'reasons to wear a seat belt' approach and an 'occasion to think' approach would almost certainly lie in the tone of the two approaches.

The 'reasons to wear' approach typically involves an implicit '**you should!**' tone, probably backed up with graphic presentations of the dire consequences of not doing so. This tone, as we have seen, plays quite badly with some audiences (and, in particular, perhaps, with the 'when I need to' cluster, whose response is likely to be: 'I already do, when I need to').

The 'occasion to think' approach is better served by a much softer '**why wouldn't you?**' tone. To do this, it might cover the positive consequences of seat-belt wearing as well as the negatives of not wearing, and some of the more minor consequences of non-wearing, including penalties if caught or implications for insurance. Critically, it would also focus less on achieving high emotional impact through a single graphic presentation and more on achieving widespread conversational currency of the kind suggested in the following quotation:

'A really, really annoying advert, the one that sort of treats you as though you were five years old, and put it on about 20 or 30 times a day. And everybody will say after a couple of days, it will all go round, hey, have you seen that advert about seat belts on the telly? It's pathetic. It's right, but it gets in your head.' [M, drivers for work]

A number of participants commented on the continuing conversational currency of the original 'clunk-click' campaign, which may potentially provide a starting point for some of this work:

'My kids were in the car and they were saying to each other, "Clunk click every trip" and put their seat belts on. And I thought that was years ago. Was it Jimmy Savile or somebody? And I said to them, "Where did you hear that?", and they were just saying "Clunk click every trip". And she's seven and I thought "Well, where the hell have they heard that from?"'
[F, drivers for work]

7 CONCLUSIONS AND RECOMMENDATIONS

The majority of people in the UK are seat-belt wearers. However, there is a significant minority, estimated to be approximately 14% of the adult population, who are inconsistent seat-belt wearers. A cluster analysis identified three sub-groups from the inconsistent wearers and named them:

- ‘When I need to’;
- ‘When others do; and
- ‘When I’m asked to’.

Each group has a distinct profile and actively identified different driving situations which would be most and least likely to encourage them to wear a seat belt. Further, they were asked to review a list of seat-belt related statements and say which one would most make them stop and think, and each group had a different ranking order. This makes encouraging greater seat-belt compliance challenging and may require some specific targeted actions.

The group ‘When I need to’ represented the largest cluster and was made up of an almost even proportion of drivers and non-drivers. This group was predominantly associated with young people.

Given the evidence from the accident data which highlights the high crash liability of the young, it is recommended that the largest casualty saving would be achieved if this group’s seat-belt wearing rate increased.

From the qualitative work, a proposed strategy which may be employed to encourage more people to wear seat belts would involve providing them with an **occasion to think about their own seat-belt wearing behaviour**. This would be a different approach than that used by advertisements so far, which often provides people with **more and stronger reasons to wear a seat belt**.

Potential approaches could involve:

- pauses for thought (‘why wouldn’t you?’) rather than compelling reasons (‘you should’);
- multiple talking points as conversation fodder;
- minor consequences as well as major ones; and
- positives of seat belts as well as negatives of not wearing.

However, it is very important not to forget the **back seat**, where wearing rates are lower for **all** clusters, including those with high wearing rates in the front seat. Our

qualitative work suggested specific features of the back seat, which make the back seat more like a 'sofa'. There are often specific characteristics when you are in the back seat, for example (for adults) outings, special events, etc. It is recommended that a separate (if complementary) campaign could tackle these issues, targeted at the whole population.

8 ACKNOWLEDGEMENTS

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APPENDIX 1

An overview of UK seat-belt legislation

Broadly, the UK seat-belt wearing rules for cars and light vans (as opposed to lorries, buses and coaches, which were not considered in this project) are that, if a belt is available, it must be used. Similarly, for children, a child restraint must be used wherever there is a seat belt. The few exceptions to these rules are shown in Tables A1.1 and A1.2.

Table A1.1: An overview of UK seat-belt wearing legislation			
	Front seat	Rear seat	Responsibility
Driver	Seat belt must be worn if available	-	Driver
Child up to 3 years of age	Correct child restraint must be used	Correct child restraint must be used. If one is not available in a taxi, the child may travel unrestrained	Driver
Child from 3rd birthday up to 135 cm in height or 12th birthday (whichever they reach first)	Correct child restraint must be used	Where seat belts fitted, correct child restraint must be used. Must use adult belt if the correct child restraint is not available: <ul style="list-style-type: none"> • in a licensed taxi/private hire vehicle; or • for a short distance for reason of unexpected necessity; or • two occupied child restraints prevent the fitment of a third. A child that is aged 3 and over may travel unrestrained in the rear seat of a vehicle if seat belts are not available	Driver
Child over 135 cm or 12 or 13 years of age	Seat belt must be worn if available	Seat belt must be worn if available	Driver
Adult passengers (i.e. 14 years and over)	Seat belt must be worn if available	Seat belt must be worn if available	Passenger

Table A1.2: An overview of UK child restraint use legislation		
	Seat facing	Weight and age
Infant carriers	Rear facing	For children up to 13 kg (from approximately age birth to 9–12 months)
Safety seats	Forward facing	For children 9 kg to 18 kg (from approximately 9 months to 4 years)
Booster systems	Forward facing	For children 15 kg and up (from approximately 4 years)

See the Royal Society for the Prevention of Accidents’ website (www.rospa.com/roadsafety/advice/motorvehicles/seatbelt_history.html; RoSPA, 2008) for an overview of the history of seat-belt legislation.

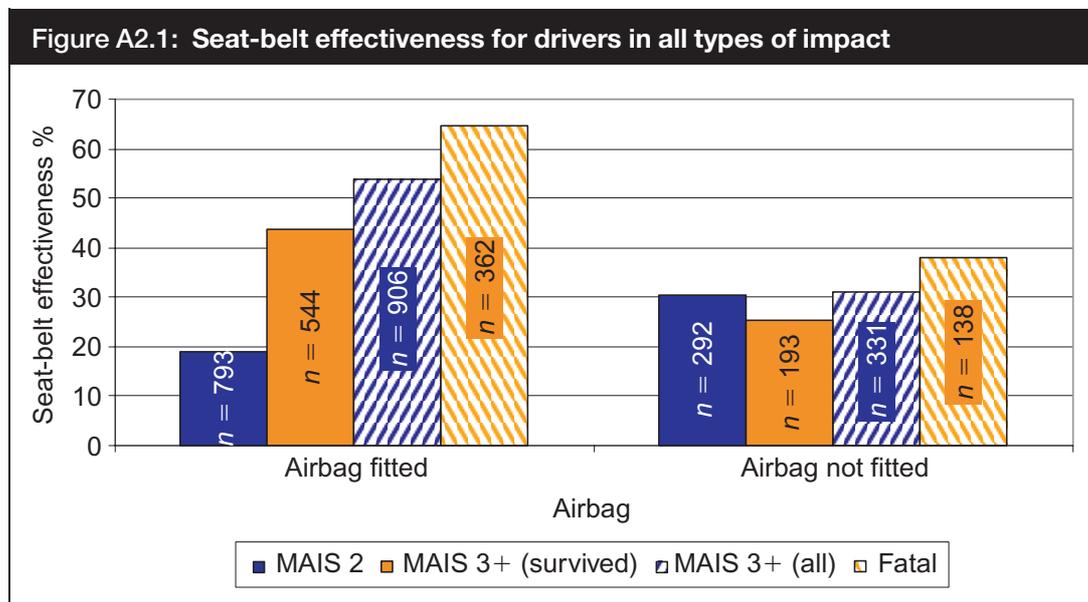
APPENDIX 2

Seat-belt effectiveness

For the following analysis, the effectiveness of seat belts is defined as the per cent reduction in the chance of an occupant sustaining injury at a given level compared with the non-seat-belted condition. The following formula has been used (Cuerden *et al.* 1997, 2001):

$$\text{Effectiveness} = \frac{(\text{Unbelted rate} - \text{Belted rate})}{\text{Unbelted rate}} \%$$

Figure A2.1 shows the seat-belt effectiveness at different injury levels for drivers in all types of impacts.³ It shows the difference in seat belt effectiveness in vehicles with and without steering wheel mounted airbags.

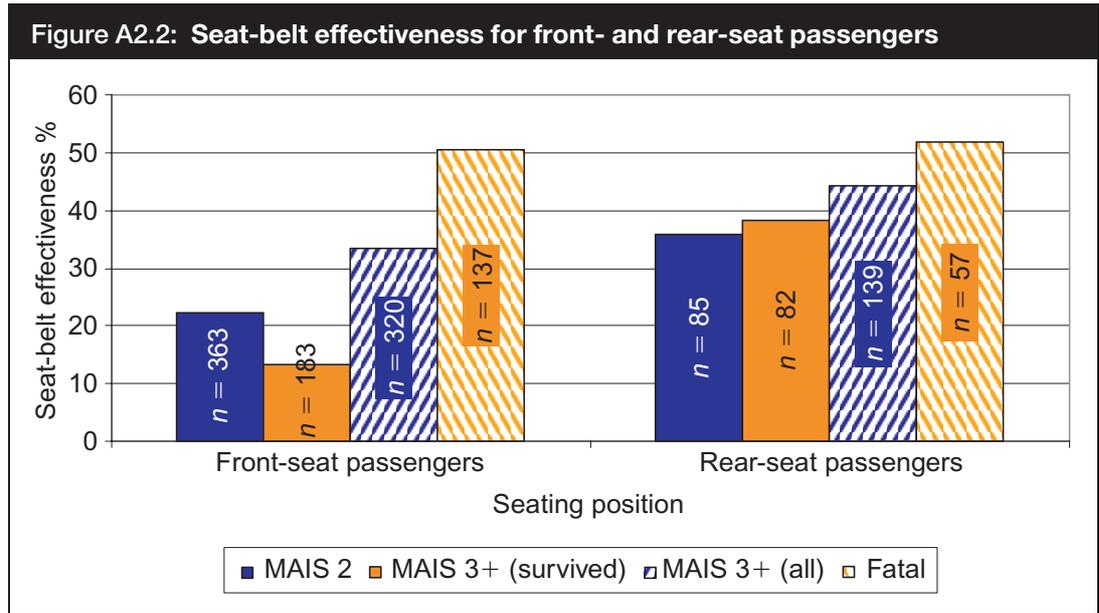


This demonstrates that when seat belts are combined with steering wheel mounted airbags, significantly greater protection is afforded to drivers compared with when they are just wearing a seat belt. There are many other factors that may be associated with this relationship. For example, the drivers with no airbags were in older vehicles and therefore will not have benefited from newer vehicle structural improvements or advances to seat-belt design. The exact nature of the crashes has not been fully investigated and therefore there could be crash severity or impact type differences observed between older and newer cars that may also skew the results.

³ The injury level is measured by the Maximum Abbreviated Injury Score (MAIS); where MAIS 2 is moderate (simple fracture), MAIS 3+ is life threatening – split between all, survived and killed casualties.

It should be noted that because of the Co-operative Crash Injury Study (CCIS) (Cuerden 2001) sampling criteria, all the accidents investigated must include at least one new car. This means that the older cars without airbags are only investigated if they collided with a newer car. Therefore the older car population in CCIS is unlikely to be representative of all older cars which are involved in accidents.

In general, seat belts are more effective at preventing serious injuries and fatalities. Figure A2.2 shows the differences in seat-belt effectiveness for front- and rear-seat passengers. The occupants are again grouped in terms of injury severity.



In the same way as for drivers, seat belts are most effective at preventing fatal and serious injuries. Figure A2.2 also shows that seat belts are more effective for rear-seat passengers than front-seat passengers, although it should be noted that there were a lot more front-seat passengers in the sample.

APPENDIX 3

Benefits of increasing belt-wearing rates

In order to estimate the potential benefit of increasing seat-belt wearing rates, an estimate must be made of the number of occupants in accidents who do not wear seat belts. This can be done by using the national statistics on traffic accidents which are recorded by the police on the STATS19 forms. This information is summarised by the Department for Transport, and is available in the annual report *Road Casualties Great Britain* (Department for Transport, 2007).

The STATS19 data do not record whether occupants were wearing a seat belt, so the number of occupants who were not wearing a seat belt must be estimated from another source. In this section, the Co-operative Crash Injury Study (CCIS) (Cuerden, 2006) will be used to estimate the proportion of fatal and serious casualties who were not wearing seat belts. This proportion will be scaled to the national statistics to estimate the number of unbelted occupants who are injured each year in the UK. This will be combined with the effectiveness of seat belts in preventing injuries to give the total number of people who could have had their injuries reduced if they had been wearing a seat belt.

The CCIS and STATS19 data from 2002–06 have been used. This five-year period has been chosen so that there are enough occupants in the CCIS sample to give a reliable measure of the proportion of non-seat-belt use.

Table A3.1 shows the calculation of the total number of car occupants in the UK each year that could have had their injuries reduced if they had been wearing a seat belt. The seat-belt effectiveness for fatal and serious accidents in CCIS from 2002–06 has been calculated in the same way as shown above. The number not wearing a belt in STATS19 is calculated by multiplying the number of car occupant casualties in STATS 19 by the proportion of casualties in CCIS who were not wearing a seat belt.

Injury severity	CCIS 2002–06		STATS19 2002–06		
	Proportion not wearing a belt (%)	Seat-belt effectiveness (%)	Casualties per year	Number not wearing belt	Potential saving
Fatal	34.3	60.7	1,695	582	353
Serious	23.2	32.0	14,512	3,370	1,079

Using this method, it is estimated that 353 fatalities and 1,079 serious casualties could have been prevented if all the occupants had been wearing seat belts. Making the assumption that the fatalities had their injuries reduced to serious injuries, and the serious casualties became slight casualties, Table A3.2 shows the financial benefit that preventing these injuries would have. The financial benefits of reducing a fatality to a serious casualty, and a serious casualty to a slight casualty, are calculated using the costs of a fatal, serious and slight casualty given in *Road Casualties Great Britain* (Department for Transport, 2007).

If the seat-belt wearing rates had been 100%, the financial benefit per year would have been £467 million for the fatalities prevented, and an additional £167 million for the serious injuries mitigated.

A seat-belt wearing rate of 100% is not very realistic, so Table A3.3 calculates the financial benefit that would come from increasing seat belt rates by more reasonable amounts.

Table A3.2: Financial benefit given by reducing the injury of occupants for whom a seat belt could have been effective			
Injury severity	Potential casualty reduction	Benefit of reducing injury severity	Total financial benefit
Fatal	353	£1,322,090	£467,000,000
Serious	1,079	£154,460	£167,000,000

Table A3.3: Possible benefits of increasing seat-belt use rates				
Seat-belt use rate (%)		Benefit per year (£m)		
Fatal	Serious	Fatal	Serious	Total
65.7 (+0)	76.8 (+0)	0	0	0
66.0 (+0.5)	77.2 (+0.5)	4.5	2.8	7.2
66.3 (+1)	77.5 (+1)	8.9	5.5	14.4
67.0 (+2)	78.3 (+2)	17.9	11.0	28.9
69.0 (+5)	80.6 (+5)	44.6	27.5	72.2
72.2 (+10)	84.5 (+10)	89.3	55.1	144.4
100 (+52.3)	100 (+30.2)	466.5	166.7	633.2

This shows that even a relatively small increase in seat-belt wearing rates of 0.5% can produce a reduction in killed or seriously injured casualties equivalent to over £7 million per year.

It should be noted that the above analysis is an estimate and a number of approximations have been made. For example, the calculation considers only car occupants and does not consider the benefits offered to occupants of light or heavy goods vehicles. This means that the benefit estimated here is likely to be an

underestimate. The scaling of CCIS to STATS19 has also been simplified: a more rigorous approach would have considered exactly how the CCIS sample compares with the national accident data.

However, the purpose of this estimate is to show that there is a very large potential for benefit with relatively small increases in seat-belt wearing rate. While the estimate could be performed using a more protracted but accurate method, it is likely that the calculated benefit would still be large.

APPENDIX 4

Segmentation of seat-belt use by motivations to wear

At the outset of this project it was hypothesised that seat-belt compliance was dictated by motivations to wear. If this causal link could be proven, then we could identify the target audiences for remedial action to positively change their attitudes and behaviour.

The hypothesis was simply based on the precept that individuals only behave in a certain way if they feel they both **'have to'** and **'want to'**.

This hypothesis was tested in a pilot survey in October 2007 and the results were sufficiently encouraging to duplicate the same questions in the annual THINK! tracking survey in November 2007. This latter survey gave the opportunity for the greater statistical validity of a larger sample and a wider range of road safety issues to analyse (Table A4.1).

The early work set out to:

- test the hypothesis that drivers and non-drivers are more likely to wear a seat belt if they view compliance as a **'have to'** and **'want to'**; and
- if proven, to segment drivers and non-drivers by these motivations and identify their socio-demographic and motoring profiles.

There were three steps which contributed to the development of the main quantitative seat-belt questionnaire (Stage 3 – Appendix 7):

- **Step 1: Testing the hypothesis**

To test the hypothesis and conduct initial segmentation (October survey – Stage 1 data).

- **Step 2: Refining and profiling the segments**

To refine the segmentation and profile the resulting segments (October and November surveys combined – Stages 1 and 2 data).

- **Step 3: Cross-analysing segments by THINK! survey**

To cross-analyse the segments by THINK! tracking questions (November survey – Stage 2 data).

Table A4.1: Possible benefits of increasing seat-belt use rates		
	Drivers	Non-drivers
Stage 1: Pilot (October 2007)	703	260
Stage 2: THINK! (November 2007)	1,362	657
Merged sample	1,912	903

A4.1 Step 1: Testing the hypothesis (Stage 1 data)

In response to asking a five-point agree/disagree question in regard to:

- wearing seat belts is something ‘I have to do’ (H+); and
- wearing seat belts is something ‘I want to do’ (W+).

We identified three segments for both drivers and non-drivers which accounted for 95% of all drivers and non-drivers (Table A4.2).

The three key segments were:

- strongly agree wearing seat belts is a ‘have to’ and ‘want to’ (H+ W+);
- strongly agree wearing seat belts is a ‘have to’ but do not strongly agree it is a ‘want to’ (H+ W-); and
- do not strongly agree that seat-belt wearing is either a ‘have to’ or ‘want to’ (H- W-).

There was strong evidence that there is a correlation between motivations to wear and seat-belt attitudes and behaviour (Tables A4.3 and A4.4).

Table A4.2: Segmentation by ‘have to’ and ‘want to’		
Segmentation (%)	Drivers	Non-drivers
Have to and want to (H+ W+)	72	66
Have to but don’t want to (H+ W-)	16	17
Don’t have to and don’t want to (H- W-)	7	12
Base	703	260

Table A4.3: Drivers' 'have to' 'want to' correlation with seat-belt wearing				
Drivers (%)	Total	H+ W+	H+ W-	H- W-
Completely agree not wearing seat belts is dangerous:				
In front	75	82	67	37
In back	64	73	48	29
Always wear seat belts:				
In front as driver	93	98	83	65
In front as passenger	93	98	86	56
In back	70	80	48	26
Strongly agree wearing seat belts makes me feel safer	77	87	61	45

Table A4.4: Non-drivers' 'have to' 'want to' correlation with seat-belt wearing				
Non-drivers (%)	Total	H+ W+	H+ W-	H- W-
Completely agree not wearing seat belts is dangerous				
In front	72	78	71	35
In back	59	70	48	26
Always wear seat belts				
In front as passenger	95	99	92	81
In back	71	83	57	28
Strongly agree wearing seat belts makes me feel safer	75	89	51	29

A4.2 Step 2: Refining and profiling the segments (Stages 1 and 2 data)

At this step we applied the segmentation to a larger sample by:

- repeating the motivation questions on the annual THINK! survey;
- combining the results with the pilot survey to create a larger sample; and
- refining the segments.

These segments account for 96% of all drivers and non-drivers (Table A4.5).

Table A4.5: Segmentation by 'have to' and 'want to'		
Segmentation (%)	Drivers	Non-drivers
Have to and want to (H+ W+)	75	70
Have to but don't want to (H+ W-)	13	14
Don't have to and don't want to (H- W-)	8	12
Base	1,912	903

All significant differences in the following tables (Tables A4.6–A4.16 in Sections A4.2 and A4.3) are highlighted in red.

Table A4.6: Drivers' socio-demographic profiles				
Drivers (%)	Total	H+ W+	H+ W–	H– W–
Male	54	51	59	72
Female	46	49	41	28
Age within sex				
Men				
15–29	8	7	9	14
30–44	17	15	23	24
45–54	9	8	9	12
55+	20	21	18	21
Women				
15–29	7	8	6	5
30–44	16	17	14	9
45–54	9	10	6	4
55+	14	15	14	10
Social grade				
ABC1	63	64	55	50
C2DE	37	36	45	50
BME ethnicity	7	7	7	12
Presence of children	34	34	33	37
Smoker (current)	26	24	35	28

Table A4.7: Non-drivers' socio-demographic profiles				
Non-drivers (%)	Total	H+ W+	H+ W–	H– W–
Male	36	34	41	45
Female	64	66	59	55
Age within sex				
Men				
15–29	15	13	18	22
30–44	6	6	6	8
45–54	3	3	5	3
55+	12	12	13	11
Women				
15–29	18	16	18	25
30–44	13	14	13	11
45–54	9	9	11	6
55+	24	27	18	14
Social grade				
ABC1	37	36	41	37
C2DE	63	64	59	63
BME ethnicity	15	12	13	31
Smoker (current)	38	37	44	38

A4.3 Step 3: Cross-analysing segments by THINK! survey (Stage 2 data)

The following section outlines the November 2007 THINK! survey results by the segmentations (H+ W+, H+ W- and H- W-).

Table A4.8: Drivers' attitudes to seat belts and driving				
Drivers' attitude (%)	Total	H+ W+	H+ W-	H- W-
Completely agree that not wearing seat belts in front and back is				
Dangerous	65	74	44	14
Unacceptable	59	68	44	12
Don't consider dangerous				
Driving when unsure over alcohol limit	5	4	2	15
Driving over speed limit	15	13	18	29
Driving too fast for conditions	5	5	3	9
Using mobile phone	30	28	35	45
Driving at 90 mph on motorway	34	30	37	52
Base	1,362	1,019	168	111

Table A4.9: Non-drivers' attitudes to seat belts and driving				
Drivers' attitude (%)	Total	H+ W+	H+ W-	H- W-
Completely agree that not wearing seat belts in front and back is				
Dangerous	55	65	39	24
Unacceptable	54	64	33	22
Don't consider dangerous				
Driving when unsure over alcohol limit	8	7	7	17
Driving over speed limit	14	11	15	28
Driving too fast for conditions	10	9	8	19
Using mobile phone	29	26	25	52
Driving at 90 mph on motorway	23	19	30	37
Base	657	461	85	82

Table A4.10: Drivers' motoring profile				
Drivers' motoring profile (%)	Total	H+ W+	H+ W-	H- W-
Always wear seat belts in front and back	71	78	47	39
Commuter driving	52	52	43	56
Driving for work	40	39	41	43
Driven as passenger	28	25	35	37
Smoke when driving	18	17	26	21
Annual mileage: 10,000 plus	25	24	29	25
Age of vehicle				
< 3 years	26	27	27	20
3-6 years	35	35	29	41
> 6 years	37	36	40	34
Driving penalties				
Ban	2	2	2	4
Fine	12	11	10	20
Other demographics				
DE social grade	17	15	25	31
Live in London and South East	33	31	41	38
Married	69	71	62	61
Use internet	71	72	63	74
Base	1,362	1,019	168	111

Table A4.11: Non-drivers' motoring profile				
Non-drivers' motoring profile (%)	Total	H+ W+	H+ W-	H- W-
Don't always wear seat belts				
In front	12	8	20	22
In back	28	20	50	47
Other demographics				
DE social grade	41	41	37	39
Live in London and South East	32	28	38	45
Married	43	44	45	40
Use internet	46	41	48	62
Base	657	461	85	82

Table A4.12: Drivers' behaviour as passenger				
Drivers' behaviour as passenger (%)	Total	H+ W+	H+ W-	H- W-
Done any of the following				
Asked driver to slow down	49	52	42	40
Felt unsafe because of speed	47	49	46	35
Been involved in an accident	22	22	26	24
Felt unsafe				
Driver using mobile phone	20	20	23	17
Driver too tired	18	17	20	20
Refused because driver was drunk	17	17	21	13
Travelled with drunk driver	15	14	20	20
Encouraged driver to go faster	8	6	13	17
Base	1,362	1,019	168	111

Table A4.13: Non-drivers' behaviour as passenger				
Non-drivers' behaviour as passenger (%)	Total	H+ W+	H+ W-	H- W-
Done any of the following				
Asked driver to slow down	39	38	39	40
Felt unsafe because of speed	33	32	31	31
Been involved in an accident	20	20	17	16
Felt unsafe				
Driver using mobile phone	17	17	17	12
Driver too tired	16	15	12	18
Refused because driver was drunk	16	16	17	14
Travelled with drunk driver	13	12	13	13
Encouraged driver to go faster	5	4	7	9
Base	657	461	85	82

Table A4.14: Drivers' awareness of road safety advertising and seat-belt legislation				
Drivers (%)	Total	H+ W+	H+ W-	H- W-
Awareness				
Seen/heard road safety advertising recently	56	57	54	52
Prompted recognition of THINK! logo	85	86	84	82
Correct recall of				
Fine for not wearing seat belt	14	13	21	15
Age legally responsible for wearing belt	13	18	13	8
Insurance compensation implications (yes)	62	65	58	52
Base	1,362	1,019	168	111

Table A4.15: Non-drivers' awareness of road safety advertising and seat-belt legislation				
Non-drivers (%)	Total	H+ W+	H+ W-	H- W-
Awareness				
Seen/heard road safety advertising recently	43	42	51	39
Prompted recognition of THINK! logo	73	73	70	71
Correct recall of				
Fine for not wearing seat belt	9	9	14	6
Age legally responsible for wearing belt	11	11	9	13
Insurance compensation implications (yes)	48	51	44	43
Base	657	461	85	82

Table A4.16: Attitudes to other social issues				
(%)	Total	H+ W+	H+ W-	H- W-
Drivers – extremely unacceptable				
Driving without MOT/insurance	83	87	80	56
Dropping litter in the street	59	63	53	36
Not buying a TV licence	47	51	47	27
Shoplifting	86	88	84	73
Non-drivers – extremely unacceptable				
Driving without MOT/insurance	71	74	71	55
Dropping litter in the street	51	56	40	45
Not buying a TV licence	47	51	39	34
Shoplifting	81	85	77	68

APPENDIX 5

Smoking and seat-belt wearing

At the outset of this project it was hypothesised that smokers may have a lower incidence of seat-belt wearing because:

- smoking in the car is a distraction;
- involving a behaviour pattern that inhibits seat-belt wearing (i.e. searching, lighting up, disposing of ash/cigarette); and
- at worst, looking for a dropped, lit cigarette.

This hypothesis was tested by adding questions on smoking behaviour to the annual THINK! tracking survey in November 2007 (Stage 2 data). Drivers who were identified as smokers in the car were then compared with the average motorist according to their:

- seat-belt compliance;
- attitudes to seat belts; and
- motivations to wear seat belts.

Approximately 28% of the drivers from the THINK! survey were smokers and 18% admitted to smoking in the car.

The drivers who smoke in the car were compared with the average motorist (Table A5.1). The in-car smokers were more frequently found to be male, younger, C2DE,

Table A5.1: Profiles of drivers who smoke		
(%)	All drivers	In-car smokers
Male	54	62
Female	46	38
15–29 years	16	22
30–44 years	32	39
45–54 years	18	22
55+ years	33	17
ABC1	62	49
C2DE	38	51
High mileage (10,000 + per annum)	25	32
In a typical week		
Commuter driving	52	65
Driving for work	40	47
Base	1,362	249

higher mileage drivers and involved in more work-related driving than the average motorist.

There is **no** statistically significant evidence that drivers who smoke in the car are less likely to wear seat belts. However, Table A5.2 shows that there is a trend for smokers to be slightly less compliant with respect to seat-belt wearing compared with the average driver.

Table A5.2: Attitudes of in-car smokers to seat belts		
(%)	All drivers	In-car smokers
Always wear seat belts		
In front	88	84
In back	74	67
Completely agree not wearing is dangerous		
In front	81	78
In back	67	65
Strongly agree wearing seat belts is		
A 'have to' (H+)	87	86
A 'want to' (W+)	80	73
Base	1,362	249

APPENDIX 6

Statements to make you 'Stop and Think'

1. You are twice as likely to die if you do not wear a seat belt.
2. Without a seat belt, you experience three crashes: the car crashes into another car; then your body crashes into the car; and then your internal organs (brain, heart, lungs) crash into your skull and breastplate.
3. Children are more likely to wear a belt if their parent does – and wearing yours means you will still be around to care for and look after them.
4. If you do not wear a seat belt you are very likely to be thrown out of the car. If you are thrown out of the car, you are 40 times more likely to die.
5. Seat belts are estimated to have saved 50,000 lives since the law to wear them in the front was introduced in 1983.
6. Seat belts have prevented 190,000 serious casualties and 1,500,000 minor injuries since the law to wear them in the front was introduced in 1983.
7. Once one person puts their seat belt on, everyone else in the car is more likely to do so. The first person to put their seat belt on may literally be saving everyone else's life.
8. Wearing a seat belt is one thing you can do to protect yourself from the stupidity of other drivers on the road.
9. Drivers that do not ask their passengers to wear their seat belts do not care about their passengers' safety.
10. Six in every ten unbelted crash victims suffer facial injuries, compared with only one in every ten belted crash victims.
11. All the safety features you paid for in your car were tested with the assumption that you would be wearing a seat belt. Without a seat belt, those safety features are not designed to work.
12. If you are not wearing a seat belt and you have a crash, there may be implications for how much you can claim on your insurance.

APPENDIX 7

Main quantitative seat-belt questionnaire

1. **In a typical week, how many hours do you spend doing each of the following?**
 - a. Driving a car as part of my job
 - b. Driving a car to and from work
 - c. Driving a car for other reasons
 - d. Driving a van/lorry
 - e. Driving with children
 - f. Travelling in a car as a passenger in the front seat
 - g. Travelling in a car as a passenger in the back seat
 - less than 1 hour
 - 1–2 hours
 - 3–5 hours
 - 6–9 hours
 - 10–14 hours
 - 15+ hours
 - none

2. **How frequently do you make the following type of journeys by motor vehicle?**
 - a. Long journeys, i.e. 50+ miles
 - b. Journeys involving motorway driving
 - c. Journeys to and from work
 - d. Journeys as part of my actual job
 - e. Journeys to take children to school
 - f. Other journeys with children
 - g. Journeys after dark
 - h. Journeys with passengers
 - i. Journeys on country roads
 - 5+ times per week
 - 2–4 times per week
 - once a week
 - once a month
 - less often
 - never
 - do not know

3. **Thinking about the car/van you use most often, approximately how old is this?**
 - a. Less than 3 years old
 - b. 3 to 6 years old
 - c. 6 to 10 years old
 - d. More than 10 years old
 - e. Do not know

4. **On average, how many miles do you drive in a year? Please include all miles driven for personal and work purposes, if appropriate.**
 - a. Up to 3,000 miles a year
 - b. 3,000–5,000 miles a year
 - c. 5,000–10,000 miles a year
 - d. More than 10,000 miles a year
 - e. Do not know

5. **To what extent would you agree or disagree that the following behaviours are dangerous?**
 - a. Drive when unsure if they are over the legal alcohol limit
 - b. Drive at 90 mph on the motorway when there is no traffic
 - c. Use mobile phones while driving
 - d. Do not use seat belts while sitting in the front of the car
 - e. Drive when over the legal alcohol limit
 - f. Do not use seat belts when sitting in the back of the car
 - agree completely
 - agree somewhat
 - agree slightly
 - disagree slightly
 - disagree somewhat
 - disagree completely
 - do not know

6. **Thinking of the times you are in these situations, how frequently, if at all, do you ...?**
 - a. Put your seat belt on while sitting in the front of the car as a passenger
 - b. Put your seat belt on while sitting in the front of the car as a driver (**ask of drivers only**)
 - c. Put your seat belt on when sitting in the back of the car
 - always
 - nearly always
 - occasionally
 - rarely
 - never
 - do not know
 - refused

Questions 7 to 10 – Level of agreement with statement:

7. 'Wearing seat belts is something I HAVE to do'
8. 'Wearing seat belts is something I WANT to do'
9. 'Keeping to the speed limit is something I HAVE to do'
10. 'Keeping to the speed limit is something I WANT to do'
 - agree strongly
 - agree slightly
 - neither agree nor disagree
 - disagree slightly
 - disagree strongly
 - do not know

11. How frequently do you experience these driving situations, whether as a driver or as a passenger?

(Randomised questions to reduce effect of respondent fatigue)

- a. Driving on unfamiliar roads
- b. Driving on the motorway
- c. Driving on country roads
- d. Driving at night
- e. You do not want to be stopped by the police
- f. Driving on your own
- g. Driving with children
- h. Your partner/spouse/parent is in the car and asks you to put your seat belt on
- i. A friend in the car asks you to put your seat belt on
- j. The front-seat passenger puts their seat belt on
- k. The back-seat passenger puts their seat belt on
- l. There are passengers in the car, but none put their seat belts on
- m. The driver puts their seat belt on
- n. You feel confident and relaxed
- o. You feel in a rush
- p. You feel nervous
- q. You are angry/upset about something
- r. Setting out on a long journey
- s. Popping down to the shops
- t. Driving somewhere for work
- u. Driving with passengers
 - 5+ times per week
 - 2–4 times per week
 - once a week
 - once a month
 - less often
 - never
 - do not know
 - N/A (e.g. if non-driver)

12. Sometimes people wear seat belts and sometimes they do not. In which of these driving situations would you be most likely to put a seat belt on?

(Same situational statements as Q11 – paired into 10 × blocks)

13. I am going to read you out some facts/statements about seat belts. Which one of these four facts would make you stop and think? (13a, 13b and 13c)

(12 statements (see Appendix 6) to be shown over three questions – randomly selected)

14. Finally, which one of these three facts would make you stop and think?

(Show three ‘winning’ facts from Q13a, b and c)

APPENDIX 8

MAIN QUANTITATIVE CLUSTER PROFILES

A8.1 Driver demographics by cluster

Cluster 1: When others do	(4.6% of sample)	Seat-belt wearing –ve
Cluster 2: Because I want to	(5.2% of sample)	Seat-belt wearing +ve
Cluster 3: When I need to	(5.2% of sample)	Seat-belt wearing –ve
Cluster 4: When I’m asked to	(4.0% of sample)	Seat-belt wearing –ve
Cluster 5: Because I do	(81.0% of sample)	Seat-belt wearing +ve

Table A8.1: Driver demographics by cluster							
(%)		Total	Clusters				
			1	2	3	4	5
Male		53	54	58	66	58	52
Female		47	46	42	34	42	48
Male	15–29	8	13	15	22	6	6
	30–44	17	13	17	25	13	17
	45–54	9	7	6	9	11	10
	55+	19	21	20	9	30	19
Female	15–29	8	6	9	23	11	8
	30–44	16	11	17	4	8	16
	45–54	8	2	4	0	9	9
	55+	15	27	11	7	14	15
Social grade	AB	32	17	24	30	21	27
	C1	32	33	32	31	31	29
	C2	21	25	24	17	34	20
	DE	15	24	19	22	15	24
Children in household		33	26	38	41	26	33
Base (drivers only)		1,346	54	78	53	47	1,114

A8.2 Non-driver demographics by cluster

Cluster 1: When others do	(4.6% of sample)	Seat-belt wearing –ve
Cluster 2: Because I want to	(5.2% of sample)	Seat-belt wearing +ve
Cluster 3: When I need to	(5.2% of sample)	Seat-belt wearing –ve
Cluster 4: When I’m asked to	(4.0% of sample)	Seat-belt wearing –ve
Cluster 5: Because I do	(81.0% of sample)	Seat-belt wearing +ve

Table A8.2: Non-driver demographics by cluster							
(%)		Total	Clusters				
			1	2	3	4	5
Male		39	37	33	53	43	38
Female		61	63	67	47	57	62
Male	15–29	20	17	27	28	24	18
	30–44	7	5	3	15	4	6
	45–54	4	7	0	5	3	4
	55+	8	8	3	4	11	8
Female	15–29	17	18	4	29	4	18
	30–44	10	14	19	2	19	10
	45–54	7	0	7	0	13	7
	55+	27	11	38	17	21	27
Social grade	AB	12	19	34	6	3	11
	C1	22	13	15	25	16	24
	C2	21	33	11	27	21	20
	DE	44	35	40	43	60	44
Children in household		32	21	18	26	40	34
Base (non-drivers only)		649	36	24	50	32	507

A8.3 Cluster compliance, attitudes and motivations

Cluster 1: When others do	(4.6% of sample)	Seat-belt wearing –ve
Cluster 2: Because I want to	(5.2% of sample)	Seat-belt wearing +ve
Cluster 3: When I need to	(5.2% of sample)	Seat-belt wearing –ve
Cluster 4: When I’m asked to	(4.0% of sample)	Seat-belt wearing –ve
Cluster 5: Because I do	(81.0% of sample)	Seat-belt wearing +ve

Table A8.3: Cluster compliance, attitude and motivations						
(%)	Total	Clusters				
		1	2	3	4	5
Compliance						
Always wear seat belts						
In front as driver	90	81	93	53	83	92
In front as passenger	93	85	95	69	94	95
In back	72	62	69	37	63	76
Attitudes						
Completely agree not wearing is dangerous:						
In front	82	73	87	66	72	83
In back	69	58	74	43	55	71
Motivations						
Strongly agree wearing seat belts is a:						
have to	92	90	91	79	93	93
want to	79	77	83	54	80	81
Base (drivers and Non-drivers)	1,995	91	101	103	79	1,621

A8.4 Driver profile

Cluster 1: When others do	(4.6% of sample)	Seat-belt wearing –ve
Cluster 2: Because I want to	(5.2% of sample)	Seat-belt wearing +ve
Cluster 3: When I need to	(5.2% of sample)	Seat-belt wearing –ve
Cluster 4: When I’m asked to	(4.0% of sample)	Seat-belt wearing –ve
Cluster 5: Because I do	(81.0% of sample)	Seat-belt wearing +ve

Table A8.4: Driver profile						
(% experiencing weekly)	Total	1	2	3	4	5
Types of journey						
Long journeys (50+ miles)	19	27	20	25	29	19
Motorway driving	30	33	23	35	32	30
Driving to and from work	51	64	27	53	46	51
Driving as part of job	25	42	25	31	20	25
School run	18	11	21	27	16	19
Other trips with children	34	26	39	34	29	34
Journeys after dark	76	61	69	81	63	78
Journeys with passengers	77	75	83	74	68	77
Driven as passenger in front	71	66	68	81	67	72
Driven as passenger in back	33	46	26	51	30	32
Driving a van or lorry	10	17	12	12	10	9
Driving on country roads	59	59	51	38	43	61
Base (drivers only)	1,346	54	78	53	47	1,114

A8.5 Driving experience (of nominated driving situations)

Cluster 1: When others do	(4.6% of sample)	Seat-belt wearing –ve
Cluster 2: Because I want to	(5.2% of sample)	Seat-belt wearing +ve
Cluster 3: When I need to	(5.2% of sample)	Seat-belt wearing –ve
Cluster 4: When I'm asked to	(4.0% of sample)	Seat-belt wearing –ve
Cluster 5: Because I do	(81.0% of sample)	Seat-belt wearing +ve

Table A8.5: Driving experience						
(% experiencing weekly)	Total	Clusters				
		1	2	3	4	5
Driving situations						
Driving on unfamiliar roads	19	29	14	21	22	19
Driving on motorways	27	38	24	34	27	27
Driving on country roads	45	35	41	33	39	46
Driving at night	58	44	54	59	50	57
Driving when police around	50	47	56	48	39	49
Driving on your own	60	50	67	48	48	62
Driving with children	33	26	38	34	25	33
Partner asks you to put seat belt on	9	27	10	22	26	7
Friend asks you to put seat belt on	8	24	5	18	15	6
Front-seat passenger puts seat belt on	74	62	88	72	63	73
Back-seat passenger puts seat belt on	53	49	64	49	46	53
No passenger puts seat belt on	8	20	9	12	12	6
Driver puts seat belt on	75	63	92	72	69	76
Feel confident and relaxed	76	67	90	76	65	76
Feel in a rush	34	35	26	48	31	33
Feel nervous	11	19	9	16	17	10
Angry and upset	24	33	28	35	21	22
Setting out on long journey	18	27	13	23	25	16
Popping down shops	61	54	73	56	56	62
Driving somewhere for work	29	29	20	35	24	30
Driving with passengers	60	53	64	55	52	61
Base (drivers and non-drivers)	1,995	89	114	86	84	1,622