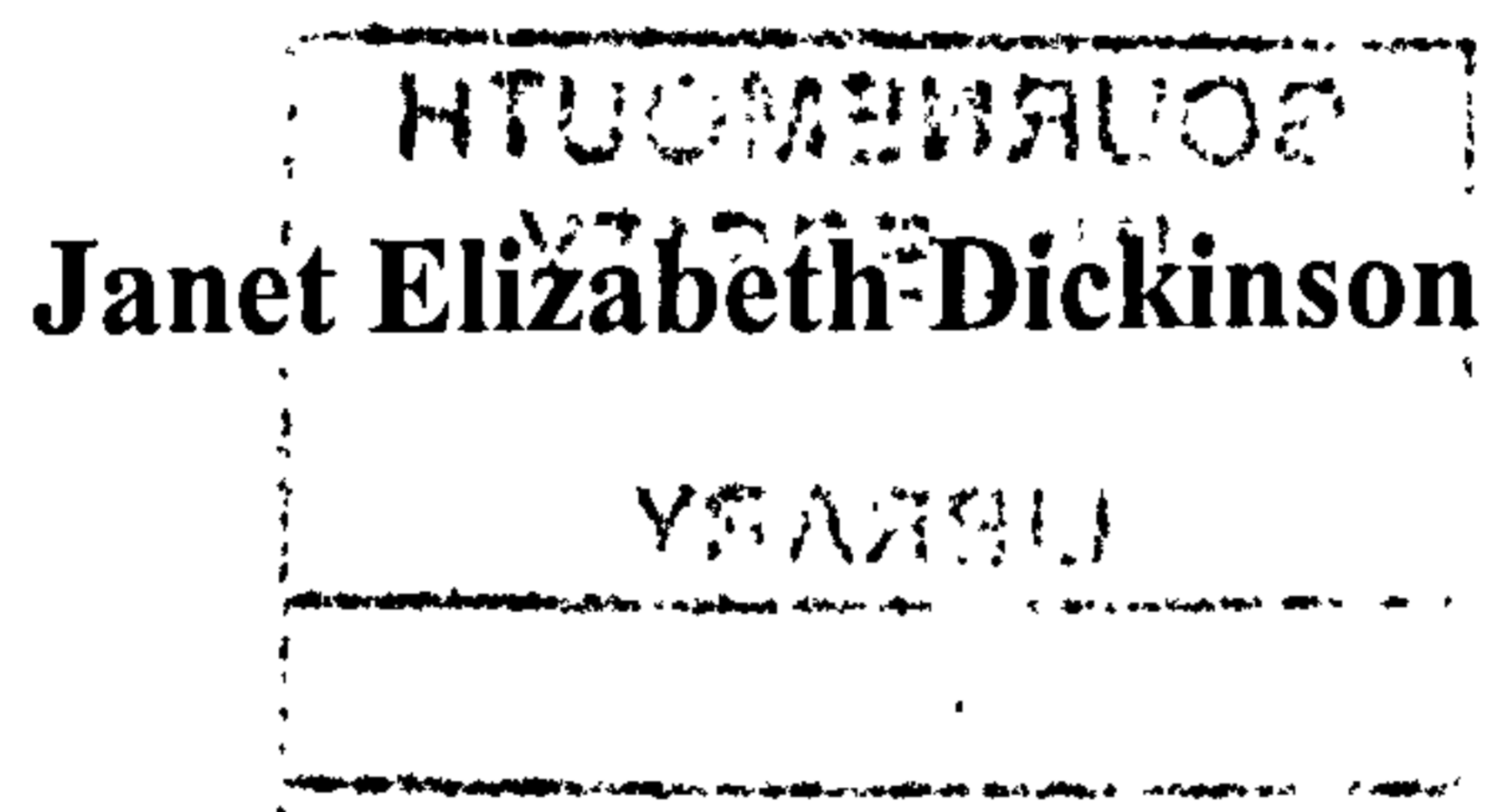


**Transport and travel in a fragile rural tourist destination:
a social representations perspective of residents' and visitors'
mobility patterns**



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Transport and travel in a fragile rural tourist destination: a social representations perspective of residents' and visitors' mobility patterns

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Abstract

It is a well established fact that visitors to rural destinations in the UK and other parts of Europe are highly car dependent. This car dependency has resulted in a variety of initiatives intended to tackle the associated undesirable consequences. While there are some success stories, the negative impacts of transport still pervade for residents and visitors in many destination areas. Few studies address the social assumptions that underlie travel behaviour decisions. When Moscovici's social representations theory is employed it suggests that we should develop and draw on shared perceptions, or theories, of the world around us in order to interpret our behaviour. Social representations theory offers a dynamic approach to understanding how social conceptions shape our understanding of transport and travel behaviour. This approach brings in a theoretical perspective that has been absent from tourism and local transport literature and is largely absent from the wider transport debate.

The aim of the study was to enhance the understanding of tourism and leisure mobility in a rural tourism context by applying social representations theory. A case study approach was employed to provide an in-depth investigation of the transport issues in a fragile tourism destination area: Purbeck, Dorset, UK. The study includes exploratory research to define the important value concepts for the population in the study area relating to transport and tourism, followed by an examination of travel patterns and travel behaviour of visitors to the area through the use of a travel diary. Finally, a questionnaire survey was undertaken with visitors at various attractions in the area.

A social representations perspective demonstrates the importance of examining the social reality and the social processes that underlie people's decision making. The findings indicate that there are pervasive representations of tourism and transport forming a socially constructed consensus which shapes views of transport and tourism. While the study shows that people would like public transport to be improved, this is essentially an idealised representation and an idea perpetuated by a public that makes little use of public transport and has little intention of leaving the car behind. Arguably, people have developed a social construction of how to deal with transport problems whereby the failure of public transport reinforces the existing situation of high car use and there is little attempt to restrict car use. This study challenges this strategy and discusses practical implications for managing mobility in sensitive rural destinations.

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Author's Declaration

In the course of collecting data for this thesis two journal articles have been accepted for publication and three conference papers published in conference proceedings. These are acknowledged where appropriate in the text and are listed in Appendix 11. The articles themselves are included at the end of the thesis.

1.0 Introduction

1.1 Rationale

The ability of visitors to travel around destination areas is crucial for tourism yet this mobility brings many problems, particularly to sensitive rural destinations where the infrastructure is often ill-suited to the influx of seasonal visitors. Almost all studies examining the impacts of tourism cite tourism related traffic as a problem, often causing one of the single biggest negative impacts (for example, Andereck and Vogt 2000; Gursoy et al 2002; Jurowski et al 1997; King et al 1993; Lindberg and Johnson 1997; Perdue et al 1990; Vaughan et al 2000). Furthermore, in the context of sustainable tourism development, often applied to rural areas (Bramwell 1994), the need for largely car based visitor mobility around a destination is in direct conflict. Hall (1999 p184) argues that “although the sustainability of tourism activity is a much discussed concept, the substantial tourism impacts literature rarely addresses the externalities and inequalities arising from transport”. The topic has not received its fair share of interest from academics (Dickinson et al 2004; Schlich et al 2004) and as Wheeler (1993 p124) suggests academics have avoided “the quicksand of the transport debate”. Transport to and within destinations appears marginalised in the tourism literature, perhaps because of the inherent conflicts involved for tourism. There are also issues with the policy agenda with less government interest in leisure travel in the UK compared to commuting and the school run which conversely receive much attention.

The existing studies are predominantly atheoretical and usually focus on either a specific initiative or identify traveller characteristics through quantitative surveys which focus on identifying key characteristics, be they demographic or attitudinal, which predict modal choice. The findings from specific initiatives are not transferable and thus a solid body of knowledge has yet to develop. Where theory is applied it is drawn from attitude theory despite the problem that attitudes are not especially good at predicting transport behaviour (Anable 2005). Studies also arise from the spatial geography and logistics tradition which focuses on quantifying trips and travel characteristics but pays little attention to the social conceptions of transport and the social reality that shapes travel behaviour (Urry 2002).

This study attempts to plug some of the gaps by analysing the social conceptions of transport and the social reality that shapes travel behaviour at rural destinations. The thesis poses a challenge to the assumptions of current research and proposes an approach based on social representations theory (Moscovici 1981). Social representations theory is a social psychology theory which suggests we develop and draw on shared perceptions or

theories of the world around us in order to interpret our behaviour. While traditional transport attitude and behaviour studies establish useful baseline information and trends, attitude theory has done little to further our understanding of the social realities that underpin people's attitudes towards transport and tourism and their decisions about transport behaviour. Social representations theory offers a more dynamic approach to understand how social conceptions shape our understanding of transport and travel behaviour. This brings in a theoretical perspective that has been absent from tourism and local transport literature and is largely absent from the wider transport debate.

A case study approach is employed to investigate in depth the transport issues in a tourism destination area; Purbeck, Dorset, UK. An area wide, case study approach was chosen as it avoids focusing on a specific initiative, enables an examination of a wide range of stakeholder views, together with the travel patterns and travel issues across a whole destination. Purbeck provides a compact case study area which exhibits many characteristics that are common to rural destinations in the UK. A social representations perspective is applied throughout the case study research.

1.2 Aim and Objectives

1.2.1 Overall Aim

To enhance the understanding of tourism and leisure mobility in a rural tourism context by applying Moscovici's social representations framework to a case study of Purbeck.

1.2.2 Objectives

1. To analyse the social representations used by various stakeholders to conceptualise transport, tourism and the rural setting in Purbeck.
2. To explore the extent to which these social representations are contextual, variable and shared by various groups of stakeholders.
3. To explore how people use the social representations available to them to explain their travel behaviour and travel behaviour of others.
4. To identify the contradictions for transport and the social dilemmas of travel behaviour in relation to the social representation(s) used.
5. To reflect on how social representations impact on tourism and leisure mobility in a rural tourism development context.
6. To analyse the travel behavioural patterns and modal choice of visitors.
7. To analyse the problems encountered by residents and visitors in relation to transport and mobility in Purbeck.

8. To identify the responses to problems (coping mechanisms) adopted by residents and visitors.
9. To analyse the implications of the above for future transport planning and to recommend effective strategies that will contribute to the development of sustainable transport initiatives for rural tourism.

1.3 Overview of thesis

Chapter 2.0 explores the theory adopted in attitude and behaviour studies and considers the challenges to these traditional approaches. Social representations theory is proposed as an appropriate theoretical approach to the study of tourism and transport. Social representations theory is explained as is its application in this study.

Chapter 3.0 examines the literature starting with an overview of the local tourism and transport issues. Transport problems in rural destinations are examined together with the initiatives which have been developed to tackle problems. The rural tourism context is also considered, especially aspects relating to stakeholders attitudes towards tourism and behavioural responses.

Chapter 4.0 provides an overview of the Purbeck study area.

Chapter 5.0 explains the methodology. The study was conducted in three stages. The first stage adopted an emic approach (Pearce et al 1996; Fredline and Faulkner 2000). This stage was exploratory and aimed to define the important value concepts for the population in the study area relating to transport and tourism. The main source of information used was taped in-depth interviews with key informants. The second stage explored travel patterns and travel behaviour of visitors to the area through the use of a travel diary. Finally as the travel diary focused on visitors staying at campsites, a questionnaire survey was undertaken with visitors at various attractions in the area. This enabled data to be captured from residents, day visitors and staying visitors. Measures employed in the questionnaire arose directly from the findings of stage 1 and 2.

Chapters 6.0, 7.0 and 8.0 present the primary data analysis. Chapter 6.0 presents the findings from in-depth interviews with residents undertaken in stage 1. Residents' social representations relevant to transport and tourism in the Purbeck context are identified. The aim of stage 1 was to analyse the social conceptions of transport and tourism in a rural destination and the social reality that shapes residents' travel behaviour.

Stage 1 objectives:

- 1. To analyse the social representations used by various resident stakeholders to conceptualise transport, tourism and the rural setting.**
- 2. To explore how residents use the social representations available to them to explain travel behaviour.**
- 3. To identify the contradictions for transport and the social dilemmas of travel behaviour in relation to the social representation(s) used.**

Stage 2 produced largely quantitative information on: travel patterns; modal choice; trip chaining; purpose of journeys; attractions and places visited. In addition an open section allowed participants to give a personal description of their trips and they were encouraged, in particular, to explain problems encountered and how they dealt with them. This enabled some aspects of the social representations of transport modes and travel in Purbeck to be captured. This is presented in chapter 7.0. The aim of stage 2 was to explore the transport choices and mobility patterns of tourists during the peak season in order to analyse travel patterns, problems encountered and subsequent coping mechanisms.

Stage 2 objectives:

- 1. To analyse the travel behavioural patterns and modal choice of visitors.**
- 2. To analyse the problems encountered by visitors in relation to transport, mobility and location context.**
- 3. To identify the responses to problems (coping mechanisms) adopted by visitors.**

Stage 3 analyses questionnaire data in order to explore the concepts developed in stages 1 and 2. This is presented in chapter 8.0. The aim of stage 3 was, using the findings from stage 1 and 2, to analyse the transport and mobility patterns of residents and visitors to the main attractions using Moscovici's social representations framework.

Stage 3 objectives:

- 1. To analyse the social representations used by various stakeholders to conceptualise transport, tourism and the rural setting.**
- 2. To explore the extent to which these social representations are contextual and variable and shared by various groups of stakeholders.**
- 3. To explore how people use the social representations available to them to explain their travel behaviour.**
- 4. To identify the contradictions for transport and the social dilemmas of travel behaviour in relation to the social representation(s) used.**
- 5. To analyse the problems encountered by residents and visitors in relation to transport and mobility.**

6. To identify the responses to problems (coping mechanisms) adopted by residents and visitors.

Chapter 9.0 brings together the findings of all three stages and reviews them in relation to the social representations theory employed and the wider context. The implications for sustainable mobility initiatives within Purbeck are considered as are the implications for developing effective policies and strategy that will aid sustainable mobility initiatives in rural destinations more broadly. This is followed by a consideration of the limitations of the study and finally suggestions for further research.

2.0 Theory and conceptual approach

2.1 Introduction

Implicit to understanding transport and travel around destination areas is an examination of behaviour and the associated decision making process. When examining behaviour the obvious literature to consider relates to attitudes. Yet a growing body of researchers argue that attitudes and related behaviours are much less consistent than once thought (Burman and Parker 1993; Clark et al 1994; Moscovici and Hewstone 1983). Transport and tourism issues are a case in point as there are a variety of opposing perspectives on the benefits tourism might bring at the expense of potential transport problems which pose dilemmas for visitors, residents and practitioners. Thus, a theoretical and conceptual approach that can address such dilemmas is required. Social representations is among the theories and approaches adopted in social psychology that offers a more dynamic view of social processes and acknowledges the dilemmas and contradictions inherent in many situations. Developed by Moscovici, a French social psychologist, the theory has been applied by a number of researchers in the countryside recreation and tourism context (see, for example, Clark et al 1994; Fredline and Faulkner 2000; Macnaghten 1995) and in studies on the nature of rurality (see, for example, Halfacree 1993 and 1995; Haartsen et al 2003). Social representations theory rejects the idea that everyday behaviour involves a scientific approach to objects, people and events, where understanding is merely information processing (Halfacree 1993). This chapter takes a critical look at traditional attitude and behaviour studies focusing in particular on the studies of pro-environmental behaviour that are most pertinent to the transport context. The chapter then explains social representations theory and demonstrates how this theory offers an alternative perspective which is relevant to the tourism transport context and is applicable to this study. Sections of the material presented in this chapter have been presented in a paper based on the study published in the Journal of Sustainable Tourism (Dickinson and Dickinson 2006).

2.2 Attitudes and behaviour

Many researchers argue that traditional attitude theory fails to take account of the variability of human thought and action (Burman and Parker 1993; Clark et al 1994; Moscovici and Hewstone 1983). Studies of people's accounts of their feelings about various social issues have shown that they often hold contradictory attitudes and they may be unaware of these contradictions (Billig 1996; Billig et al 1988). Typically, people

seem to have dilemmas about social issues and practices rather than established attitudes. Yet, traditional attitude theory assumes people are logical, rational and ordered in their thinking and able to classify concepts into equal-interval categories (Burman and Parker 1993). Many approaches to attitudes do not address the questions of where attitudes come from and how they are interrelated. Van Dijk (1997) demonstrates the importance of discourse in the acquisition, use and reproduction of ideas in everyday life. Some issues are non-conscious, people are not aware themselves. For instance, unconscious racism was revealed in white New Zealanders' accounts of Maoris (Wetherell and Potter 1992) and political discourses (Van Dijk 1997). Moscovici proposes that individual attitudes reflect broader social representations. But social representations theory directs the researcher to look for more than a measure of an individual's position on an attitude scale. It directs us to ask how this position relates to positions on other scales, to relationships with values, and to the origin of the knowledge and beliefs on which the attitudes are based.

Behaviour studies often take people's attitudes as the starting point for predicting behaviour. Of particular interest here are the studies of environmental concern and pro-environmental behaviour. Studies in this area focus on aspects such as recycling, energy use and, of most interest here, transport choices. There are many studies both qualitative and quantitative that examine factors influencing pro-environmental behaviour (Barr et al 2003). The link, however, between attitudes and behaviour is far from simple as evidence points to people holding positive attitudes towards the environment that do not translate into the associated positive behaviour (Cassidy 1997). There are two approaches in studies of environmental concern and behaviour: social structural (socio-economic/demographic) and social psychological (attitudes, beliefs, values and worldviews) (Dietz et al 1998). Numerous studies examine the effects of various aspects of social structure on environmental concern and behaviour although they are largely atheoretical. Of interest here are the psychological approaches that attempt to define theoretical links between attitudes and behaviour and model attitude and behavioural change. Such approaches have been applied in recent years to the study of modal choice (Anable 2005). In the pro-environmental behaviour literature several theories dominate: Schwartz's norm-activation theory of altruistic behaviour, Ajzen and Fishbein's theory of reasoned action and theory of planned behaviour, social dilemma theory, cognitive dissonance and psychological reactance.

The theory of reasoned action is based on "the assumption that human beings are usually quite rational and make systematic use of the information available to them" (Ajzen and Fishbein 1980 p5). Ajzen and Fishbein (1980) argue that the precursor to behaviour is

'intention to perform' a behaviour. An individual's 'intention to perform' a behaviour is a result of the relative strengths of attitude towards the behaviour (personal judgement that performing the behaviour is good or bad) and subjective norm (social pressure to perform the behaviour). The specificity of the attitude towards the behaviour is emphasised, as the model does not work with general attitudes i.e. it is not about people's attitudes toward buses but people attitudes toward using buses. The theory of reasoned action highlights the gap between intention and action, the 'value-action gap', where situational control and psychological variables can determine whether or not values are translated into behaviour (Barr et al 2003). This theory has been applied in tourism studies and studies on attitudes to transport and travel behaviour (for example, Department for Transport 2002; Anable 2005). Garling et al (2003) found that the theory of reasoned action did not perform as well as Schwartz's norm-activation theory in relation to pro-environmental behaviour, suggesting that pro-environmental behaviour may differ from other behaviours studied. Anable (2005) extends the use of the theory of planned behaviour by incorporating moral norms and psychological attachment to the car to improve its explanatory power in predicting modal choice. She argues it is the combination of 'instrumental, situational and psychological factors' that affect travel choice and these operate in distinct ways for distinct groups of people.

In Schwartz's norm-activation theory the intention to perform pro-environmental behaviour is determined by awareness of the consequences of actions and norms about personal responsibility for action (Stern et al 1995). This induces an 'ascribed responsibility' to perform the behaviour that in turn activates a 'personal norm' or moral obligation to perform. This has also been modified to include awareness of consequences for oneself, for others and for the biosphere (Garling et al 2003) as determinants of intentions to perform behaviour. These days few people can be unaware of implications of car driving on the environment yet clearly high car use persists. It may be that responsibility for aspects that operate at a global level are too remote to activate an obligation to change behaviour. In addition the consequences for individuals and others are not immediately apparent unless congestion is regularly encountered thus these aspects are less likely to activate behaviour change. In this respect social dilemma theory offers some insights.

Social dilemma theory focuses on how short-term personal gain tends to win over long-term social gain (Cassidy 1997). There are two defining characteristics (Garling et al 2003):

- The social payoff to each individual for acting in self-interest (defecting) is higher than the payoff for acting in the interests of the collective (co-operating) regardless of what the other society members do;
- All individuals in the society receive a lower payoff if all defect than if all co-operate.

Where there are no constraints some individuals will co-operate whereas others will not (Garling et al 2003). Tertoolen et al (1998) suggest car use is a typical social dilemma. In the short term each individual benefits from socially defecting behaviour rather than socially co-operative behaviour. But in the long term all individuals experience more disadvantages if all defect than all co-operate. Tertoolen et al (1998) argue that to co-operate people must understand the dilemma and secondly people must believe that others will not defect.

Studies examining transport problems and environmental attitude show that actual behaviour and attitudes seem to be inconsistent. In this context Festinger's cognitive dissonance theory has been applied. Cognitive dissonance is defined as inconsistency between attitudes or between attitudes and behaviour. It creates an unpleasant tension and will motivate individuals to either change behaviour or change attitude (Eiser and van der Pligt 1988; Tertoolen et al 1998). Studies of transport initiatives have found that attitudes change rather than behaviour (Tertoolen et al 1998; Golob and Hensher 1998).

Psychological reactance has also been found with respect to campaigns or structural measures to restrain transport behaviour (Tertoolen et al 1998). People can be motivated to re-establish their free behaviours, and this can lead to opposite effects to those intended in transport initiatives.

All of the above theoretical approaches assume that attitudes are stable, individual attributes predispose individuals to react in different ways, and that individuals make rational decisions on the basis of available information and their own stable attitudes, goals and values. However, attitudes are part of complex cognitive schemata, they are interrelated and interdependent on one another and are not readily measurable as isolated variables (Cassidy 1997). Stated attitudes are frequently contradictory and short-lived (Billig 1996). Transport as well as being a logistical problem is also an emotive social issue. The deterministic studies of transport and pro-environmental behaviour assume people operate rationally and consistently but this may not be the case. While theories such as reasoned action consider the social processes that effect individual's decisions there has been no analysis of what constitutes normative patterns of behaviour or of how and why they have arisen. Studies focus on individuals rather than the shared assumptions about reality in which people operate. Other people as well as cultural and institutional

forces shape our worldview (Joffe 2003). Studies aggregate the responses of individuals and say little about inter-subjectivity, consensus-making and social influences on transport.

A further critique of attitude and behaviour studies is the use of *a priori* categories by researchers. For instance, few tourism studies develop the list of perceived impacts of tourism from the respondent's point of view, thus views are limited (Pearce et al 1996). The attitude statements typically employed in transport studies are particularly problematic. In many cases there are socially desirable responses. People avoid responses connected with a negative label and embrace the same responses when labelled positively. Thus, studies commonly show quite positive responses to proposed public transport improvements that will not be converted to actual users. In reality, users are put off by perceived additional cost, time taken and poor comfort. The lack of link between expressed attitude and actual behaviour is a common problem (Pearce et al 1996; Pelletier et al 1998), though it remains a connection that transport studies are often keen to make.

Another body of research has focused on the context in which research has been conducted. These studies examine how situational and researcher factors can influence outcomes demonstrating again that attitudes are far from stable. People have been shown to hold multiple views on issues and draw on perspectives which are suited to a particular context (Clark et al 1994; Macnaghten 1993; Macnaghten et al 1992; Macnaghten 1995). Attitudes are not necessarily fixed things but a function of context (Burman and Parker 1993). A contextual effect has been demonstrated in work on countryside leisure by Clark et al (1994) and Macnaghten, (1995). Their studies take a critical look at the framework underpinning attitude survey research on countryside leisure. These studies show how people's expressed opinions towards contemporary leisure dilemmas depend on how the issue is framed by the researcher. Surveys were preceded by 'voices' stating different perspectives on the topic. Replies varied according to the 'voices' presented at the start. Both studies are critical of survey techniques as a reliable measure of people's views, concerns, needs and attitudes towards countryside and environmental issues. They argue that attitudes become actively constructed in the language and Macnaghten (1995) argues that people are more ambiguous and contradictory than traditional attitude theory supposes and that the contradictions made by individuals reflect wider discursive positions. Clark et al (1994) and Macnaghten (1995) show that Government agencies cannot assume survey data are a reliable measure of the public's concerns as they are liable to reflect the policy agenda discourse. Their findings suggest the public's expressed opinions or attitudes towards key leisure issues in the countryside are radically influenced by the context in which they are being placed. People do not have stable needs and

attitudes, but reflect deeper societal tensions while current UK policy documents assume people to have unitary and stable needs and views reflecting internally consistent attitudes.

Macnaghten's (1995) study suggests that views on environment and transport issues are influenced by societal and policy agendas which are often contradictory, paradoxical and highly controversial. It is likely for lay publics to share these dilemmas by also holding variable, contradictory, and context contingent views. Of particular relevance here is Macnaghten's (1995) examination of 'whether car use in the countryside should be restricted'. Macnaghten (1995) found that while on the one hand respondents were in favour of restricting cars in the countryside, they were, at the same time, unclear in response to another question asking whether cars should be unrestricted. For consistency the answer to the latter should have been no. This suggests people's views are far from clear on the same countryside leisure controversy:

“Conflicts over the increased use of cars in the countryside and the associated loss of tranquility and ‘ruralness’ has emerged as perhaps the most tangible and widely recognised dilemma between people’s increasing desire for personal mobility and their accumulative social and environmental impacts” (Macnaghten 1995 p138).

Instead of assuming that people have stable, consistent views and attitudes to countryside leisure, as proposed in traditional attitudinal research, Macnaghten proposed an alternative epistemological position that the countryside and leisure exist as highly contested social categories which reflect on-going contemporary public disputes.

In earlier work Macnaghten et al (1992) were critical of many studies about the perception of nature (see for example, Kaplan and Kaplan 1989). They argue such studies fail to address what is understood by the category of ‘nature’ because it is assumed there is a unitary meaning shared by all subjects whereas there are multiple competing definitions available. Macnaghten et al (1992) focused on the contested nature of ‘nature’ arguing that by defining things as natural led them to being preferred. “Instead of asking ‘how do people think about and react to the natural’ we need to investigate the consequences of defining things as natural for the way in which they are thought about and reacted to” (p44). In a study of a public inquiry, Macnaghten (1993) found that people portrayed nature differently to support their case. For instance the same landscape was portrayed as natural or non-natural depending on what was being argued. They argue that categories are constructed and reconstructed in the course of communication.

Thus, there is a body of work which contests much of the attitude and behaviour literature. These studies all argue that people are likely to hold dilemmas rather than fixed attitudes in relation to transport particularly where it is a contested issue in a rural setting. There is a need for research which can explore these dilemmas and the social realities that underpin our behaviour. Social representations theory acknowledges this condition and has thus been employed.

2.3 Social representations explained

Social representations are shared perceptions of the nature of phenomena and the cause of events. Social representations theory proposes that attitudes reflect underlying social representations of reality that are widely shared in society (Halfacree 1993). Moscovici (1981 p181) describes social representations as

“a set of concepts, statements and explanations originating in daily life in the course of inter-individual communications. They are the equivalent, in our society, of the myths and belief systems in traditional societies; they might even be said to be the contemporary version of commonsense.”

They arise during interactions in our daily life and become the tacit, widely accepted, knowledge and beliefs on which our attitudes are based (Moscovici 1981).

Social representation is a cognitive rather than discourse approach. It is based on Durkheim's collective representations in which Durkheim considered consensus relatively homogenous in society. Moscovici prefers a conflict view of society in which there are numerous social collectives each having its own consensual understandings, its own social representations. Social representations are created and changed by social interaction. They emerge from the turmoil of everyday informal discussion and communication in order to satisfy the individual's need to understand the world (Hogg and Abrams 1988). Representations are shared by groups of individuals and studies show people use their social representations to interpret their behaviour and that of other people (Moscovici and Hewstone 1983). This, in turn, establishes a group identity (Moscovici and Hewstone 1983). Social representations theory focuses on the way people think or create their shared realities (Moscovici 1981).

Moscovici and Hewstone (1983) hold that ideas and understanding are mediated by social communication processes and we make sense of the unfamiliar using concepts that are familiar to us. Thus, people draw on the social representations found in discourses that circulate in society. People use the discourses available to them, they cannot pick them

out of thin air. Recognition is based on past experiences and prior knowledge and is a reference point for new encounters. The initial direction from which a group will try to cope with the non-familiar will be determined by images, concepts and language shared by that group. New representations are shaped around existing experiences as we attempt to turn the unfamiliar into something ordinary and immediately present. Through a series of successive small alterations ideas that once seemed remote can become familiar and almost everyday despite there being no direct experience of the phenomenon (Moscovici 1981).

Moscovici proposes varying levels of group consensus in relations to social representations (Fredline and Faulkner 2000):

- Hegemonic representations are stable and homogeneously accepted by the whole community;
- Emancipated representations exist when sub-groups have somewhat differentiated opinions and ideas;
- Polemical representations exist in the context of group conflict.

Sources of representations are direct experience, mass media and social interaction.

Direct experience can enable people to question inconsistencies between prevailing representations and actual observations. Elite groups play a major role in the reproduction of ideas as they have more control over various forms of public discourse such as national and local media (Van Dijk 1997). Social interaction is closely related to group membership as individuals adopt representations comparable with those of other group members, but people are members of more than one reference group and individuals may be forced to reconcile contradictory positions. Groups can be aware of alternative perspectives on issues and in a different social context individuals may demonstrate an alternative perspective reflecting the views of the group they are in (Clark et al 1994; Macnaghten 1995). This interaction offers a path for the transmission of new social representations (Pearce et al 1996).

Social representations have enormous inertia in so far as experiences and perceptions are distorted to conform to the representation. People try to verify rather than refute their hypotheses and conjectures. There is evidence that social representations distort reality in such a way as to preserve intact the preconception (Fredline and Faulkner 2000) and furthermore that they can even create a reality that fits (Hogg and Abrams 1988). People have more accurate recall of facts that are consistent with their representations, and tend to modify facts that are inconsistent (Fredline and Faulkner 2000). Pearce et al (1996) suggest they are prescriptive and can direct both action and thought.

Social representations are not static, they can evolve over time and among different social groups (Pearce et al 1996). The process of developing new social representations is explained in terms of anchoring and objectification. Anchoring is a process which allows us to take a new and unfamiliar object and, by comparing it to what we know already, classify it, name it, and put it in a category (Pearce et al 1996). Objectification is about taking abstract concepts or ideas and making them ordinary and concrete and is concerned with building up images of the concept or idea (Pearce et al 1996). This new version is diffused, by conversation throughout the social group (Potter and Wetherell 1987). Thus, social representations are important features of group interaction and social representations theory is especially useful where there is social conflict and recognises the importance of power in social dynamics (Pearce et al 1996).

2.4 Critiques of Social Representations

The main critique of social representations theory stems from people working in a discourse tradition. Hogg and Abrams (1988) argue the main limitation of social representations theory is its vague and imprecise nature, intentionally so according to Moscovici. Potter and Wetherell (1987) have constructed the most rigorous critique. They argue a social representations approach produces a vicious circle of identifying representations through groups, and assuming groups define representations. Researchers cannot easily identify psychologically salient social groups that are independent of participants' representations of those groups. So in identifying groups researchers create social representations of those groups as researchers are not neutral. They also argue that the empirical status of social representations is ambiguous. There needs to be some clear-cut, repeatable way of pointing out representations and discriminating one from another. With quantitative approaches numerical averaging techniques homogenise participants' responses thus the degree of agreement between people is very difficult to define. Finally they are critical of the cognitive processes taking place, especially how you can anchor something new or unfamiliar.

Potter and Wetherell (1987) argue that interpretative repertoires are more appropriate. "It is much more fruitful to accept that repertoires are available to people with many different group memberships, and patterns of accounting may not be the neatest way of dividing up society, or confirming conventional group categorizations" (p156). However, this discourse approach may not be appropriate either as it focuses on language but does not relate it to groups. The strength of the social representations approach is that it can look at the level of hegemony in shared representations. The theory offers an interesting

opportunity to re-appraise people's views on transport and the way groups with particular views may be constituted in society.

2.5 Social representations in tourism

Pearce et al (1996) provide the definitive overview of the application of social representations in a tourism context. They suggest that:

“ordinary world views of social representations have a very powerful influence on people's perceptions, beliefs, decisions and actions. If social scientists want to understand things such as social change and conflict they must understand the world of everyday knowledge and common sense”.

(Moscovici cited in Pearce et al 1996 p3)

and

“what communities think tourism is, what they expect it will bring and how they respond to tourism are all aspects of a social representation of tourism” (p31).

Pearce et al (1996) argue that social representations theory offers new insight to a number of existing tourism impact studies, for example, the work of Canan and Hennessy (1989), Davis et al (1988) and Madrigal (1995). Fredline and Faulkner's (2000) work on host community reactions to a major tourism event (the Gold Coast Indy in Australia) and Yuksel et al's (1999) study of stakeholder's views of a development plan for Pamukkale, Turkey, directly employ social representation theory. These studies are discussed in chapter 3.0.

Pearce et al (1996) and Fredline and Faulkner (2000) suggest social representations are valuable for explaining social conflict, often a feature of tourism development. Social representations can explain why parties in conflict are unable to agree since people use social representations to interpret the same information differently. Furthermore, conflict can often be the result of groups holding different social representations. “In this situation the groups have no common framework or understanding, and resistance to change, the development of polemical representations, and polarization can be expected” (Pearce et al 1996, p46). Groups become more extreme in their views. In a group conflict situation it is important to understand the differences in the power of groups to influence decision-making (Pearce et al 1996). Social representations are particularly appropriate when the topic of study involves multiple social perspectives, provides challenges, difficulties and conflicts due to change and feature the communication of ideas in the public arena (Pearce et al 1996). Transport issues at destinations would seem to be such a topic.

2.6 Application of social representations in this study

No studies applying social representations theory have been found in the transport literature but the theory is well suited to be applied to views on transport which are socially constructed, involve social dilemmas and contradictory perspectives.

Furthermore, in a tourism context there are a variety of different stakeholders (for example, national and local government, tourists, local residents, tourism businesses) who bring multiple social realities to bear on the transport debate. There are also problems of social surveys treating tourism as a homogeneous phenomenon (Pearce et al 1996).

Pearce et al (1996) suggest there are three major problems in research: definitional and measurement problems with the concepts of tourists, tourism and community; describing and profiling the perceived impacts of tourism (few studies develop the list of impacts from the respondents point of view, thus views are limited); and lack of theory.

Social representations theory is appropriate in this study since the focus is on group views and behaviour. It holds potential for identifying the multiplicity of views on the topics to be examined and will accommodate that people do not hold one single view of tourism or transport but draw on a representation picking the aspect most suited to context. It also allows for social representations or elements of a social representation to conflict. The theory helps explain how different conceptual frameworks create barriers to dealing with tourism traffic issues and how some perspectives become institutionalised (for example the government's views on the topic). Different stakeholders' outlooks are examined to demonstrate diverse ways in which transport issues and outcomes might be understood. The theory helps demonstrate how various actors interpret issues differently.

In relation to transport and tourism two frameworks can be thought to operate:

1. **Objective reality.** This consists of the actual logistics of transport in a given area, for example, road capacity, bus routes and timetable etc. or in the case of tourism, the numbers of beds, the area's natural attributes etc.. These aspects can be measured, mapped and quantified.
2. **Subjective/social reality.** This is the social representation of transport and tourism. This is socially derived and communicated through social groups. Some of this is derived from direct experience, some from media, government views and some from social exchanges. This is the aspect that influences human behaviour. Reality for the individual is to a high degree determined by what is socially accepted as reality (Scott 2000).

In this context the dominant positivist approach to transport research is contested as perceptions of local transport are socially constructed thus positivist research fails to

understand how dominant perspectives prevail among providers, host communities and tourists.

The transport and tourism literature is replete with deterministic studies. While car users are largely aware of their impact on society and the environment, the individual benefits mean use continues. In this type of situation rational decision making models typically fail and there is a clear gap between attitudes and behaviour (Anable 2005). Transport and tourism studies typically employ attitude scales in an uncritical way and success of transport projects focuses on economic viability and use levels (Dickinson and Dickinson 2006). The individualistic and static approach of attitude research does not allow for the shifting representations, competing discourses and on-going social change related to transport. Transport choices emerge from the social reality that people inhabit. Social representations theory helps challenge assumptions about travel and travel behaviour. For instance it:

- Accommodates the existence of conflicts in views and that people can share a number of views that are on the face of it mutually exclusive;
- Accepts the existence of conflict between views and behaviour;
- Demonstrates the complexity of variables involved and the diversity of perspectives;
- Shows inconsistencies in views of mobility of tourists, local people and policy makers;
- Can help challenge assumptions about travel and behaviour change.

2.7 Research paradigm

The majority of studies examining transport or community perceptions of tourism adopt a positivist perspective and are based on a questionnaire survey employing multi-item scales and factor analysis (see for example, Anable 2005; Andreck et al 2005; Gursoy et al 2002). The factors identified are largely dependent on the questions asked based on the researchers' *a priori* conceptualisations (Andreck and Vogt 2000). Most studies attempt to relate attitude scales to a whole host of socio-economic, demographic or psychological variables (Faulkner and Tideswell 1997). Allen et al (1993) suggest a number of confounding variables and this would appear to be a limitation of these studies as it is practically impossible to account for all these. This deterministic approach fails to understand the socially constructed consensus of tourism impacts. People can share a number of views on tourism that are on the face of it mutually exclusive and there are

conflicts and inconsistencies between views and behaviour. Few studies develop the list of impacts from the participant's perspective (Kneafsey 2001; Pearce et al 1996).

This thesis argues that social discourse perpetuates many of the commonly held views on transport and tourism. For instance, in the studies on community perceptions of tourism, economic benefits are widely held to arise from tourism whether respondents have direct experience of this or not. Research has failed to address the dominant perspectives that prevail among providers, host communities and tourists. In order to understand these issues a different approach has been adopted in this study.

Transport studies, with their origins in logistics, also operate within the positivist tradition. Social reality has been explored in this tradition using attitude statements but the findings are contradictory and for many reasons attitudes are not well linked to behaviour.

Positivist research as described above has dominated the literature on tourism and transport for many years. While non-positivist paradigms have received attention in the tourism literature (Jamal and Hollinshead 2001), transport studies being based on the logistical reality remain firmly in the positivist tradition. As attitudes clearly do not predict travel behaviour (Anable 2005) and even though people recognise there are traffic problems but are reluctant to take action (McKercher 1993) it suggests positivist studies have some limitations.

This study adopts a post-positivist paradigm (Guba and Lincoln 1998). The ontological perspective is that reality exists but this reality is hard to apprehend and there may be more than one reality. The epistemological perspective is that the researcher and those being researched are not independent – for a start this researcher is a visitor to the area and a user of a variety of transport modes including the car, bus, cycle and walking – so the researcher is likely to have some influence on findings. However, the researcher seeks to maintain objectivity as far as this is possible.

Methodologically the study takes place in a natural setting. The context is important as is an emic approach focusing on the meanings and values of participants. This is achieved by using some qualitative as well as quantitative techniques. It has been argued that methodological triangulation is a useful way to approach social representations (Joffe 2003; Sotirakopoulou and Breakwell 1992; Foster 2001; Cvetkovich and Winter 2003). Triangulation is used here not as a validatory technique but as a means to produce complementary results with different methods examining different aspects (Flick 1992).

Denzin argues “the goal of multiple triangulation is a fully grounded interpretive research approach. Objective reality will never be captured. In-depth understanding, not validity, is sought in any interpretive study” (Cited in Flick 1992 p46). An initial qualitative stage adopted an emic perspective enabling an in-depth understanding of the discourses used in relation to transport and tourism. A travel diary was then employed to capture data on the lived transport experiences of visitors. Finally, key findings from the interviews and travel diaries were explored in a quantitative study conducted at visitor attractions.

3.0 Tourism, Transport and Stakeholders

3.1 The local tourism and leisure transport issue

Transport is integral to tourism and the opportunities tourism brings to rural communities. However, car based travel in rural areas can have serious consequences for the quality of visitor experience and the quality of community life. Leisure is often thought greener than traditional heavy industry but free time consumption activities are a major source of pollution and environmental deterioration (Martin and Martin 1998) and travel is a substantial component of this impact. As networks of family and friends become more widely dispersed our culture takes travel for granted as a fundamental human right (Urry 2002). UK travel statistics show that leisure travel now accounts for nearly a third of all journeys and 40% of mileage in the UK (Department for Transport 2005), which is higher than the proportion for commuting. Yet the focus of transport research in the UK is on travel to work, specific modes (particularly public transport) or the school run.

Commuting has received most attention in policy and research since it poses significant daily congestion problems and is thought to be easier to tackle as journeys are repeated on a regular basis. It is increasingly recognised that leisure travel poses a growing problem (Dickinson et al 2004; Lawson 2001). Congestion is now significant around many leisure attractions and leisure travel adds to congestion in urban areas (Mallet and McGuckin 2000). Lawson (2001) argues that travel associated with leisure will become increasingly important in the future, particularly as the main growth in trip making is taking place for leisure activities and shopping, rather than commuting (Banister et al 1997). However, analysis by Robbins and Dickinson (2006) suggests that while leisure and tourism account for a significant proportion of journeys the share in relation to other purposes has remained virtually unchanged since 1985/6. However, leisure activities tend to be more dependent on the car than commuting as they are generally more dispersed than work places and the journeys are not part of a daily routine (Dickinson et al 2004).

A whole host of tourism studies in a variety of settings identify increased traffic as an important, and in many cases the most significant, impact of tourism development (Andereck and Vogt 2000; Davis et al 1988; Gursoy et al 2002; Jurowski et al 1997; Keogh 1990; King et al 1993; Lindberg and Johnson 1997; Milman and Pizam 1988; Perdue et al 1990; Vaughan et al 2000). Despite this, there is little research that directly addresses the local transport issue in a tourism context. This may be due to a variety of reasons such as:

- The transport problem is clearly recognised, as are many of the factors causing the problem, thus it could be argued the problem is already well documented.
- There is a low level of government interest in leisure travel and it is low on the policy agenda. The focus has been on commuting and the school run which cause daily problems throughout the UK rather than seasonal problems in particular places.
- The solutions to the leisure and tourism transport problem seem largely intractable as journeys are more ad-hoc than predictable commuting or school run habits, and while patterns can be identified at destinations the people involved vary from day to day.
- Most research has been applied and based on specific initiatives (see for example, Lumsdon et al 2006). Therefore academics have needed to be involved in local initiatives to research the problem and the findings from one initiative are not necessarily transferable elsewhere.
- The local tourism transport problem is the result of the combined effect of different groups' competing needs for travel: tourist's journey from home to destination on day of arrival and departure; day-visitor's journey from home to destination; journeys in the destination area undertaken by tourists, day visitors and residents for leisure purposes; and utility journeys undertaken in the destination by visitors and residents such as food shopping. As Hall (1999 p183) suggests, there is the "problem of identifying tourism transport as a discrete functional entity for analytical and policy purposes."

This chapter analyses the literature relevant to transport issues in rural destination areas. It begins by clarifying the meaning of key terms then focuses on rural travel and the leisure travel issues in rural areas. A section analyses leisure and tourism transport initiatives and the final sections focus on tourism, stakeholders and tourism impacts. Extracts from this chapter have appeared in two conference papers (Dickinson 2004a; 2004b) and in an article in *Journal of Sustainable Tourism* (Dickinson and Dickinson 2006).

3.2 Definitions

In order to set the context of this study a number of key terms are explored and defined.

3.2.1 Rural

Hall and Page (2006) suggest that rural is difficult to define in academic research and “popular conceptions of rural areas are based on images of rusticity and the idyllic village life” (p224). Halfacree (1993) identifies two conventional approaches to defining rural: descriptive/socio-spatial definitions and socio-cultural terms. Descriptive or socio-spatial definitions include Cloke’s (1993) index of rurality based on 16 census variables. There are many others which tend to be designed for use in specific contexts for example, population densities are used in service provision studies and often used by national governments (Hall and Page 2006). Descriptive or socio-spatial definitions are generally used for planning and academic purposes and as such are relevant to the transport context of this study. The Countryside Agency (2004) has devised such an index which has classified Purbeck as rural. Socio-cultural definitions describe the extent to which people’s socio-cultural characteristics vary with the type of environment in which they live. Halfacree criticises both approaches for their inadequate conceptualization of space. He argues there is an increasing but problematic tendency to define rural in terms of a distinctive type of locality. Hall and Page (2006) also argue that traditional approaches to rurality are becoming less meaningful. There is arguably a rural-urban continuum (Hall and Page 2006). People have increased mobility and thus distance from services and employment is less of an issue for some. Alongside this, economic activity is becoming delocalised and fewer people are employed in traditional local industries and more commute to centres of employment. The use of rural spaces is changing and is increasingly developing important functions for non-rural as well as rural residents (Cloke 1993). Finally the nature of the inhabitants arguably includes temporary visitors (day-visitors, tourists, second home owners) as well as residents. Purbeck is typical in these respects with an increasingly mobile, car dependent population travelling to centres of employment and services outside the area, while Purbeck is seen as a leisure space. Halfacree (1993 p23) suggests an alternative approach using social representations: “a modified version of the theory enables us to define the rural in terms of the disembodied cognitive structures which we use as rules and resources in order to make sense of our everyday world, through both discursive and non-discursive actions”. Given the emphasis on social realities in this study Halfacree’s approach has some merit and this was incorporated into the first data collection phase.

3.2.2 Rural tourism

Roberts and Hall (2001) suggest 10-20% of all tourism activity is in rural areas, but data are hard to compile and the accuracy is questioned. Many terms are used in the context of rural tourism (Roberts and Hall 2001). Lane (1994) and Keane (1992) both give simple definitions to the effect that rural tourism is tourism that takes place in the countryside or a rural area. However, it is not that straightforward as rural areas are difficult to define (Lane 1994; Roberts and Hall 2001; Sharpley and Sharpley 1997) and what might be considered urban forms of tourism can be located in a rural area (Lane 1994). Yet, Lane (1994 p14) argues rurality is the central and unique selling point. He suggests “rural tourism, in its ‘purest’ form, should be:

1. Located in rural areas.
2. Functionally rural – built upon the rural world’s special features of small-scale enterprise, open space, contact with nature and the natural world, heritage, ‘traditional’ societies and ‘traditional’ practices.
3. Rural in scale – both in terms of buildings and settlements – and, therefore usually small-scale.
4. Traditional in character, growing slowly and organically, and connected with local families. It will often be very largely controlled locally and developed for the long-term good of the area.
5. Of many different kinds, representing the complex pattern of rural environment, economy, history and location.”

Other authors suggest rural tourism can be defined by how the occupants or visitors perceive it (Page and Getz 1997; Sharpley and Sharpley 1997). In Purbeck the Lane definition is applicable. However, given the social representations context of this study it is appropriate to consider how residents and visitors perceive it as this may not be the same.

3.2.3 Visitors

There is a distinction between leisure day visitors and tourists. Many studies of rural tourism consider day visitors and tourists as a whole rather than separately (Hall and Page 2006). There are problems with this from a number of perspectives, not least economic, since tourists generally spend more due to accommodation costs than visitors on a day-trip. Similarly, from a transport perspective the issues are different depending on whether the trip starts from within or without a destination area. As with previous research this study is interested in tourists and day visitors although the transport issues differ. From a transport perspective day visitors pose an additional strain on the infrastructure of rural tourism destinations as they travel further into and out of the area and exhibit a different travel pattern to tourists at the destination which may provide both opportunities and

constraints for the use of non-car alternatives. In the Purbeck study approximately 50% of the visitor days are day visitors (Purbeck Heritage Committee 2002) therefore they cannot be overlooked. Thus, from a travel perspective and based on visitor numbers there are reasons to identify and consider both groups.

3.2.4 Sustainable tourism

Sustainable tourism is derived from the notion of sustainable development. A commonly cited definition is that of the World Tourism Organisation (1995) "Sustainable tourism is defined as a model form of economic development that is designed to:

- Improve the quality of life of the host community
- Provide a high quality of experience for the visitors, and
- Maintain the quality of the environment on which both the host community and the visitor depend." (Ryan 2002 p22)

Community well-being is a priority consideration though much of the language emphasises the biological aspects (Pearce et al 1996), which has also been a criticism of the concept of sustainable development.

There are numerous dilemmas with sustainable tourism and many authors express doubts about its viability (Sharpley 1999; Roberts and Hall 2001; Becken and Simmons 2003; Wheeler 1993). The conflict between transport and sustainable development is generally poorly understood (Hall cited in Becken 2002) and transport is a major problem that undermines claims to sustainable rural tourism (Roberts and Hall 2001). In this respect, air travel has been almost completely overlooked. Becken (2002 p126), for example, argues sustainable tourism studies general focus on local issues rather than examining global effects as transport to a destination is "often considered as being 'beyond the scope' of eco-tourism discussions". Wheeler (1993) argues that eco-tourism and other specialist types of tourism are no more sustainable than mass tourism, particularly as many are more car-dependent.

Sustainable tourism has featured prominently in rural areas though Bramwell (1994) questions why this is the case. He suggests the rural sustainable tourism focus is linked to our high regard for the countryside, the 'rural idyll' and the symbolic role of the countryside as a better world. In a similar vein Sharpley (1999 p93) argues that "much of the environmental concern surrounding tourism is motivated not by the need to protect the environment *per se*, but to sustain it as the resource upon which tourism depends. In short, the ultimate purpose is to sustain tourism itself".

Sustainable transport is a key element of any sustainable tourism development in rural areas although, because of the problems involved, transport aspects have often been overlooked. Sustainable transport can enhance the quality of opportunity and experience for visitors and offer additional benefits to the host communities, both related and unrelated to tourism. Sustainable development is now on the agenda and destinations are beginning to consider how they can encourage visitors to use alternatives to the car during their holiday (Lumsdon 1995). Eleven years later it still remains to be seen whether this is window dressing or a real commitment to the concept of sustainable development.

3.3 Government policy

An overview of UK government policy shows that transport is a significant issue at a national, regional and local level. The government is keen to reduce dependence on the private car in order to reduce pollution and congestion. Following a period in the early 1990s when the then conservative government viewed new roads as vital for economic development (Department of Transport 1989), the government's perspective is now one of reducing car dependence and encouraging use of other forms of transport (Department of Environment, Transport and the Regions 1998). In this respect public transport has dominated the policy literature with less attention paid to cycling and walking. However, there is little direct mention of leisure and tourism travel in any central government policy despite the fact that leisure travel now generates more mileage than journeys to work (Department for Transport 2005). Indeed, tourism is mentioned once in the Transport 10 year plan in a section on rail and its contribution to 'regeneration and the creation of employment, leisure and tourism opportunities', and not at all in the 2002 review (Department for Transport, Local Government and the Regions 2000, Department for Transport 2002). Most government policy relating to tourism travel is to do with air travel. At national government level no mention is made of local travel issues related to tourism though the now defunct Countryside Agency did deal more directly with such matters in advice and discussion documents (see for example, Countryside Agency 2003). The Department for Transport's focus is either on commuting or specific modes of transport particularly public transport.

The major policy document of the last few years is the Transport White Paper (Department of Environment, Transport and the Regions 1998). There was little direct reference to tourism in the White Paper (Robbins and Dickinson 2006). The White Paper established the idea of 'integrated transport' and the need for integration between

transport and land use planning (Robbins and Dickinson 2006). This had implications for 'out of town' leisure developments with free parking and often poor public transport. In 1999 the Planning Policy Guidance note 13 on transport was re-issued in response (Department of Environment, Transport and the Regions 1999). Another development from the White Paper, with leisure and tourism implications, was road user charging. While schemes implemented and planned to date have been urban there has been some discussion of such schemes in rural areas such as the Derwent Valley in the Peak District National Park and, significantly for this study, in Purbeck (Buro Happold 2004). Here tourism would be the driving force and such schemes would aim to reduce peak periods of congestion.

'Tomorrow's Tourism', published in 1999 set out the strategy for UK tourism. This stressed the tourism industry's objective of "how best to make use of the opportunities provided by the Integrated Transport White Paper and how to contribute to the objectives set out in it" (Department of Culture Media and Sport 1999 p13, cited in Robbins and Dickinson 2006). While the Transport White Paper makes little direct reference to leisure or tourism it implies that cars use could be reduced on some optional marginal journeys (for example, shopping or leisure trips) which is potentially in conflict with tourism policy which needs such trips to support the tourism industry (Robbins and Dickinson 2006). Indeed, 'Tomorrow's Tourism' set a challenge to "exceed the rate of global growth in the industry by the end of 2010" (Department of Culture, Media and Sport 1999 p3, cited in Robbins and Dickinson 2006). Thus, government policy far from being integrated on this issue is clearly at odds. The earlier Consultation Paper on Sustainable Tourism identified this problem and requested detailed proposals for "ways in which visitors can be encouraged to use more environmentally friendly transport options to (a) reach their destination (b) to travel around once they are there" (Department of Culture Media, and Sport 1998 p7 cited Robbins and Dickinson 2006). Robbins and Dickinson (2006) identified six specific measures from the transport section of 'Tomorrow's Tourism' (Department of Culture, Media and Sport 1999):

- Improve the quality and accessibility of information available to tourists by developing a national, integrated public transport information service by 2000.
- Examine the potential for delivering integrated public transport and tourist information in a user friendly way, including electronic means.
- Encourage tourist and leisure site managers to produce green transport plans to reduce congestion and pollution from employee and visitor car traffic.
- Encourage the upgrading of public transport infrastructure such as facilities for bicycle carriage.

- Identify and publicise schemes which utilise transport or visitor management techniques to good effect.
- Encourage the creation of new tourism products which integrate walking with cycling or travel by bus and rail as part of the experience.

In this respect, since 1996 the UK government has advocated the use of Employer Travel Plans as a mechanism of reducing car dependence on the journey to work but to date there has been limited use of Travel Plans in a leisure or tourism context (Dickinson et al 2004). According to government guidance on Local Transport Plans, the UK cannot, under existing legislation, impose a workplace-parking levy for parking at leisure sites which would have major implications for the industry. However, the government will seek evidence of partnerships to tackle car access which includes better public transport, walking and cycling access (Department of Environment, Transport and Regions 2000). Local authorities are increasingly demanding Travel Plans as a condition of planning permission. To date these have largely focused on big employers and travel to work. However, Hurdle and Tansley (2001) argue that leisure facilities are also big journey generators and could therefore also be required to produce Travel Plans targeted at customer travel. The Transport 2000 Trust (2001) has taken the lead in promotion of Visitor Travel Plans and recognises that such plans can offer a real choice of travel to attract new visitor markets thus increasing overall visitor numbers while reducing traffic to the site. A Transport 2000 Trust (2001) checklist suggests Visitor Travel Plans address four key areas:

- Promotional initiatives to raise awareness and give cost incentives for alternatives to the car.
- Access initiatives to make it easier to reach the attraction by non-car alternatives.
- Facilities initiatives to meet the needs of those arriving by sustainable transport.
- Car park management review with a view to limiting parking volume.

To date the most cited example of a Visitor Travel Plan is that for Harewood House near Leeds developed by Transport 2000 as a model for other leisure facilities (Transport 2000 Trust 2001). Incentives and improved on site facilities were employed to attract more passengers to a frequent bus service passing the site entrance and improvements to walking and cycling facilities are planned, together with promotional material, to attract new car-free visitors. However, while such initiatives are increasing Robbins and Dickinson 2006 argue that despite the specific reference to the objectives of the Transport White paper in 'Tomorrow's Tourism', there is a conflict between a transport policy aimed at slowing down road traffic growth and a tourism strategy aimed at accelerating tourism growth.

3.4 Rural travel patterns

Car dependence in rural areas is high (Countryside Agency 2003). In rural areas of the UK car impacts are likely to become more acute over the next few years as traffic is predicted to grow more outside of urban areas where most local transport research has taken place (Commission for Integrated Transport 2001). Grey highlights that rural areas encompass “widely differing locations with a heterogeneity of transport problems” (Commission for Integrated Transport 2001 p2). He recognised that policy to address the problems of rural transport was being formulated without an understanding the diversity of issues. Grey thus developed the concept of Rural Transport Typologies as a practical way of categorising the diverse transport contexts of rural areas (Grey 2001). Eight typologies were suggested:

A1. Rural peri-conurbation (for example, rural Surrey)

A2. Rural peri-urban (for example, Oxfordshire)

B1. Market town and hinterland with proximate urban centre (for example, Dingwall and Inverness)

B2. Market town with dispersed hinterland (for example, Lincolnshire)

B3 Market town with 'valley' hinterland (for example, Yorkshire Dales)

C1. Remote rural 'honeypot' (for example, The Lake District)

C2. Remote rural village and hinterland (for example, Northumberland)

C3. Isolated periphery (for example, North West Highlands)

Purbeck would be largely categorised as B1 although due to the geography of the area (being a peninsula) some parts are arguably B2 or even C1. Grey notes that “around 90% of the rural population is probably contained in rural typologies A1 to B3, although the problems associated with the remote areas (C1 to C3) often dominate debates on rural transport” (Commission for Integrated Transport 2001 p2). Grey (2001) argues there is some potential for up to 20% of rural car journeys to be curtailed or shifted to other modes if these are available as some journeys are largely discretionary use of the car. Since 1998 the government has made available a variety of grants to subsidise transport initiatives in rural areas for instance: rural bus subsidy grant; the rural bus challenge scheme; the rural transport partnership scheme; and the parish transport fund. In the future the delivery of subsidy may be applied locally according to the specific rural transport context (Commission for Integrated Transport 2001).

3.5 Transport, tourism and leisure in rural areas

Most recent rural traffic growth can be attributed to leisure and tourism (Charlton 1998) which emphasises the need to address this aspect. Leisure and tourism travel modes include foot, cycle, bus, coach, train, car, motorbike, boat and air travel. This study does not encompass air travel as it is not normally a mode of local transport, the focus is on reducing car use and improving alternatives including public transport (bus and train), cycling and walking. Addressing tourism and leisure traffic is fraught with problems as rural destinations are usually isolated from public transport routes, populations and attractions are dispersed and leisure traffic is generated at varied times which all pose problems for the viability of alternatives to the car (Charlton 1998). There is also the additional problem of the transportation of bulky items associated with modern leisure pursuits from picnic gear to hang gliders (Charlton 1998). A study of Lake Balaton in Hungary (Puczko and Ratz 2000) shows the tourism transport problem is not unique to the UK. Puczko and Ratz found the majority of visitors arrive by car 77% (1993 data) and are not willing to use public transport, although in the 1990s there were several attempts to promote this. The quality of the road network and the high number of cars cause very serious traffic problems during the season for both tourists and local residents.

Lawson (2001) argues that traffic congestion may lead to loss of time to participate in leisure and tourism activities and Prideaux (2000a) suggests tourists may seek alternative destinations where travel is impeded by poor transport infrastructure. At present it is not clear to what extent visitors are put off visiting areas due to traffic congestion. Delay in your car is likely to be preferable to delay in public transport and to a large extent people are acclimatised to congestion. But people may simply stay at home if they experience congestion on route to leisure activities while this is not an option in a travel to work scenario (Lawson 2001). An examination of UK heritage attractions showed that while congestion is a general problem experienced by a third or more of visitors there are particular attractions that are badly affected (Dickinson et al 2004). As congestion increases so may our reluctance to make long journeys to visit attractions (Dickinson et al 2004; Lawson 2001). This could have far reaching implications for the UK leisure and tourism industry particularly for attractions that are not close to major centres of population.

Dickinson et al (2004) found that once on holiday visitors adopt more sustainable transport patterns tending to travel shorter distances than day visitors thus tourist travel patterns are more conducive to non-car based forms of transport. Holding and Kreutner (1998) found that tourists were also more positive about non-car alternatives than day

visitors and locals. Thus, from a planning perspective traffic management schemes are potentially more likely to succeed where there is a high volume of holiday makers as opposed to day trippers. However, as non-residents in an area, holiday makers pose marketing problems as they are less likely to pick up on local information during a short stay compared to the resident population (Dickinson et al 2004).

3.6 Leisure/tourism transport initiatives

3.6.1 Approaches to transport initiatives

Though central government has paid scant attention to leisure and local tourism generated journeys there has been more impetus to act at a local level where the impacts of car traffic are felt. Many rural destinations in the UK have long recognised that leisure and tourism journeys can pose a problem. In the UK a variety of tourism transport initiatives have been tried ranging from promotion of alternatives to the car through to providing new alternatives and prohibiting car use. Initiatives can be divided in to five broad categories (Table 1). However, there has been little evaluation of leisure travel initiatives (Dickinson et al 2004) although there are several good practice guides (Countryside Agency 2001; Transport 2000 Trust 2001).

Due to the diversity of sustainable transport initiatives various authors have attempted to devise a structure to analyse the different strategies adopted. Transport initiatives can be considered in terms of the mode of transport that they focus on, reduction of car use and promotion of an alternative mode. Focusing on mode poses problems as in most cases at least two modes are involved, furthermore, many initiatives are not particularly mode specific in that there may be a disincentive or restriction on car use and a variety of alternatives on offer. Thus, one of the commonest ways to conceptualise transport initiatives is in terms of incentives and disincentives or 'carrots' and 'sticks' (Cullinane 1997; Cullinane and Stokes 1998; Steiner and Bristow 2000). Cullinane (1997) devised a taxonomy of traffic management measures applied in British National Parks based on 'carrots' and 'sticks'. Similarly Steiner and Bristow (2000) developed a hierarchy of effectiveness in reducing car use and traffic nuisance of visitors to National Parks ranging from the severe restrictions on car use (road closure) which equates to 'sticks', to promotion of, and enhanced provision of alternatives which equate to 'carrots'. The most effective initiatives as far as car reduction go are those involving restrictions on the car and the general consensus is that successful initiatives require a combination of 'carrots' and 'sticks' (Cullinane 1997; Holding and Kretner 1998; Cullinane et al 1996; Steiner and

Bristow 2000). The range of potential approaches are summarised in Table 2. Schemes typically fit a variety of dimensions.

Table 1. Tourism and leisure transport initiatives (this table was first presented in Dickinson and Dickinson 2006)

Category	Examples
Area wide tourism traffic management initiatives	<ul style="list-style-type: none"> • Gateway to the Sussex Downs • Reinventing the country lane, Surrey Hills – changing driver’s perceptions of lanes • Jersey’s Green Lanes – 45 miles of road with 15mph speed limit
Containment/restriction and pricing strategies	<ul style="list-style-type: none"> • Road closure in the Upper Derwent Valley, Derbyshire • Restricting village parking, Elterwater, Lake District National Park • Car-free Polperro, Cornwall
Encouraging use and development of public transport routes	<ul style="list-style-type: none"> • The Bittern Line, Norfolk – encouraging leisure use on rail line • Moorsbus network in North Yorkshire Moors National Park
Improving routes for cyclists and walkers	<ul style="list-style-type: none"> • UK’s National Cycling Network • Brecon’s Bike Bus, Brecon Beacons National Park • UK’s Quiet Lanes initiative
Initiatives at visitor attractions and accommodation providers	<ul style="list-style-type: none"> • Harewood House, Leeds – travel plan • No car parking at Prior Park, Bath • Hostel bus, Lake District – minibus link from train station • National Trust offers discounted tickets for visitors arriving without a car

A review of literature, although by no means exhaustive, identified 60 UK leisure/tourism transport initiatives for analysis (see Appendix 1). The majority of the initiatives related to provision or promotion of public transport (70%), 25% included measures related to cycling, 13% measures to improve walking, and 30% included various traffic management measures. Traffic management, while quite common, is rarely more than parking charges or traffic calming in most cases. Less than half of the traffic management measures included any form of restriction on car use. These initiatives ranged from removal of parking facilities to complete road closure and were part of a traffic management package including provision of non-car alternatives. Where restrictions have been imposed, for example in the Derwent Valley (Peak District National Park) and Polperro (Cornwall), they are often very successful. From this overview it can be seen that public transport is the favoured approach. This follows from government policy that also focuses on public transport as the main alternative.

3.6.2 Success and failure of initiatives

Although there is a myriad of choices of how to tackle the problem it is still not clear what works well, where and why. There are many practical obstacles that transport initiatives need to be aware of and overcome. A review of why tourism transport initiatives fail reveals a number of practical problems:

Failure to meet conventional measures of success. The criteria for success when developing and managing sustainable transport initiatives for tourism are largely economic viability, levels of use and transfer of traffic from cars, while wider benefits related to quality of community life and opportunity have been largely ignored. There is a tendency to quantify user characteristics and logistical aspects of supply. Schemes are often abandoned when they fail to meet economic criteria, on withdrawal of grant aid or due to lack of use (Cullinane and Stokes 1998). Transfer of journeys from the car is particularly tricky to measure as it is hard to evaluate and often poorly monitored. Would the journey have been made by the car anyway or has a new journey been generated? Furthermore, many initiatives, such as cycling, are seasonal and weather dependent although seasonality does depend on holiday or day visit catchment. Since the 1970s a wide variety of rural transport initiatives have been implemented. An analysis of public transport schemes in the 1980s found that over 50% failed to achieve their targets and performed worse than expected (Groome and Tarrant 1984 cited in Cullinane et al 1996).

It is not surprising in a rural context that public transport proves a poor competitor to the car. In low population density areas economic and use level criteria are unlikely to be met and dispersed destinations make it hard to offer non-car alternatives that will appeal to a majority of people. Visitors are predominantly car based (for example 89% arrive by car at the Lake District National Park (Lake District National Park Authority 2004)) and rural residents are more likely to be car owners than their urban counterparts; 84% and 72% of households respectively (Countryside Agency 2003). Furthermore, it is often not clear what constitutes success as targets are rarely explicit (Eaton and Holding 1996).

Table 2. Approaches to transport initiatives

Approach	Examples
Carrots and sticks	
• Promotion of non-car alternatives	Staffordshire 'cycle and see' initiative
• Disincentives for car use	Restricting village parking in Elterwater, Lake District National Park
Nature of the tools	
• Physical – Car parking restrictions etc	Bollards, mounds and rocks to prevent car parking in Dartmoor National Park
• Technological – traffic light systems, information for public transport passengers	Wilts and Dorset bus time information at stops
• Financial – petrol and car taxation, road pricing, parking pricing, public transport fare policy	Inverse parking charges in North York Moors National Park
• Psychological – media campaigns	Take Moor Care, 40mph speed limit Dartmoor National Park
Geographical Scale	
• Small area	Pedestrianisation of Polperro village, Cornwall
• Corridor	
• Region wide	Reinventing the country lane – Surrey Hills
Political level	
• Local	Village schemes
• Regional	Reinventing the country lane – Surrey Hills
• National	Tax
• European Union	Directives for example Environmental Impact Assessment
Time scale	
• Quick results	Car park reduction
• Long term strategy	Public transport development and marketing
Public sector/ private sector/ public-private partnership	
	Public sector eg Peak District National Park cycle hire
	Private sector eg buses linked to attractions
	Public-private partnership eg Swanage railway park and ride
Tourism/leisure or utilitarian focus or mix	
	Heritage rail = tourism
	Utilitarian = bus networks
	Mix = Swanage railway – tourism route well patronised by local residents for utilitarian journeys
Hierarchy of user effort	
Hard	Planning routes with pre-bookable transport
Easy	Countryside Agency Quiet Roads and Greenways (able to cycle from door)

Developed from Cullinane and Stokes 1998

Opposition to traffic management and support for public transport. In the transport arena there are a wide variety of stakeholders. Local opposition to traffic management schemes can be fierce, though may represent a minority view (Coleman 1997; Lumsdon and Owen 2004), the biggest issue being impact on local business (Cullinane et al 1996).

Councillors make decisions but need votes of local people. It is politically difficult to implement restrictions on travel (Hall 1999) and other forms of traffic management (Holding and Eaton 1996). Traffic management schemes are also difficult to enforce in dispersed rural areas and there can also be an absence of appropriate power, such as parking controls (Holding and Eaton 1996, Eaton and Holding 1996, Steiner and Bristow 2000). This poses a problem, as 'carrots' are generally ineffective when employed alone (Cullinane 1997; Holding and Kreutner 1998), but 'sticks' are unpopular (Gatersleben and Uzzell 2003). There is also a danger of perceived local opposition outweighing visitor support for initiatives as tourists are more likely to view traffic restrictions as positive than day visitors or local people (Holding and Kreutner 1998). In addition, 'carrots' may be poorly regarded by car users who may not be able to conceptualise public transport as a viable alternative (Cullinane and Cullinane 1999).

In the North Yorkshire Moors National Park local businesses were found to equate the car with livelihood and if anything wanted to increase rather than reduce parking capacity (Coleman 1997). A public meeting to discuss parking issues proved unhelpful as this enabled opposition to shout the loudest. Thus, public meetings are not always equitable (Coleman 1997) and it is questionable whether opposition to schemes is widely supported or simply a view of the more vocal few. Many other authors cite problems restricting car use as a result of local opposition (Charlton 1998; Cullinane 1997, Cullinane and Stokes 1998, Cullinane and Cullinane 1999, Eaton and Holding 1996, Holding and Kreutner 1998). However, it might be argued that this view of local opposition as a problem is reinforcing itself as many authors cite the same example, Burrator Reservoir in Dartmoor where a road closure scheme was withdrawn following local opposition (Charlton 1998; Cullinane et al 1996; Cullinane 1997; Steiner and Bristow 2000). Initial opposition to change should be anticipated although traffic experiments can overcome this opposition as they are only finally adopted if they prove successful (Steiner and Bristow 2000, Holding and Eaton 1996). For example, Prior Park, a National Trust property at Bath, was opened with no car access on a two-year trial in 1996. In 1998 the trial clause was removed, the scheme having proved successful and overcome local opposition (Ward 1999). In our society, where car users are the dominant group, restrictions are viewed as curtailing certain freedoms. A common response is that there is no alternative to the car and it has become a normative view that public transport should be improved first.

However, public transport is not well regarded and as such, it tends to fail to meet conventional measures of success.

Planning and managing provision. There are many planning and management issues that pose problems for initiatives. For example, funding and marketing is often too short term to generate any widespread awareness (Eaton and Holding 1996); and short term initiatives are perpetuated by lack of resources which can be a problem funding bus services (Steiner and Bristow 2000). Many schemes are abandoned after short periods or when the initial grant aid runs out, yet Breakell (1999) argues schemes need to be gradually built up. Co-ordination can be complex, time consuming and slow; staff can lack experience and can be difficult to recruit. Opportunities to develop initiatives are often opportunistic and reactive, taken where they can, even if they are not good strategic options. For instance, cycle way development on disused railways is a relatively easy option to develop, but in the UK prior to the National Cycle Network and a more strategic approach, routes were poorly connected. There is a tendency to react to acute problems with a 'must do something' approach. Initiatives are often ad hoc based on hunch, trial and error, or green tokenism approaches with no clear objectives (Eaton and Holding 1996). Often there is no initiative to build on, thus the lead-in time needs to be much longer and there is no integration into a wider transport strategy. It is also often unclear who will take the initiative forward in the long-term, especially where there are staff changes or project funding comes to an end. Positive aspects of coordination include setting clear targets (Eaton and Holding 1996), integrated promotion of non-car alternatives with accommodation and other tourism facilities (Beioley 1995), all day fares (Breakell 1999), imaginative marketing (Cullinane et al 1996) and partnership with other organisations (local authorities, small businesses, community and amenity groups) (Cullinane et al 1996). Providers need to understand the importance of their role in coordination and integration, it should be a whole package approach. Ideally initiatives are long term, have clear objectives and do not rely on basic use level criteria as the measure of success.

Stakeholder involvement. As with any change, it is important to consult with local residents (Cullinane et al 1996) and other stakeholders as local opposition is commonly cited as a reason for schemes to be withdrawn (Charlton 1998).

Existing infrastructure/facilities/provision. It is also important to build on existing infrastructure, facilities and provision. For instance, cycle hire is most successful where associated with off-road routes where hired bikes can be a much as half the traffic (Beioley 1995). When developing public transport for tourism viable networks are

important, an example being the Moorsbus in the North Yorkshire Moors National Park (Breakell 1999). Networks are also important for pedestrians and cyclists. Where there is no infrastructure or facility to build on, schemes are more likely to fail.

Traffic generation versus reduction. Some initiatives, such as off road cycle routes and heritage train lines, generate additional car journeys to use the 'attraction' (Charlton 1998) thereby defeating the object, though such schemes may reduce local traffic. Improvements to cycle racks on cars has had an impact on cycle hire facilities and several authors note the potential of increased driving to sites for cycling (Charlton 1998, Gale 1996, Steiner and Bristow 2000).

Conflicting transport needs. There are practical conflicts between local people and visitor transport needs (Robbins 1996.) The needs of commuters (speed and regularity at peak times) and leisure travellers (attractive routes and all day services) are not the same (Charlton 1998). Furthermore the travel needs of tourists and day visitors also vary, for instance travel can be a component of the leisure experience or utilitarian travel to the leisure site. In Hungary, Puczko and Ratz (2000) found that local residents tend to blame tourists for the impacts, for example, the driving of private cars seemed to be more polluting if it was done by tourists. Tourists did feel some responsibility but only 18% of tourists believed they might have caused some negative impacts.

Factors for users of non-car alternatives. Prideaux's work on the Resort Development Spectrum model brings some theoretical insights to the role of transport in tourism development (Prideaux 2000b). However, his focus is on travel to, rather than around, the destination and on broadly quantifiable aspects such as financial cost and time. Prideaux (2000a; 2002) argues there are three travel costs for visitors: financial, comfort and time cost. Public transport fares can be seen as an additional cost and can prove expensive for families with three or more members. However, the real motoring costs are largely hidden and visitors are often unaware of high parking charges in destination areas. With respect to comfort even the UK Department for Transport admits that public transport is dirty, unreliable and slow (Department of Environment Transport and the Regions 1998). Time can be a factor with both car use (subject to congestion) and alternatives, the time taken to transfer mode being a particular problem (Eaton and Holding 1996). Holding and Kreutner (1998) found positive attitudes towards a park and ride and a road closure were consistently stronger among staying holidaymakers than day visitors. This was probably related to the additional burden of the time penalty of changing modes which is greater for the day visitor who has travelled further at the point of use. Where the alternative is cycling the problems are heightened by perceived safety issues unless segregated routes

are available. In general public perceptions of non-car alternatives are poor (Cullinane et al 1996). Cullinane and Cullinane (1999) found that car drivers were almost unable to comment on public transport in the Lake District and Dartmoor National Parks, never mind use it, it simply was not considered a viable alternative to the car. However, perceptions can vary in different situations and public transport can be perceived to be viable where it is viewed as a leisure activity in its own right (Eaton and Holding 1996, Robbins 2003).

3.6.3 Alternative measures of success

There are rural tourists and residents who depend on alternatives to the car, or willingly use alternatives as part of the visitor experience, and others who value the availability of alternatives, even if they are rarely if ever used. Where significant restrictions have been imposed on car access the results are generally positive for tourists and residents alike. Thus, it could be argued that the less tangible benefits of car restrictions and availability of alternatives should be taken into account when assessing success of initiatives. For instance in low population density, peripheral areas, economic and use level criteria are unlikely to be met, however the creation of a viable public transport network would be an important social gain for low income employees such as those employed in the tourist industry. Furthermore, the reassurance that the network exists, even if it is little used, may bring peace of mind to residents and tourists. Whereas, in more densely populated rural areas, particularly those with a high influx of visitors during the tourist season leading to congestion, transfer from car may be the most important criteria.

Socio-economic impacts on the host community and visitors have been cited as reasons for developing initiatives but seem to be less clearly established as reasons to continue an initiative if none of the conventional criteria are met. For example, the Moorsbus network was set up on a social inclusion agenda (interview with Breakell 2003 and Breakell 1999) however, as a local authority funded initiative it has had to prove in 'Best Value' reports to the government audit commission that use levels are increasing. Socio-economic impacts on host community can encompass social inclusion, improved facilities, wider economic impacts and social benefits. Improved facilities speak for themselves however, what can be ignored are the less tangible benefits that come from awareness of facilities whether they are used or not. There is some evidence that Bike Buses encourages cycling as people are aware there is support available should they need it (Transport 2000 Trust 2001). There are also many indirect benefits from improved facilities for tourists, for instance development of cycle tourism can improve cycling provision for local people and help introduce rural traffic-calming which will further benefit local people (Sustrans 1999).

In order to justify spending on cycling initiatives there has been considerable research which demonstrates the wider economic impacts of cycle tourism (Downward and Lumsdon 1998; Lumsdon 1996, Ritchie 1998; Sustrans 1999). It has been suggested that the European cycle tourism market could be generating E21.5bn by 2020 (Anon 1999). Research in Austria has shown that towns and villages near cycle tours gain considerable economic impact in terms of demand for food and accommodation. For example the 324km Donauradweg route in Austria has seen a steady growth in cycle tourist numbers since it opened in the early 1980s and up to 80% of overnight stays along the route are attributed to cycle tourists (Anon 1999). There is also less leakage related to cycling tourists as transport limitations restrict spending to local shops and facilities (Sustrans 1999). However, Simonsen et al (1996) have questioned the economic impact of cyclists. In their study of Bornholm, Denmark, they argue it is not clear whether the tourists who come as cycling tourists would be in the area anyway, although cycle facilities have enhanced the tourism product.

Social benefits develop out of improved facilities and economic impacts. Additional benefits include increased opportunities to cycle and walk leading to health benefits (Jenkins and McLaren 1997) and increased availability of low cost alternatives (cycling, walking and public transport) improving opportunities for all but particularly disadvantaged groups and as such the impacts may be greater in deprived areas. Sustrans (2004) have noted an increase in cycling in deprived areas. Given that there are significant levels of deprivation in many rural areas this is an important benefit.

Visitors benefit from improved facilities and as for host communities there are also likely to be intangible benefits of knowing facilities are there regardless of whether they are ultimately used or not. Perceived accessibility may enhance visitors' perceptions of an area as a suitable destination to visit. Furthermore, enhanced accessibility is crucial to visitors without access to a car and increases opportunities for disadvantaged groups to visit areas. Car free environments for walking and cycling are attractive to visitors as can be seen at the very successful road closure scheme in the Upper Derwent valley in the Peak District National Park. A section of road around Derwent reservoir is closed to vehicle traffic except for people with disabilities and a bus service. A car park and cycle hire is available at the start of the road closure. A criticism of this scheme, however, is the potential to generate car traffic to access the site as it is an attraction in its own right. Beioley (1995) argues that cycle tourism in the UK could prove an attraction for overseas visitors particularly from northern Europe and could strengthen the general UK holiday experience as well as specialist niche markets. Sustrans (1999) similarly argue that cycle

tourism can provide new incentives to visit an area and attract new types of visitor. Cycling opportunities can extend the length of stay and encourage repeat visits (Sustrans 1999) with the added environmental benefit that longer stays reduce the travel to destination impact (University of the West of England 2002) and increase the economic impacts locally.

Many of the environmental benefits from tourism transport initiatives arise from a reduction in car traffic, for example, reduced congestion, pollution and accidents. However, other environmental benefits are apparent, for instance environmental improvements associated with landscaping cycling networks. Initiatives may also increase environmental awareness among visitors and residents.

While some criteria can be clearly quantified, many are much more subjective and, therefore, difficult to quantify which poses problems in the transport planning world where meeting objective targets is important. However, even traditional measures such as transfer from car to other modes pose problems for quantification. Most analysis of local travel issues is based on attitudinal surveys of potential and existing users and area travel audits. UK advice on employer travel plans is typical, recommending questionnaire based surveys of staff travel habits based on attitude and behavioural questions (Steer Davies Gleave 2000) together with audits of facilities and travel. Travel surveys largely tell us what is already known, that is, large numbers of people arrive by car and some could be persuaded to use alternatives assuming they were improved. As the desired improvements are mainly beyond what could be reasonably implemented such attitude surveys are not particularly useful. Similarly travel audits largely state obvious facts related to the location such as lack of public transport in peripheral areas. Many of the issues crucial to the success of initiatives are external to potential users and the existing transport situation encompassed by an audit. Schemes with objectives based on the traditional criteria for success ignore many factors such as low paid employees being able to access jobs in peripheral areas. Thus, the conceptualisation of transport initiative successes in tangible terms that are easy to measure overlooks the intangible aspects that might be beneficial to visitors and community well-being in rural areas.

3.7 Tourism and stakeholders

Many authors argue the importance of understanding stakeholders views (Harrison and Burgess 2000; Pearce et al 1996; Hardy and Beeton 2001; Lankford 1994) particularly in the context of tourism-community planning. However, there is some debate on what is a

stakeholder and Berno (1999) suggests that even in Western literature there is little agreement. Hardy and Beeton (2001) argue the importance of understanding what stakeholders perceive sustainable tourism to be as this will make the term more operable as divisions inherently exist within communities which are not homogenous. This is particularly pertinent to understanding stakeholders views of sustainable transport where perspectives are often divided. Harrison and Burgess (2000) note how conservation needs active support of the public to make it effective and argue that the legitimacy of local people's concerns should be acknowledged. Hardy and Beeton (2001) suggest we may get maintainable tourism not sustainable tourism when stakeholder perceptions are not taken into account.

Freeman's definition of a stakeholder is commonly employed in the literature (Hardy and Beeton 2001; Sautter and Leisen 1999): "a stakeholder in an organization is any group or individual who can affect or is affected by the achievement of the organization's objective" (Sautter and Leisen 1999 p313). Sautter and Leisen (1999) suggest that in a tourist initiative stakeholders include: local businesses, residents, activist groups, tourists, national business chains, competitors, government, employees. They argue all groups or persons who have an interest in the planning process should be identified. This can be achieved through an historical analysis of similar tourist efforts to consider the relevant players involved. Some stakeholders may have a variety of interests, not all tourism related. Jamal and Getz (1995) suggest "stakeholders are the actors with an interest in a common problem or issue and include all individuals, groups, or organizations directly influenced by the actions others take to solve a problem" (p188). Yuksel et al (1999 p354) use Bryson and Crosby's (1992) definition of a stakeholder as "any person, group, or organisation that is affected by the causes or consequences of an issue". The latter two are broader than Freeman's definition which specifically refers to organizations and are therefore more useful in a tourism context where various agencies may be involved. In this study Jamal and Getz's (1995) definition of stakeholders is employed. Thus, the relevant stakeholders encompass the actors with an interest in the transport problem in the Purbeck area including all individuals, groups, or organizations directly influenced by the actions other take to solve the transport problem. Thus, stakeholders include: residents, tourists, day visitors, transport operators (bus, train, steam train, cycle hire businesses), local businesses, local and national government. The study focuses on residents, tourists and day visitors and aspects relating to all the above stakeholders have been included in the study.

3.8 Tourism impact studies

There are numerous studies on community perceptions of and responses to tourism in a variety of settings in both developed and developing countries. Many studies have taken place in rural areas and are directly relevant to this study. There seems to be a consensus from an abundance of studies since 1980 that tourism development is felt by residents to bring many positive and negative impacts (Andereck and Vogt 2000; Andereck et al 2005). However, Hall and Page (2006) argue that the division into positive and negative impacts is not absolute and depends on the goals and value positions of individuals with respect to different types of tourism. Typically these impacts are grouped under economic, social or sociocultural and environmental headings (Andereck et al 2005; Ap 1990; Gursoy et al 2002; Hall and Page 2006). Some studies focus specifically on social or environmental impacts (Jurowski et al 1997; King et al 1993; Liu et al 1987; Milman and Pizam 1988) or physical impacts (Puczko and Ratz 2000). Table 3 is an indicative, thought not comprehensive, list of impacts as much depends on the local situation.

In general residents perceive economic impacts positively (Jurowski et al 1997; Lankford 1994) but this can vary from place to place (Andereck et al 2005). As the majority of residents see tourism as an economic development tool, it is not surprising that most studies show positive attitudes towards tourism, especially with respect to the economic benefits (Gursoy and Rutherford 2004). Examples of positive economic benefits include: reduced unemployment; new businesses and investment opportunities; opportunities for small businesses; revenue generation for local communities and government (Gursoy and Rutherford 2004). However, while there may be some general agreement on tourism's economic role, some studies have identified some dissent in that jobs that are supported may not be desirable (Lankford 1994).

Transport impacts are commonly identified as a problem (Andereck et al 2005; King et al 1993; Lindberg and Johnson 1997; Liu et al 1987; McCool and Martin 1994; Perdue et al 1990) usually related to the environmental impacts associated with congestion, parking problems and noise pollution. However, traffic problems may also have economic and social consequences.

Table 3. Examples of positive and negative impacts relevant to rural tourism destinations in the UK (source: Hall and Page 2006; Ap 1990; Jafari et al 1990; Johnson et al 1994)

	Positive	Negative
Economic	<ul style="list-style-type: none"> • Increased expenditure • Contributes to income and standard of living • Improved transport infrastructure • Improved public utilities infrastructure • Creation of employment • Increase in investment • Creation of new facilities and attractions • Improved tax revenue 	<ul style="list-style-type: none"> • Localised inflation • Increased house prices and housing costs • Better alternative investments • Capital outflows • Increased cost of living • Low status jobs • Increased local taxes
Social	<ul style="list-style-type: none"> • Enhanced international recognition of region • Increased availability of recreation facilities • Improved quality of police and fire protection • Improved quality of life • Encourages cultural activities by local people • Preserves cultural identity of host population 	<ul style="list-style-type: none"> • Potential increase in crime • Changes in community structure • Social dislocation • Tendency towards defensive attitudes concerning host regions • High possibility of misunderstandings leading to varying degrees of host/visitor hostility • Failure to cope • Increase in administrative costs • Lack of local control over industry
Environmental	<ul style="list-style-type: none"> • Development of new facilities • Conservation of heritage 	<ul style="list-style-type: none"> • Environmental damage • Increased traffic problems • Increased noise pollution • Increased litter • Overcrowding • Destruction of heritage

Variables which may influence resident perceptions of tourism impacts can be categorised as extrinsic or intrinsic (Hall and Page 2006; Faulkner and Tideswell 1997):

- **Extrinsic:** factors that affect the community at a macro level such as nature and stage of tourism development, cultural differences, seasonality.
- **Intrinsic:** characteristics of host community members, for example, demographics, involvement in tourism, proximity to tourism.

Of the extrinsic factors, the models proposed by Doxey (1975) and Butler (1980) (cited Faulkner and Tideswell 1997) are potentially of interest here. Doxey's 'Index of Tourist Irritation' (Figure 1) proposed that residents' initial euphoric reaction to tourism progressed through apathy and irritation to antagonism as the adverse impacts of tourism increased (Brown and Giles 1995). Butler's life cycle model (Figure 2) suggests residents go from approval to opposition as a tourism destination grows and impacts become more apparent (Brown and Giles 1995). Based on the premise of Doxey and Butler a number of

studies have examined the impact of the stage of tourism development on perceived impacts with mixed results.

Where communities have long been exposed to tourism, it is suggested they adapt and accommodate its effects although opposition may still exist (Hall and Page 2006). At a mature stage of tourism development where communities have adapted to tourism through experience or migration, Faulkner and Tideswell (1997) suggest an altruistic surplus effect where individuals may perceive negative impacts but are still favourable to what they perceive as the overall benefits of tourism. This is supported by Lui et al (1987). Also, Jafari et al (1990) demonstrate that in most places residents are supportive of the tourism industry although people may not support development that might increase the numbers of tourists and do perceive negative impacts. However, Belise and Hoy (1980) and Ryan et al (1998) argue attitudes may become more negative as the stage of tourism develops. Long et al 1990 identified a threshold at which more tourism development was not favoured, this was found to be when 30% of retail activity was derived from tourism. Thus, there is some debate on the impact of acclimatisation to tourism development. There is evidence of adaptation but also evidence that once certain thresholds are exceeded this leads to negative impacts. Clearly the response is likely to depend on the characteristics of the area prior to tourism development. Indeed, Bramwell (2003) critiques the development cycle approaches as, although they encourage longitudinal study, both Doxey's and Butler's models are industry-focused and encourage study of community responses outside of the community's local and historical context. A longitudinal study conducted by Johnson et al (1994) in a rural USA area illustrates this point. Here the community was changing to a tourism base from an extractive industry base. At the beginning of the switch residents were initially pre-disposed to tourism development however, after six years they were disappointed by the lack of economic rewards. In rural areas undergoing transformation from a primary industry base to tourism there can be resistance to the change in social structure. Johnson et al (1994 p638) suggest "the local population still see themselves as primarily mine and timber workers; tourism services is still perceived to be "second class" work."

Figure 1. Doxey's Index of tourism irritation theory

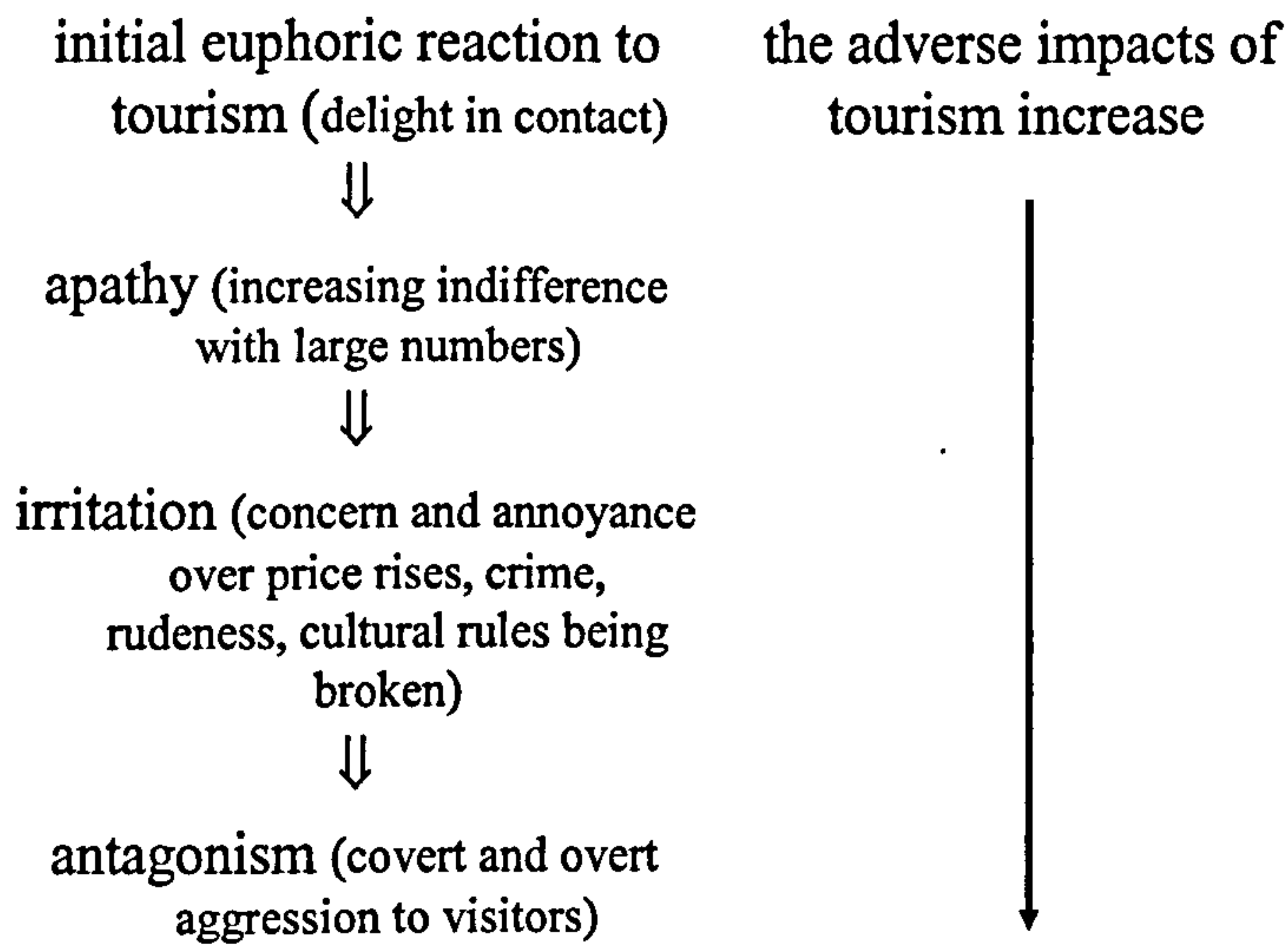
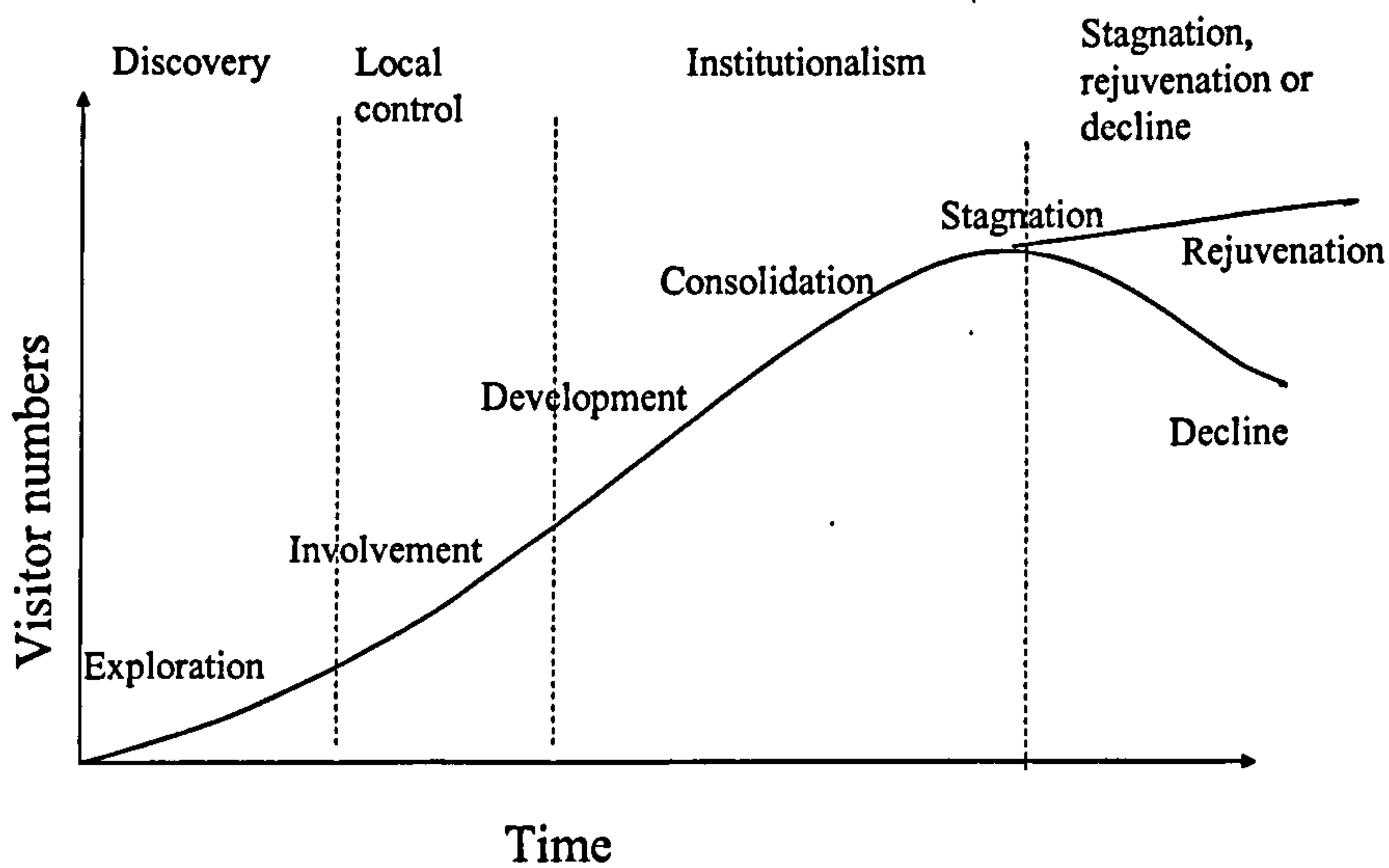


Figure 2. Tourist area lifecycle (Butler 1980 cited in Cooper et al 1993)



In respect to intrinsic variables Hall and Page (2006 p162) suggest “resident attitudes to tourism development will be influenced by where they fit into the existing social and economic order, their personal gains from the development process, and/or their response to the changing environment in light of their pre-existing values and attitudes”. Many studies have attempted to analyse perceptions of impact on the basis of population segments based on a variety of variables such as: length of residency; distance from

tourism zone; socio-economic status; involvement in or benefits from tourism; attachment to community; attitudes to preservation of environment. Lankford (1994) found that key actors have different views; residents differ from business owners, government employees and elected leaders. Socio-economic variables have not been found to influence attitudes towards tourism in the developed world and have therefore been excluded from some studies (Faulkner and Tideswell 1997). While most studies are atheoretical (Ap 1990; Gursoy et al 2002) some employ social exchange theory (Ap 1992; Pearce et al 1996; Jurowski et al 1997).

Social exchange theory essentially recognises there is a trade off between tourism's positive and negative impacts which results in tourism being accepted or not (Ap 1992). "Social exchange doctrine suggests that individuals will engage in exchanges if (1) the resulting rewards are valued, (2) the exchange is likely to produce valued rewards, and (3) perceived costs do not exceed perceived rewards" (Skidmore 1975 cited in Jurowski et al 1997 p3). For instance, Davis et al (1988) found that knowledge of tourism's impact on the economy was found to be positively correlated with appreciation of the tourism industry. Gursoy et al (2002) and Jurowski et al (1997) attempt to model a variety of factors using social exchange theory. Jurowski et al (1997 p9) suggest their model provides some explanation of why there may be a "continuum of responses to tourism within the same community" as social exchange is a complex and dynamic process. In one of the few social exchange studies that attempts to model both extrinsic and intrinsic aspects Gursoy and Rutherford (2004) suggest ten determinants of residents' support for tourism development:

- The level of community concern (intrinsic);
- Ecocentric values (intrinsic);
- Utilization of tourism resource base (intrinsic);
- Community attachment (intrinsic);
- The state of the local economy (extrinsic);
- Economic benefits (impact factor);
- Social benefits (impact factor);
- Social costs (impact factor);
- Cultural benefits (impact factor);
- Cultural costs (impact factor).

However, Ryan and Montgomery (1994) question social exchange theory suggesting it is too rational and arguing that the reward needs to be broader than a purely objective reward. Andereck et al 2005, while using social exchange theory and suggesting it is useful for examining perceptions of tourism impacts, suggest it may offer an incomplete structure. Pearce et al (1996) also suggest problems with social exchange theory. Firstly it

assumes humans are systematic information processors whereas psychology research suggests that in some cases they are not. Secondly much of an individual's knowledge is socially derived rather than the result of direct experience and thirdly people's perceptions are formed within a societal and historical context.

An analysis of previous studies demonstrates the majority have been based on a questionnaire survey employing scale items and using factor analysis based on *a priori* conceptualisations (Andereck and Vogt 2000). Questionnaires have been self or interview administered. Lankford and Howard (1994) devised a tourism impact attitude scale (TIAS) in response to the lack of common research instrument to measure attitudes in this area however, although Lankford and Howard's findings are well cited the TIAS survey does not appear to have been used elsewhere. Many studies develop questionnaires on the basis of earlier studies, and thus the research community arguably perpetuates many of the impact factors. Allen et al (1993) suggests a number of confounding variables, in their case gender and employment differences. This would appear to be a major limitation of these studies as it is practically impossible to account for all these. Most tourism impact studies have discovered one or more positive impacts or benefits and one or more negative impact dimensions (Andereck and Vogt 2000). The factors identified are largely dependent on the questions asked (Andereck and Vogt 2000; Andereck et al 2005) suggesting the *a priori* views of the researcher plays a part in the findings. Studies use a variety of different terms such as values, perceptions and attitudes. Andereck and Vogt (2000) suggest this is largely semantics.

Few studies examine both the attitudes of residents and tourists at the same time. The focus is almost always on the residents as it could be argued tourists would vote with their feet and would not return to places where they felt impacts were severe. One of the few studies to examine the attitudes of both residents and tourists is that of Puczko and Ratz (2000), who examined perceptions of physical impacts of tourism at Lake Balaton, Hungary. Structured interviews were undertaken with residents and tourists. While both groups perceived both positive and negative impacts, changes were interpreted differently by various actors. Tourists perceived less impact by tourism both on the natural and on the built environment. Tourists did not show as much knowledge or willingness to reflect on possible impacts as local people. The impacts identified by local people were mainly those types that could affect them personally and were visible, while tourists perceived more general and less site-specific types of impacts. With the exception of traffic jams and water quality, environmental problems were not perceived to be serious: local people viewed traffic jams as much more serious than tourists. Noise, traffic congestion and personal inconveniences were also attributed to tourists (but not tourism).

3.8.1 Social representations in tourism impact studies

While the number of tourism impacts studies employing social representations theory are limited, Pearce et al (1996) suggest several earlier studies might be re-interpreted in the light of social representations theory. Canan and Hennessy (1989) adopted a sociological perspective on residents' views of tourism on the Hawaiian island of Moloka'i. Their study highlights contradictions in people's views of Moloka'i and tourism development. For instance, groups supporting a growth machine perspective, which is supportive of mass tourism development, still value the traditional way of life and do not associate this with the tourism they support. Davis et al's (1988) study of local residents in Florida is widely cited in later literature in relation to social representations theory (Pearce et al 1996, Madrigal 1995, Fredline and Faulkner 2000). Davis et al segmented respondents by their attitudes, interests and opinions towards tourism. Social representation theory is not referred to but the approach adopted of identifying consensus groups fits the theory. Five groups of residents were identified: haters, lovers, cautious romantics, in betweeners, love 'em for a reason. No significant demographic differences were found between groups except whether the respondent was born in Florida. This suggests that segmenting people by demographic or socio-economic variables is less useful. Madrigal's (1995) work is cited by Pearce et al (1996) as an example of the application of social representations in tourism where again a social representations framework was not explicitly adopted. Madrigal's study is based on the hypothesis that communities are comprised of a number of smaller (nested) communities. These groups may or may not exist as formal entities with members knowing others who share similar views. This notion also underpins the work of Canan and Hennessy (1989) and Davis et al (1988). Madrigal identified three groups, lovers, haters and realists, the realists being the largest group. Madrigal argues that lovers and haters are more likely to participate in planning forums as they feel more strongly but the silent majority might have a more balanced perspective

Fredline and Faulkner's (2000) work on host community reactions to a major tourism event (the Gold Coast Indy in Australia) directly employs social representation theory. They argue that most studies measure resident perceptions, attitudes and behavioural adjustments at the individual level, identify response patterns and relate these to various independent variables. They, however, were more concerned with how such information can be utilised to identify groups of residents. They draw on Madrigal's (1995) work on nested communities and the earlier study by Davis et al (1988) which both focused on consensus and employed cluster analysis. Faulkner and Tideswell's (1997) intrinsic/extrinsic dichotomy and Ap's (1992) social exchange theory were also employed. Fredline and Faulkner (2000) identified five clusters: ambivalent supporter

(Davis et al's cautious romantic), haters, realists, lovers, concerned for a reason. Thus, to date, tourism impact studies employing social representations theory have focused on identifying groups of respondents with shared perspectives.

Yuksel et al (1999) employ social representations theory in their analysis of stakeholder views of a development plan for Pamukkale, Turkey. Social representations theory helped them to focus on broad commonalities of view rather than individual and group differences which are more common in tourism impact studies. They employed interviews rather than surveys as surveys can "assume that values are consistent and stable" and "are likely to neglect the complex and contradictory nature of people's views" (Yuksel et al 1999 p359).

3.8.2 Outdoor recreation issues

As Purbeck is an outdoor recreation area studies examining the influence of participation in outdoor recreation on perceptions of tourism are of interest (Keogh 1990; Perdue et al 1987). Keogh argues that tourism can have an impact on outdoor recreation facilities that may bring a positive improvement but a negative increase in more sharing and congestion. However, Keogh's study of a new Canadian Park designation found little evidence of a relationship between participation in outdoor recreation and negative attitudes towards potential tourism development as a result of the designation. Keogh suggests that participants viewed the designation of a park as positive for protection of park. Most frequent users tend to mention traffic problems more and generally hold less positive perceptions than less frequent users arguably, because they are less able to avoid competition. Allen et al (1993) suggest more research is needed on this topic though they see economic benefits being the primary driver of positive attitudes. Perdue et al (1987) also found little evidence of differences in perspective of tourism on the basis of outdoor recreation participation as social exchange theory might have predicted. They found as perceived impact of tourism on outdoor recreation opportunities increases, the desirability of additional tourism development decreases and favourability of tourism taxes increases.

3.9 Behavioural responses to tourism

Studies of the behavioural responses of residents to tourism are more limited than those of attitudes. Brown and Giles (1995) draw on Doxey's (1975) 'Index of Tourist Irritation' theory and Butler's life cycle model and suggest both approaches are unidirectional as they fail to take into account behavioural adaptation. In their study in Byron Bay, Australia they used a modified focus group technique to explore coping mechanisms.

Their work suggests residents' response to tourism impacts could be a function of residents' ability to reorganise their activities (Table 4). Coping with domestic activities was top of the list largely due to a desire to avoid congestion and crowding. Coping reduced spontaneity and took three forms:

- Reorganisation of daily activities;
- Retreat from normal life;
- Reaffirmation – a desire to reaffirm one's identity as a resident and not to be confused with tourists.

There was also some recognition of respondents embracing the crowding as it brought vitality to the area.

Table 4. Residents' coping strategies (Brown and Giles 1995)

Coping strategies for shopping:	<ul style="list-style-type: none"> • Avoid regular supermarket • Use corner stores more • Plan ahead by bulk-buying • Early-morning/late-night grocery shopping • Buying the 'bare minimum' • Stocking up when prices are lower • Shopping at times when shelves are fully stocked • Become more organised with shopping
Coping strategies for travel behaviour:	<ul style="list-style-type: none"> • Take alternative route • Walk rather than drive • Leave home earlier • Avoid certain roads • Avoid travel if possible • Avoid particular places • Avoid cycling in main streets
Coping strategies for recreation behaviour:	<ul style="list-style-type: none"> • Consciously choose times to go to the beach • Go to different beaches • Stop eating out • Dine out in another town • Change fishing spot • Walk in streets to see tourists
Coping strategies for other behaviour:	<ul style="list-style-type: none"> • Discourage friends from visiting town • Work longer hours • More conscious of locking house, shed etc • Stay inside house • Avoid town • Collect mail at different times

Both Keogh (1990) and Perdue et al (1987) also suggest that residents adopt coping mechanisms to avoid competition with tourists such as limiting participation to periods of low tourist use, avoiding areas used by tourists, or adapting experience expectations to the existence of impacts of tourism. Keogh and Perdue et al cite the work of Bryant and Napier (1981) in this respect.

A number of studies from the anthropological tourism literature also examine coping behaviours amongst residents. For instance, Burns and Holden 1995 found hosts develop coping behaviours and avoid contact with tourists wherever possible (cited in Brunt and Courtney 1999) and Boissevain (1996) identified the following strategies used by residents to protect themselves:

- Covert resistance – sulking, grumbling, obstruction, gossip, ridicule and surreptitious insults (Brunt and Courtney (1999) in a study of Dawlish, Devon identified something similar in what they describe as “local attitudes stimulating resentment”);
- Hiding - aspects of culture, for example, cultural events;
- Fencing - fence off private areas and events;
- Ritual - resurgence of public celebrations;
- Organised protest;
- Aggression – for example threatening visitors in the countryside.

Boissevain (1996 p21) suggests

“host communities are often portrayed as passive victims of acculturation and the affluence and lifestyle of mass tourists. Our studies show that the residents of these communities are in fact generally inventive and resilient. Tourism is one of many sources of change impinging upon them. It is something with which they must deal successfully, for increasingly they are economically dependent on it. The communities examined in this book appear to be coping with tourism, so far.”

Crain (1996) suggests opposition to tourism may be “couched in an idiom of localism” (p46). The Andalusian (Spain) people in Crain’s study did not consider themselves Europeans. There was a strong tradition of village autonomy, resentment of outside intervention by the distant state and EU. This was felt to be disenfranchising them. Such a point could well apply in Purbeck where there is noticeable support of the UK Independent Party.

3.10 Lessons for this study

In a rural destination transport is a contested issue – a key source of nuisance for local residents, the impact of which is likely to be seen in balance with other positive benefits of tourism. As such transport issues are a key element of a sustainable tourism strategy. There are policy conflicts at a national level between tourism and transport and this impinges on a local level where a variety of initiatives have been developed often on a short-term basis. There is a need to move away from a ‘shopping list’ approach, from which initiatives are chosen ad-hoc, to a deeper and more meaningful understanding of travel within destination areas. Transport initiatives focus on modal switch, studies are mostly logistical in nature and there has been little work on the social conceptions underlying people’s behaviour. Studies assume rational decision making behaviour, yet conflict is apparent and there is a need to understand the contradictions and dilemmas. There are many institutionalised assumptions about transport and there is a need to understand the societal agendas and rhetorical strategies which are employed by the public and practitioners. Thus, this study moves away from a focus on objective reality, epitomised by attempts to categorise people, places and transport initiatives, to a focus on how ideas about transport and destinations are constructed and reconstructed.

Tourism impact studies focus on resident perspectives and there has been little work on the range of stakeholders especially visitors. The underlying assumption in these studies is of a balance of positive and negative impacts. Social representations theory has been employed in tourism impact studies but has not been used to analyse the transport aspects. Some research has focused on people’s responses to tourism, specifically residents, but none has focused on transport even though this is clearly one of the most contested issues. Furthermore there has been no work on visitors’ coping strategies. Thus, there is much scope to explore the ideas circulating in the population about transport problems and potential solutions and how these ideas might influence responses.

In order to explore these aspects a more holistic study of a tourist destination area was required. This moves the focus of research away from specific initiatives and the categorising of people, their attitudes and behaviours to a more contextual understanding of travel as it takes place within a destination. In order for the study to be of value outside the study area a destination was sought which encompassed much of the transport and tourism issues discussed in the literature and where transport was an ongoing contested issue. Purbeck in Dorset was chosen as a case study and the context is explained in the next chapter.

4.0 Overview of Purbeck

4.1 Introduction

Purbeck is an attractive coastal and countryside destination located in southwest England close to the Bournemouth and Poole conurbation (Figure 3). It is both a seaside destination and an area for countryside recreation activities attracting an estimated 2,330,000 day and 490,000 staying visitors each year (Purbeck Heritage Committee 2002). The local population is 44,000 residents (Buro Happold 2003). Purbeck has a thriving tourism industry with tourism contributing about £116 million annually to the economy although tourism related employment has declined in recent years (Purbeck Heritage Committee 2002). Purbeck was selected as a study area due to its rural nature, dramatic natural setting, thriving tourism industry and acute seasonal travel problems. In common with many other rural destination areas in the UK transport is one of the most contested tourism issues. Visitor traffic creates tensions among local people, conflicts with conservation objectives and the positive natural attributes that attract visitors in the first place. Within the last ten years the local authority and other organisations have commissioned a number of consultancy reports and funded a variety of transport initiatives yet seasonal travel problems remain and most schemes show limited success as is common elsewhere. The proximity to Bournemouth also made Purbeck an ideal case study for logistical purposes.

Purbeck is designated an Area of Outstanding Natural Beauty and upwards of 60% of the area is protected by national and European landscape and ecological designations (Buro Happold 2004) (Table 5). The coastline was designated a World Heritage Site in 2001 in recognition of the continuous geological sequence spanning 185 million years along the coast (Dorset Area of Outstanding Natural Beauty Partnership 2003) (examples of the landscape are shown in Figures 4, 5, 6, 7, 8, 9). The designation of the coastline as a World Heritage site in 2001 creates a typical conflict between tourism development policy and traffic management. Whilst it brings wider recognition to the area and ultimately more visitors, congestion is already common at particular bottle-necks and at the main coastal destinations.



Figure 3. Purbeck location (Reproduced from Ordnance Survey map data by permission of the Ordnance Survey © Crown copyright 2001)

Table 5. Landscape and ecological designations in Purbeck

Designation	Protected feature	Geographical significance
World Heritage Site	Landscape/geology	World
Ramsar	Biodiversity	European
Special Area of Conservation	Biodiversity	European
Special Protection Area	Biodiversity	European
Area of Outstanding Natural Beauty	Landscape	National
Heritage Coast	Coastline	National
Site of Special Scientific Interest	Biodiversity/geology	National
National Nature Reserve	Biodiversity	National
Sites of Nature Conservation Interest	Biodiversity	County



Figure 4. Lulworth Cove



Figure 5. Studland Beach



Figure 6. Godlingston Heath behind Studland beach



Figure 7. St Oswald's Bay near Lulworth Cove



Figure 8. Nine Barrow Down near Swanage



Figure 9. Swanage Beach

Purbeck can be considered rural on typical socio-spatial definitions of rurality based on census variables such as population density (Countryside Agency 2004). The population density is 1.1 persons per hectare compared to 3.45 for England and Wales (National Statistics 2006). The area has strong links with the Bournemouth and Poole conurbation with many residents working or using services in the urban area on a daily basis and few residents being employed locally in typically rural activities. Urban residents have moved to the area to retire or seek a rural lifestyle while commuting to jobs elsewhere. This is typical of the changing nature of rural areas in the UK where traditional approaches to defining rurality are becoming less meaningful with the re-structuring of agriculture in particular influencing employment and the nature of the resident population (Halfacree, 1993; Hall and Page 2006). Purbeck is at a mature stage of tourism development with an industry which has been established for many years. Tourism has been an important industry in the area for much of the living memory of most residents.

4.2 Transport in Purbeck

Car use is high in Purbeck relative to Dorset as a whole (Table 6). 84% of Purbeck households own cars compared to a national average of 72% (Buro Happold 2004). The car dominates travel to work while public transport use is very low (less than 2% of commuter trips) (Buro Happold 2004). Congestion is a problem during the summer tourism months, particularly during school holidays and weekends. There are particular

problems on the A351 into Purbeck at Holton Heath, the Wareham bypass, in Corfe Castle and along Ferry Road at Studland (Figures 10, 11, 12). The problem is compounded on hot sunny days as day-visitors seek out the beaches. However, congestion is not restricted to the summer months and some routes encounter problems throughout the year. The A351 has an annual average daily traffic flow in excess of 20,000 and appears to have reached saturation (Buro Happold 2004). There have been calls for an A351 bypass for the Sandford area for a number of years. While the alternatives to the car are not excellent, they are reasonable given the rural nature of the area, with key places served by an hourly bus service (Poole, Wareham, Swanage corridor; Swanage, Studland, Bournemouth corridor). There is a steam railway and a developing cycle network. Thus, Purbeck provides a variety of transport contexts to study. There are alternatives to the car available and, due to congestion, there is potentially some incentive for visitors to use these alternatives.

Table 6. Modal split by % of trips in Purbeck and Dorset (Dorset County Council 2000)

Mode	Purbeck	Dorset
Bus	6	7
Train	1	1
Walk	10	12
Cycle	3	3
Car	76	72
Car passenger	2	2
Taxi	0	1
Motorcycle	2	2

Both Purbeck District Council and Dorset County Council recognise there are transport issues in Purbeck. As a result, a number of studies have been commissioned with a transport component in recent years (Table 7) and initiatives established to tackle problems (Table 8). Of the reports commissioned the recent work by Buro Happold (2003 and 2004) is of note. This was commissioned as a comprehensive study on transport in Purbeck with a particular focus on re-examining the feasibility and practicality of an A351 Sandford bypass. Initiatives have tended to focus on public transport (Table 8) as is typical elsewhere (see section 3.6.1), however, more recently there have been a number of cycling initiatives due to the activity of a local branch of the Dorset Cycling Network and the South Purbeck Integrated Transport (SPIT) project. Thus, transport issues are widely recognised and there is ongoing action locally to tackle some of the problems. Several of the initiatives are worthy of further discussion.

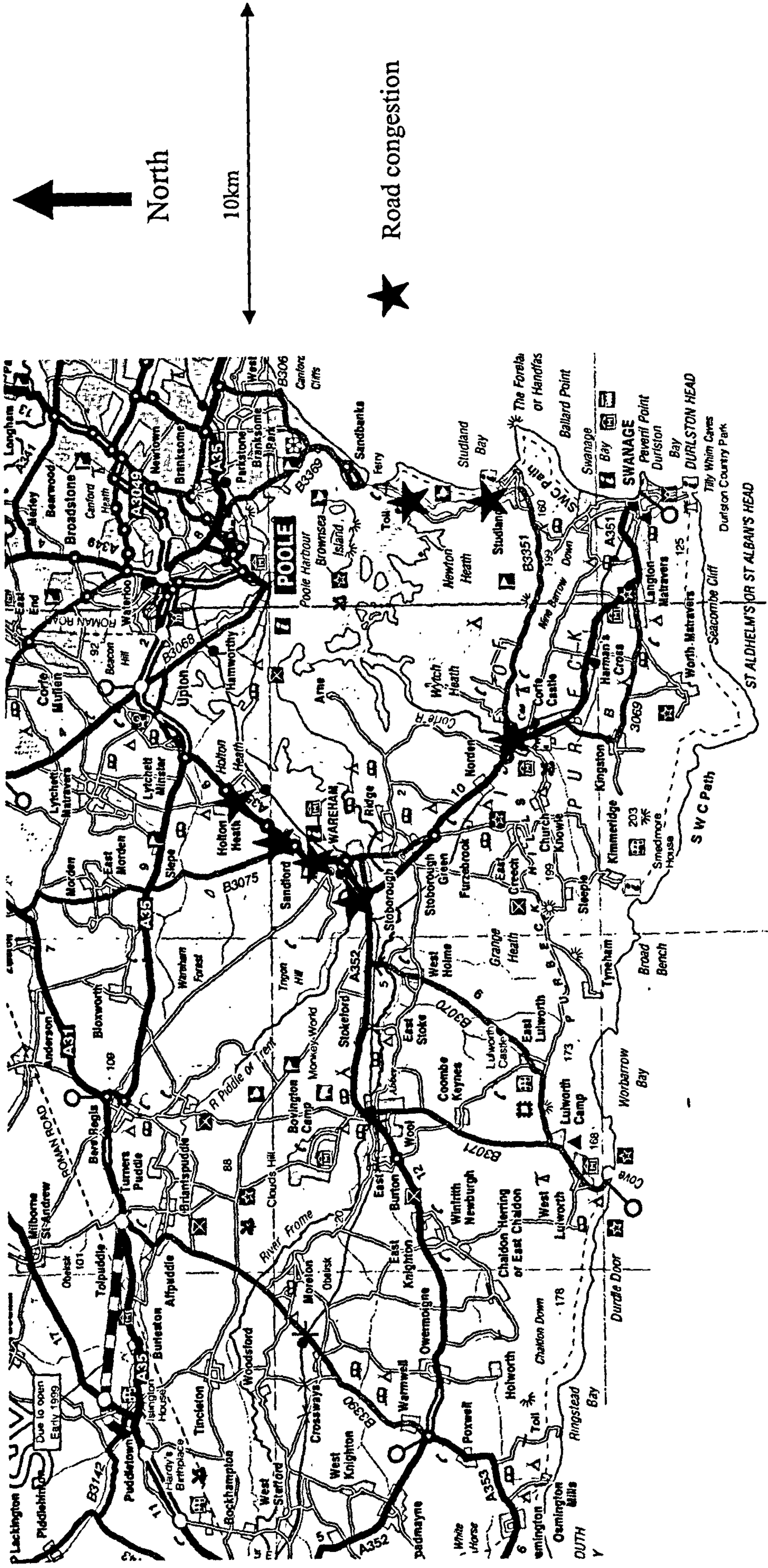


Figure 10. Congestion in Purbeck



Figure 11. Congestion on Ferry Road, Studland



Figure 12. Traffic Congestion in Corfe Castle

Norden Park and Ride was originally set up to avoid parking problems in Corfe Castle to meet planning requirements for the Swanage railway extension. It has subsequently been marketed as a park and ride for Swanage. While it has won environmental awards Buro Happold (2004) suggest it is predominantly a car park for the attraction with a limited function as a park and ride. It is heralded as a great success locally and does reduce some traffic through Corfe Castle as steam train users are diverted before the village. However, due to the relatively high cost of the steam train ride its role as a park and ride is limited.

X53 Jurassic Coast Linx bus. This bus service was originally set up to serve the World Heritage Coast from Exeter to Weymouth. In June 2003 it receive funding from the Rural Bus Challenge to extend the scheme to Wareham and beyond. To date it has had most success at the Devon end of the the World Heritage Coast where it has been established longer. In Purbeck there are problems accessing the coast due to narrow roads thus the

service runs inland and users are required to catch connecting services to access the coast. Operator figures indicate that the number of users is increasing year to year (personal communication with Reddy 2005).

Linkrider. This is an example of a short term initiative with funding problems. The principal was to set up a through Purbeck bus service to serve the tourist area comprising of small villages and attractions around Wool and Lulworth Cove. The bus received 50% funding from the UK Countryside Agency but funding was discontinued in 2002 due to low use levels out of the tourist season. The service broke even and even made a small profit during the summer months but the Countryside Agency would not fund a seasonal initiative.

142 evening service. This bus service from Poole to Swanage was cut in 2004 as Purbeck District Council withdrew their funding support from Dorset County Council. This effects evening access for tourists and commuters.

150 open top bus. This bus service runs from Bournemouth to Swanage all year round. During the summer months an open-top service runs which is in itself an attraction. On good weather days the occupancy can be nearly 100%.

South Purbeck Integrated Transport project. This project was set up by the Purbeck Heritage Committee from 2002 to 2005 to fund a project officer with a view to implementing proposals set out in earlier studies. The project was funded by Purbeck District Council, Dorset County Council and the National Trust. The project has now finished and, as is typical of short term projects, it remains unclear how the project work identified will be pursued following the departure of the project officer (interview with Keen 2005).

Table 7. Reports commissioned including transport content on the Purbeck area

Report	Focus
Southern Tourist Board 1999 Studland Bay Visitor Survey 1998: Final Report, Southern Tourist Board, Eastleigh.	Studland visitor characteristics including transport modal choice
Scott Wilson Resource Consultants Tourism Associates 2000 Purbeck Countryside Recreation Study: Final Report, Scott Wilson, Abingdon.	Residents' recreation survey including modal choice on recreation trips
Transport Research Laboratory and Transport Research and Information Network 2000 Purbeck integrated transport study, Transport Research Laboratory, Crowthorne.	Study commissioned to examine integrated transport in Purbeck
Buro Happold 2003 Purbeck Transportation Study: Existing conditions and consultations, Buro Happold, Bath.	Buro Happold were commissioned to review transport in Purbeck, studies to date and to prepare an integrated, multi-modal transport strategy
Buro Happold 2004 Purbeck Transportation Study, Buro Happold, Bath.	

The Studland area has been a focus of interest due to seasonal congestion problems. Indeed, the South Purbeck Integrated Transport Project (SPIT) focused on this area to a large extent. Studland beach is one of the best in the UK and is a popular attraction. However, access is by car ferry from the Bournemouth/Poole conurbation or road via Wareham and Corfe Castle where there are several congestion hotspots. Studland itself suffers from local congestion and parking problems. Cars can queue for two hours or more to leave the area by ferry on hot summer days, cars park indiscriminately on the road verges and people camp overnight. SPIT examined the problems in this area and considered the best way forward was for the County Council to adopt the road. However, ownership issues are complex with the Ferry Company claiming rights to the road and asking for a substantial sum to hand the road over to the Council. To date there has been limited progress save for better policing of overnight camping on the roadside.

Table 8. Transport initiatives in the Purbeck area

Initiative	Date	Focus	Comments
Linkrider (through bus service across Purbeck)	Cut in 2002	Public transport	Withdrawn in 2002 – was only viable in the summer and Countryside Agency would only fund a year round initiative
102/103 (Wool area)	ongoing	Public transport	Subsidised from rural bus grant
142-144 (Poole to Wareham to Swanage)	ongoing	Public transport	Early morning, evening and Sunday journeys subsidised – NB evening support withdrawn by Purbeck District Council in 2003
Norden park and ride	1995 to date	Park and ride Public transport Parking management	Set up to avoid parking problems in Corfe Castle then marketed as a Park and Ride for Swanage
Monkey World/ Lulworth Cove Conservation bus	2004 to date	Public transport	Low level of use to date. Marketing strategy by attractions to attract non-car based visitors
X53 Jurassic Coast Linx bus	2003 to date	Public transport	Originally Exeter to Weymouth. Extended to Wareham in 2003
150 Open top bus	ongoing	Public transport	Long term. Open top in summer. Evening and Sunday journeys subsidised in winter
Cycleway Guide	2002	Cycling	Guide to the network of predominantly on-road cycle routes
Cycle route Wareham to Wareham Forest	2004	Cycling	
Purbeck cycle way	ongoing	Cycling	47 mile circular route largely on-road
Cycle route leaflets 'Out of car experiences'	2005	Cycling	Initiative set up by Dorset Cyclists Network and South Purbeck Integrated Transport project
South Purbeck Integrated Transport (SPIT) project	2002 to 2005	Integrated transport initiative	Area wide project to implement initiatives identified by Purbeck Heritage Committee
Wool Station Improvement	2004	Public transport	Improvements to public transport interchange
Jurassic coast leaflets	2005	Public transport Boat transport	Jurassic Coast branding of non-car alternatives

4.3 Resident characteristics

The resident population is approximately 44,000 with a higher than average over 60 years of age (28% compared to 21% nationally) (National Statistics 2006). This is a result of

retirement to the area and migration of the younger population for employment and affordable housing. This is typical of many rural destination areas in the UK. The population is relatively affluent although there are pockets of disadvantage (Purbeck Heritage Committee 2002). The level of home ownership is high while income support claimants and the unemployed are relatively low compared to both national and regional averages (Buro Happold 2004).

In order to get a better picture of how the population varied throughout Purbeck, census data has been used to describe different characteristics of each ward based on deprivation indices, access to services and car ownership. Based on these factors each ward was stratified into a category in order to ensure different strata in the population were represented in the study. This is similar to the approach adopted in the National Travel Survey (Stratford et al 2003). Census data are available at Ward level and Super Output Area, however, the latter more or less equates to wards in Purbeck as many cover population areas of about 1,500.

The study area was divided into wards (Table 9 and Figure 13). The northern ward was excluded as it is adjacent to the Bournemouth conurbation and therefore more urban in character and is outside the main tourism area. While it is clear from the index of multiple deprivation that Purbeck does not suffer from serious deprivation, Wool ward is ranked significantly lower than others and is less affluent than other areas of Purbeck (Table 9). Three wards, Swanage North, Swanage South and Wareham have a relatively high proportion of households with no car for a rural area. This is a reflection of the older, retired population particularly in the seaside resort of Swanage. West Purbeck, Castle, Langton and Wool wards have relatively poor access to services, West Purbeck particularly so due to its remoteness.

Table 9. Census information on Purbeck Wards (National Statistics 2006)

	Index of multiple deprivation rank 1=most deprived	Geographic access to services rank 1= worst	Households with no car %	Population	Classification
Castle	6096	1424	14	1588	Rural, affluent, car ownership >80% of households
Creech Barrow	Information not available	Information not available	9	1565	Rural, affluent, car ownership >80% of households
Langton	5684	1513	11	1299	Rural, affluent, car ownership >80% of households
St Martin	5498	2245	11	2186	Rural but close to conurbation, affluent, car ownership >80% of households
Swanage North	4479	4286	26	3190	Town, moderately affluent, car ownership <80% of households
Swanage South	3779	5692	21	4703	Town, moderately affluent, car ownership <80% of households
Wareham	4428	4163	21	4750	Town, moderately affluent, car ownership <80% of households, on rail line
West Purbeck	4844	195	6	1175	Rural, affluent, car ownership >80% of households
Wool	2599	1521	14	3101	Rural, less affluent, car ownership >80% of households, on rail line

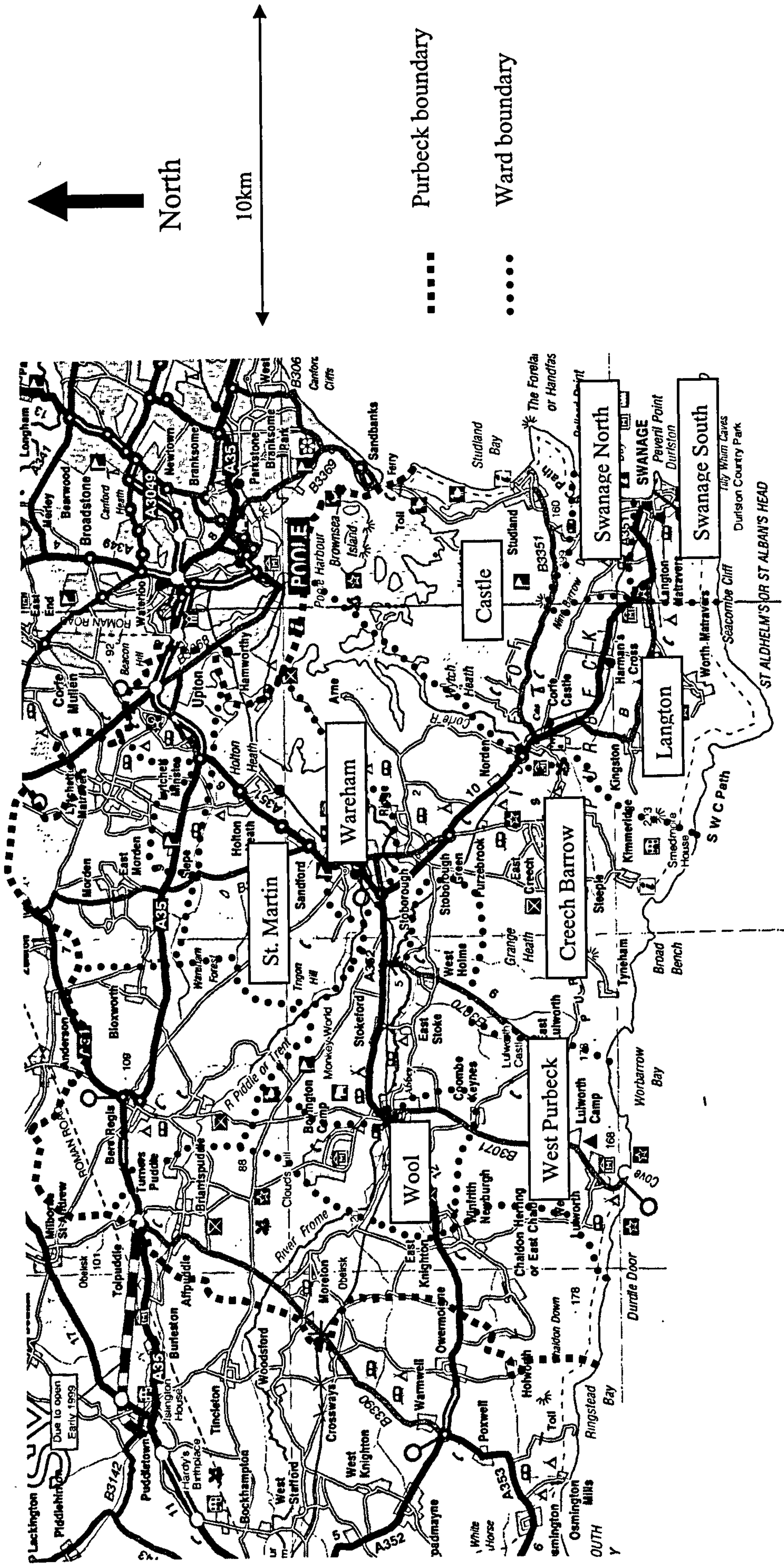


Figure 13. Purbeck Wards

4.4 Visitor Characteristics

Estimates exist for the visitor population. All reports use the same figures the precise source of which is unclear. Thus, it is estimated Purbeck attracts 4.7 million visitor days each year. Of these 2,330,000 are day visitors (Purbeck Heritage Committee 2002). Approximately 490,000 staying visitors spend 2,380,000 nights in Purbeck. Thus, visitors are approximately 50% day and 50% staying visitors. The proportion of day visitors that reside in Purbeck is unknown. Figures for Dorset as a whole, show that most day visitors were from the South West with the largest group from Dorset (Buro Happold 2004) (Table 10). 2.3 million people live within one and a half hours drive and 400,000 within half an hours drive (Purbeck Heritage Committee 2002). The peak visitor months are July and August, this being the period when transport is most contested and forming the study focus. The Dorset Visitor Analysis and the Dorset and New Forest Tourism Project examined staying visitors finding the largest proportion originate from London and the South East (Buro Happold 2004) (Table 11).

Table 10. Origin of day visitors to Dorset

Region	% of day visitors
Dorset	42
South West (excl Dorset)	24
East and West Midlands	3
London and South East	30
European	<1

(Buro Happold 2004)

Table 11. Origin of staying visitors to Dorset and the New Forest

Region	% staying visitors
London and South East	40
North	14
East and West Midlands	15
South West	13
East Anglia	4
Wales	4

(Buro Happold 2004 Data from Dorset Visitor Analysis and Dorset and New Forest Tourism Project averaged)

Attendance for the six top attractions within Purbeck is show in table 12. This covers attractions for which attendance is relatively easy to measure therefore key sites such as Studland and Swanage beaches are not included. Buro Happold (2004) and the Purbeck Heritage Committee (2002) suggest that Studland receives over one million visitors per year. Swanage Bay to Durlston Bay receives about 350,000 (Purbeck Heritage

Committee 2002). Little else is known about the characteristics of visitors although a study at Studland suggests 49% are in 35-54 age bracket and 72% ABC1 socio-economic groups (Southern Tourist Board 1999).

Table 12. Attendance for top 6 attractions within Purbeck

Attraction	Visitors	
	Annual	Average Peak Season Day
Corfe Castle	153,511	891
Durlston Country Park	128,611	747
Lulworth Cove	450,000	2,613
Monkey World	180,000	1,045
Swanage Railway	180,911	1,050
Bovington Tank Museum	125,513	729

Source: Buro Happold 2004

4.4.1 Visitor travel

Purbeck Heritage Committee (2002) suggests over 85% journeys into Purbeck and over 76% of leisure journeys within Purbeck are by car. Several studies have repeated these figures and it is not clear of their origin. A survey by the Southern Tourist Board (1999) in 1999 found 86% of visits to Studland were by car, van, camper van or motorcycle, 6% walked, 2% cycled, 2% came by boat, 1% used a bus. Studies in similar settings, such as UK National Parks, suggest that as many as 90% arrive by car (Lake District National Park Authority 2004). The fact that alternatives to the car are available and used to some extent by visitors makes the area relevant to study.

4.5 Studying residents' and visitors' mobility patterns in Purbeck

As this study applied a social representations approach it was important to understand the context within which travel for both residents and visitors takes place as this might potentially influence the ideas that circulate in society. In order to develop further a contextual understanding of travel and transport in Purbeck the primary data collection began with an in-depth study of residents' perspectives on transport and tourism in Purbeck. This was followed by further context building using travel diaries to explore the visitor's experience of travel and transport in Purbeck before finally employing a large scale survey to test out ideas developed in the context development stages. The following chapter sets out the rationale for the methodology employed.

5.0 Methodology

5.1 Research approach

In society different groups draw on, or emphasise different dimensions of social representations and people do not necessarily hold a singular view, drawing on aspects of a social representation most relevant to their context at a given point in time (Pearce et al 1996). Thus, people often exhibit contradictions and face dilemmas. An approach was needed to capture this information. Social representations can be captured by a variety of means. This study adopted an inductive approach and a qualitative exploratory phase followed by a quantitative survey as is common elsewhere in social representations studies (Breakwell and Canter 1993; Cvetkovich and Winter 2003).

The mixed methods approach adopted is widely used despite what many consider to be a quantitative/qualitative divide (Bryman 2001). Bryman (2001) argues that the gulf between qualitative and quantitative research is not so wide. Qualitative studies get to the meaning but Bryman suggests quantitative studies may also get at meaning if based on prior qualitative questioning as in this study. The key arguments against multi-strategy research hinge on the view that quantitative and qualitative research methods relate to different paradigms. However, quantitative and qualitative research methods are not paradigms although there are overlaps. Related to this is the view that methods carry epistemological commitments, but again this argument is difficult to sustain as methods are capable of being put to a wide variety of tasks (Bryman 2001). There is a technical view which gives more prominence to strengths of data-collection and data-analysis techniques and sees qualitative and quantitative methods as capable of being fused. In this view research methods are autonomous and not fixed to epistemology. In this study a qualitative research strategy has been employed to facilitate a quantitative strategy (Bryman 2001); the qualitative study providing the in-depth knowledge of social contexts to inform the design of survey questions. Also, the two research strategies are employed as complementary (Bryman 2001) to some extent in order that different aspects of the study can be dovetailed. This is a common strategy in social representations research (Breakwell and Canter 1993) in order to get at different aspects of social representations. For instance the qualitative data gains access to the participants perspectives and the quantitative allows the researcher to explore specific issues in which they are interested (researchers' perspective) and makes the findings more generalisable.

An example of mixed methods strategy from the tourism impacts literature includes Davis et al (1988), described by Pearce et al (1996) as a study of social representations of the impact of tourism, which employed focus groups to inform the design of a questionnaire. Similarly Canan and Hennessy (1989) in their study of Hawaiian tourism used a 3 step methodology. The first step defined the important value concepts for the population in question using taped in-depth interviews with 26 residents. The data was content analysed yielding 13 concepts. The second step involved the pairing of each concept with all others by respondents. The final step involved structural analysis of the value concepts. Many studies in the social representations field of social psychology also employ triangulation or mixed-methods approaches (Joffe 2003; Sotirakopoulou and Breakwell 1992; Foster 2001; Cvetkovich and Winter 2003) typically starting with an exploratory, qualitative phase.

This study was undertaken in three stages. The first stage was exploratory to establish the local context and to explore residents' perspectives on transport and tourism in Purbeck. The second stage focused on the lived day to day travel experiences of visitors in order to set the context of visitor travel patterns. The final stage examined the social representations framework established in stage one with a large sample by employing a questionnaire survey at key attractions in Purbeck. Stage one focused on residents while stage three was designed to include both residents and visitors. It was essential in the final stage to examine the views of different types of stakeholders as residents, second home owners and a diverse range of visitors may not share the same social representations. This chapter explains the rationale behind the three stage approach before focusing in detail on the methodology of each stage.

5.1.1 Rationale stage 1

An examination of the tourism impacts literature, and specifically that focusing on community perceptions of tourism, indicates that most studies adopt a positivist perspective and employ questionnaire surveys that incorporate multi-item scales and factor analysis. Studies commonly employ attitude scales derived from other studies. Given the factors identified are largely dependent on the questions asked the findings of such studies are ultimately based on the researchers' *a priori* conceptualisations (Andereck and Vogt 2000) and similar patterns of findings can be perpetuated in a number of studies. Many researchers have been keen to relate attitudes to a range of socio-economic, demographic or psychological variables, however, Allen et al (1993) suggest a number of confounding variables which would appear to limit the usefulness of such an approach. Nor can such studies recognise that people can hold a number of views on tourism that are on the face of it mutually exclusive. There are conflicts and

inconsistencies between views and behaviour which studies fail to address. Such deterministic studies tend to perpetuate a particular construction of the research problem led by the researchers' and research community's perspective. There would therefore appear to be a failure in such studies to examine and understand the residents' perspective as few studies develop the list of impacts from the participant's perspective (Kneafsey 2001; Pearce et al 1996). Furthermore few studies examine the socially constructed nature of tourism impacts.

This study attempts to address these criticisms and in the first stage of the study adopted an emic approach in order to define the important value concepts for the population in the study area relating to transport and tourism (Fredline and Faulkner 2000, Pearce et al 1996, Fontana and Frey 1998). The main source of information was taped in-depth interviews with key informants during winter 2003/2004. The study was undertaken with the primary aim of analysing the social conceptions of transport and tourism in a rural destination and the social reality that shapes residents' travel behaviour.

5.1.2 Rationale stage 2

This stage explored travel patterns and travel behaviour of visitors to the area through the use of a travel diary. A travel diary was employed as a means to examine in detail: travel patterns; modal choice; trip chaining; purpose of journeys; attractions visited; and distance travelled. This was to shed light on the actual situation encountered by visitors to the area and to access their experience as lived. Relatively little is known about the patterns of visits and interrelationships between different places within destination areas (Hall 1999). The data captured was largely quantitative although an open section encouraged participants to give a more personal description of their trips. Based on the findings from resident interviews they were encouraged, in particular, to explain problems encountered and how they dealt with them. This captured data on coping strategies. The aim was to explore the transport choices and mobility patterns of tourists during the peak season in order to analyse travel patterns, problems encountered and subsequent coping mechanisms.

5.1.3 Rationale stage 3

Stage one of the study focused on residents and in stage two the travel diary focused specifically on visitors' travel experiences. Thus, the picture of all stakeholders and their social representations remained incomplete and there was a need to study a wider range of visitors including day visitors, second home-owners and those staying in hotels, bed and breakfast and self-catering accommodation. The findings of the interviews and travel diaries were applied to the design of a questionnaire survey undertaken with visitors at

various sites in the area. This enabled data to be captured from residents, day visitors and staying visitors. Measures employed in the questionnaire arose directly from the findings of stage 1 and 2. A survey is somewhat against the exploratory and inductive approach being adopted and a questionnaire inevitably presents respondents with statements that might give them the attitude in the first place. Thus, the questionnaire where possible employed open questioning techniques and tasks. In addition, the philosophy of the data analysis strategy was founded on inductive reasoning by employing such techniques as correspondence analysis (Greenacre 1989) and cluster analysis. Bryman (2001) argues that survey based studies are often more exploratory and the nature of interconnections are often not specified in advance as was the case here. The aim was to analyse the transport and mobility patterns of visitors to the main attractions using Moscovici's social representations framework.

5.2 Stage 1: Interview methodology

5.2.1 Research design

The principal behind the 'emic' approach adopted in this stage is the avoidance of researcher interference that typically occurs through the imposition of *a priori* assumptions about the community response through the measurement process (Fredline and Faulkner 2000, Pearce et al 1996, Fontana and Frey 1998). "The researcher's conceptualisation of the problem acts as a filter that may result in important aspects of individual community's reactions being obscured" (Fredline and Faulkner 2000 p778). Researchers themselves have social representations (Pearce et al 1996) and researchers should consistently take the actor's point of view in trying to understand how they think, feel and speak. Within a social representations framework it is important that the complexities of community representations of phenomena are recognised and the source of respondents' social representations identified (Pearce et al 1996). Researchers need to understand group interactions and distributions of power (Pearce et al 1996) and this is particularly important with a contentious topic such as transport. Since social representations arise from social networks it is important for the community to spontaneously generate its own constructs (Fredline and Faulkner 2000). Thus, this stage sought the participants' conceptualisations of Purbeck, its transport and tourism. The aim was to gain an insider's view and develop an analytical description of insiders' views that may challenge traditional perspectives on the transport problem and set it in the Purbeck context. This stage was participant led to explore how the topic was culturally constructed.

Although social representations are shared by groups the study collected data from individuals in a social context (ie conversation based interview). While focus groups might seem appropriate to gain information on what is a socially transmitted group phenomenon, they are not appropriate for one important reason. Without prior categorisation of respondents into appropriate groups it cannot be certain that members of any focus group will find the same dimensions of a social representation salient. Though a social representation will generally be shared by all groups in a society different groups will draw on or emphasise different dimensions. As social representations can be contextual and variable (Clark et al 1994; Moscovici and Hewstone 1983) it is highly likely that individuals will be influenced by the group context in a focus group and therefore aspects of representations that do not conform to that group norm may be hidden. Individual interviews are widespread in the social representations' literature and have been shown to be a good way of capturing respondents' constructs. Questionnaires would not be appropriate at this stage due to the imposition of researcher's *a priori* assumptions about responses. Open-ended questions in a questionnaire could elicit some useful information on respondents' social representations but such questions are generally poorly completed with respondents giving one word answers, which lack detail or depth, or omitting to answer these questions altogether. Structured interviews are also inappropriate. Like questionnaires, they aim to capture precise data that can be coded in order to explain behaviour within established categories (Fontana and Frey 1998). The in-depth, less structured interviews used here attempted to understand the complex perspectives of participants without imposing any *a priori* categorisation. The aim was to keep researcher interference to a minimum. Though the interviews were in-depth and employed probing, no attempt was made to challenge any of the respondent's interpretations. An interview protocol was used to make sure that all topics were covered (Appendix 2).

5.2.2 Type of investigation

The study was cross-sectional with most of the data collected during the winter and spring of 2003/04. This arguably poses a limitation as the salient dimensions of a social representation, particularly on a topic such as traffic congestion, may vary throughout the year. However, since the aim of this stage of the study was to identify and describe the social representations of the study population it was felt that a wide enough range of dimensions was captured. Furthermore, respondents were able to reflect on their views as the situation varies throughout the year. As a social representations approach challenges some of the common assumptions about transport attitudes and behaviour the study was exploratory and inductive, intending to uncover new ways of looking at the transport problem.

5.2.3 Interview design

The interviews took the form of a natural conversation using an interview-guided approach. A focused interview technique was employed. This is an approach which allows people's views and feelings to emerge, but which gives the interviewer some control. It is used where researchers want to investigate a particular situation, phenomenon or event. Individuals are sought who have been involved in that situation (Robson 1993). The first step was a situational analysis by means of observation of the area, attending local meetings and documentary analysis to cover:

- The important aspects of the situation to those involved;
- The meaning these aspects have for those involved;
- The effects they have on those involved.

Social representations can be captured from a variety of documentary sources (Pearce et al 1996). Using a qualitative approach to explore stakeholders' conceptions of sustainable tourism Hardy and Beeton (2001) undertook content analysis of documents as well as interviews and focus groups with tourists. Thus, the following documentary evidence was examined for this study:

- Policy documents at a national and local level;
- Minutes of meetings – for example, voluntary campaign groups such as the Dorset Cycling Network and local authority groups such as South Purbeck Integrated Transport project;
- Holiday brochures for the area – images and text;
- Transport promotion material – images and text;
- Letters, agendas, reports of events, proposals, progress reports;
- Newspaper articles;
- Research reports.

This provided essential background information for prompting participants with local examples during the interview.

The same general areas of interest were covered in all interviews but standardized questions were not adhered to. The purpose was to uncover and describe the participants' perspectives on events, the subjective view is what mattered (Marshall and Rossman 1999). An interview protocol was designed as a checklist of the topics and issues that needed to be covered. The protocol included the main questions written out in full as a guide only and for use as deemed necessary in the interview context. The protocol was amended after each interview as the topic began to focus – an iterative approach (Huberman and Miles 1998). This approach was therefore semi-structured where the interviewer worked out a set of questions in advance, but was free to modify their order

based upon what seemed most appropriate in the context of the 'conversation' (Robson 1993). An alternative perspective is respondent interviews (controlled by interviewer) versus informant interviews (focus on interviewee's perceptions of a particular situation or context) (Robson 1993). As the participant's perspective is important these were informant interviews. It is however important to recognise that all interviews contain some more or less structured sections and a particular participant may require a more or less structured approach (Robson 1993).

5.2.4 Interview protocol

The protocol was designed around 8 headings (see Appendix 2 for an example of the interview protocol):

- Background questions on respondent's local travel;
- The Purbeck setting;
- Local tourism;
- Local travel (as in mobility);
- Local transport (as in different modes of transport);
- Alternatives to the car;
- Further background questions on respondent;
- Closing questions.

This follows a tree-and-branch model of framing an interview. The trunk is the core topic (transport and tourism) and the branches the main questions (the setting, local tourism, local travel, modes of transport). This approach is useful when the interviewer has an overall topic and wants to paint a complete picture by exploring the separate parts that go together (Rubin and Rubin 1995).

After some background questions to establish the participant's transport options, the interview started with questions on the Purbeck setting as these were felt to be easy, non-threatening questions to warm up the interview (Robson 1993). This was followed by questions on local tourism, the aim being to gain views on tourism before focusing on transport issues which might otherwise focus the participant's mind on transport problems related to tourists. Participants were asked about any direct benefits they gain from tourism towards the end of the interview as this would potentially have put participants on the defensive. The main questions were designed to flow from one to the next.

Interviews typically contain three types of questions: main questions, probes and follow-up questions (Rubin and Rubin 1995). The main questions changed during the course of the research as it became apparent that particular areas needed coverage. Rubin and Rubin (1995) suggest you may prepare 15 questions but only ask four as the interviewee

answers before they are asked. In this case eight question areas were prepared and in some cases as few as four were directly asked as participants covered the material during the natural course of discussion. Probes specify the level of depth, suggest a topic is finished and indicate the interviewer is paying attention (Robson 1993). Details are requested in the interviews to indicate the depth required, for instance respondents are asked to “tell me about” a particular journey. This phrase invites depth (Rubin and Rubin 1995). Follow-up questions are used to pursue themes that are discovered, elaborating the context of answers, and exploring the implications of what has been said (Rubin and Rubin 1995).

Though the protocol is only a guide and questions were not-necessarily asked the following were avoided: long questions; double-barrelled questions; questions involving jargon; leading questions, particularly those suggesting transport problems associated with tourists; and biased questions. For instance, participants were not asked if they experienced problems, instead they were prompted by a fact: “I’ve noticed that there is particularly bad traffic congestion in parts of Purbeck (for example, along the A351 at Sandford and along the Ferry Road). Can you tell me about your experience of this?” Similarly participants were not asked if they felt alternatives to the car should be developed as the socially conditioned answer is clearly yes.

In one section of the interview questions on the rural or urban nature of Purbeck were derived from Halfacree (1995):

- Do you feel this area is urban or rural?
- What are the features of this area which make it rural (or urban) for you?
- When I talk about a rural area, what does this suggest to you? What do you associate with rural areas?

5.2.5 Sampling

A purposeful sample was used to select information rich cases for in-depth study. Key informants were initially identified from a contact based in Purbeck District Council and a snow-ball process used to identify additional informants across a range of different locations in Purbeck. The people interviewed met three criteria as suggested by Rubin and Rubin (1995): they were knowledgeable about transport and/or tourism in the Purbeck area; they were willing to talk; and they represent the range of points of view. Thirteen interviews were undertaken with respondents purposefully selected for their role and interest in tourism and transport in the area. The sample included:

- A County, District and Parish councillor;
- Representatives of tourism dependent and non-tourism dependent businesses;

- Representatives of local transport/environment campaign groups.

The sample purposefully selected some public transport users and cyclists. A theoretical sampling strategy was employed as in 'grounded theory' (Cresswell 1998; Giles 2002) whereby participants were recruited with a range of different experiences and perspectives until the data reached saturation point and each additional interviewee added little to the data.

5.2.6 Data Collection

Thirteen interviews were undertaken in a social setting such as the participant's place of work or home. Appointments were arranged at convenient times and places for interviewees. A pilot study is not applicable in this context. Using an iterative approach the interview protocol was amended to suit each interviewee after each interview as the topic began to focus. The interviews were recorded with a 'walkman' sized tape recorder. This was to improve accuracy and reliability and enabled the interviewer to concentrate on what was being said and plan follow-up questions (Rubin and Rubin 1995). On the down side a tape recorder is out of place in normal conversational context, can make answers more guarded and distract the interviewer who has to deal with the mechanics of recording such as changing tapes (Rubin and Rubin 1995). In this case C120 tapes were used and the recorder had an auto-reverse setting so tapes did not need to be changed for up to two hours. Notes were also taken to support the tape.

5.2.7 Data analysis

The interviews were transcribed and, together with documentary evidence, thematically content analysed, a qualitative rather than quantitative procedure (Huberman and Miles 1998). This identified the social representations used using a phenomenological approach (Cresswell 1998). Content analysis is essentially a quantitative approach to unstructured data though, as in this study, it can be undertaken qualitatively. It has been used in other studies of social representations (Halfacree 1995). Data were initially organised by interview themes into categories. Then, new content categories and sub-categories were derived from the data. This process enabled the researcher to get to know the data and led to an iterative process of theme generation and theorising. The data can ultimately be quantified though this was not an aim in this case where the primary objective was to explore issues and define the important value concepts for the study population to aid the design of stages 2 and 3. Once data had been categorised into themes the material was copied into new files under the theme headings. Data were not organised into mutually exclusive categories as in quantitative content analysis, thus some blocks of text were copied to more than one file as they encompassed more than one theme. As the themes became clearer in the data some themes were grouped together.

5.2.8 Ethical considerations

Participants were provided with an information sheet prior to taking part in interviews (see Appendix 3). This informed them of the nature and purpose of the research and how the findings would be disseminated. Participants were advised they could withdraw their consent at any stage. The sheet also told participants about the format and length of the interview and that subject to their permission it would be recorded. This conforms to guidance issued by the Institute of Health and Community Studies at Bournemouth University (Institute of Health and Community Studies 2001) which is being developed into University-wide guidance. Participants were not required to give their formal consent in writing. This is a requirement of research in health and social care where the nature of the research is such that participants may reveal highly sensitive and personal information. An informed consent form must be used if minors are involved; the topic is sensitive (eg criminal behaviour); or you have a power relationship over respondents (Thomas 1999).

Due to the relatively small number of participants it was important to maintain their anonymity. During stage one no attempt was made to group responses according to categories of participants (the aim was to identify and describe the social representations held in the community at large). Thus, it is unlikely that a comment could be attributed to a particular participant. Participants had the right to refuse to answer any particular question and the right to ask that the tape be turned off.

5.2.9 Health and safety issues

In many cases the interviewer was invited into people's homes, thus there was a small risk of malicious intent. The snowball sampling technique went some way to minimising risks as participants were recruited from people known to the interviewer. To further minimise safety risks a clear record was maintained of date, times and locations of interviews, participant's name, address and telephone number. This was left with a friend or colleague who was informed on return from the interview.

5.2.10 Limitations

The main limitation is the potential for bias due to the sampling process and researcher bias. A purposeful sampling procedure was used which was non-representative and to some degree over-relied on accessible and elite informants (Miles and Huberman 1994). Clearly only willing participants were recruited. However, as far as possible a balanced choice of interviewees was made to represent the different vantage points within the area of study (Rubin and Rubin 1995). Furthermore following the theoretical sampling

strategy as employed in 'grounded theory' participants were sought who could fill gaps in the data. The participants included several on low incomes and did represent the non-car owning population. However, it was felt that no residents who truly suffered rural deprivation were included in the study and this omission proved difficult to fill. In addition, clearly no visitors were approached at this stage in the study.

Though the interviews intended to gain insight into resident's perspectives it was inevitably led, to some degree, by the researcher through a semi-structured approach to interviewing. Furthermore, bias may be apparent, as the same researcher has undertaken the analysis. Qualitative studies refer to the trustworthiness of data rather than validity and reliability used in quantitative studies. Robson (1993) suggests the following improve trustworthiness:

- **Credibility** – carried out in a way which ensures the subject of the enquiry was accurately identified and described (equivalent to internal validity). Credibility was enhanced here by prolonged involvement, persistent observation and triangulation with other data sources such as documentary evidence and the primary data collected in stages 2 and 3. There was also a debriefing element as participants received a study report and were invited to make comments.
- **Transferability** – (equivalent to external validity or generalisability) – thick descriptions are produced thus enabling others to apply the concepts elsewhere. As far as possible full details have been provided to enable another researcher to transfer judgements to another study. To this end a theory development section is presented at the end of stage 1.
- **Dependability** – (equivalent to reliability) - the study should focus on credibility and dependability will follow. Dependability was improved by triangulation and a well documented process. The material generated by informants was checked for consistency and any inconsistencies examined through later interviews (Rubin and Rubin 1995). Explanations were offered for any apparent contradictions.
- **Confirmability** (equivalent to objectivity) – a clear enquiry audit is kept. Details of all stages of the design and analysis were recorded.

5.3 Stage 2: Travel diary methodology

5.3.1 Research design

Diaries examined actual travel patterns, views on travel issues and explanations for travel behaviour. Travel diaries are the prime instrument used to measure travel behaviour (Axhausen 1996). No studies have been found recording their use in a tourism context but

they have a long pedigree of over 50 years in other transport studies (Axhausen 1996). Thus, there was some novelty in applying the approach in a tourism context.

5.3.2 Travel diary design

The design of the travel diary was based on the work undertaken by Axhausen et al (2002) in the Mobidrive project in Germany and the UK National Travel Survey (Stratford et al 2003). The travel diary was accompanied by an interview-administered survey to collect background information from participants. The Mobidrive project also included an attitude survey completed at the end of the travel diary (Axhausen et al 2002). This was considered for use in this project but rejected as the use of an attitude scale did not fit with the social representation ethos adopted and would have placed an additional burden on participants who were on holiday.

The travel diary compiled data on travel patterns as indicated in Table 13. Participants were required to complete a record sheet for each trip made (see Appendix 4). A trip is a “movement between two activity locations” (Schonfelder et al 2002). For example, in a leisure context a trip might be from campsite to beach or beach to pub. As most people holiday in groups (for example, families) a nominated person completed the diary for all the trips they, as an individual, made regardless of whether other family members made more or less trips. The diary recorded who accompanied the individual on each trip. Each record sheet had space available where participants were encouraged to add their personal comments on the trip, especially in respect to any problems they encountered.

Table 13. Travel diary design

Item	Comment
Purpose of journey	Important to distinguish utility and leisure journeys and particular trip types
Time left/ Time arrived	To enable analysis of time frame
From/ To	To analyse locational factors
Number of adults and children in party	Party size and composition
Dog	Presence of dog may influence modal choice
Method of travel	Modal choice
Time spent on each mode (mins)	Included if more than one mode used on a trip
Vehicle used	Included for potential future analysis of emissions
Where parked/ ease of parking/ cost	Parking was identified as a problem by residents
Equipment carried	Likely to influence modal choice

The interviewer-administered questionnaire contained structured questions about the household, the individual completing the diary and vehicle details (Table 14). The questionnaire was conducted with visitors at the start of the recording period (see Appendix 5 for interviewer-administered questionnaire).

Table 14. Contents of the travel diary interview

Items about the household	Comment
Composition of household (Adults/ children's age/ relationship)	Party size and composition
Composition of holiday group (Adults/ children's age/ relationship)	Party size and composition
Number of dogs at home/ on holiday	Presence of dog may influence modal choice
Number of cars/ motorcycles/ cycles/ other	Indicator of modal choice options
Distance to bus stop	Information recorded by interviewer
Distance to train stop	Information recorded by interviewer
Type and size of accommodation	Information recorded by interviewer
<hr/>	
Items about the individual	
Where do you come from?	Contextual information
Gender	Contextual information recorded by interviewer
Level of education completed/ employment status/ profession/ age	Contextual information
Driving licence	Indicator of transport options available
Main mode of transport at home	Indicator of typical transport choices
Disability that affects travel	May influence modal choice
Mobile phone/ internet access on holiday	Ability to access travel information
First visit to the area	Knowledge of area
<hr/>	
Items about vehicles	
Type of vehicles on holiday	Included for potential future analysis of emissions
Make/model/engine size/ age/ fuel	
Mileage	Indicator of level of car use
Bike type/ mileage	Indicator of cycling habits

As weather can have an impact on travel decisions a record of weather conditions were kept for the duration of the study based on observations in the field together with data from the BBC web site (BBC 2004) to fill in any gaps.

5.3.3 Travel diary sample

The initial aim was for 50 residents and 50 visitors to complete diaries for approximately one week each. The plan was to recruit ten residents and ten visitors per week during summer 2004. The number was limited by the time constraint of explaining the diary face to face. However, the diary generated a large number of trips and accompanying descriptive comments, therefore this relatively small number generated a lot of data. Following pilot work with residents and visitors it proved difficult to recruit residents as this was largely only achieved through word of mouth recommendations or door to door recruitment. Furthermore, analysis showed the data generated by residents' travel diaries added little as it was predictable based on the interviews. Thus, in the main study travel diaries were only completed by visitors. Forty visitors completed diaries during summer 2004.

Tourists were sampled at campsites. Thus, visitors staying in other accommodation categories and day visitors were excluded. The decision to sample at campsites was partly driven by the large proportion of beds campsites represent in the Purbeck area (approximately 50%, Purbeck Heritage Committee 2002) but also the convenience. A large number of visitors can be readily approach at campsites while other accommodation providers in the area are much smaller scale in comparison. The Purbeck area was divided according to ward boundaries. One ward in each strata identified in chapter 4.0 was selected on the basis of accessibility to reduce transport costs. The chosen wards were: Langton; St Martin; Wool; Swanage North; Wareham. A sampling frame for caravan and camping sites was derived from tourist information material (Tourist Information Centre 2004; Purbeck District Council 2004) (Table 15).

Campsite owners were sent a letter outlining the project and travel diaries. This was followed up by a phone call. Following discussion with owners of small campsites these were excluded as it was felt there would not be enough visitors to make sampling there worthwhile. Following discussion with owners a campsite was chosen from each ward (Table 15 and Figure 14).

Table 15. Sampling frame (chosen sites are in italics)

	Type of site	Number of pitches (small <50 pitches, medium 10 to 100 pitches large > 100 pitches)
Langton:		
<i>Tom's field, Langton Matravers</i>	<i>tents/ camper vans</i>	<i>100 - medium</i>
Acton Field, Langton Matravers	3 touring caravans and 80 tents	83 – medium
Flower Meadow Caravan Park, Haycraft's Lane, Swanage	16 touring caravans and 16 tents	32 – small
Primrose Hill Farm, Haycraft's Lane, Harman's Cross	40 tents	40 - small
Downshay Farm Hayscrafts lane, Harman's Cross	12 touring caravans and some tents	12 – small
St Martin:		
Pear Tree Touring Park, Organford Road, Holton Heath	79 touring caravans and 49 tents	128 – large
Sandford Holiday Park, Sandford	static and touring caravans, holiday lodges and tents	large
<i>Birchwood Tourist Park, Bere Road, North Trigon, Wareham</i>	<i>175 touring caravans or tents</i>	<i>175 – large</i>
Wareham Forest Tourist Park, Bere Road, North Trigon, Wareham	200 touring caravans, tents or motor homes	200 – large
Organford Manor Caravans and Camping, Organford	45 static, 40 touring caravans and 30 tents	115 - large
Wool:		
Woodlands Camping Park, Bindon Lane, East Stoke	40 tents only	40 – small
<i>Whitemead Caravan Park, East Burton Road, Wool</i>	<i>95 touring caravan or tents</i>	<i>95 - medium</i>

Table 15. continued

Swanage North:

<i>Ulwell Cottage caravan site, Ulwell, Swanage</i>	<i>77 touring caravan or tents and 140 static caravans</i>	<i>217 – large</i>
Cauldron Barn Farm Caravan Park, Cauldron Barn Road, Swanage	169 static caravans, 9 touring caravans, 12 tents	190 – large
Ulwell Farm Caravan Park, Ulwell, Swanage	50 static caravans	50 – medium
Herston Yards Farm Touring Caravan and Camping Site, Washpond Lane, Swanage	6 static, 70 touring caravans 30 tents	106 - large

Wareham:

There are no campsites in Wareham so those in the adjacent Creech Barrow Ward were chosen

Lookout holiday park, Corfe Road, Stoborough, Wareham	89 static, 110 touring caravans and 40 tents	239 – large
<i>Ridge Farm Camping and Caravan Park, Ridge, Wareham</i>	<i>60 touring caravans or tents</i>	<i>60 – medium</i>
Redcliffe Farm, Ridge, Wareham	154 touring caravans or tents	154 - large

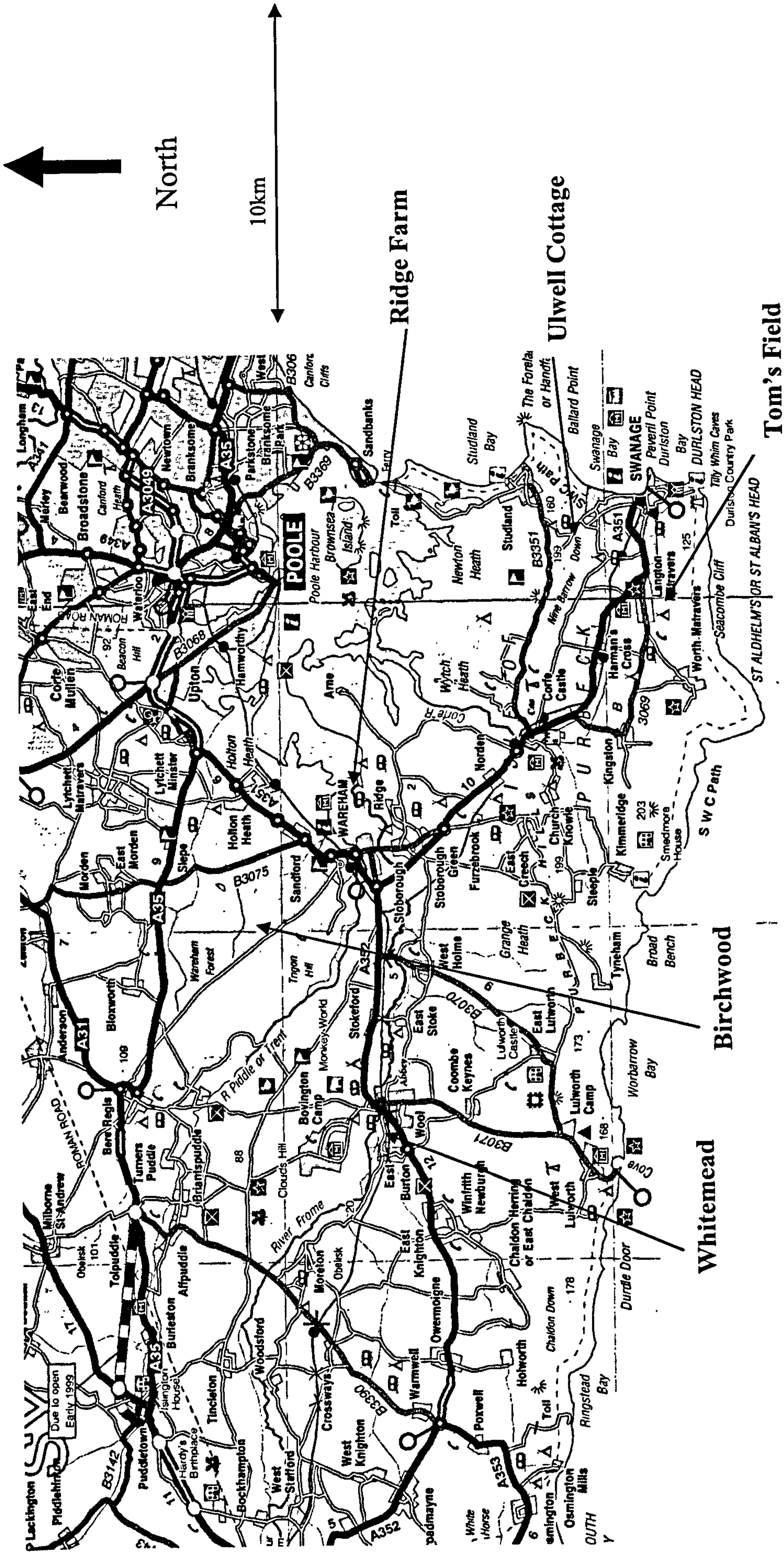


Figure 14. Location of campsites where travel diaries were implemented

Posters advertising and explaining the travel diaries were put up in prominent positions on each campsite and leaflets distributed to visitors. Visitors were recruited by walking around the site and asking at each tent in turn until the quota of ten was achieved. In some cases less were achieved.

5.3.4 Data collection

The travel diary was explained to participants in a face-to-face meeting. At this point participants also completed the background interview. Diaries were collected from visitors at the end of the week but in the event that visitors had to return home earlier they were given a pre-paid envelope or requested to hand the diary to the campsite office. Diaries were checked on return and where necessary queries were raised with participants straight away. All participants were given an information sheet detailing the project and what was required of them (Appendix 6). The sheet contained a contact number should participants need help at any time. Table 16 indicates the dates diaries were implemented. To encourage completion participants were offered a money off voucher donated by a local attraction (Monkey World, Lulworth Castle, National Trust - Brownsea Island, National Trust – Corfe Castle, Swanage Railway, Farmer Palmers, Tank Museum).

Table 16. Implementation dates of travel diaries

Location	Dates	No. given out	No. returned
Birchwood	17 th July to 23 rd July 2004	7	6
Tom's Field	25 th July to 31 st July 2004	9	8
Ullwell Cottage	24 th July to 30 th July 2004	10	9
Whitemead	7 th August to 13 th August 2004	10	8
Ridge	8 th August to 14 th August 2004	9	9

5.3.5 Pilot

The travel diary was pre-tested on three occasions in April 2004 with participants known to the researcher while they were on holiday. This helped refine questions and tested the response burden on participants. During these tests it was apparent that the recording placed a fairly high time burden on participants, especially in respect to short journeys such as a trip to buy a pint of milk. To ease this burden questions were reduced to a minimum and each trip was recorded in a row of boxes.

The pilot took place during the Whitsun holiday week, 28th May to 6th June 2004. Seven visitors completed diaries. The visitors were all recruited at Tom's Field campsite, Langton Matravers. A pilot had been planned with residents recruited through a contact at Purbeck District Council. However, the response was minimal (one volunteer) so participants were recruited door to door. It was thus recognised that considerable effort was needed to recruit participants, especially residents. The pilot did not test the sampling approach but did explore the following:

- problems with design
- problems with administration
- problems with analysis

Problems with design

The participants were on holiday and it was felt too much detail was required. One participant found it very hard to do and another admitted spending nearly one hour on the last day. Some did not record walking after they had driven to a site. Some suggested they had missed short trips, for example, walking the dog. One preferred to write down what they had done without using the diary format. As a result of comments the diary was simplified. Distance and travel time were omitted as these could be worked out from other details. The costs of public transport was also omitted as this could be established separately. As children potentially influence travel patterns it was decided to split the number in the party into adults and children.

Problems with administration

During the half-term pilot many visitors staying one night only were encountered. Though many of these visitors expressed an interest in completing a diary, it would not have been worth them doing so for one day (Axhausen et al 2002). Such data could be gathered via a questionnaire. It became apparent that at some campsites in the area many visitors are regular, repeat, short-stay visitors. This also proved to be a problem during the summer sample at Tom's Field but less so at other sites where priority was given to visitors staying for the week. Of those who met the criteria to complete the travel diary seven agreed, one refused and one did their own version. Four out of seven were returned plus the one who did their own version. To improve the response rate in the main study a date and rough time to collect the diary was established. Return envelopes were also handed to those who were not sure of their length of stay – it was felt this might encourage those who forget to hand in their diaries on departure.

Problems with analysis

Some questions were removed from the initial interview as they proved unnecessary. An additional question on whether this was the first visit to the area was included as many people seemed to be regular visitors to the area.

Some problems were identified with the travel diary analysis:

- Short trips on foot at the end of car journey (for example, walk to beach) were regularly omitted. Therefore the data on walking was not accurate. It would be potentially possible to make an educated guess but ultimately the accuracy would be questionable.
- Participants tended to omit the detail on time taken by each mode. This was omitted in the main study.
- As stage 1 specifically identified coping mechanisms that residents used to deal with tourism, traffic and rurality, this was specifically mentioned as something to comment on in the open section at the bottom of each sheet.

5.3.6 Data analysis

Data was cleaned according to the strategy suggested by Tabachnick and Fidell (2001). Data collected in the travel diaries comprised predominantly of discrete variables. Frequencies were examined to check that all the values were within range and that missing values had been coded accurately. The range of continuous variables was checked as were the means and standard deviations for plausibility. Descriptive statistics were applied to quantitative data and comments in the open section were transcribed, coded and used to add depth where appropriate.

5.3.7 Ethical considerations

Participants were provided with an information sheet informing them of the nature of the research prior to completion of the survey. Participants could withdraw their consent at any stage and five did not return the travel diary. Participants' names were not kept with data and it was not possible to identify participants from their answers.

5.3.8 Health and safety issues

With the pilot resident sample the interviewer could potentially be invited into people's home. As this included people not known to the interviewer there was a small risk of malicious intent. To minimise risk the interviewer was accompanied by a friend who remained on the street while the diary was explained to unknown participants.

5.3.9 Limitations

Due to a reliance on untrained volunteers the quality of the data collected varied. It was clear some participants either systematically or occasionally omitted details. For instance, the time of the trip was commonly omitted presumably as participants completed the diary later in the day and could not remember. There was also potential for errors such as over-estimating the time taken. The most obvious problem was the under recording of walking at the end of car trips or trips by other modes where it was clear from people's descriptions a walk, sometimes up to 1km, was involved. The diary was voluntary, relied on the volunteer's honesty and involved a high degree of commitment from participants which was likely to have effected who participated. For instance, few participants with pre-school children were recruited.

5.4 Stage 3: Questionnaire methodology

5.4.1 Research design

A questionnaire was employed to explore specific themes of interest to the study which arose from the interview and travel diary findings. Questionnaires inevitably impose the researchers assumptions about responses however, this has been minimised as the questionnaire was based on ideas generated by residents and through the use of open questioning techniques. Dimensions employed in the questionnaire survey were derived from stages 1 and 2. In society different groups will draw on or emphasise different dimensions of social representations and an approach was needed to capture this information. Also, it is suggested that people do not hold a singular view and draw on aspects of a social representation most relevant to their context at a given time. Thus, people hold dilemmas and often exhibit contradictions. The questionnaire was needed to explore these aspects in a wider population.

5.4.2 Type of investigation

The study was cross-sectional with the data collected during the peak summer season of 2005. This is the period when tourism and transport issues are most apparent and the time when transport initiatives are most likely to be implemented. While a time series approach would have offered an insight into the dynamics of views throughout the year, with the scarcity of visitors out of the peak season, it would have not have been practical to implement. Furthermore, seasonality issues would have added another dimension to the study requiring a large off-peak sample which would be time consuming to collect while potentially adding little to the social representations analysis.

Stage 3 maintained a largely exploratory and inductive approach, while the study employed a questionnaire to explore the social representations derived in stage 1 and stage 2 amongst a wider population, the study was not deductive and hypotheses testing.

5.4.3 Questionnaire design and data analysis

The questionnaire was designed to address key issues from the findings of stage 1 and 2. Aspects relating purely to residents were not incorporated into the questionnaire design this included representations related to the rural community and living in a rural area. The questionnaire was self-completed and implemented on site.

Stages 1 and 2 identified a number of overt dimensions which categorised the representation of tourism and of mobility. Yet there were a number of underlying dimensions which often contradicted the overt dimension demonstrating the complexities inherent in tourism and transport. The questionnaire focused on these contradictions and complexities (the questionnaire can be found in Appendix 7). Questionnaire design details are covered in chapter 8.0 as they relate to the findings presented in chapters 6.0 and 7.0, however, broader issues relating to the social representations approach are considered here.

As described in section 5.4.1 above, due to the inductive, social representations approach adopted, the questionnaire employed open questioning techniques and other tasks which limit the leading of respondents where possible.

Open questioning techniques

Open questions were employed where the topic was such that respondents would be readily able to communicate responses without the need for statements as prompts. An open question freely elicits views without prior categorisation. Ideally, self-completed questionnaires need to be short, easy to follow and employ few open questions, as closed ones tend to be easier to answer (Bryman 2001). In this case some degree of ease of completion was sacrificed due to the need to include open questions. Open questions are not ideal in a self-completed questionnaire, the main problem being lack of response as such questions require greater effort from respondents (Bryman 2001). This was carefully piloted and did not prove to be a problem. Open questions had a number of advantages which were particularly pertinent for a social representations study: respondents could answer in their own terms; it allowed for unusual responses; the question did not suggest a certain types of answer and it was therefore possible to check how salient issues were for respondents (Bryman 2001).

Where open questions were employed the data were content analysed and reduced to key categories. Content analysis was undertaken according to the steps suggested by Weber (1990):

1. Define the recording units – words or brief phrases were used
2. Define the categories
3. Test coding on sample of text
4. Assess reliability
5. Revise the coding rules
6. Return to step 3
7. Code all text

An emergent coding system was developed based on an examination of the pilot data. The researcher and a second person not involved in the study reviewed the answers and developed a category list. Stemler's (2001) procedure was followed where notes were compared and the category list amended. The resultant coding checklist was applied to the data. Then inter-reliability of coding was checked. A 95% agreement is suggested or 0.8 for Cohen's kappa (Stemler 2001) where 1 is perfect and 0 is no agreement. However, Stemler also notes that Kvalseth (1989) suggests a Cohen's kappa of 0.61 or greater represents reasonable good overall agreement and Landis and Koch (1977) have suggested in their benchmarks for interpreting kappa that 0.61 to 0.8 represents substantial agreement.

Hammond (1993) suggests dropping attributes that are not used by many respondents although an unusual attribute may be interesting in its own right. However, as the interest here is in a shared representation such attributes do not merit inclusion in further analysis. There is no statistical guidance for rejection of attributes. In an example of a drug use questionnaire with open-ended questions Hammond (1993) used an arbitrary cut-off that each category must be cited by at least 10% of the sample to be included. This strategy was employed here. This meant the loss of some data but was necessary to make the data analysis less cumbersome. Data were entered into SPSS as binary data for each category, ie present/absent data, and analysed using descriptive statistics. Although word frequency counts are problematic in content analysis (Stemler 2001), there is little that can be done to overcome the inherent limitation of this approach. Given that the data here were derived from a questionnaire the text took the form of individual words or short phrases which precluded other qualitative analysis approaches.

Where appropriate (specifically in relation to travel behaviour decisions) the data were analysed quantitatively using cluster analysis following content analysis as suggested by Hammond (1993). A hierarchical cluster analysis was employed to classify respondents

into subgroups. Hammond (1993) suggests exploring whether such sub-groups have somewhat differentiated representations. It was important to choose the appropriate analysis measure for binary data. A pattern difference measure for binary data was used with an average linkage within groups method which produces tight clusters. Pattern difference is a dissimilarity measure for binary data. It is computed from a fourfold table as

$$\frac{bc}{(a+b+c+d)^2}$$

where b and c represent the diagonal cells corresponding to cases present on one item but absent on the other ie:

	1	0
1	a	b
0	c	d

Sorting tasks

Sorting tasks are commonly employed in social representations studies as though respondents are asked to group statements or items, they do not force respondents to respond to them in typical unidimensional or bipolar categories and do not present *a priori* associations. Respondents are able to formulate their own responses without any pre-orientation (Doise et al 1993). Typically, respondents are given some statements about a phenomenon and asked to group them according to how similar or dissimilar they appear. However, there are a number of problems with this technique which limited its application here:

- Sorting tasks are potentially time-consuming for respondents (on-site surveys need to be relatively short – about 10 minutes maximum).
- As the statements have to be presented in some format that enables them to be sorted, for example small cards, they are fiddly to implement in the field.

Thus, while sorting tasks would have been useful they were not applied due to these limitations.

Attribute checklist

As an alternative to sorting tasks a related attribute checklist approach was devised (Fife-Schaw 1993). Respondents were presented with a table with car, walk, cycle, bus and 'none of these' as columns and various statements that could be applied to these modes as rows. Respondents were asked to tick statements according to whether they felt the statement applied to each of the modes of transport or none of these. Each statement could apply to more than one mode of transport. This avoids some problems that would be generated by using agreement with attitude statements. For instance, an attitude

statement might label the car as needing restricting possibly putting this idea into the respondent's mind for the first time. While an attribute checklist does not totally avoid this, respondents can potentially choose to restrict all modes, several, one or none at all.

The data was entered into SPSS as a large number of binary variables (present/absent). Two stages were followed for the analysis of attribute checklist data (Fife-Schaw 1993). First, cluster analysis was employed to explore the existence of naturally occurring clusters of individuals based on their judgements. Second, correspondence analysis was applied to map out the shared representation(s). Correspondence maps can be produced for any cluster or any *a priori* group (Hammond 1993) and thus enabled the main sources of difference to be examined for sub-groups. Analysis was carried out on a number of pre-defined groups as well as those identified by cluster analysis.

Cluster analysis makes no statistical inferences but is useful in a social representations study for searching for agreement between individuals. If there is little agreement between individuals in large clusters there is evidence for there not being a large-scale consensual representation (Fife-Schaw 1993). As all the judgements are binary product-moment correlations are inappropriate. With binary data association coefficients need to be calculated. It is important to decide whether to consider a ticked box as equally important as an un-ticked box. "Can you be certain that failure to tick a box implies that an object does not possess the attribute?" (Fife-Schaw 1993 p259). Two commonly used options for binary variables are simple matching and Jaccard measures. Simple matching matches both presence or absence while Jaccard matches only when present. Fife-Schaw suggests the decision be made on the basis of the domain under study and the researcher's confidence that respondents were paying attention to task. In relation to this study it was logical to use simple matching as the presence or absence was important.

Correspondence analysis is used to reveal the structure of a complex data matrix by replacing the raw data with a more simple data matrix without losing essential information. It was used to see if the data forms clusters and more importantly if certain variables occupy common regions of two-dimension space in a correspondence map which facilitates interpretation (Clausen 1998). The technique is useful where both the number of row and column categories are large thus patterns are not easily examined from the contingency table (Dunteman 1994). The method can be employed to describe graphically almost any contingency table on the assumption that there exists an association to be described (Clausen 1998). Correspondence analysis was used to plot the attributes and modes in their component spaces. The map is a geometric representation. Each row profile may be regarded as a mathematical vector and each vector represented

as a point in space (coordinates) (Clausen 1998). The map is interpreted “on the basis of the relative positions of these points, for example, as spatial dimensions and/or clusterings” (Clausen 1998 p2).

Laddering

Initially, to establish people’s reasons for travel behaviour decisions, a market research technique known as laddering (Capozza et al 2003) was employed in the pilot. The respondent supplies reasons for pursuing a particular goal (here, reasons for using a chosen mode of transport). They are then asked to explain why these reasons are important to him/her. In a typical marketing research context the interviewer keeps asking this question until the respondent can generate no more reasons. In this case as the questionnaire was self-completed, albeit with the researcher present nearby, so respondents in the pilot were only asked to generate two reasons. However, in the pilot this section proved difficult for respondents many of whom were unclear what they were required to do. Where respondents understood, it worked well however, there were not enough positive responses to continue with the approach. In the main study the section was simplified to two questions: Please list below as many reasons as possible for using your main mode of transport today; Why was it important to you to use this mode of transport? The use of several lines beneath each question encouraged respondents to give as much detail as possible.

Statement scales

Scales are commonly employed in social representation studies although there is some question as to whether they might generate the attitude towards the object in the first place (Doise et al 1993) and there are issues of socially desirability effects particularly where transport is concerned. Many tourism impact studies have employed scales and a scale was used here to examine tourism impacts especially those related to transport.

Scale items have been treated in various ways in social representations studies. Two approaches commonly employed, either alone or together, are cluster analysis and factor analysis. In this study both were used to examine the structure of the social representations.

Cluster analysis has been employed in a number of studies often with a marketing orientation to identify groups of respondents which share particular characteristics from the data (Anable 2005). It is also suggested as a social representation technique where the focus is on similarities between respondents rather than differences (Fredline and

Faulkner 2000). Thus, cluster analysis was used as a heuristic technique to explore the respondents' shared experiences of tourism impacts.

Several tourism impact studies have employed a hierarchical cluster analysis to scale items (Fredline and Faulkner 2000; Davis et al 1988 and Madrigal 1995). Davis et al (1988) used Euclidean distance measure on scale items. Each cluster was profiled against attitude statements to name each cluster (% who agreed and strongly agreed). Davis et al (1998) also examined cluster groups against a variety of classifying variables. Most were not significant except natives to area and knowledge of tourism impacts. Fredline and Faulkner (2000) used Ward's method and squared Euclidean distances measures. They examined three- and five-cluster solutions based on the prior work of Davis et al (1988) and Madrigal (1995). Fredline and Faulkner then employed factor analysis to simplify the description of the clusters. Resident responses to the 36 impact statements were summarized into six factors using a principal components analysis. Cluster membership was then compared to each factor and the mean response of each cluster group to each statement. Madrigal (1995) employed a cluster analysis of factor scores using nearest centroid sorting to select a four-cluster solution. The four-cluster solution was chosen as it represented all combinations of two underlying dimensions which were positive and negative aspects of tourism. However, one cluster was very small and eliminated from analysis.

On the basis of these previous studies a hierarchical cluster analysis was undertaken on the variables using Ward's method and squared Euclidean distance. To work out an appropriate number of clusters, cluster membership was explored using crosstabulation from a two-cluster solution up to a six-cluster solution. The chosen cluster solution was then profiled against the original statements using the % agreeing and strongly agreeing together with mean. Clusters were also profiled against factors generated by factor analysis.

It is also possible to perform a cluster analysis of factor scores (Madrigal 1995) but Dunteman (1994) argues that there is no advantage in using principal components scores over original variables in cluster analysis. Fredline and Faulkner (2000) also argue this approach is debatable as "there is some evidence to suggest the variables which truly discriminate among underlying groups are not well represented in many factor solutions" and "the application of factor analysis prior to cluster analysis involves a premature loss of information that might distort the outcome" (p773).

Factor analysis is usually used as an exploratory technique in social sciences (Fife-Schaw 2000) to ascertain the minimum number of hypothetical factors that can account for the observed co variation and to detect structure in the relationships between variables (StatSoft Inc 2003). Where scale items are employed in social representations studies it is common to use factor analysis to explore the structure of the belief systems (see for example Castro and Lima 2001). As such it has been employed in social representations studies to identify salient attributes to summarize the variations in a representational field for a given population (Doise et al 1993). Factor analysis investigates covariations between response profiles (Doise et al 1993) which is important for social representations. As people's view on one aspect changes it does on another too, even if they agree with one and disagree with another. Thus, factor analysis was employed to see whether a smaller number of factors could account for the observed co variation and to see if there was an underlying structure that related to the representations and responsibility aspects identified in stage 1.

There is some debate surrounding the validity of factor analysis in the social representations field (Hammond 1993). The main critique stems from the use of unidimensional ratings on scales with items being derived *a priori* with little or no input from respondents. These items constrain respondents, may limit their ability to describe salient attributes and generate responses which might not otherwise exist (Pukhardt and Stockdale 1993). Fredline and Faulkner (2000) use the distinction between etic and emic paradigms (Pearce et al 1996). In etic studies the researcher's assumptions and existing theory drive the research and typically inform measurement scales. The emic approach is more appropriate for social representations theory as it "recognizes the complexities of community representations of phenomena and the role of social networks in their development, and thus relies more on the community itself to spontaneously generate its own constructs" (Fredline and Faulkner p778). Their study used an etic approach but with an element of emic approach through the use of cluster analysis which does not place residents into *a priori* defined groups.

Here factor analysis was used as an exploratory technique and it is acknowledged that the scale items constrain respondents as they are not given the opportunity to express their own perspective although, items were derived from local perspectives. Thus, other aspects of the questionnaire encouraged open responses although such responses are limited by respondent's ability to describe the salient attributes in the constraints imposed by a questionnaire survey.

The data assumptions for factor analysis are: normal levels of distribution of variables; and observations are independent. While the observations here are independent they do not meet strict criteria of normality which is typically the problem with Likert type scale items. However, as factor analysis is being used descriptively to summarize the relationships in the variables here, assumptions of normality are not in force (Tabachnick and Fidell 1989). Normality is only important if there is a need to generalise results beyond the sample. The data was also examined for variables that do not correlate with any other and, conversely, for variables that are very highly correlated. None were found thus the factor analysis could proceed.

Travel patterns/modal choice, stakeholder membership and respondent characteristics

Descriptive data were compiled about the respondents. The aim was to relate travel patterns, modal choice, stakeholder membership and other respondent characteristics to social representations. Closed questions were employed together with open questions that could be readily coded, for example, "where have you travelled from today?" These questions were used to group respondents in relation to the findings of cluster analysis, correspondence analysis and factor analysis. This enabled analysis to indicate the salience of a dimension to a particular group. These questions were also used to check the sample was representative of visitors to sites.

Most of these questions were straightforward however there were problems categorising socio-economic status (Fowler 1995). As socio-economic variables have not been found to influence attitudes towards tourism in the developed world and have been excluded from some studies (Faulkner and Tideswell 1997) they were not considered vital here.

The order of questions may affect refusal rate and influence the answers obtained (Moser and Kalton 1992) thus straight forward questions were put at the start which were easy to answer and were clearly linked to the transport topic to maintain interest. Descriptive, respondent characteristics questions were placed at the end as these data were less crucial in this study. Questions were put into a logical order.

The quantitative data was entered by computer scanner and the data format transferred to SPSS, however the data was still cleaned according to the strategy suggested by Tabachnick and Fidell (2001) as the computer can mis-interpret marks on the questionnaires. Frequencies were examined to check all the values were within range and that missing values had been coded accurately. The range of continuous variables was checked as were the means and standard deviations for plausibility.

5.4.4 Sample

The study sample should represent the visiting population, however, there are problems with visitor surveys as it is not possible to construct a sample frame because of a lack of data. It was still important to make the sample as representative as possible and if possible adopt some random sampling technique (Davidson 1970). To achieve this an estimate of the total visitor population to the Purbeck area was made together with the variations that occur in this population in respect to sample sites and key dimensions of the study (ie mode of transport, resident/tourist/day visitor). This was based on existing studies (see chapter 4.0). Ultimately a quasi-random sampling technique was adopted on site.

The questionnaire was administered in freely accessed public space thus only three of the top six attractions (Table 12, chapter 4.0) presented suitable locations for the survey: Corfe Castle (village adjacent to the Castle), Durlston Country Park and Lulworth Cove. The Travel Diaries found Swanage was the most visited site (15% of trips) with 80% of visitors making at least one trip. Wareham was the second most visited site (6% of trips) closely followed by the Studland area (6% of trips). Though the travel diaries do not provide data which are in any sense representative, they indicate that most visitors go to Swanage at some point during their holiday thus it would make a good base for sampling.

Survey sites and sample days

Four sites were selected on the basis of high visitor numbers (Table 17 and Figure 15). All sites were openly accessible, free at the point of access and where the survey was feasible. Survey times and places were selected to minimise bias. For instance, surveying in a car park may exclude cyclists and walkers. As the study required information during peak conditions it was important to survey during the peak season but on a variety of different days. Ultimately the sample was constrained to some extent by the maximum number of survey distribution hours that were available. Eighteen days were allocated to the main survey with an additional six days scheduled at the end to cover days missed due to poor weather (Table 18). An additional sample of cyclists was targeted on their journey home at the Sandbanks ferry. While bus users were targeted on two afternoons at Swanage bus station. Surveys did not take place on wet days.

Table 17. Sample sites

Site	Type of visitor	Annual visitor numbers	Planned survey days 18 in total	Actual survey days
Studland beach	Beach lovers	1,000,000+	5	5.5
Lulworth Cove	Beach lovers, explorers, heritage site	450,000	5	4
Durlston CP	Explorers, walkers, nature conservation interest	128,611	3	3
Swanage beach and seafront	Beach lovers, explorers, shoppers	350,000	5	5.5

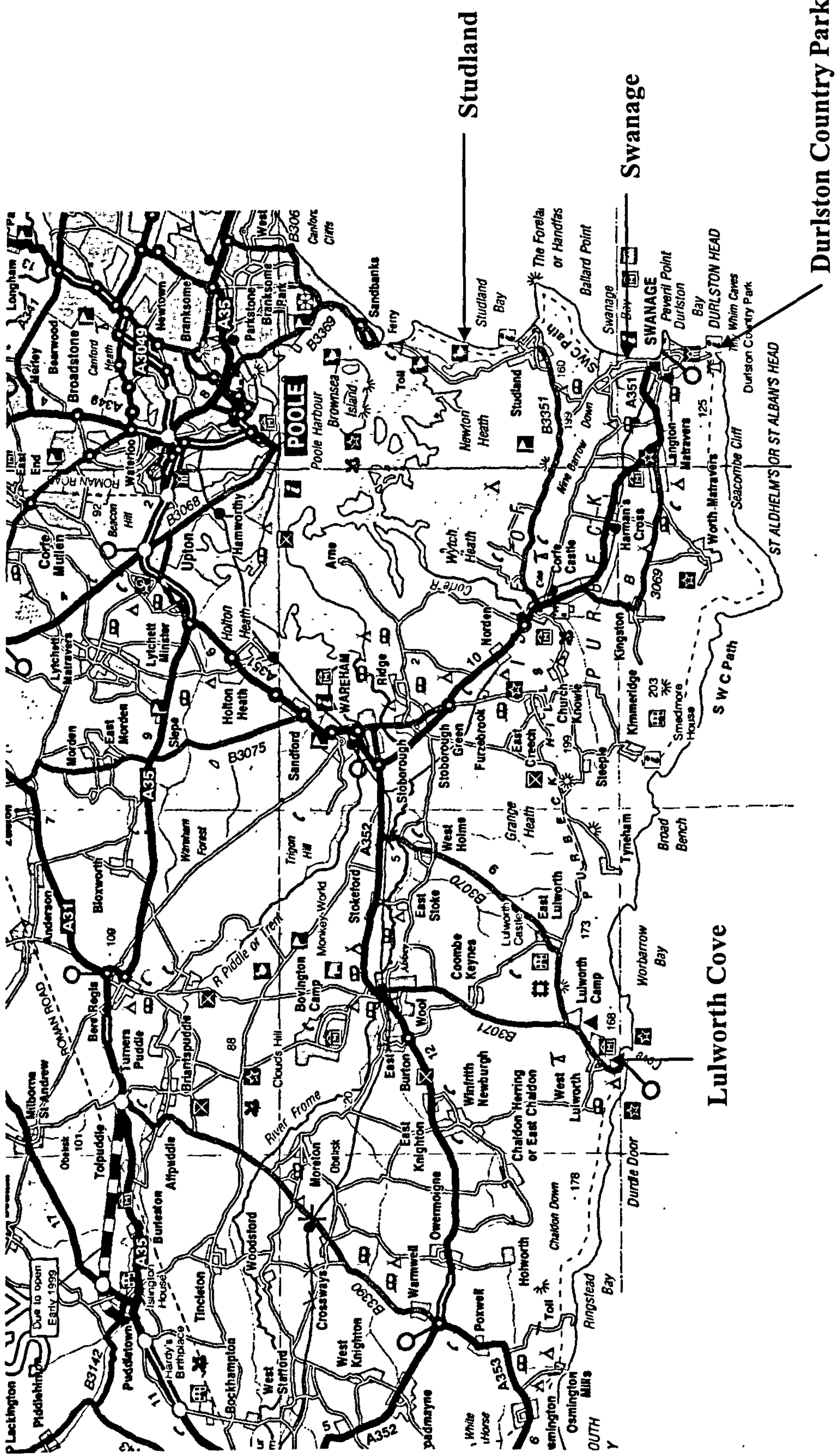


Figure 15. Location of questionnaire survey sites

Table 18. Survey dates

Date	Location	Number of questionnaires	Number of refusals
Saturday 16 th July	Lulworth Cove	58	14
Sunday 17 th July	Studland	48 (+12 given out to cyclists at Ferry)	8
Monday 18 th July	Swanage	30	2
Tuesday 19 th July	Swanage (half day)	28	9
	Studland (half day)	6 (+4 given out to cyclists at ferry)	1
Thursday 21 st July	Lulworth Cove	48	4
Friday 22 nd July	Studland	60	7
Saturday 23 rd July	Studland (half day)	12	0
	Swanage (half day)	46	12
Monday 25 th July	Lulworth Cove	22	3
Thursday 28 th July	Swanage	60	15
Friday 29 th July	Studland	48 (+3 given out to cyclists at ferry)	3
Wednesday 3 rd August		(4 given out to cyclists at ferry)	
Thursday 4 th August	Studland	60	2
Friday 5 th August	Durlston	7 (+22 handed out to post back)	2
		(+2 given out to cyclists at ferry)	
Friday 12 th August	Durlston	17 (+27 handed out to post back)	2
		(+12 given out at Swanage bus station)	
		(+31 given out to cyclists at ferry)	
Sunday 14 th August	Durlston	20 (+30 handed out to post back)	1
		(+13 given out at Swanage bus station)	
		(+13 given out to cyclists at ferry)	
Monday 15 th August	Swanage	35	5
Tuesday 23 rd August	Swanage	62	12
	Lulworth Cove	35	2
Wednesday 24 th August	Swanage (half day)	13	1
Friday 26 th August	Studland (half day)	14	1
TOTAL	Completed on site	731	106
	Given out at Durlston	79	34 (not returned)
	Given out to cyclists	69	32 (not returned)
	Given out to bus users	25	9 (not returned)

Sample size

The sample size was estimated on the basis of:

- The range of error that can be tolerated in results.

- Some estimate of the survey population size. (44,000 residents, 4.7 million visitor days each year).
- The type of analysis. In this study factor analysis was the most demanding in terms of sample size requiring samples of over 200. In addition, as some respondents failed to respond to all the attitude statements, the sample size needed to be larger to accommodate this missing data. As a result a sample of over 500 was considered ideal.
- The variability of the population to be surveyed. Data for the sites in question largely do not exist as there are multiple entry and exit points so estimates by site managers are very crude. However, some norms can be established from other site surveys. Pilot data can be used to establish these details but as the pilot took place prior to the peak season the visitor characteristics were not typical of the peak season with a bias to the retired population.

In the end a sample of over 500 was aimed for to satisfy the demands of factor analysis. However it was clear that this would not give enough cyclists or bus users to be able to examine these groups as typically only two percent and six percent of trips respectively are by these modes (Department for Transport 2005), thus additional cyclists and bus users were targeted at appropriate locations.

On site sampling strategy

The potential survey sites for the study did not have single entry and exit point which precluded surveying every nth individual. There are several quasi-random approaches that can be employed in areas with multiple access points. Two commonly employed are the random selection of grid squares and the systematic traverse. The systematic traverse was employed on beaches which were traversed over a given time period and individuals sampled at regular intervals (Davidson 1970). To maximise this approach the sampling employed clustering whereby 6 people were approached at each survey point. The systematic traverse was not applicable to one of the sites, Durlston Country Park, where visitors were generally on walks. At this site a strategic point was chosen on a popular route along the cliff top where there were a number of benches where respondents could complete the survey. Every group passing this point was approached unless congestion precluded this.

5.4.5 Data collection

The questionnaire was self-completed. Davidson (1970) argues the maximum completion time for a site based survey should be no more than ten minutes and this was adhered to. A self-completion approach is cheaper, quicker to administer and reduces interviewer

effects, although in this case the researcher was present nearby. It does not, however, remove the problem of selection bias and self-completion means the interviewer cannot prompt or probe and all the questions must be salient to respondents or they will not be completed and more missing data results. Respondents may also read through the questionnaire first so no question is truly independent (Bryman 2001).

The refusal rate for the survey was low (13%). A drop and collect approach was employed with the researcher remained nearby while the questionnaire was completed. This speeded up the process as up to six questionnaires could be distributed at the same time. While this technique was employed at Durlston County Park, as visitors were walking, questionnaires were also made available with envelopes so respondents could post back replies rather than stopping to complete the questionnaire at the time. The response rate for postal returns from Durlston Country Park was 58%. Questionnaires were also distributed to some cyclists and bus users with return envelopes. The return rates were: cyclists 55%; Bus users 64%. This is a good return rate for a postal survey which was obviously improved by the researcher handing out questionnaires in person.

The questionnaire was preceded by a short briefing about the project and instructions for completion of the questionnaire. The interviewer introduced the questionnaire to all respondents. Each questionnaire was referenced to where the survey took place, date, time, weather and travel conditions.

Seven hundred and thirty one questionnaires were completed on site and an additional 45 were returned by post from respondents at Durlston Country Park. Thirty seven questionnaires were returned by the additional sample of cyclists and 16 from bus users.

5.4.6 Pilot

Before the formal pilot, the questionnaire was pre-tested on 14 friends and colleagues plus 13 visitors to Swanage on Tuesday 10th May between 11.30am and 2.00pm. As it was a pre-season weekday the majority of respondents were retired, however it did include a mixture of residents, day visitors, staying visitors and second home-owners. Two questionnaires were interview administered, as respondents did not have their reading glasses. Potential respondents largely consisted of people in groups of two to four which is typical of people on a day out. Such groups were approached and asked if they would be willing to complete a questionnaire on tourism and transport in the area. Many groups initially responded that they were visitors or conversely residents and therefore unable to take part though following further explanation people realised they could complete the survey. Thus, the introduction needed to highlight this. However, there were

still ten groups which declined to take part. These groups comprised a total of nine men and 16 women all judged to be retired. As an individual from 13 out of 23 groups took part the response rate was over 50%.

The pre-test aimed to check:

- Questions were correctly framed and ordered;
- Length and layout;
- Adequacy of instructions.

A number of issues were identified during the pre-test:

- Respondents ideally needed to be sitting down to complete the questionnaire – this therefore precluded surveying in spaces where there are few or no seating opportunities.
- Quite a large proportion of respondents did not know that they were visiting the Purbeck area. They viewed it as a visit to Swanage and Purbeck meant nothing to them. Where Purbeck is first mentioned on the main questionnaire a statement was added to explain ‘Purbeck is the area you are visiting today’.
- A number of visitors had travelled by coach which was not in the list of modes of transport. Coach was added to the list of modes of transport.
- Some respondents felt it was difficult to answer the questions on transport and mobility (attribute checklist) and tourism (statements with scale) as they were visitors to the area and lacked knowledge. Some statements were therefore left blank. This was piloted further to gain a better estimate of the response rate.
- The laddering question on travel behaviour decisions worked well with some respondents but others found it difficult to come up with more than one reason for using their mode of transport. It was therefore not clear to them what should go in the second and third columns. The laddering question was simplified into two linked open questions (see section 5.4.3).
- In response to ‘how long are you planning to stay at this site today?’ it was clear that some respondents had mis-read the question as they gave answers like ‘3 weeks’. It is not clear why this was so and this was therefore tested further.
- A question on general level of use of modes of transport required that respondents tick one box for each mode. This largely failed as many respondents ticked their most common form of transport and ignored the rest. This was amended to ask respondents how many days per week they used each mode of transport.
- A respondent suggested it was not clear on the attribute checklist task that you could tick more than one option. This was stated more clearly.

The formal pilot took place on 3 days in Swanage: Tuesday 21st June, Saturday 2nd July, Sunday 3rd July. Swanage was chosen as visitor numbers were high in the pre-season. Lulworth Cove and Studland were also visited but numbers were too low to warrant a survey. 92 respondents completed questionnaires. Davidson (1970) suggests a pilot size of 50 is adequate for testing design and a minimum of 100 for testing other issues. In total the pilot and pre-test included 119 respondents. A 69% response rate was achieved.

The pilot aimed to check:

- Questions were correctly framed and ordered;
- Length and layout;
- Adequacy of instructions;
- The adequacy of the sampling procedure and its application, for instance, whether it excluded any groups;
- Response rate/non-response rate and ways of reducing non-response;
- Domestic details, for example, wind/rain;
- Variability within population to be surveyed to help establish sample size (however, as the pilot was out of the main season a larger than average group of elderly did not reflect the high season visitors);
- Codes for pre-coded questions.

(Moser and Kalton 1992)

Pilot issues:

- No cyclists were encountered in the pilot. Therefore the sample was likely to exclude cyclists or include very few. Thus, it was decided to target the population of cyclists as a separate sample.
- There were few bus users in the pilot therefore again it was decided to target bus users as a separate sample.
- 16% did not fully complete the tourism scale. Though this had implications for factor analysis and the sample size was revised accordingly, it was not unreasonable to proceed with this level of non-completion.
- 43% missed out one or more statement from the attribute checklist. This posed less of a problem for analysis but indicated that people found this section hard to answer. As most were omitting only 1 attribute and there was no attribute which stood out for non-response it was decided to proceed with a 'none of these' option added to clarify non-response.
- The survey was not worth conducting on wet days.

Amendments to questionnaire

- Q19. How long are you planning to stay at this site today? This was amended to a closed question with options of less than 1 hour, from 1 to 2 hours, from 2 to 3 hours, over 3 hours as some respondents were mis-interpreting the question as how long they were on holiday in the area.
- Questions were added on possession of a driving license and car ownership.
- A question was added to identify first time visitors as they are likely to have less local transport knowledge.
- A motorbike and Boat option was added to Q1.

5.4.7 Ethical considerations

Respondents were provided a short briefing about the project together with an indication of the time commitment prior to completion of the survey. Respondents could at this stage make a decision about whether they wished to complete the questionnaire.

Respondents' names were not recorded and limited personal details were collected thus it would not be possible to identify respondents from their answers. All information given was strictly confidential and this was stated in writing on the questionnaire. Thomas (1999) points out that respondents must agree to participate and must know they can stop at any time without penalty. An Informed Consent Form must be used if:

- Minors are being asked to participate;
- The topic is sensitive such as drug or alcohol use or sexual or criminal behaviour;
- You have a power relationship over respondents, for example, employees, clients or students.

None of the above applied in this case so a statement was included indicating respondents consent to participate in the study as follows:

“The questionnaire is completely confidential and will only take about 10 minutes to complete. Completion is voluntary and you may quit at any time. By completing this survey, you are giving your consent to participate in this study.”

5.4.8 Health and safety issues

A risk assessment was completed prior to the survey taking place (Appendix 8). To minimise safety risks a clear record was maintained of the date, times and locations where the survey was taking place. This was left with a friend or colleague who was informed on return. Where the survey took place on private land, permission was sought and staff informed when the researcher was on site and when they left site thus minimising safety risks.

5.4.9 Limitations

As a sample frame could not be constructed and therefore only a quasi-random sampling strategy was adopted there was likely to be bias in the choice of respondents. This was further emphasised by the choice of location for the survey which concentrated on coastal sites though these sites are the most popular attraction in high season. Response errors were likely due to researcher expectations (particularly when coding various vague, marginal answers) and errors arising from respondents (for example due to lack of knowledge, false memory, misunderstanding or wishing to give a correct answer) (Moser and Kalton 1992). Furthermore the questions potentially prompted respondents by suggesting ideas they might not have had and issues which were not most salient. The questionnaire also appeared to generate a somewhat defensive response from some respondents who wrote comments at the end of the questionnaire suggesting the survey had triggered some guilt about car use.

5.5 Presentation of findings

The following three chapters present the findings from the three stages of the study. Each can be read independently but critically, aspects of the first stage (resident interviews – chapter 6) informed analysis in stage two (visitor travel diaries – chapter 7) and the design and analysis in stage three (questionnaire – chapter 8). Chapter 6 presents the participant's perspective to explore the residents' representations of transport, tourism and Purbeck. Chapter 7 develops a contextual visitors' perspective and relates this to the residents' perspective. Chapter 8 explores specific issues of particular interest to transport and tourism in rural destinations with a wide range of respondents in a leisure/tourism setting.

6.0 Residents' Representation of Transport and Tourism in Purbeck

6.1 Introduction

In order to understand the situation in Purbeck the study began with an exploration of the residents' perspective using in-depth interviews. The aim was to analyse the social conceptions of transport and tourism in Purbeck and the social reality that shapes residents' travel behaviour. This chapter begins by presenting the residents' representation of the Purbeck area and tourism context as situated in that area. Following this five dimensions of a social representation of transport and mobility which emerged from interviews are examined together with residents' coping strategies which became apparent in relation to tourism traffic problems. The chapter concludes with a section on theory development which proposes a conceptual framework for the study. Much of this chapter has been reported elsewhere in two conference papers (Dickinson 2004a; Dickinson 2004b). The chapter discusses much of the details contained in these papers and therefore due acknowledgement is given.

6.2 Social representation of Purbeck and tourism

There is a strong image of Purbeck that comes through analysis of documentary evidence and interviews. The World Heritage status afforded the coastline in 2001 seems to confirm what everyone already believed, that Purbeck is unique. In a small area there is a great diversity of landscape character that has arisen from natural and human processes. The coastline is rugged and dramatic yet offers opportunities for traditional seaside bucket and spade holidays. Heritage is conceptualised in various ways: in geological terms through fossils and dinosaurs; in the built environment through castles and old villages; in terms of wildlife and habitat; and as a romantic idyll of an idolised countryside. Holiday brochures draw attention to the range of opportunities for land and water based outdoor activities. The area is seen as leisure space that affords opportunities for local people and visitors alike. It was widely held that the area offers unrivalled recreational opportunities and was quiet out of the main tourist season.

While all participants felt the area was rural several debated whether there was an element of urbanisation taking place and suggested that rurality was a relative concept. Rurality was predominantly described in terms of: the countryside and landscape diversity; settlement size, low population density and lack of infrastructure; agricultural land use; and as a leisure space. To a lesser extent participants identified the changing nature of agriculture which is playing a less key role in the area and a resistance to change which was seen as a negative element. There was little direct reference to the popular conceptions of rural areas which Hall and Page (2006) suggest are based on “images of rusticity and the idyllic village life”, however, this was more apparent in the way people valued the area. People value the diversity of the area, its natural and man-made heritage, wildlife and the space.

A strong social representation was that of a rural community and, within this, community breakdown. Community was expressed through belonging to community action groups, community volunteer groups and in terms of helping or being helped by friends and neighbours. It was an attractive feature of the area that had drawn people to a rural lifestyle and was a way of life many wanted to protect. Long-term residents used representations of community breakdown. In addition, the representation of community could be extended to people visiting the area, for example

“you get the same people coming back year after year... and then as their families grow they come back so you’ve got the same nucleus all the time. If I’m in the museum and someone comes in they bring their grandson in to see it as they’ve come for many years, it seems to be an ongoing thing.” (I. 8)

A number of participants suggested they held a position of privilege to be able to live in such a beautiful location that afforded so many opportunities and thousands seek to visit, for example:

“Well it’s just a lovely, lovely place isn’t it... there’s lots of people who want to come here to look, to see, to swim, to enjoy it. One of our parish councillors wants to see if there can be some restriction on it. You can’t restrict people coming here, because it’s a lovely place and people want to come and see it and appreciate it, like we’re lucky enough to be able to live here... Sunday morning we walk the kids on the beach, people spend 5 hours in a car just to do it.” (I. 10)

“It’s unique, it really is. You’ve got a small market town like Wareham and a seaside town like Swanage surrounded by this beautiful area and people from all over the country, and perhaps all over the world, see it and admire

it, and here am I living right in the middle of it, so we're privileged to live here." (I. 6)

A dimension of this privilege was the dilemma held by one participant in particular on living in the area but feeling people should live in compact urban settlements. This participant presented a sophisticated argument often juggling several opposing perspectives to articulate the dilemmas about social issues. On the other hand there were some participants who took, or described in others, what might be called an isolationist stance on local problems. This was particularly expressed in the view of rapid rises in house prices, though this has taken place across the UK, and the area not adapting to change. Brunt and Courtney (1999) in a study of Dawlish, Devon identified something similar in what they describe as "local attitudes stimulating resentment".

Planning and policy documents draw attention to what might be termed a conflict scenario arising from the need to exploit leisure opportunities, due to the economic importance of visitors to the area, in the stunning landscapes and internationally important wildlife habitats. In places documents argue that there are too many users and in others suggest the need to increase opportunities for leisure to accommodate demand and maximise potential economic benefits:

"The Purbeck Heritage Committee is well aware that the problems and opportunities in Purbeck are closely related. The natural beauty of the area attracts large numbers of visitors, leading to problems of congestion and opportunities in the tourism industry." (Purbeck Heritage Committee 2002 p10)

Tourism was conceptualised by participants as a balance between positive and negative impacts although there was a strong feeling among many, though not all, participants that the negatives outweigh the positive contrary to typical studies (Andreck and Vogt 2002). There was a hegemonic representation that tourism brings economic benefits although the economic importance of visitors did not go unquestioned. While policy and planning documents supported it with facts and figures on spending, there was suggestion of developing a more balanced economy less dependant on tourism and there was some disquiet evidenced in interviews. Indeed, there was some resentment of local taxes being spent on tourism promotion and facilities, for example:

"I pay my council tax, what do I get out of tourism? Nothing, absolutely nothing but grief..." (I. 4).

Similarly employment benefits while viewed as positive were recognised to have negative features due to low pay, seasonal unemployment, part-time or unsocial hours and employment of a migrant student population. Many participants were quick to claim no direct benefit from tourism although it was felt by some that they benefited indirectly

from better local services such as shops and buses that were supported by visitors. The sheer volume of people in a number of concentrated areas and the resultant traffic congestion, pollution and even grid lock were held to be a major problem. Erosion of the coast path was seen as a particular problem and those with knowledge of its management cited limited funding as a major cause for concern.

Under the conflict scenario there are several issues:

- Does leisure and tourism make too much of a demand on the natural environment?
- Should more visitors be encouraged into the area?
- Does tourism bring real economic benefits?
- Do benefits outweigh negative impacts?

These questions remain unanswered. Policy and planning documents argue for 'sustainable tourism development' though this term was widely used for tourism projects generally.

Tourists were not all considered bad, indeed many participants drew a distinction between good and bad tourists. Generally day visitors were bad tourists because they drive into the area and contribute less to the economy:

“it's the day visitors who drive into the area, clog up the roads, park everywhere, bring their lunch with them and don't spend anything in the area at all and this is a really big problem. The people who come and stay in the area I don't think are a problem, but it is the day trippers who come in and clog the area up and this is an extremely difficult problem to address.” (I. 7)

Second home owners were also singled out as they took up accommodation, which remained empty most of the year, increased house prices and reduced the resident population contributing to the local economy.

It could be argued that polemical social representations of tourism exist. On the one hand a representation that tourism is vitally important to the area but has some negative impacts, while on the other that tourism brings very little to the area, the benefits are over rated and impacts severe. The latter group often argued that the only people who feel tourism is positive are those who gain direct economic benefits.

“If you go and speak to the people who promote tourism you'll find they're hoteliers or they've got some connection in the tourism industry. Walk up the street and ask any local person what they think about tourism... they've lived here all their life it just grows with them, but ask them what benefits it brings them, it doesn't, it brings problems to them.” (I. 6)

Indeed it was suggested that tourism was irrelevant to the bulk of the population who had grown to accept it and deal with the impacts.

6.3 Social representation of transport and mobility

Five themes emerged which together form the representation of transport and mobility in Purbeck.

Theme 1: the car cannot be restricted

Within local documents management of car use, while widely cited was not expounded beyond a suggestion of car parking management. Similarly there was much mention of relieving congestion but documents were unable to say how this would be achieved. This is not unsurprising of policy and planning documents and hints at a wider issue which was the reluctance of almost all participants to condone restricting the car in anyway. Only one consultant's report suggested car restrictions. Car restrictions were either rejected outright by participants as unfeasible or proposed only for tourists and day visitors.

“They will get there what ever... Have you ever been down there in the summer and seen them in the ditch, on the bank, upside down?... I don't see how you can work restrictions” (I. 10).

Theme 2: if public transport was improved people would use it more

Public transport was widely held to be an important alternative to be developed despite the fact that few participants showed evidence of ever using it themselves. There is a pervasive discourse from national government down to individuals that improvements are needed to public transport and then more people will use it. However, while most participants supported this view there was some scepticism:

“Obviously better public transport is one answer, but whether it could be made viable is really rather difficult... I certainly don't think you'd get the tourists away from their cars.” (I. 3)

There was often a sense that other people would use it but who are these others? (See theme 3 below). This is not to dismiss the value of public transport in dealing with social exclusion in rural areas but as a significant solution to congestion problems it seems doubtful.

Support for theme 2 was often proclaimed by the success stories of 2 transport initiatives:

- Norden park and ride – a car park to facilitate a steam train ride into Swanage

- X53 – bus from Wareham to Exeter serving the World Heritage Coast

Both were cited as successful, but in what terms? As a visitor attraction, for example:

“it works as an experience, the train is an experience, the bus isn’t” (I. 10)

or in getting cars off road – in the latter case impact must be minimal. Both are important initiatives in the local area and have no doubt attracted users and thus had some impact on road traffic. But impacts are minimal relative to perceived success. While the X53 Jurassic Coast bus has increased use levels in recent years, its impact on car use is minimal as frequency and capacity are so limited. Thus, yes, if public transport is improved people do use it more but to get use levels to a point that makes an impact on car use is tricky in a rural area. The success of the Norden park and ride is also questionable. It succeeds in reducing the car parking impact on Corfe Castle village and it was initially conceived with this in mind. However, as an attraction in its own right it also attracts visitors into the area thus it would be difficult to determine if cars had been displaced from the road as more may have been attracted into the area as a result of the railway.

In relation to transport, documents emphasise an integrated approach but there is little in way of explanation of what this is. The term came into wide circulation after its use in the Transport White Paper of 1998 (Department of Environment, Transport and the Regions 1998). It has become a buzz-word and while the intention is perhaps clear it is largely used in the context of improvement and promotion of alternatives to the car.

Theme 3: non-car alternatives are for ‘other’ people

Cycling and walking were rarely considered as an alternative, indeed people could largely only conceptualise these modes for leisure (see theme 4 below) and some seemed to have difficulty talking about them at all in the context of transport. When cycling was discussed it was often to raise hazards mostly in relation to children cycling and cyclists on pavements:

“Kiddies without their helmets on” (I. 11).

“I’ve definitely got views on cycling, views on cycling on footpaths, pedestrians and cyclists don’t go together” (I. 8).

Cycling was conceptualised in terms of ‘others’, particularly children and visitors.

There was also evidence of an excuses scenario:

[cycling is] “too much effort and on the whole you haven’t got time, you’re in a desperate hurry, we’ve a busy life and invariably have to carry shopping.” (I. 7)

Residents also talked about public transport in the context of other people, often from disadvantaged groups. For instance:

“There’s a lady who used to be a carer who lives in Corfe Castle and used to care for an old lady in Harmon’s Cross. She used to get the bus in the morning and get the evening bus and spend an hour with her to get her to bed. She has had to give up her job.” (I. 6 comment relates to cutting of evening bus service)

While everyone could readily discuss buses they were not conceptualised as an alternative that most participants could or would want to use. Indeed, documents and participants suggested public transport was little used, poor, unreliable and circuitous.

The car was generally seen as essential and informants were keen to justify their need for a car. Themes 2 and 3 were typically used to justify travel behaviour. Most while claiming to use alternatives to the car showed no evidence of having used alternatives locally. Issues relating to alternatives were often expressed in terms of other people’s experiences, as participants could not always draw on their own. This was often done by relating to disadvantaged groups and loss of employment opportunities due to public transport difficulties.

Theme 4: cycling and walking are for leisure

Cycling and walking were largely not considered to be modes of transport but leisure pursuits. Cycling especially was relegated to leisure and particularly children (see theme 3):

“If you’re just cycling for the pleasure of it or to see the countryside it’s probably a very good thing but from a practical point of view or shopping it’s a non-starter.” (I. 7)

However, those that did cycle had a rather different perspective which suggests cycling can be a liberating experience

“I thought a cycle would be useful for getting about a bit, I’d no idea how much it would open up how far I could get on it” (I. 1 – participant who had to give up his car)

Theme 5: tourism causes the problem therefore tourists should change behaviour not residents

In general the transport problem was conceptualised as congestion caused by tourism. The emphasis was on tourists and day visitors using alternatives to the car or being restricted as opposed to local people.

“I think traffic is becoming a problem, probably going to get worse unless they come up with some kind of quota system that only lets so many people in... presumably residents would have stickers on their cars so they couldn't be counted.” (I. 1)

Several documents reinforce this view with the suggestions that Purbeck is a good place to implement alternatives to the car for leisure trips and there are realistic opportunities for non-car based leisure travel. Indeed, the Purbeck holiday brochure took on the task of encouraging cycling, walking, bus and steam train use as a means to explore the area. This is not easy to achieve, as visitors are much less likely to have the local knowledge to enable them to use non-car alternatives than residents.

Tourism as the cause of the problem formed the dominant discourse but other issues became apparent as interviews unfolded. These might be seen as subordinate but no less important.

For example, other problems that could be attributed to local people were identified:

“Local people to start with – you get the person who gets in the car just to go to town. They know where in the town they can park in one of the lanes and come back through the town to get home. If there was a different system of where they had to use the bypass to go out of the town rather than congesting it, a lot of people would find it quicker and easier to walk to town”. (I. 8)

Another example is the school run which is a well-rehearsed social representation of a transport problem where blame is apportioned to a specific group of car users:

“At 9.00 round the school times, it's a nightmare... when I worked I travelled west of here towards Dorchester and quite honestly it was a waste of time me bothering to go between 8.15 and 9.15 because I wouldn't get to work any earlier because you get stuck in the school traffic.” (I. 7)

The basic problem of rurality was also cited as a reason for high car usage:

“I'm afraid we very much rely on cars for our transport as so many people do... young people living here have virtually got to have a car it's very unlikely that the train will take them conveniently just to where they work and it's a big problem... one of the major problems with the motor car and all this congestion is the very great distances that people travel to work and I just don't know what the answer is, I mean this link with housing, people with a desire to live out in the country.” (I. 3)

Access and egress to the area was raised as an issue for residents and tourists there being few routes into the area. So at one level tourists are blamed for the problem but at another there is recognition that tourism is only part of the picture. Thus, while everyone acknowledges the representation that tourism causes the problem, underlying this some

participants were able to question the representation. This is an example of an overarching representation masking underlying dimensions.

There is also an important responsibility issue illustrated by tourists being seen to be the cause of problems therefore it was felt they should change behaviour not residents. Thus, alternatives to the car are seen as desirable and good for society but in practice users are conceptualised as 'other' people. People do not recognise that blame and responsibility might be attached to them, as it is a problem that other people (for example, tourists, local or national government) need to solve. People are also apt at identifying 'others' who are affected and 'others' who are users. Thus, problems are seen to lie elsewhere and this presents a social dilemma – who will take action for the greater good of the community? There is a divide between different groups and this sense of 'other' and in particular 'others' bearing responsibility is potentially divisive, inequitable and a source of power.

Social representations were not hegemonic and emancipated perspectives were expressed by some informants especially those who relied on or regularly used non-car alternatives (three informants relied on alternatives and two informants regularly used non-car alternatives). The informants without access to a car while critical of some aspects of alternatives did not have problems accessing jobs and carry out their daily activities without a car. These informants had actively embraced a car-free lifestyle. They were able to cope due to where they lived in relation to public transport routes and their job.

6.4 Coping strategies

An aspect which emerged from the study was the 'coping mechanisms' employed to deal with tourism impacts and the rural area. Strategies were learnt in response to: traffic congestion and overcrowding in key places. This reflects the findings of Brown and Giles (1995) and Burns and Holden (1995 cited in Brunt and Courtney 1999) who examine behavioural responses of residents to tourism rather than attitudes. Brown and Giles suggest the response to tourism impacts could be a function of residents' ability to reorganise their activities largely due to a desire to avoid congestion and crowding.

Brown and Giles found coping reduced spontaneity and took three forms:

- Reorganisation of daily activities (changing times and locations of activities). In Purbeck residents avoid particular places, use different routes and go at different times, for example:

“we try to avoid going to Poole to a cash and carry at 4pm in the afternoon as when you come home you know it will be jammed up with traffic” (I.7).

- Retreat from normal life (stopping/ avoiding certain activities and planning ahead to avoid the need to go out). In Purbeck residents stay at home more at certain times for example:
 “you adjust your way of living to suit the conditions. For instance, we know on a Sunday, friends will ring up in Wimbourne and say it’s lovely, we’re having a barbeque. Sorry, we can’t get there, because on a Sunday afternoon the traffic coming from Studland beach is chocker all the way through, so you never arrange anything, you stay at home on Sunday afternoon.” (I. 6).
- Reaffirmation (a desire to reaffirm one’s identify as a resident and not to be confused with tourists). This was apparent in Purbeck though not in relation to transport issues. One informant summed it up with her son’s views:
 “I hate when Easter comes... because we have all these people walking around the town and they look at me as though I’ve got two heads, I don’t belong here.” (I. 8).

Reaffirmation was not something that most participants readily identified with and may be related to the contemporary ambiguity between resident and visitor at UK destination (Hall and Page 2006). Many visitors are relatively local living in locations where Purbeck residents work or use services. There was some accord with what Kneafsey (2001) found in Brittany, France where there are similar changes to the nature of rurality due to changes in agriculture, declining rural populations but in-migration of a mobile, affluent and retired population and what Kneafsey describes as a weekend structure of rural society – “residential spaces associated with urban systems” (p767). Kneafsey argues “the categories of local and incomer are best seen as negotiable” (p779). In Purbeck many residents initially visited the area as a tourist and, as in the study by Brunt and Courtney (1999), some tourists (including one participant) have now become hosts. Indeed several participants were keen to point out that they knew very well that it was a popular tourist destination with traffic congestion problems during the summer months prior to their move.

“We knew it was a tourism area before moved here” (I. 5)

“we just chose it as a retirement place... for instance, quite a lot of information was sent to us about properties in Corfe Castle, we rejected them, we knew the traffic condition was very bad, we didn’t really want to live in a village that had thousands of tourists wandering round all the time, all the summer” (I. 3)

Thus, to a large extent the impacts were accepted and dealt with at the time of the move and, in the latter example above, the choice of location was apparent as an avoidance mechanism.

In Purbeck, traffic congestion and overcrowding from tourism, while seen to be acute, were viewed as being concentrated and short-lived. They are something you could put up with for the privilege of living in the area:

“it’s a fact of life, basically, and it is intensely concentrated over the 6 weeks break during the summer holiday.” (I. 2)

“everybody will tell you the traffic problems in summer, that’s due to the pressures of tourism, if you live here you learn to live with it, it’s no good complaining, you’ve just got to live with it.” (I. 6)

Acceptance, or a process of coming to terms with impacts, is arguably an initial coping mechanism. In many cases residents were clearly acclimatised to tourism and accepted it as a ‘fact of life’. Indeed, as in the study by Brown and Giles, some participants actively embraced tourism and the associated crowding as it brought vitality to the area:

“in terms of the difference between summer and winter, personally I enjoy the fact that there is a difference, just as you get tired of crowds and crowds of people they go away and then when you get tired of it being, not a ghost town, but well very quiet, it starts livening up again.” (I. 1)

To a large extent, residents readily find ways of coping with tourism and some people found it hard to separate tourism issues from problems posed by the rural area. This reflects Boissevain’s findings on the island of Malta where he avoided identifying tourism as the cause of change as there were other more pervasive influences (cited in Bramwell 2003). The nature of the rural area poses year round problems for residents such as accessing jobs and facilities, therefore coping with lack of key services was important. Public transport is perceived as poor, under utilised with bad connections. As one participant put it, “there is an end of the line feel”, operators are not interested due to low use levels. Shops and other services are also felt to be poor and costs perceived to be high. Childcare, for instance, is hard to organise. Many groups were seen to be disadvantaged, including the young, elderly and people with disabilities. There was, however, a level of counter argument to this perspective. Three participants in particular refuted this, suggesting that public transport and shops were good, particularly given the rural nature of the area and linked to this was the view that tourism improved these aspects.

Two main coping mechanisms were apparent in relation to rurality: the ability to make choices rather than have them imposed and the financial provision to cope. The participants, through personal circumstances, were able to make choices such as choosing a suitable place to live which enabled them to access jobs, transport and other services.

While making financial provision was seen as a means to overcome transport problems primarily through car ownership and certainty of access to private transport (for example, by taxi hire). Car ownership was seen as a necessity by most, though not all, participants (three did not have access to cars). People in Purbeck are relatively affluent and have high levels of personal mobility and thus distance from services and employment is less of an issue for some. However, this has resulted in services becoming de-localised posing problems for others.

“people who choose to come and live here are relatively wealthy... you know Church Knowle, there’s no bus service there’s nothing and I’d say 90% of those houses are folks, elderly folks and they’ve chosen to live here, they’ve chosen to buy that house, they know that they’re going to retire there and live there the rest of their life, they make financial provision. So there’s a couple and he gets to the age when he realises he can’t drive anymore, they’ve got financial provision to get a [taxi]... But country folk that live there, they find it much more difficult they really do, they rely on their friends and neighbours to give them a lift to Wareham to get some shopping.” (I. 6)

In addition, the mechanisms employed in relation to tourism congestion were also used to deal with congestion that was increasingly seen to be a feature of rurality. This was creating something of a vicious circle as residents took alternative routes to avoid peak congestion thus extending the journey distance and spreading problems to minor roads.

There is arguably a continuum of coping, or as Ireland and Ellis (2004) suggest communities of fate and communities of choice. While participants were able to cope (communities of choice) examples of people unable to cope (communities of fate) were readily given. Those described as not coping were unable to access jobs, found it time consuming to travel from some areas and faced transport problems due to poor public transport. Some people cope using the community (family and friends) as a support mechanism while in some instances, it was argued, rurality could only be coped with by leaving the area. This was apparent in the ageing population as young people had left to access jobs and housing while there was a shortage of skilled trades people in the area. Thus, whilst tourism is strongly represented as a problem it is acknowledged as transient and something residents adapt to; however, rurality is unavoidable. As Brunt and Courtney (1999 p497) suggest “tourism often contributes to social and cultural change rather than being the cause of such change”.

6.5 Theory development

The following summarises the key themes that have arisen from stage 1 and the theoretical overview.

Social representations of tourism, rurality and mobility arise from: social interaction within social groups; mass media; and direct experience. Social representations are dynamic shared reference points for people's thinking on tourism, rurality and mobility. They are multi-faceted and reflect the dilemmas that people hold about these issues. People's perceptions are not necessarily fixed things and the many ideas, beliefs and opinions about transport and tourism can be contradictory. Lastly, other studies (Clark et al 1995; Macnaghten 1995) suggest the way people draw on social representations reflects the situational context.

Interviews and document analysis have identified the following key dimensions of social representations within Purbeck:

The Purbeck setting:

- Purbeck is unique
- A diverse natural and human heritage
- A leisure space
- A rural community
- A continuum of coping
 - Communities of face/ communities of choice (Ireland and Ellis 2004)
 - The ability to make choices rather than have them imposed and the financial provision to cope

Tourism:

- Conflict scenario - a balance between positive and negative impacts
 - Tourism is vitally important to the area but has some negative impacts
 - Tourism brings very little to the area, the benefits are over rated and impacts severe
- Way of life adapted to cope with tourism

Transport and mobility:

- The car cannot be restricted
- If public transport was improved people would use it more
- Alternatives to the car are for 'other' people

- Cycling and walking are for leisure
- Tourism causes the traffic problem therefore tourists should change their travel behaviour not residents

There is also an issue of 'responsibility' which pervades the dimensions above.

These strands of the research are presented visually in Figure 16. The social representation of transport, tourism and Purbeck is shown to influence people's behavioural patterns and modal choice. A conceptual framework was developed to inform the next stages of the study (Figure 17). Social representations arise from the interactions of social groups, the mass media and direct experience of travel and modes of transport. The social representations then moderate people's future behavioural choices. Thus, in order to understand people's explanations of behaviour it is important to examine the influence of social representations.

The interviews provided insight into the residents' perspective of transport and tourism in Purbeck. In order to shed light on the visitors' experience of transport and tourism, the next stage of the study employed a travel diary to examine visitor mobility patterns. The social representations identified from resident interviews and document analyses were examined in relation to the findings of the travel diaries. Then, in the final stage of the study the social representation framework developed here was employed to help design a questionnaire administered to visitors at a group of main attractions.

Figure 16. Strands of the research

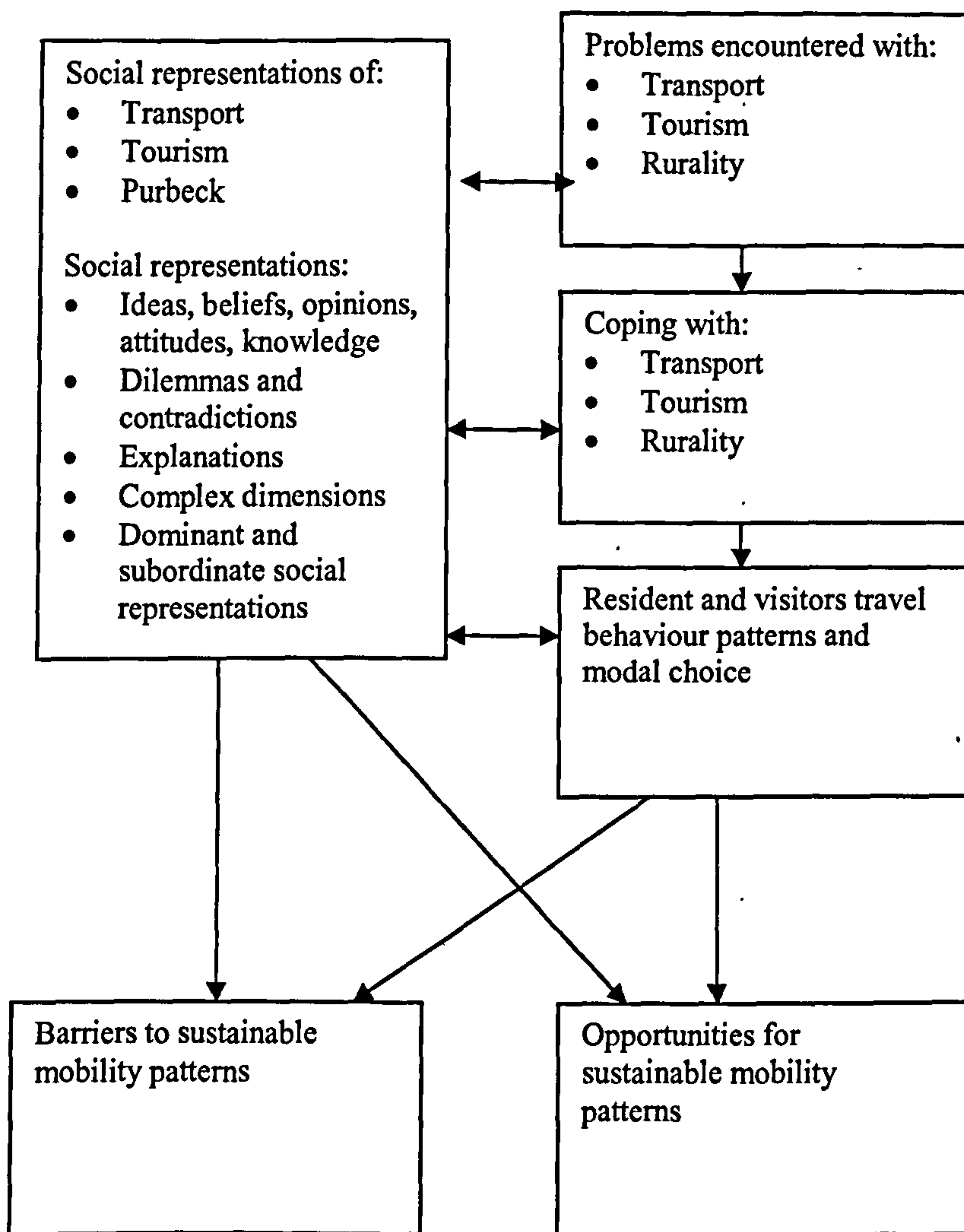
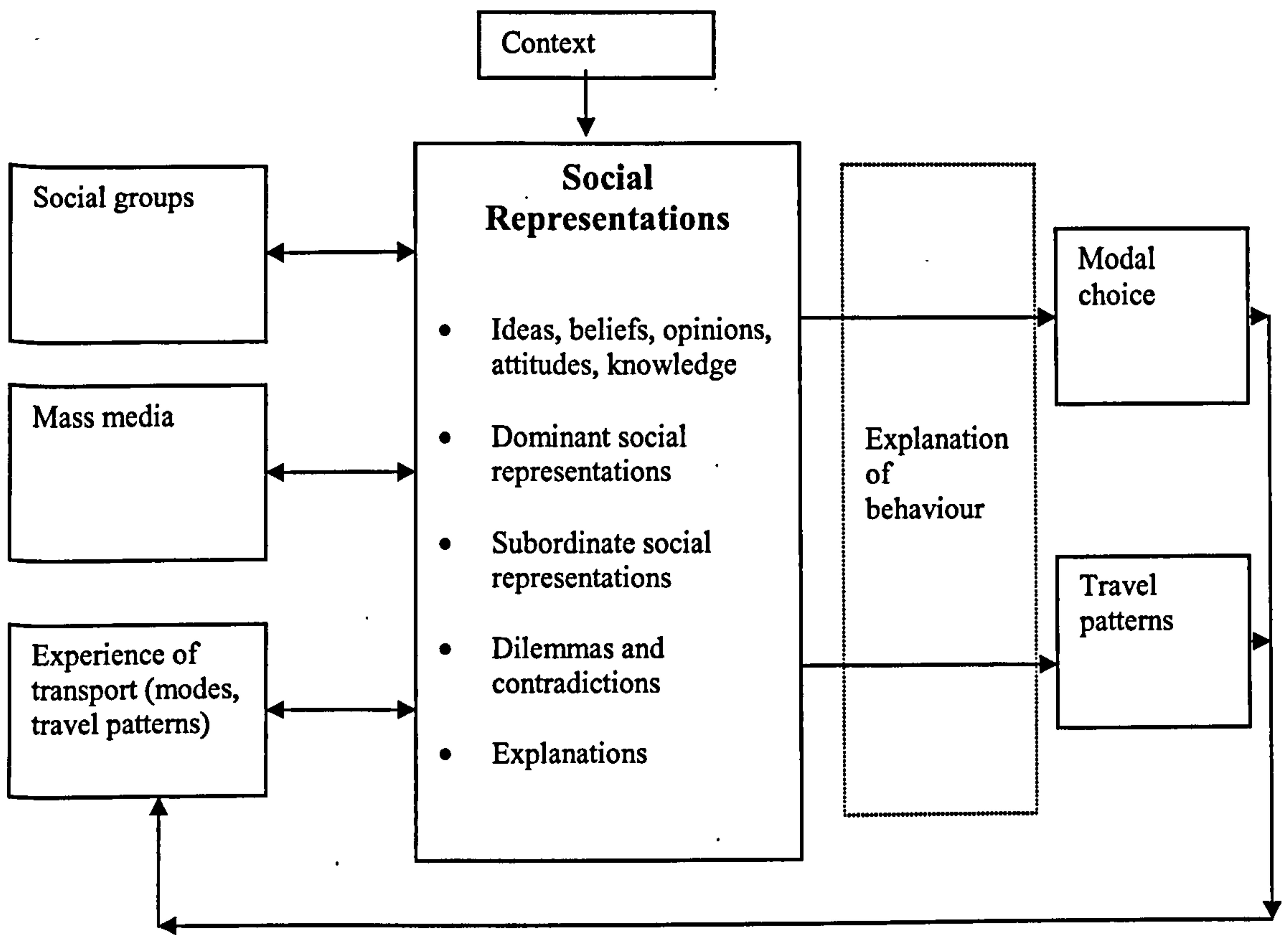


Figure 17. Social representations conceptual framework



7.0 Visitor mobility patterns

7.1 Introduction

Visitor mobility patterns were examined using a travel diary which participants completed covering a period of up to seven days. The aim was to explore the transport choices and mobility patterns of residents and tourists during the peak season in order to analyse travel patterns, problems encountered and subsequent coping mechanisms. This chapter begins with an overview of the participants and their modal choice followed by a more detailed examination of mobility patterns. The chapter then presents an analysis of the implications for visitors' transport in Purbeck by focusing on whether alternative travel options might have been feasible for the car journeys undertaken. Finally, the role of social representations is considered. The latter two aspects have been previously reported in a journal article (Dickinson and Robbins 2006) and some of this chapter discusses material from this paper.

7.2 Overview of Participants

Of the 40 participants 57% were female, 95% had a driving licence, 8% had a disability that affected their travel and a person with a disability accompanied a further 5%. The ages ranged from 17 to 70. People under 30 were under-represented in the study compared to the national population, however, this reflects the family market staying at campsites with children of 18 or under accompanying 85% of visitors (See Appendix 9.1 for participants details). Participants came from a range of socio-economic backgrounds but included a large proportion from higher socio-economic groups, again reflecting the campsite market in the visitor sample. Three visitors were on their first holiday in the area which reflects other studies in Purbeck where a large proportion of visitors have been before (79% of staying visitors had visited Studland before (Southern Tourist Board 1999)). Visitors mainly originated from the midlands, south east, and the Somerset/Gloucestershire area of the south west. The car was the main mode of transport at home for the majority of participants. 18% did not have a cycle in their home. Two visitors had moderate annual bike mileage of 500 to 1500 miles. All participants had access to a car in their household.

7.3 Overview of trips

The 40 travel diaries collected generated a total of 844 trips. The lowest number of trips undertaken by any participant was eight. The highest number of trips was 48. 41% of trips were part of a trip chain where two or more trips are linked such as visiting a beach followed by a shopping trip. Ten participants had days without any trips including two who did not travel on two days.

7.3.1 Mode of transport

Car use by visitors is high in Purbeck (Table 19). This comes as no surprise and ties in with other studies in Purbeck (Purbeck Heritage Committee 2002; Southern Tourist Board 1999) and rural tourism destinations elsewhere (Lake District National Park Authority 2004; Forestry Commission 2004). On the other hand, walking and cycling are also high relative to national levels (Department for Transport 2005). This reflects the recreational participation in these activities in Purbeck (Scott Wilson Resource Consultants Tourism Associates 2000) and might be an opportunity the area can build on. There are some distinctive modal patterns for each campsite which partly reflects the options available to participants (Table 19). Alternatives to the car were particularly limited at Birchwood, while best at Whitemead and Ulwell (Table 20). Birchwood visitors were very car dependent with the 4% cycling being one individual who cycled daily for pleasure. It was visitors at Tom's Field who made best use of non-car alternatives. Tom's Field is close to cliff top walks so many people come for this purpose hence walking is high. The high level of cycling at Tom's Field was also attributed to one enthusiastic individual.

Table 19. Main mode of transport by campsite

	Total trips %	Birchwood %	Ridge %	Tom's Field %	Ulwell %	Whitemead %
Walk	10	1	4	18	9	16
Cycle	4	4	9	9	0	0
Car	82	94	86	68	84	84
Bus	2	0	0	2	7	0
Steam train	1	2	2	3	1	0

Table 20. Details of campsites involved in the study

Campsite	Number of diaries completed	Dates completed	Alternatives to the car available
Birchwood, nr Wareham	6	17 th to 24 th July	-Bus one day a week to Wareham -4km from train station -11km from steam railway station -1 participant brought a bike
Ulwell, Swanage	9	24 th to 31 st July	-Hourly bus to Swanage and Bournemouth -17.5km from train station -2km from steam railway station -2 participants brought a bike
Tom's Field, Langton Matravers	8	24 th to 31 st July	-2 hourly bus to Swanage, Corfe Castle, Wareham and 4 per day to Worth Matravers -14.5km from train station -3km from steam railway station -1 participant brought a bike
Ridge, nr Wareham	9	7 th to 14 th Aug	-Nearest bus route 2km -4km from train station -6km from steam railway station -3 participants brought a bike
Whitemead, Wool	8	7 th to 14 th Aug	-On the Weymouth to Bournemouth train line 0.4km from train station. -Buses to Monkey World, Tank Museum, Lulworth Cove, Wareham -13km from steam railway station -1 participant brought a bike

7.3.2 Purpose of trip

General leisure trips with no specific purpose other than a day out visiting various sites and shopping were the largest generator of trips. The latter comes as no surprise given that visitors were staying in self-catering accommodation (Table 21). The car was particularly prominent as a mode of transport to visit paid attractions and to collect relatives (Table 22). It is also apparent that cycling and walking as activities generate car trips. There is some variability in travel purpose by campsite. However as the diaries were not all completed during the same week some of this might be explained by variability in weather conditions. For instance there are few trips to the beach from Ridge and Whitemead as the weather was cold and wet during that week and a high volume of general leisure trips as participants sought respite from the rain.

Table 21. Purpose of trip by campsite (categories with 10 trips or more)

	Total trips %	Birch- wood %	Ridge %	Tom's Field %	Ullwell %	White- mead %
General leisure trip	21	17	32	8	20	27
Shopping	19	29	21	15	12	21
Visit beach	18	10	7	30	27	12
Eat out	7	3	8	7	10	5
Walk	7	0	3	13	4	11
Visit paid attraction	6	4	5	3	6	11
Fishing	3	13	2	4	1	1
Collect relative	3	0	1	4	8	1
Cycling	2	4	2	6	0	0
Visit friends or relatives	2	1	1	1	2	4
Swanage railway	2	3	2	2	2	0
Visit Brownsea	1	2	2	1	1	0

Table 22. Visitors' main mode of transport by purpose of journey (categories with 10 or more trips)

	Walk	Cycle	Car	Bus	Steam Train
General leisure trip (%)	7	0	90	0	3
Shopping (%)	3	6	89	1	0
Visit beach (%)	5	4	84	7	1
Eat out (%)	15	7	78	0	2
Walk (%)	65	0	29	6	0
Visit paid attraction (%)	2	0	98	0	0
Fishing (%)	8	0	92	0	0
Collect relative (%)	0	0	100	0	0
Cycling (%)	6	82	12	0	0
Visit friends or relatives (%)	6	0	94	0	0
Swanage railway (%)	0	0	58	0	42
Visit Brownsea (%)	10	0	90	0	0

7.3.3 Destination of trip

The trip destination was as diverse as the participants, however several places were regularly visited and this relates to where people were staying. Swanage was the top destination as a large proportion of participants stayed nearby and it is the main seaside resort in the area (Table 23). There was a relationship between geographical location of campsite and destination, although there were exceptions. The longest trips were clearly to locations outside of Purbeck (Weymouth, Poole and Sandbanks) although Kimmeridge Bay due to its relative isolation also generates long trips. Car dominated trips to Weymouth and Poole, despite a train service from Wareham and Wool. Car use was also very high to Studland where there is an hourly bus service passing Ullwell campsite (Table 24).

Table 23. Destination of trip by campsite (destinations with 10 or more trips)

	Birch- wood %	Ridge %	Tom's Field %	Ullwell %	White- mead %	Mean distance km	Standard deviation
Swanage	4	5	22	34	3	5	5.64
Wareham	10	16	1	2	5	9	9.06
Studland area	2	5	10	6	5	10	6.47
Poole	13	10	1	1	2	15	7.15
Weymouth	5	1	0	1	8	21	13.83
Corfe Castle	0	3	3	2	2	8	3.10
Wool	0	1	0	0	9	3	5.94
Sandbanks Poole	3	5	0	0	0	14	9.55
Kimmeridge Bay	0	1	3	1	1	14	3.83

Table 24. Visitors' main mode of transport by destination of trip (destinations with 10 or more trips)

	Walk	Cycle	Car	Bus	Steam train
Swanage (%)	12	1	79	4	4
Wareham (%)	2	11	87	0	N/A
Studland area (%)	4	0	96	0	N/A
Poole (%)	0	0	100	0	N/A
Weymouth (%)	0	0	100	0	N/A
Corfe Castle (%)	6	11	61	0	22
Wool (%)	50	0	50	0	N/A
Sandbanks Poole (%)	15	0	85	0	N/A
Kimmeridge Bay (%)	10	10	80	0	N/A

7.3.4 Distance travelled

The mean trip length was 10km. Ullwell visitors tended to make the shortest trips (mean trip length 6km) which is probably a reflection of the campsite location in Swanage. Birchwood, on the other hand, is furthest from the sea and some distance from main attractions, thus, travel distances were longer (mean trip length 17km). 47% of all trips and 41% by car are 5km or less indicating there is potential for people to use non-car alternatives (Table 25 and 26). Dickinson et al. (2003) cite British Medical Association evidence that journeys of less than 5km are within cycling distance for most people and in the context of travel to work, Glaister et al (1998) and Newson (1997) suggest there is cycling potential where people travel up to 8km, though this may not be applicable to a leisure context. The car was used for 40% of trips less than 1km (Table 25) which could be walked. People travelled further when visiting friends and relatives, or on general leisure trips, although the standard deviation is high for both of these indicating a wide range of long and short trips (Table 27). Given general leisure trips are most numerous they are of special interest. What might encourage visitors to make more local trips using

alternative modes given they have no specific purpose and therefore do not need to reach a specific destination?

Table 25. Distance travelled by main mode of transport

Distance travelled (km)	Walk	Cycle	Car	Bus	Steam Train
1km or less (%)	53	5	40	0	3
1.5 to 3 km (%)	11	6	78	6	0
4 to 5 km (%)	15	4	81	0	0
6 to 10km (%)	5	5	82	0	8
11 to 20km (%)	0	4	95	1	0
21-30km (%)	0	0	100	0	0
31-40km (%)	0	0	100	0	0
41-50km (%)	0	0	100	0	0
over 50km (%)	0	0	100	0	0

Table 26. Mode of transport by distance travelled

Distance travelled (km)	Total %	Walk %	Cycle %	Car %	Bus %	Steam Train %
1km or less	10	50	11	5	0	17
1.5 to 3 km	28	30	39	27	87	0
4 to 5 km	9	15	8	9	0	0
6 to 10km	16	8	19	16	0	83
11 to 20km	23	0	22	26	13	0
21-30km	11	0	0	13	0	0
31-40km	2	0	0	2	0	0
41-50km	1	0	0	1	0	0
over 50km	1	0	0	2	0	0

Table 27. Mean Distance travelled by purpose of journey (categories with 10 or more trips)

	Total (mean km)	Std Deviation	Birchwood (mean km)	Ridge (mean km)	Tom's Field (mean km)	Ulwell (mean km)	Whitemead (mean km)
General leisure trip	16	14.34	29	15	6	15	18
Shopping	8	8.40	12	8	4	5	9
Visit beach	10	7.74	25	16	10	3	18
Eat out	6	9.00	15	13	4	2	7
Walk	4	4.82	0	4	4	3	4
Visit paid attraction	11	8.69	23	12	17	8	8
Fishing	10	7.69	14	15	4	2	1
Collect relative	7	8.53	0	10	16	2	9
Cycling	11	8.54	6	5	15	0	0
Visit friends or relatives	16	19.91	10	3	41	13	15
Swanage Railway	9	4.10	11	12	8	7	0
Visit Brownsea	14	6.60	19	15	13	7	0
Total	10	10.63	17	12	8	6	12

7.3.5 Timing of trips

The mean time taken on trips was 26 mins (std deviation 0.26). The peak time for visitors' travel begins around 10.00am and finishes around 6.00pm. Within this period there are two peaks: 10.00am to 12.00am and 3.30pm to 6.00pm.

7.3.6 Party size

The most common party size comprised two adults (usually a couple) with or without children. One child families are on the increase and there were more groups with one child than two in the study (See Appendix 9.1). There was a correlation between distance travelled and the party size, the larger the party leading to shorter journeys (Spearman's rho, $p=0.02$). Car use was associated with children in the party ($\chi^2 = 10.918$ $df = 1$, $p=0.01$) their presence leading to greater car use.

7.3.7 Day of week

It was thought the day of week might have an effect on number of trips or distance travelled (Table 28). For instance, the Eden project found their quietest days were towards the end of the week (Eden Project Limited 2005). This was used in publicity material to encourage visits on quieter days. As there was some variation in travel diary completion for visitors depending on the holiday starting on a Saturday or Sunday it was not possible to examine the number of trips. However, an examination of mean distance travelled shows that participants made shorter journeys on Thursday and Sunday (although a Kruskal-Wallis test does not show this to be a significant difference, $p=0.446$).

Table 28. Mean distance travelled by day of week

Day of week	Mean distance in km	N	Visitors
Monday	12	134	12
Tuesday	11	141	11
Wednesday	11	135	11
Thursday	9	109	9
Friday	10	97	10
Saturday	11	58	11
Sunday	9	151	9

7.3.8 Equipment carried

Trips involving bulkier gear (67%) that might need a vehicle some of the way (eg shopping, beach things, fishing gear) had an obvious association with car use ($\chi^2 = 63.304$, $df=1$, $p<0.001$).

7.3.9 Problems encountered

Participants were invited to add additional comments about their trips, especially with respect to any problems encountered and any unusual routes taken (Appendix 9.2). Visitors also used this space to make comments about their more general holiday

experiences. It should be noted that weather conditions were unusually poor during the study summer, particularly during August which was very wet. This is likely to have reduced the number of visitors, particularly those making day trips, as Purbeck depends to a large extent on outdoor attractions. As a result, fewer participants than anticipated encountered problems travelling around the area and several commented that the road conditions for driving were surprisingly good.

Six percent of visitors categorised parking as hard and it was commonly commented on as a problem (general problems mentioned 29 times, cost mentioned 13 times) particularly in Swanage. Participants reported paying up to £9 which was for a day's parking in Weymouth. Most participants parked in car parks (77%) as opposed to on the road. On 56% of trips there was no parking charge. Some participants disliked paying for parking, particularly for short stays. In one case this resulted in the trip being aborted. It was common for people to spend time looking for free, on road, parking before resorting to paying a car park fee. One participant commented:

“Went to park in municipal car-park but at £4.00 decided to park on road instead, although car-park completely empty – road parking quite difficult to find space.” [Swanage, Sunday 25/7/04, 7pm]

On 7% of trips visitors used National Trust membership to park for free at National Trust properties. Congestion was encountered in the expected places in Purbeck (Wareham bypass, Corfe Castle, Sandford Road, Swanage) and outside of Purbeck in Poole and Weymouth. Many experienced delays getting into or out of Weymouth and very few visitors were aware of the park and ride scheme and paid high parking costs in the town centre as a result. A few participants attempted alternative routes to avoid congestion though this was not always successful as they were not familiar with the area.

Though not a travel issue, cost of attractions was commented on by several participants. The cost of attractions was perceived to be high. This is interesting in the context that parking costs were also an issue for some. Several participants commented that they were pleased to have their money off voucher for taking part in this study. Several people commented on late buses and one noted that they were expensive.

Most of the participants with disabilities experienced parking problems at some stage. This seemed to be a particular problem in the Poole Quay area where disabled spaces were often full or a long way from where people wanted to be.

7.4 Analysis of implications for visitor transport in Purbeck

To explore the extent to which visitors were constrained by the objective reality of transport options in Purbeck the analysis now focuses on whether alternative travel options might have been feasible for the car journeys undertaken. This has been analysed in two ways.

- 1. Maximum trips potentially feasible by non-car alternatives* - trips that could be walked (5km) or cycled (10km) in about one hour and routes where public transport is available. Routes were not included where more than one mode of transport was required, such as a long walk to catch the train or bus, or bus followed by train.
- 2. Realistic proportion of trips feasible by non-car alternatives* – this takes into account that most visitors do not have cycles, would not be prepared to take a circuitous bus journey (trips requiring a change and/or journey times in excess of twice the car journey time were excluded) and excludes trips where bulky gear was carried (67% of trips).

A relatively high proportion of car journeys could be undertaken by alternative means (Table 29), however, the realistic proportion is probably lower. The proportion of trips that might have been completed by alternatives at Tom's Field, Ullwell Cottage and Whitmead was high (Table 29). These sites are on public transport routes and Tom's Field and Ullwell Cottage are within walking or cycling distance of some key attractions. On the other hand the alternatives to using the car are very limited at Birchwood.

A large proportion of car trips to Swanage, Wareham, Weymouth and Wool could be completed by alternative means (Table 29). Car use was high to Studland, which also generated long journeys. Here the problem is a combination of location and carrying beach equipment. Studland is on a relatively 'good' bus route (one per hour) which passes Ullwell Cottage, but none of the participants used this service. The open-top bus is busy in summer, but mostly caters for people making a day trip from Swanage to Bournemouth, or vice-versa. Visitors at Tom's Field and Ullwell could cycle to Studland although this is, of course, dependent on them having brought cycles with them and being prepared to tackle a long, steep hill on the journey out and back. This would exclude many people. Thus, the realistic proportion possible by alternatives to the car to Studland is low.

A large proportion of long car trips were associated with people making a general leisure trip with no particular purpose in mind. Only 24% of these trips could be converted to alternatives largely due to the distance travelled to far flung destinations (Table 29).

These unplanned trips have the potential to be converted to shorter trips or an alternative mode of transport that offers a leisure experience (Robbins 2003). The problem is they are unplanned and information needs to be available to suggest alternative, more local day trips which might also benefit the local economy. Shopping trips feature as an important generator of trips and, while one that could be made by alternatives, is tied to the car depending on the size of shopping load. Visiting the beach poses a similar problem as many people wish to take bulky beach gear. Car use was particularly high to paid attractions which reflects the out of town location of attractions in Purbeck. While many are on bus routes, the network is not extensive and in most cases visitors would need to get more than one bus to make the journey. Thus, only 57% of trips could be made by non-car alternatives. Most attractions have more than ample car parking for obvious business sense so there is no 'stick' to make visitors consider an alternative. Walking as a leisure activity was also a generator of car trips (Table 22). As all the campsites lie within good walking country, walking should be encouraged in the environs of the campsite.

Table 29. Proportion of car trips that might be completed by alternative modes

Campsite	Trips possible by alternative modes (%)	Trips realistically possible by alternative modes (%)
Ridge	34	20
Birchwood	20	15
Tom's Field	80	36
Ullwell	77	53
Whitemead	60	52
Destination		
Swanage	82	54
Wareham	90	71
Studland area	50	15
Poole	10	5
Weymouth	64	50
Corfe Castle	64	36
Wool	88	75
Sandbanks Poole	0	0
Kimmeridge Bay	0	0
Purpose		
General day out	24	23
Shopping	76	57
Visit beach	78	20
Eat out	67	59
Walk	88	88
Visit paid attraction	57	43
Fishing	38	13
Collect relative	100	69
Cycling	0	0
Visit friends or relatives	56	11
Swanage railway	60	40
Visit Brownsea	20	20

7.5 The role of social representations

A number of dimensions of a social representation of mobility in Purbeck have already been identified from resident interviews and document analysis:

- If public transport was improved people would use it more.
- The car cannot be restricted.
- Alternatives to the car are for other people.
- Cycling and walking are for leisure.
- Tourism causes traffic problems therefore tourists should change their travel behaviour not residents.

These are now considered in relation to the findings from the travel diaries.

A large proportion of the trips were possible by non-car alternatives using the existing public transport network, either buses or the main line train. As all but three visitors had been to the area before, sometimes several times a year, it is probable that visitors were aware of at least some of the alternative services available. This questions the notion that 'if public transport was improved people would use it more' as it is clear that people were not using the existing provision. Such inconsistency between attitudes and behaviours are common in transport studies (Jensen 1999). Some of the current provision is regarded as good for a rural area (i.e. hourly). Given the difficulties of supporting rural bus services it is unlikely that a more regular service be viable and yet here there may be a significant mismatch between expectation and viability. Visitors from urban areas will regard the hourly headways as 'poor' with urban expectations projected onto rural areas. Thus, the established representation that public transport should be improved before car use is priced or restricted becomes an imponderable barrier.

If it proved possible, perhaps with funding from charging cars, would an improved public transport frequency result in greater use? Empirical evidence is largely mixed, dated and drawn from urban areas. Fairhurst and Edwards (1996) point out that nationally large increases in bus miles operated (the best available proxy for frequency of service) in the decade from the mid-1980s to the mid-1990s had little effect on overall bus demand. On the other hand there are local examples of quite dramatic increases in bus use resulting from frequency improvements, particularly where there was conversion to minibus services from traditional large vehicles or use of minibuses in estates not previously served. The best documented example is Exeter, which saw a 200% increase in passenger trips over several years from 1984 (Watts et al 1990; White 1995) although this example is atypical. Bus use in Exeter was well below the national average in 1984, so

the dramatic growth can be seen as a return to more 'normal' levels of bus use.

Nevertheless minibus conversions seem to have stimulated additional demand in several locations, working best where initial service levels were low, every 25 – 30 minutes (White 1995). This suggests the greatest scope for ridership gains are in areas with an initial poor frequency. Urban levels of frequency are clearly impossible on cost grounds, but if frequencies of say every 30 minutes can be offered on the busiest routes in the most congested areas, the established representation would be tested more rigorously.

Many participants either encountered, or, given that they were familiar with the area, were well aware of traffic problems and high parking costs, yet this did little to deter car use. Those in the 'know' sometimes set off early to avoid parking problems or took routes that avoided congestion hotspots. Restrictions on car use such as car free areas have been developed in resorts elsewhere (for example, Alpine ski resorts; Polperro, Cornwall; Upper Derwent Valley, Peak District) yet this remains a hotly contested topic. Residents blame tourists for traffic problems and believe tourists should be using non-car alternatives. Yet, the travel diaries show that they do not use the alternatives available and one clear way to get them to do so would be a 'stick' such as severely restricting parking or developing car free areas which opens up opportunities for cycling and walking.

Resident interviews indicated that cycling and walking were generally not considered to be modes of transport, but leisure pursuits and activities undertaken by 'other' people. Over the last few years the carriage of cycles on cars has become much easier and increased in popularity. Eight participants brought cycles with them. However, the cycling trips recorded were all largely due to three participants who made good use of their cycles. Two participants used their cycles once and three participants who brought bikes failed to use them at all. In one case this may have been due to poor weather conditions but this could not account for lack of use by the other two participants. Of the cycle users, two used their cycles largely for leisure orientated rides as opposed to a means of transport to reach a destination or activity. This lends support to the 'cycling is only for leisure perspective'. Walking, while overall accounting for 10% of trips, was low from most sites except Tom's Field and Whitemead. At the latter site most of the walking was dog walking. Given that all sites were situated in good walking country this is disappointing. It is also evident that people resort to the car for many short trips and often drive to the start of a walk. 40% of car trips were 1km or less, a distance that can be walked in about ten minutes. There is clearly a reluctance to consider walking on many short trips which may be due to lack of knowledge of the distance involved.

Overall the patterns from the travel diaries would seem to fit the social representation of transport and tourism established in resident interviews and document analysis. It is important to recognise that this representation will go on perpetuating itself if it remains unchallenged. Dickinson and Dickinson (2006) recommend focusing on local needs as much as visitor needs as residents are more able to develop the local knowledge to tap into non-car alternatives. Furthermore given that people feel public transport should be improved any improvements are likely to be viewed positively. However, providing non-car alternatives simply fits the acceptable representation of transport and will not translate into reduced car use. Transport planners need to tackle the view that car use cannot be restricted. There is a common fear that car restrictions will reduce visitor numbers (Holding 2001; Coleman 1997) and this brings economic dis-benefits, however, studies elsewhere show this is not the case (Holding 2001). While restrictions are often seen to be counter-freedom, they create other freedoms such as better opportunities for cycling and walking. Dickinson and Dickinson (2006) particularly draw attention to the divide between different groups, be they residents or visitors, the advantaged or disadvantaged or the general public and government. They argue that responsibility for transport problems is seen to lie elsewhere which at a tourism destination relieves both residents and visitors of the need to take action.

7.6 Conclusion

The travel diaries highlight high levels of car dependence as might be expected in the Purbeck area. The car is used for many short trips that could be walked and other alternatives such as buses were rarely used when they might have replaced car journeys. This brings into question the provision of and promotion of public transport as an alternative. The representation that public transport must be improved is powerful yet this study shows where it is available it is little used. Cycling is seen as a leisure experience therefore there are opportunities to develop this further as an attraction at destination areas. Walking also needs to be encouraged for local trips. Visitors are unlikely to be aware of local facilities or the distance or time it might take to walk. Walking trips may be perceived to be too long thus awareness needs to be raised by signage and maps available at accommodation rather than destinations. People seem to have lost the skills needed to access areas as a pedestrian and there is a need to re-discover this knowledge. However, while it would be positive if visitors were to change their car use behaviour, unfamiliarity with the area will always be an obstacle to some degree. Thus, the priority in the first instance lies in improving opportunities for residents.

Long trips were associated with people making a general leisure trip with no particular purpose in mind. These unplanned trips have the potential to be converted to shorter trips or an alternative mode of transport that offers a leisure experience. The problem is they are unplanned and thus information needs to be available to suggest non-car alternatives and/or local day trips. Car use was particularly high to paid attractions which probably reflects the out of town location of attractions in Purbeck. While many are on bus routes, the network is not extensive thus in most cases visitors would need to get more than one bus to make the journey (note Whitemead is on a bus route to two of the main attractions). Most attractions have more than ample car parking so there is no 'stick' to make visitors consider an alternative mode.

The travel diaries provided detailed insight into the trips made by visitors, which could be related to the social representation framework developed in stage one. However, they focused on the trips of a specific group, those staying at campsites, and did not specifically examine visitors' conceptualisations of transport, tourism and Purbeck. Thus, the final stage of the study applied the social representations framework developed in stage one to a wider sample of visitors.

8.0 Questionnaire Survey

8.1 Introduction

The study has thus far examined the residents' social conceptualisation of transport and tourism issues in Purbeck together with the lived experiences of visitors as they travel around the area. However, the picture remained incomplete thus, a questionnaire survey was employed to examine the perspective of all stakeholders within the study area. The aim was to explore the transport and mobility patterns of visitors to the main attractions using the social representations framework which arose out of stage 1. The chapter begins with an explanation of how this framework influenced the questionnaire design. The analysis then begins with descriptive data on respondents and their travel patterns before focusing on the social representations of transport and tourism. Travel behaviour decisions and coping with tourism and mobility issues are considered and the chapter ends with a discussion of contextual effects, contradictions and social dilemmas and implications for transport.

8.2 Social representation framework: Questionnaire design

At the end of stage 1 a social representation framework was proposed. The following aspects were incorporated into the questionnaire design (see Appendix 7 for questionnaire):

The Purbeck setting

Tourism:

- Conflict scenario - a balance between positive and negative impacts
 - Tourism is vitally important to the area but has some negative impacts
 - Tourism brings very little to the area, the benefits are over rated and impacts severe

Transport and mobility:

- The car cannot be restricted
- If public transport was improved people would use it more
- Alternatives to the car are for 'other' people
- Cycling and walking are for leisure

- Tourism causes the traffic problem therefore tourists should change their travel behaviour not residents

The issue of 'responsibility' is also considered here.

Travel behaviour decisions

Coping with tourism and mobility issues

Travel patterns/modal choice

Group/stakeholder membership/respondent characteristics

An overview of the design and analysis decisions is presented in Table 30. A detailed description of each component can be found in the relevant section of the analysis.

8.3 Respondents

The analysis is largely conducted on the main sample (776 respondents) excluding the addition samples of bus users and cyclists which were used in additional correspondence analyses for comparative purposes. The respondent characteristics are broadly consistent with those identified in other studies of visitors in Purbeck, where approximately 50% were staying visitors (Purbeck Heritage Committee 2002). The respondents exhibited some variation by site (Appendix 10.1). There are two differences of note:

- Lulworth Cove attracts more visitors (especially first time visitors) as opposed to residents;
- Studland attracts longer stays.

Many people expressed the main purpose of their visit in general terms as a holiday. Visiting the beach was also important and reflects the choice of sample sites (Appendix 10.3).

Table 30. Overview of research objectives, questionnaire design and analysis

Objective	Part of questionnaire	Analysis
1. To analyse the social representations used by various stakeholders to conceptualise transport, tourism and the rural setting.	Transport in Purbeck	Cluster analysis/ correspondence analysis
	The Purbeck Setting (open question)	Content analysis
	The Purbeck Setting (tourism statements) Your Travel	Cluster analysis/factor analysis Content analysis/cluster analysis
2. To explore the extent to which these social representations are contextual and variable and shared by various groups of stakeholders.	Relate the above to place context, travel mode, stakeholder variables, demographics	Chi-square/cluster analysis/factor analysis/ correspondence analysis
3. To explore how people use the social representations available to them to explain their travel behaviour.	Your Travel	Content analysis/cluster analysis
	Transport in Purbeck	Cluster analysis/ correspondence analysis
4. To identify the contradictions for transport and the social dilemmas of travel behaviour in relation to the social representation(s) used.	The Purbeck Setting (tourism statements)	Cluster analysis/factor analysis
	Your travel	Content analysis/ cluster analysis
5. To analyse the problems encountered by residents and visitors in relation to transport and mobility.	Coping with tourism and transport issues	Content analysis
6. To identify the responses to problems (coping mechanisms) adopted by residents and visitors.	Coping with tourism and transport issues	Content analysis

8.4 The Purbeck setting

The aim was to explore what people value about the Purbeck area and how it is represented as a destination. An open question was employed because most respondents

are readily able to communicate something that is important to them about the area without the need for statements as prompts. The following open question was devised:

‘What is it about this area that made you want to visit today?’

Respondents were allowed to give more than one reason. Following content analysis a Cohen’s kappa of 0.769 was achieved for inter-reliability of coding which was considered reasonable given the diversity of answers (Landis and Koch 1977 cited in Stemler 2001).

Purbeck’s natural assets (beaches, scenery, coastline) feature as important attractors (Table 31) and it was common for respondents to employ descriptive adjectives, such as beautiful and lovely, when describing these. In stage 1 residents identified the following features of the Purbeck setting:

- Purbeck is unique;
- A diverse natural and human heritage;
- A leisure space.

‘A diverse natural and human heritage’ comes out strongly in the natural assets which visitors describe, with a small proportion mentioning the steam railway which is part of the human heritage. ‘A leisure space’ can be identified with the range of attractions mentioned, walking, other activities, return visits, holidays and day trips. The term unique was not applied.

8.5 Travel patterns and modal choice

8.5.1 Origin of visitors

The largest group of visitors originate from within Purbeck (39%), 15% from the Bournemouth/Poole conurbation and 8% from within the rest of Dorset (Appendix 10.4). 17% travelled from further a field though some of these would be people who were surveyed on their day of arrival rather than day visitors making long trips.

Table 31. Reasons for visiting Purbeck (categories with 10 or more respondents)

	N	%
beach	273	35
adjective	246	32
scenery/setting	204	26
sea/coastline	113	13
natural environment	52	7
attractions or specific attraction mentioned	47	6
return visitor	44	6
holiday home here/on holiday	43	6
family orientated	41	5
walking	39	5
peaceful	32	4
activity other than walking	33	4
clean	31	4
weather conditions	30	4
safe beach/safe environment	29	4
uncommercialised	29	4
countryside	23	3
relative here	22	3
day trip distance from home or where staying	18	2
never been before	16	2
tourist facilities	16	2
resident	13	2
interest/exploring	10	1
steam railway	10	1
ease of access	10	1

8.5.2 Mode of transport

The car dominates modal choice in Purbeck (Table 32) (and modal choice of visitors at home, see Appendix 10.5), however, there is some variation by location with lower car use and more walking to Durlston Country Park and Swanage. This can be explained by the relative proximity of accommodation to these two sites together with some visitors to Durlston engaging in long distance walks as a leisure activity. There were predictable relationships between modal choice and respondent characteristics (car use associated with car ownership and license holding, day visitors, first-time visitors and those employed full time, Chi-square $p < 0.05$) and with use of modes at home (Kruskal Wallis $p < 0.001$, see Appendix 10.6).

Table 32. Mode of transport on day of survey

	% of trips				Overall
	Durlston Country Park	Lulworth Cove	Studland	Swanage	
All modes used that day*					
Car	70	94	96	69	83
Bus	2	1	0	4	2
Train	2	1	<1	<1	2
Steam train	2	0	0	5	2
Walk	54	11	8	34	23
Bicycle	1	1	2	2	1
Coach	0	2	0	4	2
Motorcycle	1	1	<1	1	1
Main mode					
Car	64	94	95	68	82
Bus	2	1	0	3	1
Train	2	1	<1	<1	1
Steam train	1	0	0	2	1
Walk	28	2	2	23	12
Bicycle	1	0	1	1	1
Coach	0	1	0	3	1
Motorcycle	1	1	<1	0	<1
Boat	0	0	<1	1	<1

*Adds up to greater than 100% as respondents may use more than one mode

8.6 Social representation of transport

An attribute checklist was applied to examine social representation of transport modes and travel issues within Purbeck. Respondents were asked to indicate whether a series of statements applied to car, bus, cycle, walk or none of these. Statements were developed from the 5 themes identified in resident interviews as follows:

‘The car cannot be restricted’

- A mode of transport that should be restricted in environmentally sensitive areas of Purbeck.
- A mode of transport that should be charged for entry to Purbeck.

‘If public transport was improved people would use it more’

- A mode for which provision needs improving in Purbeck.
- A mode you would use more in Purbeck if provision was improved.

‘Alternatives to the car are for ‘other’ people’

- A mode of transport used primarily by low income groups.
- A mode of transport used by primarily visitors.

‘Cycling and walking are for leisure

- A mode of transport used primarily for leisure.

‘Tourism causes the traffic problem therefore tourists should change their travel behaviour not residents’

- This is covered in the tourism section of the questionnaire.

The following were also added to gauge people’s general views and use levels of different modes:

- A mode of transport you consider reliable.
- A cheap mode of transport.
- A mode of transport you use regularly in Purbeck.
- A mode of transport you never use in Purbeck.

A simple summation of the responses to the transport and mobility attribute checklist are presented in Table 33, however, the associations are difficult to interpret in a large table thus further analysis was required.

Table 33. Transport and mobility attribute checklist – positive responses

Attribute	Car %	Bus %	Cycle %	Walk %	None of these %
A mode of transport you consider reliable	91	23	32	56	<1
A cheap mode of transport	17	18	61	81	2
A mode of transport that should be restricted in environmentally sensitive areas of Purbeck	57	29	14	14	25
A mode of transport that should be charged for entry to Purbeck	28	10	2	<1	68
A mode for which provision needs improving in Purbeck	8	46	22	5	34
A mode of transport you use regularly in Purbeck	78	8	8	40	13
A mode of transport you never use in Purbeck	4	65	48	4	13
A mode you would use more if provision was improved	3	51	19	4	35
A mode of transport used primarily for leisure	56	11	44	52	3
A mode of transport used primarily by low income groups	19	65	33	46	8
A mode of transport used primarily by visitors	91	22	19	27	2

8.6.1 Correspondence analysis

Correspondence analysis was used to describe the relationships between the two categorical variables in the attribute checklist. This relationship is visualised on a correspondence map which plots the categories in two dimensions to enable interpretation (Garson 2005). The categorical variables are initially presented as rows and columns in a correspondence table.

Clausen (1998) describes correspondence analysis in two stages - one for each variable (transport mode (columns) and statements (rows) in this instance). Each stage has three steps as follows (Clausen 1998):

Step 1 - Calculate the categorical profiles and masses.

The frequencies expressed in the contingency table (Table 34) are transformed into proportions known as row or column profiles. For example the column profiles correspond to the relative frequency distributions of the modes of transport for each statement, thus, the column profile for car is calculated as follows: $672/3075 = 0.21$, $123/3075 = 0.04$ etc.. Each row and column profile can be regarded as a mathematical vector and plotted as coordinates in space. Where the profiles of two rows are similar

then they are closer to each other in space. The average row profile is calculated, called the centroid and placed at the origin of the principal axes. If a row or column profile is very different to average then it will lie far from the origin.

Step 2 - Compute the distances between the points.

The distance between points is calculated using the chi-square distance. The distances between points and distances of the points to the centroid can be plotted in 2D space.

Step 3 – Find the n-dimensional space that best fits the points.

Here a rotation takes place so as to maximise the variance explained by each dimension.

Thus, as in principal component analysis, the first dimension explains most variance.

Table 34. Attribute checklist contingency table

ATTRIBUTE	MODE					Active Margin
	car	Bus	cycle	walk	none(a)	
Reliable	672	168	238	415	2	1493
Cheap	123	126	431	571	13	1251
Restricted	380	191	93	90	164	754
charged entry	186	63	11	3	444	263
need improving	46	262	128	28	194	464
use regularly	511	53	54	263	88	881
never use	23	421	315	26	85	785
would use more	20	310	112	24	209	466
Leisure	378	73	297	346	17	1094
low income	117	399	205	291	47	1012
Visitors	619	148	127	196	0	1090
Active Margin	3075	2214	2011	2253		9553

a Supplementary column

Prior to undertaking correspondence analysis chi-square was used to check there was an association to measure. The variables were shown to be associated ($p < 0.001$) thus a correspondence analysis was viable. With the small samples for cyclists and bus users in this study the exact probability association was tested for using the Monticarlo approach as there were low cell values. Both recorded $p < 0.001$.

The scaling of coordinates can be standardized in various ways but it is usual to standardise to the rows (Row principal). This maximises the differences between points with respect to the row (Garson 2005). However, symmetrical normalization which standardizes on both row and column profiles was used here to facilitate comparison of the two variables at the same time, although Garson (2005) suggests it involves a form of averaging which could lead to less meaningful results than row or column standardization

employed separately. It is only possible to precisely interpret the distance between row points or column points (Clausen 1998). It is not possible to precisely interpret the distance between a row point and a column point instead general statements can be made, for instance, observing where row and column points occupy the same area of the map which indicates correspondence (Dunteman 1994). "The plots are intended as heuristics, but as long as some caution is exercised they remain very informative" (Fife-Schaw 1993 p267). It is important to realise that two points close together in 2D may be far apart in high dimensionality.

Garson (2005) recommends using the correspondence tables to understand the map, using the map as a guide for where to examine the table more closely. "The results are interpreted on the basis of the relative positions of the points and their distribution along the dimensions." (Clausen 1998 p16). The meaning and hence naming of a dimension can be deduced by looking at the contribution of points to the dimension. This is the proportion of variance of a particular dimension explained by the point. Points with relatively large contributions are most important to the dimension concerned (Clausen 1998; Garson 2005). It is also important to look at the contribution of dimensions to points (also known as cr values or the quality of representation). This is the percent of variance in a point explained by a given dimension. This reflects how well the model explains any given point. Points that are the focus of analysis should ideally have a high contribution of dimensions to points value. Points with a low value should have less analytical focus (Garson 2005) (see Tables 36 and 37).

Within the attribute checklist 'none' was used frequently for some statements. This suggests ambiguity in answering the question. People may have had concerns about answering some questions, particularly those related to cost implications (68% ticked none), or have had other issues that are not easily classified into the given categories. 'None' had a strong influence on the correspondence analysis making the dimensions difficult to interpret with 'none' plotting as an outlying point. Due to its influence 'none' was treated as a supplementary point (Clausen 1998) which was plotted after the analysis had been undertaken on the other categories. This made it possible to undertake a more detailed and precise interpretation of the structure seen in relation to the rest of the points.

The proportion of inertia (variance) accounted for by a dimension is important. This is its eigenvalue (labelled inertia in Table 35) divided by total inertia. Thus, in the correspondence analysis for the main sample dimension 1 measures 66% of the 43% of the variance explained by the model (see Table 35). The proportion of inertia accounted for by a dimension gives an indication of its importance. In this case dimension 1

accounts for a larger proportion (66%) therefore the focus should be on this dimension in the interpretation. The number of dimensions is based on the overall level of explained variance. If the first two dimensions account for much of the total inertia, as is the case here, then a two dimensional solution is satisfactory (Phillips 1995). In symmetrical plots items are interpreted in relation to their distance along each dimension from the origin (SPSS Inc 1998). Thus, items in the same general direction from the origin are said to correspond but as the plot represents two dimensions from multi-dimensional space items are not said to be close. It is also useful to examine which items are in the same quadrant (SPSS Inc 1998).

Table 35. Correspondence Analysis Inertia: Main sample

Dimension	Singular Value	Inertia	Proportion of Inertia	
			Accounted for	Cumulative
Main sample				
1	.530	.281	.658	.658
2	.361	.130	.305	.963
3	.125	.016	.037	1.000
Total		.427	1.000	1.000

Table 36. Correspondence analysis overview of column points: main sample

MODE	Contribution				
	Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		Total
	1	2	1	2	
Car	.394	.260	.764	.233	.997
Bus	.470	.173	.844	.144	.988
Cycle	.086	.144	.467	.362	.830
Walk	.050	.423	.191	.747	.938
none(a)	.000	.000	.019	.294	.313
Active Total	1.000	1.000			

a Supplementary point

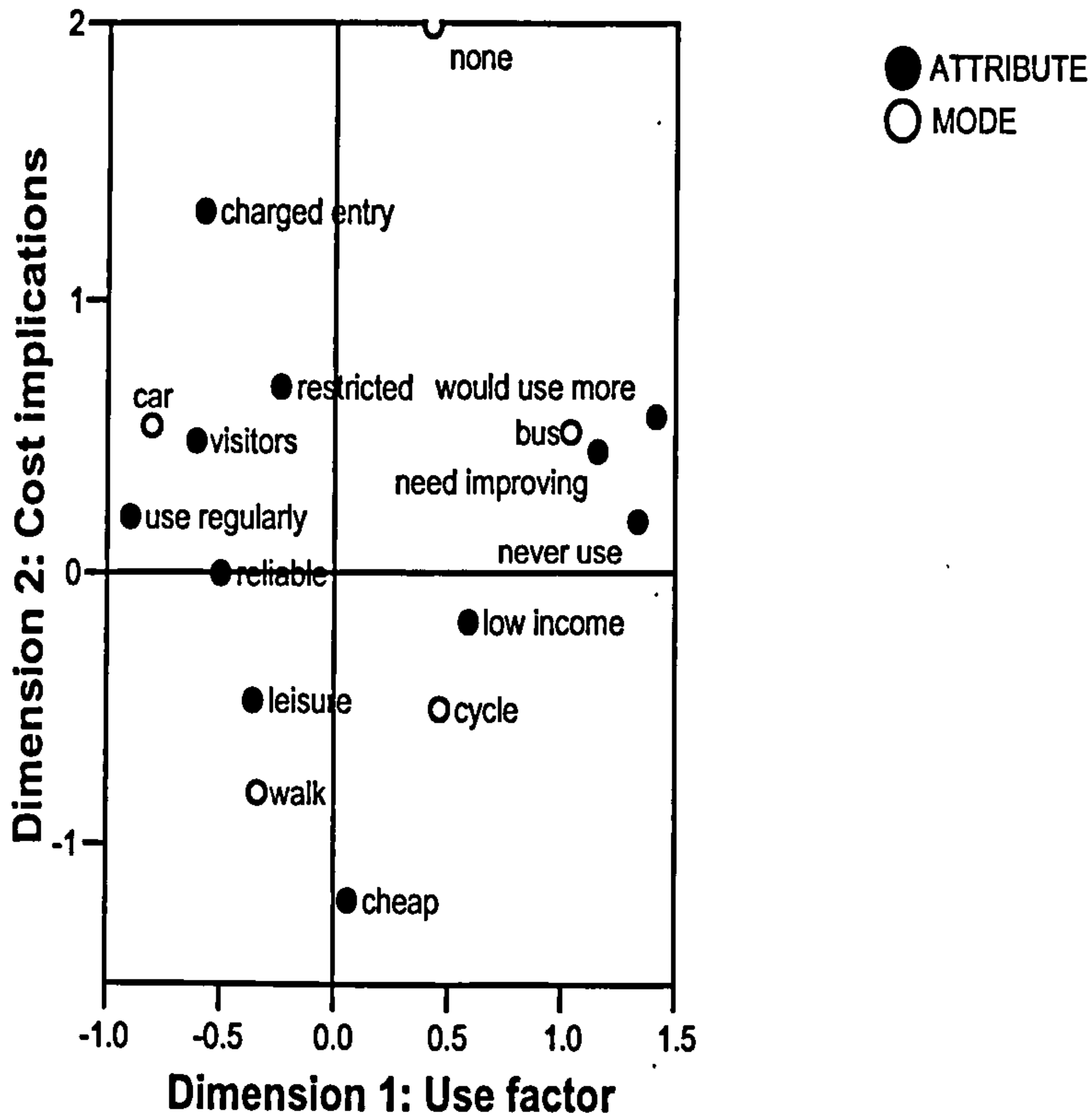
Table 37. Correspondence analysis overview of row points: main sample

ATTRIBUTE	Contribution				
	Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		Total
	1	2	1	2	
Reliable	.073	.000	1.000	.000	1.000
Cheap	.001	.522	.004	.996	1.000
Restricted	.008	.102	.150	.847	.998
Charged entry	.017	.133	.217	.776	.993
Needs improving	.123	.027	.908	.092	1.000
Use regularly	.140	.011	.937	.033	.970
Never use	.276	.008	.934	.013	.947
Would use more	.184	.045	.884	.100	.983
Leisure	.027	.069	.409	.476	.885
Low income	.070	.009	.720	.045	.765
Visitors	.080	.074	.694	.299	.992
Active Total	1.000	1.000			

A two dimensional solution accounted for 96% of 43% of variance accounted for by the model (Figure 18).

- Dimension 1 (66% of variance): has a high contribution of points to dimension by 'car', 'bus', 'needs improving', 'use regularly', 'never use' and 'would use more' (Tables 36 and 37). Labelled 'use factor'.
- Dimension 2 (31% of variance) : has a high contribution of points to dimension by 'walk', 'cheap', 'restricted' and 'charged entry' (Tables 36 and 37). Labelled 'cost implications'.

Figure 18. Correspondence map of transport attributes for main sample



Use, followed by cost, stand out as salient aspects of the social representation of transport. A number of observations can be made from the correspondence map bearing in mind that dimension 1 has most interpretative power (Figure 18):

- Bus corresponds with ‘needs improving’, ‘would use more if it was improved’ and ‘never use’.
- Cycle corresponds with ‘a mode used by low income groups’ and bus is located in the same direction on the ‘use’ dimension.
- The car corresponds with ‘use regularly’ and ‘a mode of transport used primarily by visitors’ (in fact, most respondents identified the car as a mode used by visitors).

- The attribute ‘a mode of transport that should be charged for entry to Purbeck’ was close to car on the ‘use’ dimension and in the same quadrant as car albeit relatively isolated on the ‘cost implications’ dimension.
- Walk corresponds with ‘leisure’ especially on the ‘use’ dimension.
- The car corresponds to some extent with ‘a mode of transport that should be restricted in environmentally sensitive areas of Purbeck’, which is in contrast to the previous representation expressed by residents that ‘the car cannot be restricted’.

The response to this last statement was examined in more detail in relation to resident status. A smaller proportion of residents compared to other groups ticked the car as a mode that should be restricted though chi-square does not show a significant association (Table 38). However, together with the material from resident interviews it does suggest residents are less positive about car restrictions. Furthermore, the population as a whole is fairly split on this aspect. Thus, while more in the population consider that cars should be restricted (57%), whether this in practice would be acceptable is debatable particularly as restrictions have proved to be very contentious elsewhere (Charlton 1998; Cullinane and Cullinane 1999; Holding and Kreutner 1998; Lumsdon and Owen 2004).

Table 38. A mode of transport that should be restricted in environmentally sensitive areas of Purbeck (car) crosstabulation with resident status

Resident status	A mode of transport that should be restricted in environmentally sensitive areas of Purbeck - Car			Total
		Not ticked	Ticked	
		Count		
Purbeck resident	Count	22	20	42
	Percentage	52	48	100
Day visitor	Count	90	129	219
	Percentage	41	59	100
Staying one night or more	Count	153	204	357
	Percentage	43	57	100
Second homeowner	Count	19	24	43
	Percentage	44	56	100
Total	Count	284	377	661
	Percentage	43	57	100

($\chi^2 = 1.860$, $df=3$, $p=0.602$)

Cluster analysis was performed to see if there were any natural clusters of individuals using a ‘within group linkages’ method and a ‘simple matching’ measure for binary data. In a social representations approach the aim is to search for agreement between individuals. If there is little agreement between individuals in large clusters there is evidence for there not being any large scale consensual representation. Homogeneity of clusters was assessed by taking an overview of how many individuals continue to remain

clustered together from two clusters upwards using cross tabulation. Fife-Schaw (1993) recommends finding sizeable groups of greater than 10% of the sample as such groups will be relatively homogenous. If there is a single representation one cell will remain relatively large while the others quickly decay, while if two representations exist, two cells will continue to hold the same individuals throughout and so on. There was evidence of agreement between individuals as cells held onto a large proportion of their members through progressive numbers of clusters. A three-cluster solution seemed to be most stable when examined by cross tabulation and was further explored using correspondence analysis.

Correspondence analysis was performed for each of the three groups identified by cluster analysis. Differences between the three clusters were found to be minor and the correspondence maps suggest these clusters share the same representational field (Figures 19, 20, 21) (statistical details can be found in Appendix 10.8, 10.9, 10.10).

Figure 19. Correspondence map of transport attributes: Transport cluster 1

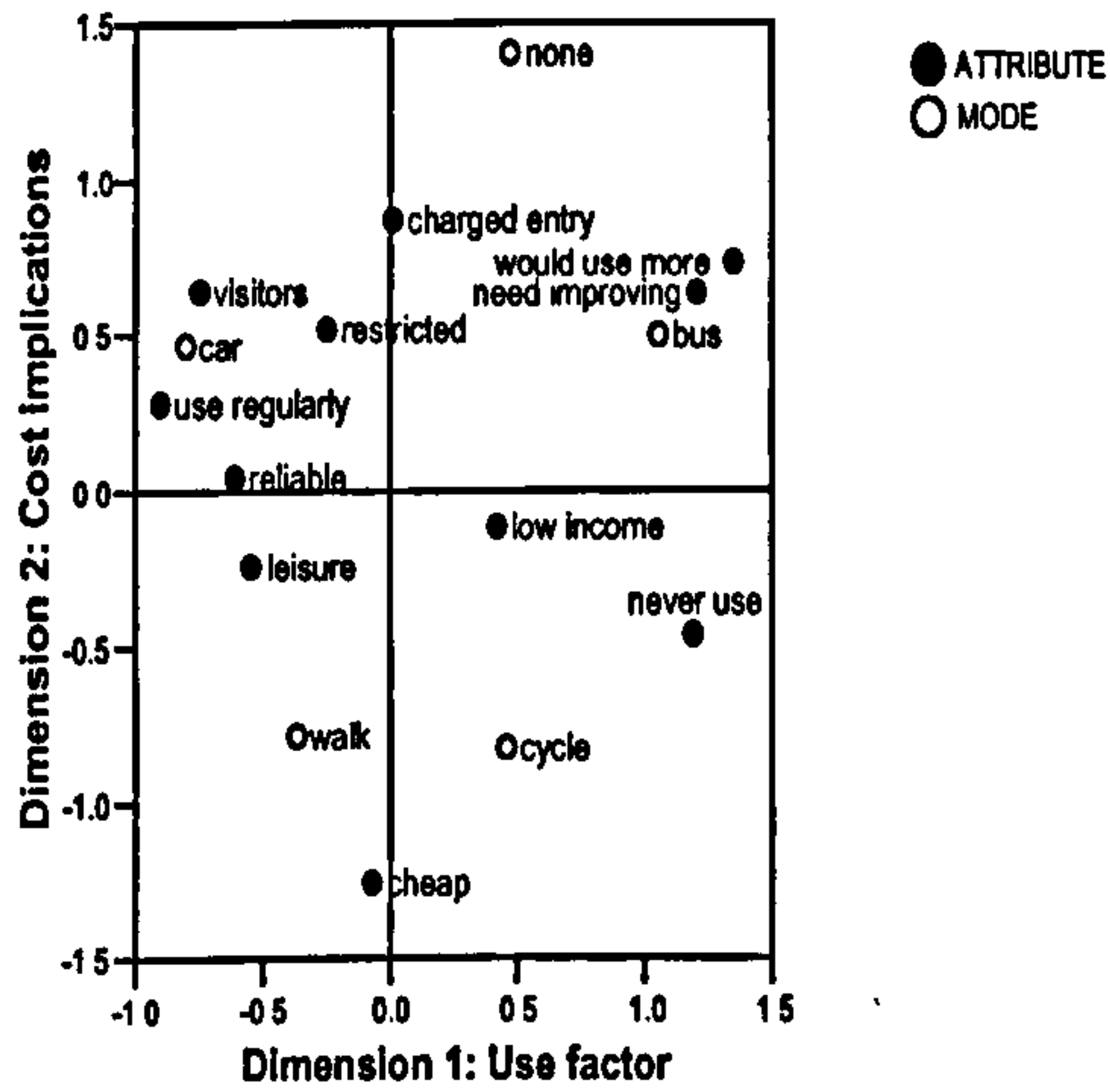


Figure 20. Correspondence map of transport attributes: Transport cluster 2

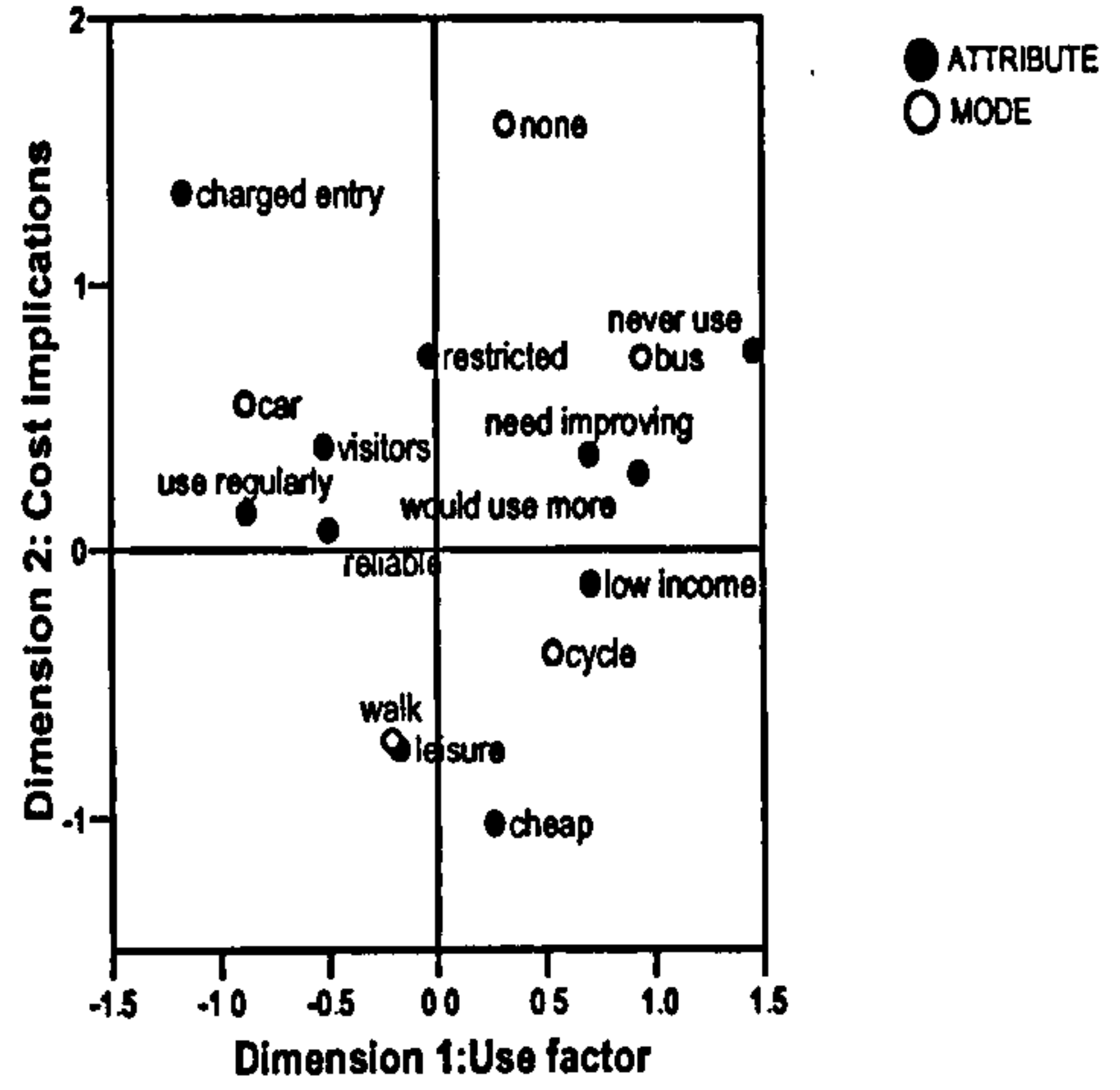
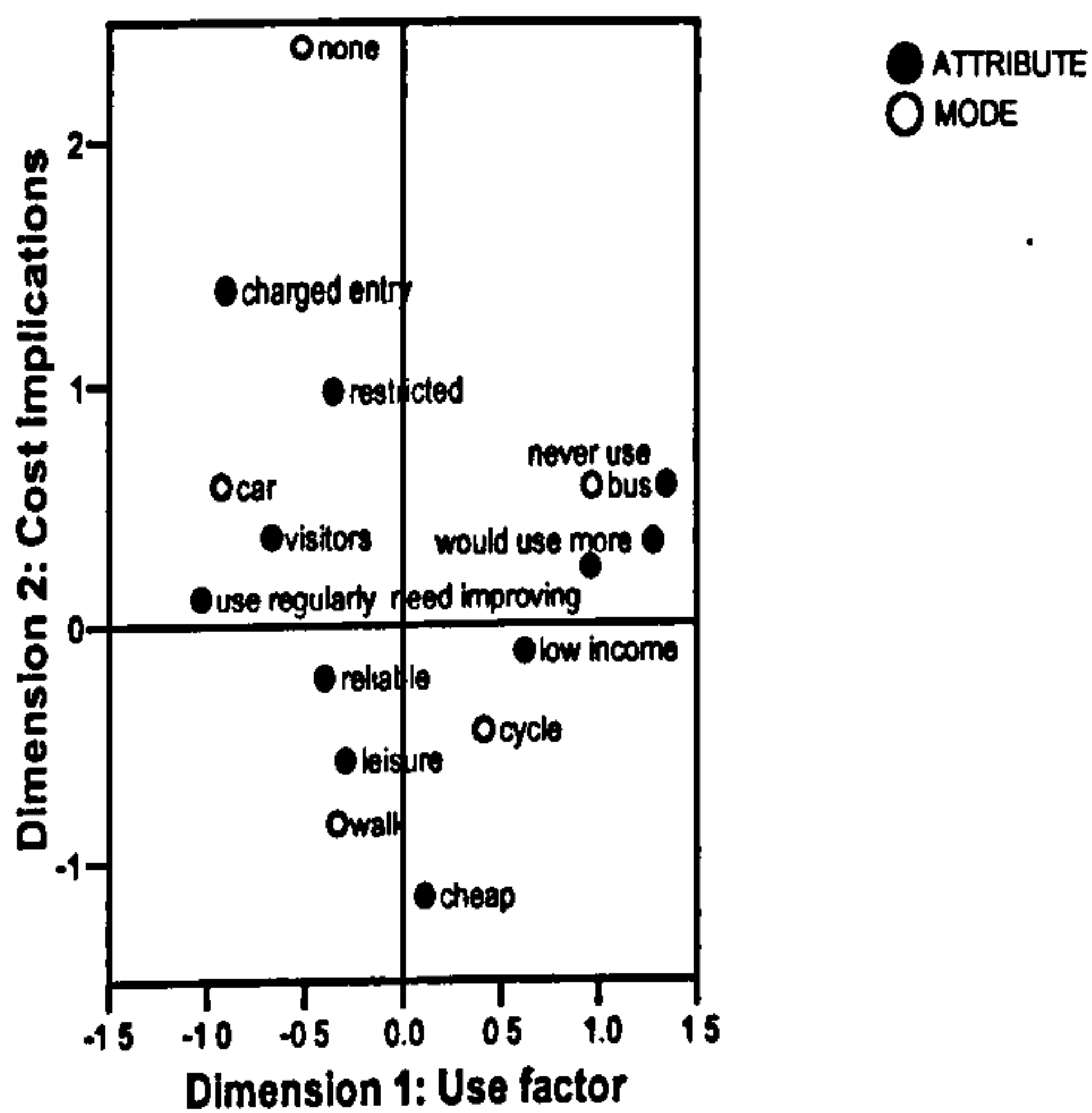


Figure 21 Correspondence map of transport attributes: Transport cluster 3



Exploratory research suggests social representations might be related to context (where the survey took place and modal choice) and stakeholders groups (resident status). Correspondence maps were examined for these groupings. The pattern remained relatively stable with the exception of modal choice where bus users and cyclists had distinct patterns. Because the number of bus users and cyclists were very low in the main sample, correspondence maps were produced for bus users and cyclists from the main sample plus the additional samples (Figures 22, 23, 24, 25). However, numbers are still low (28 used bus for some part of the journey and 48 used a cycle for some part of the journey) and interpretation of the map for bus users in particular should be treated with some caution.

Table 39. Correspondence Analysis Inertia: bus users, cycle users, car users, walkers

Dimension	Singular Value	Inertia	Proportion of Inertia	
Bus users				
1	.410	.168	.461	.461
2	.393	.155	.425	.885
3	.204	.042	.115	1.000
Total		.364	1.000	1.000
Cycle users				
1	.548	.300	.567	.567
2	.466	.217	.409	.976
3	.112	.012	.024	1.000
Total		.530	1.000	1.000
Car users				
1	.554	.307	.677	.677
2	.362	.131	.289	.966
3	.124	.015	.034	1.000
Total		.454	1.000	1.000
Walkers				
1	.524	.275	.633	.633
2	.365	.133	.306	.938
3	.164	.027	.062	1.000
Total		.435	1.000	1.000

Figure 22. Correspondence map for bus users' transport attributes

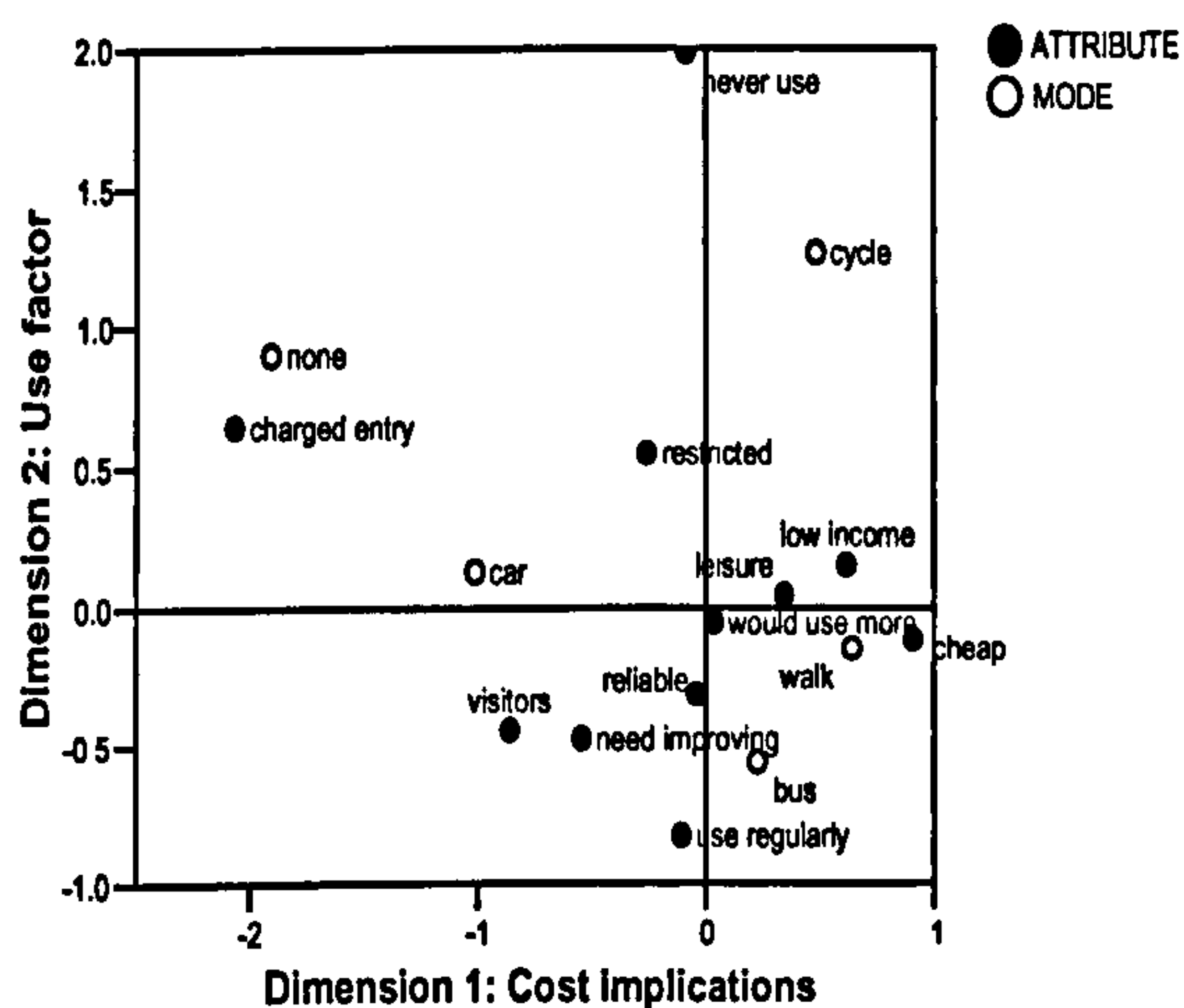


Figure 23. Correspondence map for cyclists' transport attributes

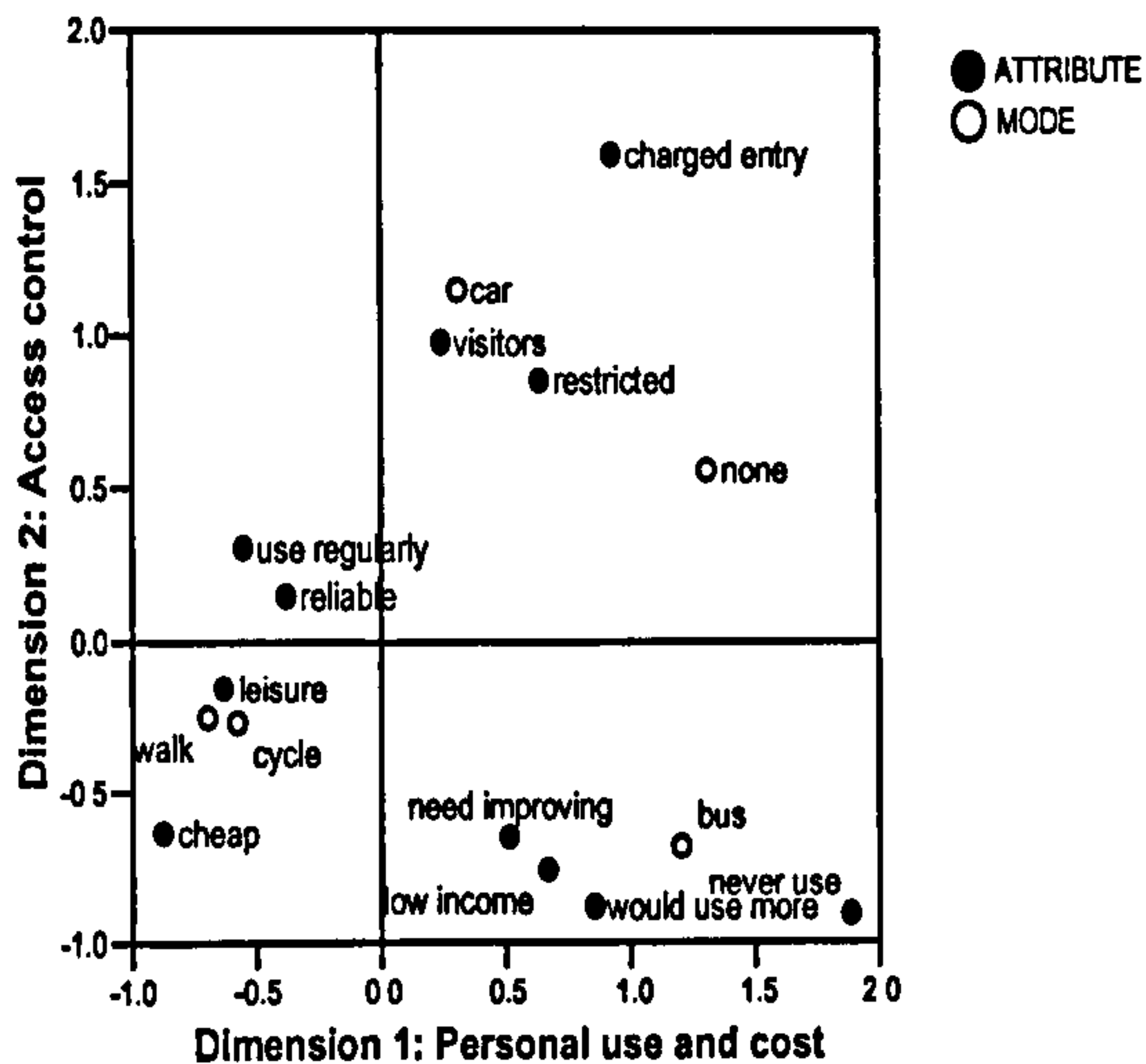


Figure 24. Correspondence map for car users' transport attributes

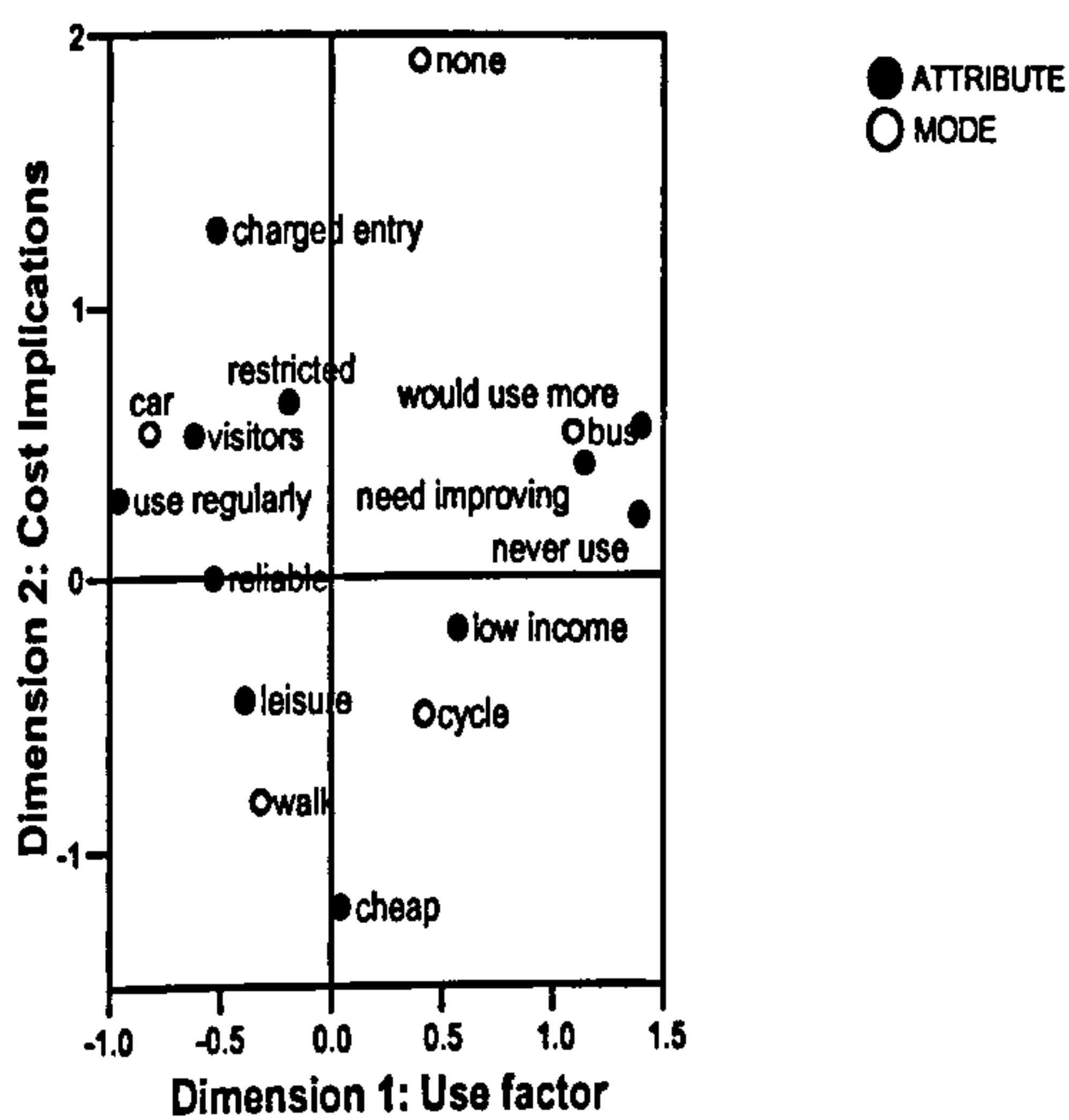
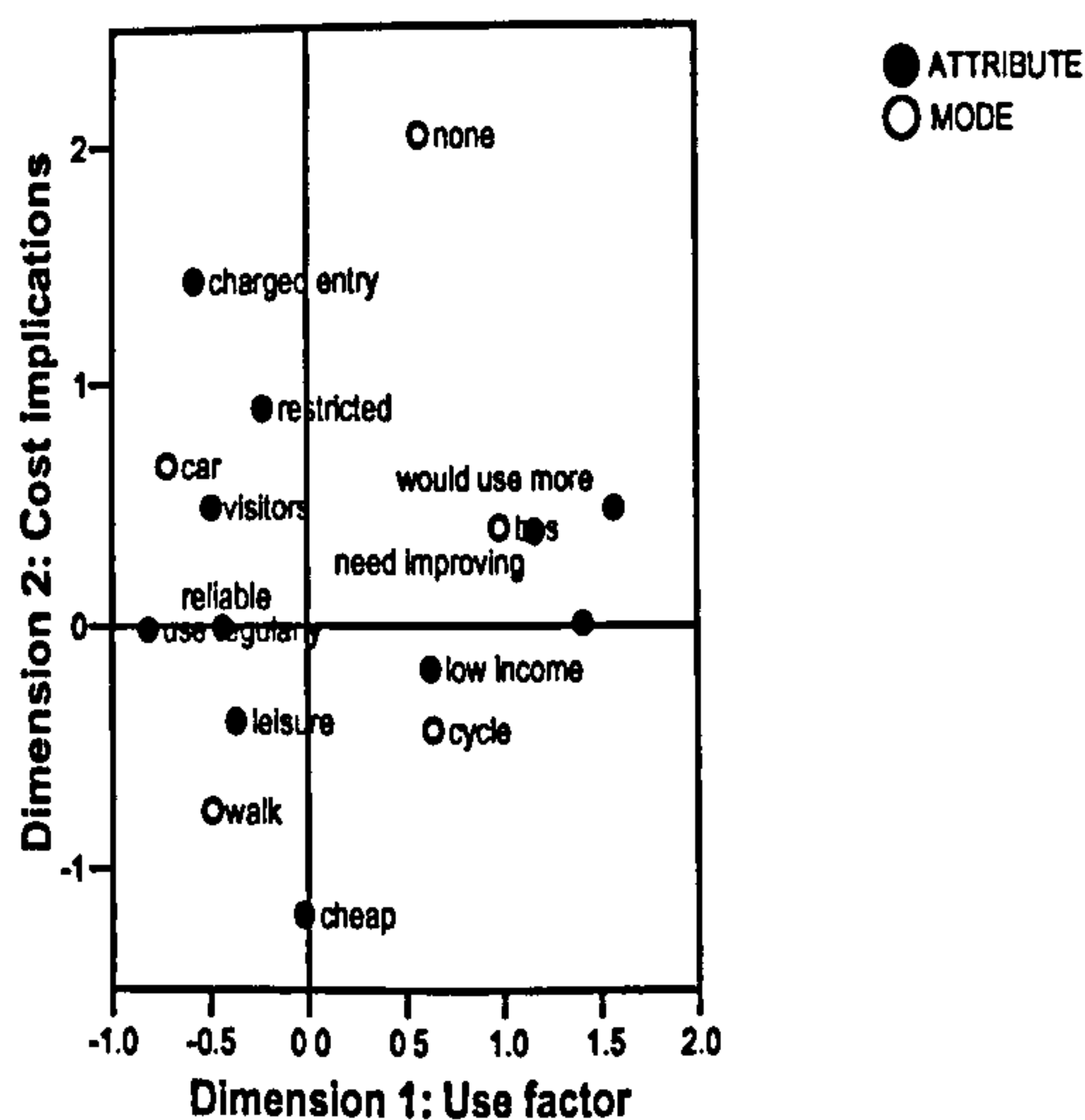


Figure 25. Correspondence map for walkers' transport attributes



For bus users a two-dimensional solution accounts for 89% of 36% of variance accounted for by the model (Table 39 and Figure 22):

- Dimension 1 (46% of variance): has a high contribution of points to dimension by 'car', 'cheap' and 'charged entry'. Labelled cost implications.
- Dimension 2 (43% of variance): has a high contribution of points to dimension by 'cycle', 'bus' and 'never user'. Labelled use factor.

In the bus users correspondence map the points relating to use are displaced relative to the map for all respondents:

- 'Would use more' lies in the middle and is neutral on both dimensions.
- 'Use regularly' is in the same direction as bus on the 'use' dimension and opposite direction to car.
- 'Never use' moves away from all modes except cycle.

However some of the patterns remain very similar:

- Use and cost are important to the dimensions and salient aspects of the representation.
- The attribute 'a mode of transport that should be charged for entry to Purbeck', although in the same quadrant as car, was also relatively isolated and suggests again there are concerns with road user charging.

For cyclists a two-dimensional solution accounts for 98% of 53% of variance accounted for by the model (Figure 23):

- Dimension 1 (57% of variance): has a high contribution of points to dimension by 'bus', 'never use' and 'cheap'. Labelled 'personal use and cost'.
- Dimension 2 (41% of variance): has a high contribution of points to dimension by 'car', 'restricted', 'charged entry' and 'visitors'. Labelled 'access control'.

With the cycle group the dimensions take on a different meaning with use and cost playing a role on one dimension demonstrating they are still salient categories and restriction with access control on the second.

- 'Use regularly' lies away from car and in the same direction as cycle on the 'personal use and cost' dimension.
- The attribute 'a mode of transport that should be charged for entry to Purbeck', while still relatively isolated corresponds more closely with car particularly given that dimension 2 is about access control. This suggests a stronger view than the rest of the population with respect to this attribute.
- Cycle corresponds with 'leisure'.

However there are some similar patterns to main sample:

- Bus corresponds with 'needs improving', 'would use more if it was improved' and 'never use'.

- The car corresponds with ‘a mode of transport that should be restricted in environmentally sensitive areas of Purbeck’ though this correspondence appears stronger than in maps for other mode users.
- ‘A mode of transport used primarily by visitors’ corresponds to car.
- Walk corresponds with ‘leisure’.

For car users and walkers the correspondence maps are broadly similar to those for all respondents (Figures 24 and 25).

The findings support those of the exploratory, qualitative research and suggest there are key organising principles at work. Personal usage and cost consideration are important organising principles, cost considerations having been examined by others (Prideaux 2000b). The correspondence maps for bus users and cyclists demonstrates that while modal choice is a moderating factor, particularly apparent in relation to use attributes, much of the representational field remains similar. ‘A mode of transport used primarily by visitors’ corresponds to car (with the exception of bus users). This relates well to the residents’ representation that ‘tourism causes traffic problems therefore tourist should change behaviour’. ‘A mode of transport that should be charged for entry’ was relatively isolated and suggests concerns about road user charging. Bus corresponds with ‘needs improving’ and ‘would use more’ (with the exception of existing bus users) which relates to the social representation ‘if public transport was improved people would use it more’. Bus also corresponds with ‘never use’ (with the exception of bus users) and cycle with ‘a mode used by low income groups’ which reflects the representation that ‘alternatives are for other people’. Walk corresponds with ‘leisure’ which reflects the view of walking as a leisure pursuit rather than a mode of transport.

The car corresponds with ‘a mode of transport that should be restricted in environmentally sensitive areas of Purbeck’ which is in contrast to the representation expressed by residents that ‘the car cannot be restricted’. Thus, respondents show some willingness to accept restrictions, yet restrictions have proved to be very contentious elsewhere, would be difficult to implement and more likely to be rejected by residents. Thus, while more in the population consider that cars should be restricted, whether this would be acceptable in practice is debatable.

With respect to transport while the cluster analysis identified groups and while the correspondence maps for cyclists and bus users are to some extent different, what is perhaps more striking are the similarities. Both cyclists and bus users exhibit somewhat similar representational fields to the sample as a whole but with a clear variation in

relation to use attributes. Bus users, in particular, have a somewhat differentiated representational field. However, as numbers of bus users are low in the survey this interpretation should be treated with caution. Cyclists have a stronger view than the sample as a whole that car users should be charged entry. This suggests there is a social representation that is fairly stable. All respondents draw on this representation with modifications to suit their personal mobility pattern.

8.7 Social representation of tourism

The questionnaire aimed to capture data on how people view the impacts of tourism. Stage 1 identified a conflict scenario, a balance between positive and negative impacts that is typical of many tourism impact studies. The survey aimed to capture how visitors as well as residents viewed this balance and explore the salient features of the two perspectives. Many studies have examined the positive and negative impacts of tourism from the resident's perspective, however, few examine the visitor's perspective. Typically studies have employed statements with a Likert-type scale. An exception is the study by Puczko and Ratz (2000) in Hungary which employed mainly open questions to avoid biasing the findings. This approach was felt to be too cumbersome in this context as questions on tourism impacts made up only part of the survey. Similarly, including a wide range of questions on social, economic and environmental impacts would have made the questionnaire long and impractical to implement in the field. The key area of interest in this study was transport so the focus was kept to this while covering the two dimensions identified above. A scale was employed which covered the following:

'Tourism is vitally important to the area but has some negative impacts'

- The overall benefits of tourism in Purbeck outweigh the negative impacts.
- Further tourism development would be beneficial to Purbeck and should be encouraged.
- The use of public funds for tourism promotion and infrastructure development is justified by the benefits this brings to the community.

'Tourism brings very little to the area, the benefits are over rated and impacts severe'

- Tourism brings very little to the area, the benefits are over rated and impacts severe.
- Preservation of the natural environment should take priority over tourism development in Purbeck.
- The environment of Purbeck is being negatively affected by the presence of too many visitors.

These statements were followed by statements addressing where responsibility for problems were seen to lie:

- There would be few traffic problems if it were not for the tourists (visitors cause the problem).
- Visitors should be required to pay more for the car parking they use (visitors responsibility).
- As tourism causes traffic problems in Purbeck, visitors should be prepared to pay a reasonable fee for car use in the area to help with maintenance and environmental preservation (visitors responsibility).
- As tourism causes traffic problems in Purbeck, visitors should be prepared to use alternatives to the car (visitors responsibility).
- The main problem in Purbeck is that there are not enough facilities to cope with the number of tourists (government responsibility).
- The Purbeck road system needs to be upgraded to accommodate the growing demand from visitors (government responsibility).

The above statements were developed specifically for this study and arose from interview data, but also drew on a review of the scales used in a number of tourism impacts studies (Ryan and Montgomery 1994; Davis et al 1988; Andereck and Vogt 2000; Faulkner and Tideswell 1997; Hall and Page 2006; Ap 1990; Jafari et al 1990; Johnson et al 1994). Respondents were asked to indicate on a 5-point Likert-type rating scale the extent to which they agreed or disagreed that the items apply to the Purbeck area. Ryan and Montgomery (1994 p360) suggest that “positively stated, odd-numbered scales with a sufficient number of points to permit discrimination are important and avoid inadvertent bias”. Interest in this question was improved by a preamble as suggested by Davidson (1970): “Here are some of the things which people have told us about tourism in Purbeck. Indicate the extent to which you agree or disagree with each statement by circling the appropriate number.”

The mean scores indicate which statements were generally accepted or rejected (Table 40) and show that, overall, respondents tend to accord with the tourism in balance perspective rather than tourism being a negative force. This is not surprising as it would

be difficult for a visitor to justify their presence if they felt the impacts were severe. It also relates to other tourism impact studies where the findings suggest respondents view tourism in balance (Andereck and Vogt 2000; Andereck et al 2005). However, there is some recognition of responsibility for impacts by visitors and support for use of alternatives to the car although existing use levels are low. However, additional charges for car use and parking were largely rejected which makes it difficult to see how visitors could address the impacts of which they are aware. A large proportion of respondents (26%) failed to answer one or more of these statements which suggests they had difficulty conceptualizing impacts and responsibility and that these aspects were not salient to them. Basic analysis of each statement was initially undertaken to see if any contextual variables explained the scores (Appendix 10.13). Resident status has some explanatory power (Kruskal Wallis $p < 0.05$).

8.7.1 Cluster analysis

A hierarchical cluster analysis was undertaken on the 12 variables. Ward's method and squared Euclidean distance were used on the basis of Fredline and Faulkner's study (2000). In earlier tourism impact studies Davis et al (1988) identified five groups: haters; lovers; cautious romantics; in betweeners; love-em for a reason, while Madrigal (1995) identified three groups: lovers; haters; and realists. Fredline and Faulkner (2000) examined three and five clusters on the basis of these studies choosing to focus on the five-cluster solution: ambivalent supporter (cautious romantic); haters; realists; lovers; concerned for a reason. The decision on the number of clusters can be made on the basis of prior work (Fredline and Faulkner 2000) but as this study was inductive, had a specific transport and responsibility focus and examined visitors as well as residents there was no previous work to draw on. To work out an appropriate number of clusters, cluster membership was explored using a crosstabulation procedure and subjective criteria. A four-cluster solution seemed most stable and related to *a priori* ideas.

Each cluster was profiled against attitude statements (% who agreed and strongly agreed) (Table 41).

- Cluster 1 (n=96) 17% - High agreement with items for benefits and need for government provided facilities. Low agreement that negative impacts are severe and with preservation of the environment being a priority.
- Cluster 2 (n=163) 28% - High agreement with items for community benefits, low agreement with visitor responsibility items. No agreement that negative impacts are severe.
- Cluster 3 (n=207) 36% - High agreement with visitor responsibility items.

- Cluster 4 (n=107) 19% - Low agreement with items suggesting further tourism development and high agreement with preservation of natural environment item.

All groups perceive benefits, two more strongly (Cluster 1 and 2), the largest of these groups focusing on community benefits (Cluster 2). Two groups are more ambivalent about benefits, the first focusing on visitors taking responsibility (Cluster 3) and the second on environmental protection and maintaining the status quo (Cluster 4). The cluster groups were examined against classifying variables such as demographics. As in the study by Davis et al (1988) most were not significant. Davis et al (1988) found a relationship with natives to area and knowledge of tourism impacts. This study did not focus on residents alone thus there is no data on natives to the area however, resident status exhibited a significant association with cluster membership ($p=0.006$). The largest group (Cluster 3) is prominent for the view that visitors should take some responsibility for their impacts. This group was associated with residents. Cluster 1, focusing on benefits and the need for government provided infrastructure provision, was also associated with residents.

Table 40. Cluster membership and mean of tourism statements

	Mean	Std. deviation	Cluster 1 mean	Cluster 2 mean	Cluster 3 mean	Cluster 4 Mean
Statements generally accepted (ie mean score less than 3)						
The overall benefits of tourism in Purbeck outweigh the negative impacts (tourism in balance)	1.98	.988	1.82	1.63	2.23	2.21
The use of public funds for tourism promotion and infrastructure development is justified by the benefits this brings to the community (tourism in balance)	2.40	1.036	2.17	1.91	2.48	3.24
Preservation of the natural environment should take priority over tourism development in Purbeck (tourism has negative effects)	2.33	1.176	3.02	2.30	2.16	2.04
There would be few traffic problems in Purbeck if it were not for the tourists (visitors cause the problem)	2.58	1.253	2.42	3.01	2.35	2.28
As tourism causes traffic problems in Purbeck, visitors should be prepared to use alternatives to the car (visitor responsibility)	2.87	1.303	2.74	3.27	2.22	3.47
Statements generally rejected (ie mean score more than 3)						
Tourism brings very little to the area, the benefits are over rated and negative impacts severe (tourism has negative effects)	4.00	1.090	4.40	4.62	3.60	3.51
The environment of Purbeck is being negatively affected by the presence of too many visitors (tourism has negative effects)	3.22	1.023	3.24	3.64	2.85	3.19
Visitors should be required to pay more for the car parking they use (visitor responsibility)	3.93	1.250	4.43	4.59	2.90	4.55
The Purbeck road system needs to be upgraded to accommodate the growing demand from visitors (government responsibility)	3.16	1.264	1.95	3.47	3.08	3.94
As tourism causes traffic problems in Purbeck, visitors should be prepared to pay a reasonable fee for car use in the area to help with maintenance and environmental preservation (visitor responsibility)	3.27	1.328	3.36	3.80	2.29	4.13
Statements neither accepted nor rejected (mean of 3 or close to 3)						
Further tourism development would be beneficial to Purbeck and should be encouraged (tourism in balance)	2.99	1.331	2.24	2.40	3.20	4.23
The main problem in Purbeck is that there are not enough facilities to cope with the number of tourists (government responsibility)	3.06	1.163	1.91	3.68	2.85	3.50

Table 41. Descriptive statistics for tourism statements

Statement	Cluster % Agreement				Total
	1	2	3	4	
The overall benefits of tourism in Purbeck outweigh the negative impacts (tourism in balance)	78	84	63	31	71
Further tourism development would be beneficial to Purbeck and should be encouraged (tourism in balance)	60	58	26	3	36
The use of public funds for tourism promotion and infrastructure development is justified by the benefits this brings to the community (tourism in balance)	66	80	52	20	56
Tourism brings very little to the area, the benefits are over rated and negative impacts severe (tourism has negative effects)	3	0	14	23	10
Preservation of the natural environment should take priority over tourism development in Purbeck (tourism has negative effects)	23	60	64	72	58
The environment of Purbeck is being negatively affected by the presence of too many visitors (tourism has negative effects)	20	12	31	23	22
There would be few traffic problems in Purbeck if it were not for the tourists (visitors cause the problem)	58	37	59	62	53
Visitors should be required to pay more for the car parking they use (visitors responsibility)	8	0	35	3	15
The main problem in Purbeck is that there are not enough facilities to cope with the number of tourists (government responsibility)	79	9	34	13	30
The Purbeck road system needs to be upgraded to accommodate the growing demand from visitors (government responsibility)	78	20	30	8	31
As tourism causes traffic problems in Purbeck, visitors should be prepared to pay a reasonable fee for car use in the area to help with maintenance and environmental preservation (visitor responsibility)	29	16	60	6	32
As tourism causes traffic problems in Purbeck, visitors should be prepared to use alternatives to the car (visitor responsibility)	42	31	60	27	42

8.7.2 Factor analysis

Principal components analysis was employed rather than principal factors analysis. Principal components analysis assumes that all variability in an item should be used in the analysis, while in principal factor analysis only the variability in an item that it has in common with the other items is used. While both methods usually yield similar results, principal components

analysis is a data reduction technique which is employed here to identify salient attributes and is a better choice where you want an empirical summary of the data (Tabachnick and Fidell 1989). Principal factors analysis is used to create a testable model to explain intercorrelations among variables. Where principal factors analysis is employed Doise et al (1993) suggest that there is a need to formulate hypotheses or expectations concerning the factors obtained which was not appropriate to the exploratory, inductive approach here.

An orthogonal rotation was used, which forces the underlying factors to be uncorrelated with each other and maximises the variance of the new variable while minimizing the variance around the new variable (VARIMAX in SPSS). However, Hammond (2000), Giles (2002) and Kline (1994) argue that an oblique rotation, which allows some correlation between factors, may be more appropriate in psychology research, because psychologists rarely deal with constructs that are unrelated to each other. This was considered a possibility in this case and, in order to be convinced that the underlying factors were independent, an oblique rotation was also applied (DIRECT OBLIMIN in SPSS). The correlations among the factors found using the oblique rotation were examined using the factor correlation matrix for correlations of 0.30 and above. Tabachnick and Fidell (1989) state that if correlations exceed 0.30 then there is 10% or more overlap which would warrant using an oblique rotation. In this case all the correlations were less than 0.30 and thus an orthogonal rotation was used.

There are a number of ways to decide the number of factors to extract. The Kaiser criterion for number of factors is commonly employed where factors with eigenvalues greater than one are retained. "In essence this is like saying that, unless a factor extracts at least as much as the equivalent of one original variable, we drop it" (StatSoft Inc 2003). However, Hammond (2000) suggests this is a poor selection criteria. Another approach is to interpret the scree plot taking the point where the plot levels off as the cut off. A further important criteria is the extent to which a solution is interpretable. Hammond (2000) suggests interpretability should be used if there is no *a priori* reason for choosing a number of factors. The solution that makes the most theoretical sense is the most appropriate. Therefore it is important to examine several solutions with more or fewer factors and choose the one that makes best sense.

The extraction in the communalities table indicates the proportion of each variable's variance that can be explained by the retained factors. There were no particularly low values which is good. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was adequate at 0.666 and Bartlett's Test of Sphericity was significant ($p < 0.001$) which indicates there are some relationships between the variables and factor analysis is appropriate.

A four-factor solution made most sense from an interpretability perspective, on the basis of the Kaiser criterion (eigenvalues greater than one are retained) and scree plot (Appendix 10.14). The first four factors accounted for 62% of the total variance which is adequate as Doise et al (1993) suggest factor analysis should account for at least 40% of variance. The factors generated were named to convey the underlying dimensions of the data based on the loading on statements (Table 42). Doise et al (1993) recommend the consideration of loadings of +/-0.30 when interpreting dimensions. Factor loadings >0.6 are regarded as high and moderately high if >0.3 (Kline 1994). As the items in the statement scale were based on specific categories it was expected that the dimensions found with factor analysis would be consistent with these. One statement 'further tourism development would be beneficial to Purbeck and should be encouraged' was 'complex' at it loaded onto two factors (Tabachnick and Fidell 1989). This variable was therefore excluded from the analysis. In retrospect it is clear this item is ambiguous as it could encompass infrastructure and community benefits. The factors generated (Table 42) were labelled as:

- Factor 1 (17% of variability) has high loading on items related to visitors taking action. Labelled: visitor responsibility.
- Factor 2 (17% of variability) has high positive loadings on items related to community benefits and high negative loading on item for tourism being negative. Labelled: tourism benefits the area's community.
- Factor 3 (14 % of variability) has high loadings on the two items related to the need for government provided infrastructure. Labelled: government responsibility.
- Factor 4 (14% of variability) has high loadings on two items related to tourism having negative impacts on the environment and on item suggesting tourist cause traffic problems. Labelled: environment damaged by visitors.

Factor analysis suggests that perceived benefits and responsibility aspects are salient dimensions of the representation of tourism. Respondents discriminate between visitor responsibility and aspects of infrastructure provision which are the government's responsibility. Visitor responsibility and community benefits play the most important role while environmental impacts and facilities for which government is responsible proved to have less explanatory power. The visitor responsibility aspect relates well to the representation that 'tourism causes the traffic problem therefore tourists should change their travel behaviour not residents'. It is interesting that this has come out as an important organizing principle in a survey which was dominated by visitors.

Cluster membership was examined in relation to the factors generated (Table 43). The mean factor scores reflected the earlier labelling of clusters. Together the cluster and factor analysis demonstrate some key organising principles. Clusters indicate that some groups focus more on particular aspects. For instance, the largest group (cluster 3) has high agreement with the item for visitor responsibility which is also the most salient factor.

Table 42. Principal Components Factor Analysis with Varimax Rotation of Tourism Statements

	Factor 1 Visitor responsibility	Factor 2 Tourism benefits the area's community	Factor 3 Government responsibility	Factor 4 Environment damaged by visitors
The overall benefits of tourism in Purbeck outweigh the negative impacts (tourism in balance)		.763		
The use of public funds for tourism promotion and infrastructure development is justified by the benefits this brings to the community (tourism in balance)		.728		
Tourism brings very little to the area, the benefits are over rated and negative impacts severe (tourism has negative effects)		-.739		
Preservation of the natural environment should take priority over tourism development in Purbeck (tourism has negative effects)				.592
The environment of Purbeck is being negatively affected by the presence of too many visitors (tourism has negative effects)				.620
There would be few traffic problems in Purbeck if it were not for the tourists (visitors cause the problem)				.792
The main problem in Purbeck is that there are not enough facilities to cope with the number of tourists (government responsibility)			.820	
The Purbeck road system needs to be upgraded to accommodate the growing demand from visitors (government responsibility)			.823	
Visitors should be required to pay more for the car parking they use (visitor responsibility)	.759			
As tourism causes traffic problems in Purbeck, visitors should be prepared to pay a reasonable fee for car use in the area to help with maintenance and environmental preservation (visitor responsibility)	.833			
As tourism causes traffic problems in Purbeck, visitors should be prepared to use alternatives to the car (visitor responsibility)	.675			

Table 43. Cluster membership and mean factor scores (nb negative mean = strongly agree)

Tourism cluster		Factor 1: Visitor responsibility	Factor 2: Tourism benefits the area's community	Factor 3: Government responsibility	Factor 4: Environment damaged by visitors
1	Mean	.2713813	-.3128541	-1.1920782	.0864764
	Std. Deviation	.87654167	.81065007	.58547662	1.00232038
2	Mean	.4353670	-.5928307	.4190104	.3056098
	Std. Deviation	.73811617	.70217817	.83544045	1.02509962
3	Mean	-.8565966	.2631644	-.0785584	-.1136784
	Std. Deviation	.69964649	.89983290	.87511795	.92854371
4	Mean	.7572393	.6741638	.5981917	-.3283956
	Std. Deviation	.75173628	1.12551717	.77944180	.96540854
Total	Mean	.0012680	-.0000957	.0027995	-.0009662
	Std. Deviation	1.00104697	1.00090118	1.00034372	1.00020666

8.7.3 Variability of the social representation

Further analysis was undertaken to explore the variability of the social representation in respect to context (survey site), resident status and mode of transport using the factors as new variables. Groups were compared using T-test or ANOVA depending on the number of groups (Table 44). Where ANOVA was employed Tukey's test and homogeneity of variance was used to see which group differed. Some contextual differences were apparent in relation to where the survey took place, resident status, and modal choice. Visitors to Durlston Country Park exhibited significantly different scores to Studland, predominantly a beach destination in summer, on factor 1 (visitor responsibility) and factor 3 (government responsibility). This suggests that Durlston attracts a certain type of visitor who is more aware of the need for visitors and government to take responsibility for the environment they visit and focus on this aspect of the social representation. Residents also exhibited a difference on factor 1 compared to staying visitors as did car users compared to non-car users. This suggests that respondents draw on aspects of the social representation that fit the context in which they find themselves. Residents, for instance, buy into a particular local perspective that visitors should take responsibility and non-car users also draw on this representation which is appropriate to the modal choice decision. As with other leisure travel and tourism studies (Anable 2005; Davis et al 1988) there were few differences in relation to demographic or socio-economic variables.

Table 44. Descriptive Statistics for Factor Scores and Contextual Differences

Survey site	Factor 1 Visitor responsibility		Resident status	Factor 1 Visitor responsibility		Factor 3 Government responsibility		Factor 4 Environment damaged by visitors		Factor 1 Visitor responsibility	
	M	SD		M	SD	M	SD	M	SD	M	SD
Durlston	-0.29	1.01	Resident	-0.40	1.07	-0.50	1.12	-0.04	1.05	0.07	0.98
Studland	.14	1.00	Staying visitor	.06	1.00	.13	.97	-0.01	.99	-0.31	1.04
Swanage	.02	.99	Day visitor	-0.08	.97	-0.06	.97	.11	.98		
Lulworth Cove	-0.10	.97	Second home owner	.36b	.93	-0.21	1.02	-0.39	1.08		
					f=4.52, p=0.004	f=6.00, p=0.0005		f=2.88, p=0.035		t=-3.33, p=0.001	

NOTE: bold indicates significant mean differences

8.8 Travel behaviour decisions

This section compiled data on explanations for travel behaviour using two open questions (see section 5.4.3). The data generated were coded by content analysis achieving a Cohen's Kappa for interreliability of coding of $k = 0.85$ (almost perfect (Landis and Kock 1977 cited in Stemler 2001)). The data were considered separately for car, bus, walk and cycle use. Other modes were not analysed as data were too limited.

8.8.1 Car travel behaviour decisions

Open questioning revealed convenience and ease of use dominate the reasons for car use (Table 45) while several other pragmatic reasons are also clearly important (carrying equipment, speed, presence of children). There are also responses which describe problems with the use of alternatives (problems with walking, cycling and public transport). For the purpose of further analysis some categories were collapsed (problem with cycling was grouped with problem with walking and all the public transport problems were grouped together) and those categories used by less than 10% of the respondents were excluded as has been suggested elsewhere (Hammond 1993). This seemed to be a relevant cut off point as there was a drop in use of categories from distance traveled at 10% to age/disability/mobility issue being used by 6%. This resulted in the loss of ten categories. The 'other' category was also excluded from further analysis as it contained a myriad of different responses (See Appendix 10.15 for full list of categories).

Table 45. Reasons for car use (categories used by 10% or more of respondents)

	%
Convenience/ease of use	67
Carrying equipment	37
Speed or time	26
Problem with public transport	24
Presence of children	23
Independence and flexibility	18
No alternative	16
Cost	13
Number of people	10
Problem with cycling or walking	10
Distance traveled	10

The above was examined in respect to respondent characteristics (Appendix 10.16). Most of the associations found were related to child care roles and associated equipment. However,

there was a noticeable impact of resident status with residents associated with no alternative ($p=0.001$), public transport problem ($p=0.049$), cycle and walking problems ($p=0.018$).

The categories were entered into a cluster analysis using a within group linkage method and pattern difference measure for binary data which produced tight clusters. Three clusters were identified as follows:

Cluster 1 (n=112) associated with:

- Cycle or walking problem
- Public transport problem

Labelled: alternative apologists

Cluster 2 (n=399) associated with:

- Convenience
- Independence
- Cost
- Speed
- Equipment
- Children
- Distance
- Number of people

Labelled: satisfied car users

Cluster 3 (n=96) associated with:

- No alternative

Labelled: single minded car users

The presence of objections to the use of non-car alternatives is interesting. Respondents were not asked why they failed to use alternatives yet some gave a response focusing on problems with public transport, walking or cycling. This suggests that some respondents are troubled by their use of the car and rather than justify why they used the car by describing its positive features, they explain why they could not use alternatives. There is therefore, arguably a norm for people to consider alternatives and make excuses for their lack of use. For instance, there is a discourse that public transport should be used and would be but for the fact that it is expensive relative to the car at point of use and difficult to use. Similarly, Barr et al (2003) found people gave excuses for their non-participation in recycling, as it has become normative behaviour.

Anable (2005) employed cluster analysis to group respondents on the basis of their attitudes and travel behaviour. The cluster analysis was performed on responses to a raft of attitude statements covering attitudes towards car use, use of alternatives, the environment and green behaviour. Anable identified the following six groups:

- **Malcontented Motorists** – perceive high number of constraints to use of public transport despite feeling increasingly frustrated and unhappy with car travel and believing that they have a moral responsibility to change behaviour.
- **Complacent Car addicts** – admit use of non-car alternatives is possible. Do not feel the moral imperative to do so or other incentives.
- **Aspiring Environmentalist** – have reduced car use for environmental or health reasons but appreciate practical advantages of car use.
- **Die hard drivers** – fond of cars and car travel. Believe in the right to drive cheaply and freely and have negative feelings towards all other modes.
- **Car-less crusaders** – have given up the car for environmental reasons. Positive views of other modes.
- **Reluctant riders** – involuntary users of public transport.

Though this grouping was not based on the same aspects some similarities are apparent in the use of positive features of car use and negative feelings about alternatives.

Correspondence maps of the transport attribute checklist were examined for each of these groups but no differences were apparent.

8.8.2 Reasons for use of alternatives to the car

As with car use, convenience was also an important reason given for use of alternatives to the car. Many identified problems with car use such as parking and traffic queues. In addition users of alternatives referred to many positive features such as enjoying the picturesque scenery, relaxation and socializing. Some walkers and cyclists gave environmental reasons while one bus user mentioned community benefits (Table 46)

Table 46. Reasons for use of alternatives to the car (categories are not quantified due to relatively low numbers)

	Bus use	Walking	Cycle use
Convenience/ease of use	√	√	√
Accompanied by children/ family orientated	√	√	√
Avoid parking problems and parking cost	√	√	√
Cost	√	√	√
Picturesque route/ views/ scenery	√	√	√
Enjoyment	√	√	√
No alternative	√	√	
Relaxing	√	√	
Socializing	√		√
Able to have a drink	√		√
Non car owner	√		√
Break from driving	√		√
Avoid traffic queues	√		√
Good weather		√	√
Environmental reasons		√	√
To reduce car use		√	√
Exercise/ health		√	√
Disability	√		
Saves hassle	√		
Good for the community	√		
Open top bus	√		
Shopping to carry	√		
Ferry crossing	√		
Speed	√		
Choose accommodation near to beach		√	
Get away from crowds		√	
Did not want to lose parking space		√	
Coastal path		√	
Walk dog		√	
Short trip		√	
No other mode required		√	
Leisure trip/ hobby			√
Brought bikes on back of car			√
Flexible start and stopping times			√
Variety of routes			√
Avoid busy road			
Problems with bus			√
Access to countryside			√
Car free areas			√

8.9 Coping with tourism and mobility issues

The aim of this section was to identify and describe the problems encountered by residents and visitors in relation to transport and mobility and their responses to these problems. This topic lent itself well to an open question as most respondents were readily able to explain these aspects. The following two open questions were devised:

“Please describe any problems you encountered on your journey here today.”

“If you encountered problems, did you do anything to cope with these problems? If yes tell me about this.”

An open question freely elicits views without prior categorisation, thus, respondents are not prompted to identify a problem, such as ‘congestion’, by this being given in the question. Thus, an open question generates the respondent’s views on problems where a minor amount of ‘congestion’ might not be viewed as a problem. Data was content analysed and inter-coder reliability was assessed by Cohen’s Kappa (Stemler 2001) (problems, $k=0.77$ (substantial agreement (Landis and Kock 1977 cited in Stemler 2001)) and for coping mechanisms, $k=0.75$ (substantial agreement)).

Relatively few visitors identified problems, especially when compared to an earlier study where a third or more of visitors experienced congestion on journeys to heritage attractions (Dickinson et al 2004), though this difference may be due to a questionnaire statement prompting higher recall in the earlier study. Cyclists and bus users identified most problems and walkers the least (Table 47). This tends to suggest travel conditions are less favourable for bus users and cyclists. This is a concern as these are both important alternatives to the car and while they are poorly received they are less likely to encourage use. As numbers of cyclists and bus users are low, it was not worth quantifying the problems, instead these are listed in Table 48. Problems with cycling and bus use also featured as reasons for car use and suggest there is a norm to consider these modes problematic. It might have been expected that cyclists and bus users, as the converted few would mention fewer problems but this was not the case. This suggests there a discourse that these modes are problematic and a norm to label them as such.

Three important caveats need to be considered in relation to the visitors’ low identification of problems. Firstly, poor weather conditions during the later part of the travel diary implementation period may have reduced the incidence of problems encountered. It is also possible that sampling bias in the survey reduced the number of visitors experiencing problems. As visitors were surveyed at attractions those who had encountered problems may have turned back, gone elsewhere or arrived later in the day. However, it was felt that this

was unlikely to have had a major impact on either sample. Secondly, an issue may be visitors' expectations and experience of problems. Many come from urban areas where they are acclimatised to more serious traffic problems. Indeed, open comments revealed visitors had expectations of problems, particularly on good weather days, and expressed a willingness to put up with them. Thirdly, visitors are better placed to avoid problems as leisure trips are less dependent on specific time frames and the destination can even be modified.

Table 47. Problems identified by mode

Mode	% identifying a problem
Car	25
Bus	41
Walk	11
Cycle	41

Table 48. Problems identified by bus users, cyclists and walkers

Bus user problems	Cycle problems	Walking problems
<ul style="list-style-type: none"> • Congestion/volume of traffic • Not enough public transport • Buses late • Buses slow 	<ul style="list-style-type: none"> • Congestion/volume of traffic • Fast traffic • Buses travelling dangerously • Hills • No cycle lanes • Car parking hazards • Speed of traffic • Abuse from car drivers • Walkers and dogs causing an obstruction • Lack of access to Poole Harbour • Poor car driving • Ticketing problem at Sandbanks' ferry 	<ul style="list-style-type: none"> • Congestion/volume of traffic • Volume of people • Dog mess • Hills • Physical fitness • Car parking hazards • Rain

The most common concern of car users was congestion, however, the congestion referred to was often outside of the Purbeck area, for instance on the motorway network (Table 49). Congestion was also highlighted by bus users and one walker and cyclist. After congestion, parking was a concern identified by both residents and visitors. The problems related to finding parking spaces and a dislike of paying high costs for parking although this did little to deter car use. For instance:

“The £7 parking fee in the National Trust car park – luckily we are NT members but the high price of parking in this area is off putting for us coming here.”

“I’ve never found driving a problem, but parking is tricky in the car park, unless you’re early”

“All parking should cost less. Resorts make their money and prosper from visitors!!”

Comments at the end of the questionnaire suggest some visitors had expectations of problems particularly on good weather days and others had amended their travel plans, usually by setting off early, to avoid problems they might encounter. Car drivers typically accepted the problem (Table 50), as did two cyclists and a bus user, as part of the experience of visiting a tourism destination area in high season and mostly less severe than expected.

Table 49. Problems identified by car users (% is of those who identified a problem, n=157)

	%
Congestion/ volume of traffic	50
Parking costs high	12
Shortage of parking/ difficulty finding space	11
Poor signage	5
Road works	3
Could not park where wanted	2
Accident	2
Queuing for ferry	1
Volume of people	1
Finding free parking	1
Other	23

Table 50. Coping mechanisms used by car users (% of those who mentioned a coping mechanism n=80)

	%
Accept it	41
Alternative route finding	11
Drove slowly	5
Took time/ looked for parking	4
Parked on road	4
Would not come again	1
Other	35

8.10 Contradictions and social dilemmas

Bus is seen as the main alternative to the car. It is felt to need improving and respondents state they would use it more if it were improved. However, an examination of existing services tends to dispute this point. In many situations services are relatively good for a rural area yet

few bus users were encountered and bus corresponded with 'never use'. This raises doubts about the viability of improving services and seeing a rapid increase in users.

Potentially the support for use of alternatives is an opportunity to build on. Alternative mode users' representations appear to be modified in relation to use attributes and therefore have a different view to car users. Either use of non-car alternatives leads to a modification to the representation or non-car alternatives attract a people with a different representation in the first place. Either way the experience of bus and cycle use is potentially part of the key to change as people will potentially be socialised into a different perspective. However, the problem is the lack of experience of cycling or bus use in the area and the view that alternatives to the car are for 'other' people. It is suggested people draw on pervasive representations of transport to justify their position whilst lacking experience of non-car alternatives.

Respondents' accord with the tourism in balance perspective which is understandable given they are visiting the area and would not wish their presence to be negative. There was some recognition of impacts although some found it hard to conceptualise these and they did not appear to be salient to some which suggests a level of detachment from the place visited. Lack of knowledge was often cited but it may also have been a reluctance to engage with the probability of impacts.

Respondents see themselves visiting a natural area and this is a positive point that could be built on. There was some support for car restrictions and some willingness to use alternatives to the car although this has been questioned above. However, visitors were clearly unwilling to pay additional costs for car use which limits their ability to redress their impacts. At three of the sites surveyed car parking income was used to maintain the quality of environment and for conservation projects providing the main income for two of the sites. It provides the most obvious opportunity for site managers to redress the balance without requiring behavioural change of visitors. Thus, while visitor responsibility is seen as an important organising principle, the reality of implementation is more problematic. Exploratory research suggested residents feel visitors should take more responsibility for transport problems than residents and in the survey more residents expressed the view that visitors should take some action for their impacts. This suggests residents see 'others' taking responsibility. Residents also seem more likely to justify car use by lack of alternatives and problems with alternatives and thus divest themselves of responsibility.

Car use is high by visitors and the car is identified as a visitor's mode. Thus, there is some justification for residents to blame visitors for traffic problems and expect them to change behaviour. Whether visitors are willing or able to make changes is a different matter. Visitors' views of car restriction measures (sticks) and improvements to non-car alternatives (carrots) are ambiguous. Raw analysis of the attribute checklist demonstrates concerns with charging for any mode (including the car) yet at the same time the car is shown to be a mode over 50% considered should be restricted in environmentally sensitive areas of Purbeck. Thus, respondents show some willingness to accept restrictions, yet restrictions have proved to be very contentious elsewhere (Charlton 1998; Cullinane and Cullinane 1999; Holding and Kreutner 1998), would be difficult to implement and are rejected by residents. Conversely respondents are reluctant to accept costs which might be more easily implemented and provide funds for conservation of the environment. High car parking charges are already implemented in the survey area providing funds for conservation work. While visitors are unwilling to pay additional costs for car use this limits their ability to redress their impacts. Additional comments at the end of the questionnaire further demonstrated cost issues with many commenting on excessive car park charges.

The analysis highlights pervasive representations of transport which people draw on to justify their position. A key to addressing transport issues is acknowledgement of responsibility. There is clearly some ambiguity surrounding this. The next chapter reviews the implications of these findings, and those from the resident interviews and visitor travel diaries, in relation to Purbeck and rural destinations in general.

9.0 Discussion and Conclusion

9.1 Introduction

This study set out to enhance the understanding of transport issues at a rural destination using a social representations theory framework. Few studies have examined the assumptions that underpin people's travel behaviour decisions. This study attempted to rectify this gap. To this end, a case study of Purbeck, a rural destination area was undertaken. This final chapter reviews the findings in relation to the social representations theory employed and the wider context. The chapter begins with some reflections on the significance and wider implications of social representations theory and a review of the study objectives. Sections 9.4 to 9.6 review the findings within the Purbeck context and section 9.7 makes suggestions for sustainable transport initiatives within the area. Section 9.8 considers the implications of the findings beyond Purbeck and explores the implications as a whole for developing effective policies and strategy that will aid sustainable mobility initiatives in rural destinations. This is followed by a consideration of the limitations of the study and finally suggestions for further research. Sections of this discussion have been produced in two conference papers (Dickinson 2004a; 2004b) and an article in *Journal of Sustainable Tourism* (Dickinson 2006).

9.2 Reflections on the significance and wider implications of social representations theory

The study aimed to enhance the understanding of tourism and leisure mobility in a rural tourism context by applying Moscovici's social representations framework to a case study of Purbeck. While social representations theory has been applied by others in tourism impact studies (Pearce et al 1996; Fredline and Faulkner 2000; Yuksel et al 1999), this study is unique in applying social representations theory to the transport and tourism context. Transport is not an obvious topic for a social representation study, since modes of transport and mobility are well understood by the public at large. However, it has proved successful to apply the theory as an increasingly mobile and car based population are becoming distant and detached from alternative modes of transport to the car and the associated problems, particularly in rural areas. Thus people draw on the socially constructed reality of transport as much as their somewhat limited experience of travel beyond the car.

Social representations are, in effect, collective myths which reinforce patterns of behaviour, consumption and practices of travel. Like the hidden racism Van Dijk (1997) observed in political discourses there are collective myths about tourism and travel which dissociate particular groups of individuals from problems. Social representations may also be apparent in particular behaviour patterns. For instance, in Jodelet's study of French villagers who lodged people with mental health problems she observed a variety of exclusionary practices (Morant 1995). In this study, people appeared to collectively embrace public transport and suggested they would use it more were improvements made, yet observation of actual behaviour showed public transport was little used even where appropriate and reasonably frequent services were available. Here the behaviour pattern challenges the expressed representation. Thus observation employed with a social representations perspective provides a useful analytical tool to unravel some of the complexity surrounding attitudes and behaviours where traditional psychological approaches have often failed.

The way ideas circulate and particular practices become accepted could be significant for tourism, especially where such practices have negative implications for society or the environment. Practices become accepted and difficult to question especially where there is a collective need to maintain mobility due to the range of personal benefits. There is also potential for diverse groups of stakeholders to present ideas in a particular way. For instance, Macnaghten (1993) observed how different groups used the term 'nature' in different ways during a public inquiry to further their particular case, for example, nature as 'wilderness' or nature as 'passive visual harmony'. It is also important to see things in their wider context, so representations of transport and tourism should be seen in the context of changes to travel practices generally. Social representations theory acknowledges these wider processes and draws attention to the contextual setting of research.

A final reflection on social representations theory relates to its methodological freedom. When Moscovici set out his ideas on social representations he left methodological considerations vague, arguing there are many different ways of capturing social representations. Thus social representations theory does not automatically situate research within a particular paradigm as might the theory of planned behaviour (Ajzen and Fishbein 1980). In this study, the extent to which surveys constrain answers was a recognised limitation and the study purposefully started with qualitative research. The interviews revealed strong social representations but deeper analysis revealed these were also questioned. Ultimately a survey will constrain answers as people can only respond to the specific questions asked and a survey may therefore inadvertently present a representation regardless of whether this is a reflection of reality. Thus, work on social representations

seems particularly well suited to qualitative approaches or, as in this study, mixed approaches (Breakwell and Canter 1993) where qualitative work provides a platform for further quantitative work to explore particular representations with a wider population.

9.3 Review of objectives

The study set out to address nine objectives each of which is considered in turn.

1. To analyse the social representations used by various stakeholders to conceptualise transport, tourism and the rural setting in Purbeck.

2. To explore the extent to which these social representations are contextual, variable and shared by various groups of stakeholders.

The study began with in-depth study of residents' representations of transport, tourism and Purbeck. The dimensions discovered in stage one were then used in the questionnaire design to test whether the representation was applicable more widely to other stakeholders. This proved to be the case with all groups sharing the broad representations although there were some minor group differences in application of the representations with modal choice proving to be the main moderating factor.

3. To explore how people use the social representations available to them to explain their travel behaviour and travel behaviour of others.

Due to limited experience of alternatives to the car in a rural context people draw on well rehearsed and widely held representations to rationalise post hoc their travel decisions. These representations of transport and travel reinforce the existing situation and create a vicious circle of demand for better alternatives, which are little used, reluctance to accept sticks and therefore a boost to use the car more.

4. To identify the contradictions for transport and the social dilemmas of travel behaviour in relation to the social representation(s) used.

Travel presents a typical social dilemma. In this context individual car use brings personal benefits but is collectively disadvantageous to society. As described under objective 3 the use of widely held social representations enables individuals to rationalise this dilemma. The main contradiction identified is support for bus improvements while there is little use of existing services. In addition, use of alternatives modifies the representation, yet, while use is limited there is little potential for people to be socialised into a different perspective. A further contradiction relates to visitor responsibility. People recognise they are visiting a

spectacular, natural area which they wish to protect, yet are unwilling to pay the costs of car use even where such income directly supports the environment. Furthermore, some ambiguity surrounds restrictions. The view prevails that alternatives to the car need to be improved before restrictions implemented.

5. To reflect on how social representations impact on tourism and leisure mobility in a rural tourism development context.

As described under objective 3, the social representations tend to reinforce existing patterns of behaviour. The representations perpetuate a myth that public transport should be improved before sticks are introduced that limit, or increase costs for, car use. Cycling and walking are viewed as leisure options rather than transport and alternatives to the car in general are seen to be for other people.

6. To analyse the travel behavioural patterns and modal choice of visitors.

The interviews, travel diaries and survey found high car use and limited use of alternatives to the car. This was expected and is consistent with patterns in other rural areas. Of more specific interest, the car was used for many very short trips where people might have walked and visitors showed a tendency to make long trips in the car for unplanned days out which ultimately need not to take place. Use of alternatives was limited even where buses and cycles were available. It can be concluded that travel practice in Purbeck is firmly rooted to the car.

7. To analyse the problems encountered by residents and visitors in relation to transport and mobility in Purbeck.

Residents readily identify with transport problems yet for some visitors the problems did not appear to be salient. Problems centred on traffic congestion and parking issues. Public transport and cycle users identify more problems than car users suggesting these modes either experience more problems or are conceptualised as having more problems. Given that problems with alternatives was a common excuse for car use the latter seems likely.

8. To identify the responses to problems (coping mechanisms) adopted by residents and visitors.

Residents adopt a variety of coping mechanism to avoid transport problems, however, visitors were more inclined to accept problems and visitors were much less inclined to view transport issues as a problem in the first place.

9. To analyse the implications of the above for future transport planning and to recommend effective strategies that will contribute to the development of sustainable transport initiatives for rural tourism.

This is addressed later in this chapter.

This chapter now goes on to address in more detail the social representation of transport, tourism and rurality and the implications within Purbeck and beyond.

9.4 Social representations of transport, tourism and rurality

Residents represent Purbeck as unique rural area with a diverse natural and human heritage and a rural community. The area is also seen as a leisure space and as such residents recognised a conflict scenario which is presented in terms of the balance between positive and negative impacts of tourism and leisure. There are two views of this scenario:

- Tourism is vitally important to the area but has some negative impacts;
- Tourism brings very little to the area, the benefits are over rated and impacts severe.

These two views are not two isolated perspectives, rather they are poles of a continuum which people draw on when they discuss tourism. The in-depth study with residents revealed complex dimensions and contradictions suggesting that social representations distort perceptions and preserve intact the preconception (Fredline and Faulkner 2000). Typically, tourism impact studies identify economic impacts as a positive benefit. While this study also found this to be so, the Purbeck participants questioned this reality and raised contradictions. Thus, the employment of this *a priori* conceptualisation in traditional studies with uncritical use of scale items could be reinforcing a view that residents may actually be challenging. The study also revealed the dilemmas people have about social issues within the Purbeck area, for instance, the recognition that residents are privileged.

The visitor survey suggests that while the tourism in balance perspective is embraced, it is not accepted by all and less strongly embraced as in the studies that focus on residents (see for example, Davis et al 1988). It is not surprising that visitors embrace the balance perspective and it is arguably a socially conditioned response as it would be difficult for a visitor to justify their presence if they felt their impacts were severe. It was also evident that tourism impacts did not seem salient to some visiting respondents, however, some conflicts and concerns are apparent. This reflects the work of Puczko and Ratz (2000) in Hungary, where tourists did feel some responsibility but only 18% of tourists believed they might have caused some

negative impacts. In general, Puczko and Ratz found tourists perceived less impact on both the natural and on the built environment and did not show as much knowledge or willingness to reflect on possible impacts on local people.

The natural features of Purbeck (scenery, sea, beaches) clearly stand out in people's reasons for visiting the area. Thus, Purbeck is represented as a natural area. It is also a place people return to and past memories of visits both as an adult and a child are very potent for visitors. While residents talked more of the human heritage and the rural community during interviews, there was little reference to these aspects in the visitor survey. The rural community is clearly less easy for visitors to identify with and, indeed, some did not feel able to comment on the community impacts. Visitors do not appear to relate to the rural idyll and rural community aspects. This is probably obscured by the more obvious attractions of the beaches and scenery and would come out in more depth study. Visitors, like residents, see Purbeck as a leisure space. The survey found reference to this in terms of holidaying in the area, attractions and activities undertaken.

The 'carrot' and 'stick' dominated the residents' representation of transport and mobility with two main dimensions apparent:

- The car cannot be restricted;
- If public transport was improved people would use it more.

Thus, the view prevails that non-car alternatives must be improved (carrot) before cars use can be managed (stick). This view also prevailed among visitors, however, the survey revealed some ambiguity surrounding car restrictions. Cyclists and bus users while drawing on this representation exhibit some modifications related to their modal choice characteristics. Transport initiatives often bring conflict to the fore. For instance, while users of non-car alternatives derive their representations from experience, the dominant car-owning group derive representations of alternatives from a mixture of limited experience, mass media and social interaction, thus drawing on prevalent discourses in society. The government can develop the prevalent discourse for example: cycling and walking are not safe; and public transport is dirty, unreliable and slow (Department for Transport, Local Government and the Regions 2000; Department of Environment Transport and the Regions 1998). Here the prevailing view is that car use cannot be restricted because alternatives to the car are not viable. This representation of mobility helps to shore up the perception that car restrictions are 'sticks' and make it politically difficult to limit car transport.

Socio-economic and demographic variables did not have any impact on the above dimensions and reflect the findings of transport and tourism attitude studies (Anable 2005; Davis et al

1988). The major difference apparent was between residents and visitors in relation to restricting the car.

9.5 Impact of social representations on transport and potential for sustainable mobility patterns

The simplistic response of convenience and ease of use dominated reasons for car use. People also employed pragmatic reasons. Of more interest, is the excuses scenario given for not using alternative modes to the car, particularly public transport. This suggests there is a norm to consider alternatives and justify car use on the basis of the inadequacy of alternatives. When asked about problems, bus and cycle users gave more examples of problems than car users. This highlights the inadequacies of non-car alternatives. In fact nationally there is a discourse to that effect and this sits well with the 'carrot' and 'stick' debate whereby 'carrots' are required before the 'stick' and an 'if public transport was improved people would use it more' argument. Thus, people are drawing on the national discourse that alternatives to the car are simply not adequate and therefore the car has to be used.

Three groups were identified on the basis of their explanation for travel behaviour. The likely response of these groups to car reduction strategies is considered. The largest group ('satisfied car users') love the car and embrace positive features of car travel. This group is unlikely to respond positively to non-car alternatives which cannot reproduce these features. The other two groups are of interest from a behavioural change perspective as their reason for car use includes consideration of alternatives, albeit from a negative perspective ('alternative apologists' and 'single minded car user'). However, these groups use the problems with alternatives as a powerful excuse for car use and are thus also unlikely to switch mode. In particular the 'single minded car user' group are not able to identify or conceive of alternatives for their present circumstances. It is unclear how such a group might respond to non-car alternatives being made available. Would they embrace the options or would they be unwilling to engage? Given that non-car alternatives are available in many cases the latter seems likely.

In Purbeck, documents include much talk of managing car use and relieving congestion but there is little on how this might be achieved. Only one consultant's report suggests car restrictions (Transport Research Laboratory and Transport Research and Information Network 2000). Residents interviewed were reluctant to condone car restrictions or proposed them only

for visitors and, indeed, the visitor survey suggests restrictions are more acceptable to visitors. Elsewhere, where restrictions have been planned, a minority of vocal residents are often successful at opposing them. In the North York Moors National Park, UK, parking charges and restrictions were planned but Coleman (1997) found local businesses equate the car with livelihood and if anything want to increase parking capacity. Furthermore, discussion at a public meeting proved unhelpful as it provided a platform that enabled the opposition to shout loudest. Thus, power issues become apparent. Car restrictions are linked negatively to the economic importance of tourism thus from a residents' perspective there is a powerful reason to oppose them since the dominant perspective is that economic benefits outweigh other negative impacts of tourism. Thus, a representation is accepted among the local population. Yet, traffic free tourism destinations have been successful both in the UK (for example, Polperro Cornwall) and elsewhere (for example, the Saaser and Matterhorn Valleys in Switzerland) with positive results for tourists and residents alike. Holding and Kreutner (1998) highlight the danger of perceived local opposition outweighing visitor support for initiatives as tourists are more likely to view traffic restrictions as positive than day visitors or local people. The survey identified some potential contradictions relating to car restrictions as visitors seem more supportive than residents although there were concerns with road user charging and parking.

The high proportion of transport initiatives providing or promoting public transport (70% of UK initiatives) demonstrates that public transport is the preferred 'carrot' or alternative, yet it is perceived to be dirty, unreliable and infrequent. Existing levels of use were found to be low in Purbeck and there is a similar picture in most destination areas. Thus, use in the future, even with significant improvements, should be questioned on the basis of widely held views on the inadequacy of public transport. The literature on transport cites many examples of where public transport works and residents cited schemes in Purbeck which were felt to have been a success (Norden Park and Ride and X53 Jurassic Coast Bus). People seem to forget the many more schemes that have been abandoned or more probably were not aware of them in the first place. As Gatersleben and Uzzell (2003 p390) state "improving public transport is usually perceived to be the most acceptable and desirable measure. Financial measures such as road pricing, parking charges and fuel tax are least acceptable." Purbeck residents and visitors held that public transport was an important alternative to be developed despite the fact that few ever used buses and the local bus service was not conceptualised as an alternative that they can or would want to use. Furthermore, the residents expressed dilemmas as they recognised buses were little used, poor, unreliable and circuitous. The social representation process whereby people draw on what is familiar to them, even in face of the opposite evidence, is apparent here. Regardless of its relevance to an individual, public transport is

seen to be the main alternative to the car. On one level the social representation is that people think public transport needs to be improved, but on another, the reality is that public transport can never be improved enough to meet everyone's needs in a rural destination. Arguably people have developed a social construction of how to deal with transport problems whereby the failure of public transport reinforces the existing situation of high car use.

There were also other dimensions in the representation which complicate this picture. The resident interviews suggested alternatives to the car are seen to be for 'other' people and cycling and walking are leisure activities. This perspective was also apparent from the visitor survey. Bus corresponding to 'a mode used by low income groups'; cycling and bus with 'never use'; and walking with 'leisure'. Therefore it is not clear there would be much up take of 'carrots' were they to be improved. A study in the Dartmoor and Lake District National parks, UK, demonstrated that car drivers were almost unable to conceptualise public transport never mind use it (Cullinane and Cullinane 1999). However at the same time there is clearly a normative view that non-car alternatives should be improved and some people make excuses for why they are unable to use alternatives such as distance, children, carrying equipment, the British weather. In Purbeck residents talked about public transport in the context of other people, often from disadvantaged groups and visitors linked bus use to low income groups. Cycling was also considered by residents largely in relation to 'others' particularly children and visitors. The problem is further illustrated by tourists being seen to be the cause of problems therefore it was felt they should change behaviour not residents. Thus, alternatives to the car are seen as desirable and good for society but in practice users are conceptualised as 'other' people. People do not recognise that blame and responsibility might be attached to them, as it is a problem that other people (including government) need to solve.

There are clear contradictions. There was support for use of alternatives to the car but rejection of additional charges for car use and parking. As alternatives available are not being used it makes it difficult to see how visitors could address the impacts of which they are aware while they are unwilling to pay.

Resident interviews also suggested that tourism is seen to cause the traffic problem therefore tourists should change their travel behaviour not residents. In Hungary, Puczko and Ratz (2000) found that local residents tend to blame tourists for the impacts, for example, the driving of private cars seemed to be more polluting if it was done by tourists. This further reinforces the perspective that the problem needs to be solved by 'other' people. In the survey 'a mode of transport used primarily by visitors' corresponds to car and, in fact, most respondents identified the car as a mode used by visitors. Thus, tourism is felt to cause the

traffic problem which removes the responsibility from other issues such as the school run or commuting.

9.6 Problems encountered and coping mechanisms

The overriding problem cited by residents and also encountered by visitors was that of traffic congestion. Several places are well known to suffer from seasonal congestion due to volume of traffic: A351 at Sandford/Holton Heath; Corfe Castle; Wareham bypass; and Ferry Road Studland. However, in the visitor survey many referred to congestion outside of the Purbeck area, particularly on motorways, rather than in Purbeck itself.

Parking was highlighted as a problem in the visitors' travel diaries. The problems related to finding parking spaces and a dislike for paying for parking. After congestion this was also the most important issue identified in the visitor survey. Visitors expressed some concern about high parking charges but these did little to deter car use.

Bus users and cyclists identified proportionally more problems and walkers less. This tends to suggest travel conditions are less favourable for bus users and cyclists. This is a concern as these are both important alternatives to the car and while they are poorly received they are less likely to encourage use. Problems with cycling and bus use also featured as reasons for car use and suggest there is a norm to consider these modes problematic.

Two main coping mechanisms were identified by residents, which can be seen in other tourism studies (Brown and Giles 1995):

- Reorganisation of daily activities - residents avoid particular places, use different routes and go at different times;
- Retreat from normal life - residents stay at home more at certain times.

There was also some evidence of a desire to reaffirm one's identity as a resident (Brown and Giles 1995) and not to be confused with tourists though this was not strong. This may be because there is a contemporary ambiguity between residents and visitors in tourist areas such as Purbeck as many residents were originally visitors and all residents have the experience of being tourists elsewhere. This may also be linked to what seemed to be a process of acceptance or coming to terms with tourism impacts which is arguably an initial coping mechanism. Residents were clearly in many cases acclimatised to tourism and accepted it as 'fact of life'. Indeed, as in the study by

Brown and Giles some participants actively embraced tourism and the associated crowding as it brought vitality to the area.

Reorganisation of daily activities was also apparent in the residents' interviews as they undertook journeys at times to avoid congestion and when they knew they would be able to park. The travel diaries demonstrated that only a few visitors attempted alternative routes to avoid congestion and this was not always successful for visitors, as they were not familiar with the area. Given the level of repeat visits more alternative route finding might have been expected. The diaries also showed how visitors responded to parking conditions. Commonly people spent time looking for free, on road parking before paying a fee.

Given that relatively few visitors identified problems material on visitors' coping mechanisms was limited in this study. By far the most common response was acceptance as problems were expected in a busy destination in high season.

Within the tourism impacts literature, transport is regularly cited as causing key impacts at destination areas. Thus, studies of transport and tourism start from the base that there is a problem to be addressed. This study started from this perspective, but the findings challenge this. Exploratory research with residents identified a typical emphasis on local travel problems. Congestion and parking stress were key themes. Residents went on to describe a variety of coping mechanisms that were employed. Problems and subsequent coping mechanisms thus became a theme in stage 2 and 3 with the visiting population. However, the travel diaries and questionnaire survey revealed car based visitors had few concerns. Problems were seen to be minor and there was felt to be little or no need to modify behaviour to cope in any way.

Though the exploratory research with residents revealed an emphasis on local travel problems that is typical of the tourism impacts literature (for example, King et al 1993; Jurowski et al 1997; Lindberg and Johnson 1997), residents' views were mixed on this. The overriding problem cited by residents was traffic congestion. Some informants viewed tourism congestion as a short-term problem that could be lived through and was avoidable, while wider issues relating to rurality posed greater problems. Interviews suggest residents have developed a way of life adapted to cope with tourism. The need to develop coping strategies tends to reinforce the view that tourism causes a problem. Yet residents have developed effective coping mechanisms and acknowledged that tourism was short-term and they could avoid the impacts. Underlying tourism issues are wider problems faced by residents of rural areas. Thus, the extent to which tourism is the major transport issue is debatable. Rurality

stands out as a more over arching issue posing year round transport problems for residents that couple the mobility issue with problems of accessing jobs and facilities such as shops.

The analysis raises questions about the pervasiveness of transport problems in rural destinations. Residents readily identify a problem and tend to project responsibility onto visitors although even as they do so there is recognition that tourism is not just to blame. Visitors on the other hand do not identify readily with the problem in the first place. This has important implications for where responsibility to take action lies. Residents would like visitors to take responsibility, yet the visitors do not recognise the problem, see little need to take action in the first place and, in turn, feel persecuted by high parking costs. High parking charges are, at present, the main 'stick' implemented in the area and while visitors express concern about these costs they appear to do little to deter car use. Thus, the situation is at a stalemate.

Analysis suggests problems are shaped by people's experience of place. A large proportion of visitors come from urban areas where congestion and parking problems are an almost permanent feature. From an urban centric perspective the problems in Purbeck are not significant. Furthermore, cycle and bus users identify more problems and 2 groups of car users were identified (alternative apologists and single minded car users) with negative views of non-car alternatives. Thus, through social transmission, negative experiences of non-car alternatives potentially re-enforces the embracing of car use. Problems are therefore socially constructed and reproduced with consequent implications for transport management.

To a large extent, informants suggest residents find ways of coping with tourism but in some instances rurality can only be coped with by leaving the area. Thus, what residents cannot cope with has little to do with tourism but more to do with the nature of rurality. This is perhaps where the real problems lie. The nature of rural areas and the rural population are changing. For instance, residents expressed a strong sense of a rural community but one in which there was community breakdown. As rural areas evolve, this creates significant issues for long-term residents over and above those of tourism. For residents there was arguably a continuum of coping between what Ireland and Ellis (2004), in their anthropological study of a Cornish community, have termed 'communities of fate' and 'communities of choice'. This is the ability to make choices rather than have them imposed and having the financial provision to cope. This was suggested by the way residents framed problems encountered in terms of 'others' who were unable to cope. This could be an example of a social

representation passed on via discourse. A limitation of this study is the lack of contact with disadvantaged groups to confirm the 'communities of fate' scenario.

So there is a socially constructed consensus shaping the resident's views of tourism. The accepted social representation shapes the issues yet these are challenged and contain contradictions. Tourism seems to be only a part of a bigger picture. The changes to the nature of Purbeck as a rural area are more fundamental and effect views of tourism. The nature of residents is changing, blurring the distinction between visitors and residents. It is not just about coping with tourism it is about coping with rurality and changing rural structures. Tourism is a filter for these changes.

9.7 Suggestions for sustainable tourism transport initiatives

Though this study did not set out specifically to analyse success factors of tourism transport initiatives, the findings of this study present a new angle that might be applied to transport initiatives at rural destinations. While the above analysis paints a rather gloomy outlook, a number of aspects could be tackled and the following are suggestions for effective sustainable tourism transport initiatives.

9.7.1 Experience of alternative modes to the car

Alternative mode users draw on different aspects of the representation of transport which suggests experience of bus and cycle use is potentially part of the key to change. Few respondents had experience of cycling or bus use in the area and exploratory research suggested alternatives to the car are seen to be for 'other' people. This lies at the heart of the problem. Given the dominance of car use in our society and a lack of experience of alternatives, it is highly likely that our social representations of non-car based transport alternatives are drawn more from social discourse and media presentation of government options than direct experience. Thus, a key challenge for practitioners is giving people the skills and opportunities to use alternatives to the car. Travel diaries demonstrate that many short journeys are car based and this is a key area to focus on. Accommodation-based material needs to highlight local walks and pedestrian based short cuts to facilities and services.

9.7.2 Improving transport options for local people and visitors

Local residents are perhaps most entrenched in the view that their travel is car based. Unlike their urban counterparts there is less constraint on car use through congestion and parking costs thus much less incentive to use other modes. In addition public transport suffers from poor frequency as urban volumes of users are not available to increase viability. Some work has begun in Swanage and Wareham on bus services under a social inclusion agenda. Such a scheme should be encouraged as there are disadvantaged residents who would benefit and residents should be the first priority as they use services all year round. However, it is clear that people do not hold public transport in high regard and it is debatable that car users would switch to an improved system despite a widely held social representation that 'if public transport was improved people would use it more'.

Residents felt public transport was poor, under-utilised, poorly integrated and a service for disadvantaged groups. The representation 'if public transport was improved people would use it more' poses problems given that this is rarely based on any experience of use. There are a number of public transport routes in the Purbeck area with good, regular services in the context of rural areas. The majority of people involved in the study would be able to make some use of these services but largely saw them as irrelevant to themselves. Visitors from urban areas would regard the hourly headways as 'poor' with urban expectations projected onto rural areas. Use was mostly conceptualised in terms of 'others'. Thus, the notion of improved public transport playing a major role in traffic reduction is somewhat debatable. However, beyond traffic management public transport plays an important role in social inclusion - a key element of any sustainable development decision-making framework. Given the strong representation that public transport should be improved, initiatives are likely to be supported by the public at least in principle if not in practical use terms. This is an opportunity to be built on but it is important in our target driven culture to avoid setting critical use level and economic criteria that will not be met. Alternatives to the car are usually set some notional use level at all times (see for example, Cullinane and Stokes 1998). This is quite a challenge for many public transport routes, even seasonal tourist routes, which have temporal and spatial peaks and troughs.

Together with economic viability this poses a key argument that has led to the demise of many schemes. Given the low population density of the area out of season it can be next to impossible to meet use level criteria. But is economic viability and high use crucial for success in such scenarios, particularly given that many public services are based on subsidy? This is a familiar argument in the public transport debate, regardless of the other merits of an initiative such as social inclusion. Success could be measured in different terms and short-

term initiatives avoided as the loss of a service typically reinforces the view that services are not viable. A successful example is the Moors Bus initiative, in the North York Moors National Park, UK, which while monitoring use levels has an underlying social inclusion agenda (interview with Breakell 2003). Breakell argues an ordinary service might see a return over three years but in a recreational setting you need to look long term to enable visitor recognition.

Views of cycling were entrenched in the notion that this was not a viable alternative except for children or as a leisure activity. Again this may be a case of 'others', as in tourists or day visitors, being seen as the prime users. This sets all cycling initiatives in a leisure and tourism context, divorces it from local utility use and thereby limits potential users. There were however, exceptions to this view from the participants who were keen cyclists. The keen cyclists considered cycling a quick, cheap and easy option viable for most utility and leisure trips. Schemes elsewhere, such as the Camel Trail in Cornwall, have found that a significant number of utility journeys were undertaken by residents on what was intended as a leisure route. While there are problems for cycling in rural areas, notably distance and weather conditions, there are also opportunities afforded by quiet lanes and scenic routes. Several cycling routes have been established during the course of this study and these represent a positive step.

Walking is a skill that people are rapidly losing and this is illustrated in the travel diaries where people use the car for very short trips. Walking is often overlooked as a mode of transport, indeed many participants completing travel diaries did not include walking at the end of a car trip, even when this was a considerable distance. Any plan for sustainable transport in a destination area should incorporate walking as an important mode for local trips. Marketing at accommodation providers (see section 9.5.4) would help draw attention to the mode.

The view that users of non-car alternatives are other people and that government has the responsibility for sorting out transport problems suggests that, typically, responsibility for the problem is seen to lie elsewhere. Transport problems are a notorious social dilemma, which in many cases requires the action of all individuals for the greater good of the community. While 'others' are seen to be the users of non-car alternatives and blame for traffic problems is apportioned elsewhere, there is much less impetus for residents or visitors to take action. There needs to be wider recognition that problems stem from all car users and, in a tourist destination context, it is residents who are more able to tap into non-car alternatives, through local knowledge, than visitors. Thus, it might make more sense for planners and policy

makers to focus on local residents and their needs as much as on tourists when developing transport initiatives in destination areas. This is especially so given the financial and patronage criteria often set by funding agencies. Furthermore, visitors who are keen to use non-car alternatives usually have the skills and knowledge to access local services and facilities.

9.7.3 Car restrictions

Alongside the view that public transport would be used more if it was improved, there is some contention over whether car use can be restricted. From a logistical perspective, restrictions on car use may be viable in parts of Purbeck and, indeed, restrictions already exist in the Lulworth Cove area where the Ministry of Defence periodically closes some roads which cross firing ranges. It is clear from this study that residents would object to further closure although interesting that current Ministry of Defence restrictions, which have been in place for many years, are accepted. Even a scenario that applied restrictions only to visitors was not considered viable. Given that the most successful transport initiatives have involved significant 'sticks', such as traffic restrictions, this limits the potential for traffic management and successful development of alternatives to the car at tourism destinations. Again, this is an example of a social representation perpetuating ideas that car restrictions are bad for business and this view is likely to prevail among planners and policy makers. It is perhaps time that the logic for this view is questioned. Clearly a key challenge for transport planners is implementation of meaningful restrictions on car use. The representation that car restrictions are not viable can be particularly entrenched in the minds of powerful sectors of the resident community. Such groups are able to protect and perpetuate this representation through social interaction and powerful appearances at public meetings (Coleman 1997). To challenge this representation planners need to confront those who present the underlying source of this representation and awareness needs to be raised of successful initiatives elsewhere.

Both residents and visitors fail to acknowledge responsibility for problems and this together with a perspective that 'others use alternatives to the car' is problematic. The residents' aversion to car restrictions is complex as it is politically difficult to take action at a local level. However, it is unlikely there will be much change without 'sticks' and despite their unpopularity many areas would benefit from a car free environment. 'Sticks' might be better accepted with a more personalised approach that can also counter the 'others use alternatives to the car' perspective. To do this would need a shift that emphasises promotion of local leisure opportunities and the fun, relaxing and problem avoiding angles of using alternatives to the car. In policy terms this needs a move away from the focus on modes of transport and

transport to attractions to focus on the visitor's experience of mobility within the area from their accommodation base.

9.7.4 Personalised accommodation-based leisure pass

People have developed a social construct that they can travel and have to travel and tourism is dependent on this. Thus, one perspective might be that the issue is not changing to alternative modes to the car, as they arguably could not accommodate mass use, but challenging the need for long trips in destination areas. Indeed, Hall (1999) argues that within the tourism industry sustainability rarely embraces the positive benefits that less travel would bring. Many visitors make unplanned leisure trips covering considerable distance as oppose to short local trips that might be managed on foot or other means. Thus, there is scope to encourage more local trips. Over the last two or three years a Purbeck Transport Pass has been discussed which, as part of the holiday package, would integrate accommodation providers, attractions and transport providers to offer discounts on public transport, cycle hire and entry to attractions should visitors travel by an alternative to the car. So far this scheme has not progressed. A blanket approach with a unitary pass for all offering reduced admission charges to non-car based visitors would probably do little to change visitor's modal choice. Indeed, a number of attractions elsewhere have offered reduced admission charges to visitors arriving by non-car alternatives, but they are largely unsuccessful at attracting people out of their cars (for example, at Legoland and some National Trust properties) (Robbins and Dickinson 2006). However, an accommodation specific pass might encourage tourists to make shorter journeys by alternative modes and address the 'responsibility lies elsewhere' scenario. The idea would be to promote attractive days out using non-car alternatives from specific locations and has been developed to some extent in a series of cycle leaflets launched in 2005 entitled 'Out of Car Experiences'. However, at present this is an area wide initiative and has yet to be targeted at specific locations.

It would also be important to draw people's attention to the problems they might encounter when using the car such as congestion, parking limitations, high parking charges.

Furthermore, as shopping was a main generator of car trips, local shops and food outlets could be promoted. The principle is similar to personalised journey planning (Department for Transport 2002) which was tested in Australia (Rose and Ampt 2001) and the Netherlands (Tertoolen et al 1998) although there is evidence of psychological reactance resulting in limited changes in travel behaviour. This would be a more personalised approach which enables visitors to take responsibility. To illustrate this principle an example is given for two of the campsites:

Tom's Field

Problems to avoid:

- Swanage - congestion, parking charges, competition for parking spaces
- Studland - congestion, high parking charges, competition for parking spaces

'Out of car experiences':

- Walk/bus to Swanage
- Bus to Swanage and boat to Brownsea Island
- Bus to Corfe Castle, steam train to Swanage then bus home
- Walk to Corfe Castle

Shop at:

- Langton Matravers village store
- Selection of fresh and fair-trade produce available at campsite shop

Whitemead

Problems to avoid:

- Weymouth - congestion, high parking charges, competition for parking spaces

'Out of car experiences':

- Train to Dorchester, Poole, Bournemouth or Weymouth
- Open-top bus to Monkey World, Lulworth Castle and Cove
- Local walks

Shop at:

- Wool village grocery store and butchers

Marketing local trips from accommodation providers by providing journey plans overcomes some of the barriers of planning complex journeys to tourist attractions where finding out about local transport can be a problem (Robbins and Dickinson 2006). A National Integrated Transport Information service is now available on-line which will help with journey planning but at present this will be hard for the majority of visitors to access once on holiday hence the need for information at the accommodation base. Robbins and Dickinson (2006) identify the main approaches to date as:

- Combined public transport and admissions tickets offering discounted admission for arrival by public transport;
- Special bus services between the attraction and the closest railway station.

Results for these approaches have been disappointing as combined tickets have a number of flaws not least of which is their current role as promotional tools rather than environmental policy (Robbins and Dickinson 2006). For such approaches to prove viable visitors need to be

made aware of the options before they set out on trips which would be the aim of the Purbeck Pass. However, this leads to a further potential limitation which is the need for cooperation between small tourism businesses. This requires both coordination and a willingness of small businesses to participate. Bramwell and Alletorp (2001) suggest small businesses may not feel they can make a contribution or feel that their actions may benefit other businesses in the area which they perceive as 'free-riders'. Furthermore, Bramwell and Alletorp (2001) argue small businesses may contend that environmental issues (in this case transport) are not theirs to solve, which is another example of responsibility being perceived to lie elsewhere.

The accommodation-based pass goes over and above making available bus timetables or cycle maps. Such a pass would be more personalised and would hopefully address the unplanned, long and car reliant general leisure trips by suggesting local days out and giving details of alternative modes to the car. The idea is similar to a scheme initiated by Breakwell (2003) in the North York Moors National Park where the Moors Bus, a successful tourism transport initiative, runs. Here visitors can pick up journey planners for a specific location. There is no need for visitors to work out timetables as the options for that location are clearly set out. The focus is on local leisure options and these are made more personal for visitors. While this proposal would focus on environmental objectives it would also provide marketing opportunities for the destination area attractions. A further development which has been suggested locally (interview with Keen 2005) is a dedicated person based in the tourism information service who might offer a personalised journey planning service to visitors.

9.7.5 Emphasise natural attributes

Both residents and visitors recognise the natural attributes of the Purbeck area, which is a positive feature that can be built on. Tourism is felt to be in balance with the natural area with some caveats as both residents and visitors recognise there are some impacts although visitors found these harder to conceptualise. Nevertheless these are positive aspects to build on. At several sites in the survey (most notably Lulworth Cove) an attempt has been made, using interpretation, to make the link between car park charges and the funding of conservation work. Anecdotal evidence collected during the survey and comments on parking costs suggest these messages are not reaching a large proportion of the visitors. This is an important area for further study as visitors are likely to be more receptive to charges if they have greater understanding of how their money will be spent.

9.8 Implications for transport in rural destinations elsewhere

While the findings of this study are specific to Purbeck, much of what has been found could be transferred to other rural destinations in the UK such as National Parks although the local context should be taken into account. Transport planning has a long pedigree of decision-making based on the objective reality of logistics together with supposedly objective studies of people's behaviour. A social representations perspective demonstrates the importance of examining the social reality and the social processes that underlie people's decision making. People make their transport decisions in the light of the social reality in which they live. Social representations theory is interested in why and how society creates that social reality and the common sense outcomes that arise from this. It is this that influences behaviour rather than the objective reality of buses, cycling and walking that many people know little about. Representations while prescriptive can, however, be modified and this offers an opportunity for more sustainable mobility. Representations might be modified by direct experience of alternatives to the car. However, such experiences need to be positive otherwise negative perceptions will be reinforced and transmitted through social interaction. The media and marketing communications can also play a role in modifying representations.

There are several clear messages which arise from this study. First, nationally there is a tendency to focus on developing public transport as the preferred alternative to the car. Indeed, the study revealed a strong representation that public transport should be improved and then people would use it more. Yet, few people are users of public transport either at home or on holiday and use must be questioned in a destination area on this basis. Once visitors have travelled to an area by car it is available for local use with marginal additional cost compared to public transport. Why would someone who is dominantly a car user at home switch to public transport in a destination area? In rural destinations it is not viable to improve public transport to frequency levels encountered in urban areas and as such it is unlikely to prove attractive to visitors unless it becomes an attraction in its own right or there is no other alternative available. Thus, while studies show that people would like public transport to be improved this is essentially an idealised representation and an idea perpetuated by a public with little intention of leaving the car behind. This brings us to the next issue of restricting the car.

There is ambiguity surrounding car restrictions which have proved difficult to implement in UK rural destinations except where there is no commercial interest such as the Derwent and

Goyt Valleys in the Peak District National Park. Other viable schemes such as Polperro village in Cornwall are limited in their scope and, in the case of Polperro, driven by the acute space restrictions of the place itself. Clearly the potential to restrict cars is limited by the specific area context. For instance, in Purbeck there are limited opportunities to restrict cars due to through routes and a variety of complex political and ownership constraints (see chapter 4.0). This study suggests visitors are more positive about the prospect of car restrictions than residents but in practice many stakeholder groups are likely to oppose the curtailment of freedom of movement. Given that successful tourism transport initiatives involve both 'carrots' and 'sticks', car restrictions should be given more consideration. The implementation of meaningful restrictions on car use is clearly a key challenge for transport planners. The representation that car restrictions are not viable can be particularly entrenched in the minds of powerful sectors of the community. Such groups are able to protect and perpetuate this representation through social interaction and powerful appearances at public meetings (Coleman 1997). To challenge this representation planners need to confront those who present the underlying source of this representation and awareness needs to be raised of successful initiatives elsewhere.

Cycling and walking are seen as leisure activities. As a mode of transport, they are often seen to be used by 'other' people. In destinations where there are good opportunities for cycling and walking there is clearly potential to develop them as leisure activities, however, this does not necessarily prevent car use as cars can be used to access the resource base where cycling and walking take place. Cycling remains a marginal mode of transport for a relatively small proportion of the population (about 2% of trips nationally are by cycle) (Department for Transport 2005) and requires that visitors have access to a cycle. As cycles can now be carried with relative ease on cars, in destinations with good cycle infrastructure (for instance off road cycle routes), cycling should be promoted more and made integral as a feature of the destination. Walking is undertaken to some extent by almost everyone. Yet walking is often not seen as part of the trip and often plays little or no role in transport strategies. Thus, there is considerable scope to raise the profile of walking. There is scope to develop visitors' knowledge base of the rural destination they are visiting in order for them to recognise that many trips are in fact very short and could be walked in the same time it takes to get into and park a car.

Finally, visitors are aware of the dilemma that they are visiting a natural area and using a mode of transport that detracts from the natural beauty. Yet, visitors are reluctant to pay the costs of their car use and resent paying, what they consider urban parking charges even though many will be used to these at home. People who visit rural destinations do so to a

large extent because of the natural environment. There is therefore much greater scope to make the link between the place and visitor travel behaviour through the use of interpretation. However, the ability of interpretation to modify behaviour is limited and can be only one strand in a strategy to affect changes to the representation of transport in destination areas.

9.9 Limitations of the study

Limitations have been considered throughout this thesis however, a number of overarching limitations associated with this study need to be acknowledged. Primarily this was a study about Purbeck. While the findings do have relevance for other destination areas, given the geographical diversity of such, the findings remain specific to Purbeck. The study was also exploratory and the social representations of transport and tourism need to be tested.

Furthermore, the study focused on transport in a tourism destination context and there is a need to apply a social representations perspective to the ideas about transport circulating more widely in society.

There are also sampling issues associated with the study. In the resident interviews disadvantaged groups proved difficult to access and it was felt their views were not heard directly. The travel diaries were conducted at campsites thus excluding visitors staying elsewhere and day visitors. Furthermore, young people, aged under 30, were under represented as campsites typically attract a family market and younger people who tend to opt for shorter stays were not included. There were also difficulties sampling the visitor population in the questionnaire survey as it is not possible to construct a sample frame for visitors. Potentially minority leisure pursuits were excluded due to sampling at mass attractions.

9.10 Unresolved issues and suggestions for further research

In applying these ideas to tourism management there is a need to recognise that dominant social representations may mask underlying dissent and that in fact people's views are far more variable and contradictory. It is important not to ignore wider social processes and the societal pressures in which individuals make decisions. This thesis has discussed issues in a developed world context. In such tourism settings the differences between host and visitor are somewhat negotiable as all potentially have experience as tourists and some tourists become hosts. However, there is still a divide that residents, in particular, are very aware of. This

divide enables one group to put responsibility onto another and this is particularly so for contentious issues such as transport impacts. People are also apt at identifying 'others' who are affected (for example, disadvantaged people who use buses) or 'others' who need to take action (for example, tourists, local or national government). Thus, in order to address transport impacts in a tourism context the divide between different groups: hosts and guests; advantaged and disadvantaged; general public and government, needs to be recognised and addressed. Management of destinations need to understand how this sense of 'other' and in particular 'others' bearing responsibility is potentially divisive, iniquitous and a source of power. There is a need for more research on people's feelings of responsibility, the tendency to locate blame with other people and the dilemmas people hold in respect to transport and tourism.

There is a need to understand where social representations come from and how they are perpetuated in the community. Further work is required which analyses the transport discourse at a national level beyond the tourism context. In research on risk perception, Joffe (2003 p66) argues that more work is needed which explores the "ideas that reside in structures outside of individual minds (e.g. in the mass media, scientific publications and text books)" her view being that data triangulation will help ensure that both individual's thinking and its context are sampled. Researchers need to critically examine the political context both at a local and national level as this can shed light onto ideas circulating in the population. Media portrayals are also very relevant. During the course of this PhD a local newspaper published a headline that visitors and residents will be charged £1.50 to enter Purbeck. The story was based on one page of a 200 page transport study undertaken in Purbeck (Buro Happold 2004). This page discussed the option of road user charging but drew no firm conclusion. This media portrayal sensationalised the item which was a very small element of a much wider study and took up many hours of planners' time dealing with enquiries.

Approaches such as participant observation and in-depth interviewing might usefully give insight into the acquisition and use of social representations. For instance, studies can focus on how powerful groups are able to reproduce their representations amongst the wider population. Qualitative data has effectively been employed in studies of attitudes towards recycling household waste giving insight into the acceptance and awareness of the norm to recycle (the social pressure to take part) which had a great effect on intention and behaviour (Barr et al 2003). Qualitative approaches can focus more on the underlying arguments used to communicate ideas. They can embrace the contradictory perspectives often encountered in transport studies which are problematic in scales and survey items. Thus, the employment of *a priori* conceptualisation in traditional studies with uncritical use of scale items may simply

reinforce a view that residents may actually be trying to challenge. Interviews can reveal more clearly hidden meaning through in-depth discussion. For instance, people's real views on public transport become more transparent in conversation than when assessed by scale items which lead to normative and socially desirable responses.

Finally, when working with residents it was clear that tourism impacts are entangled with rurality issues. It became apparent that rurality was an overarching issue which framed the tourism impacts. There is potential for more study to disentangle the tourism context from the wider issues of the changing nature of rurality.

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Appendix 11: List of material published in relation to this thesis

Appendix 1: Examples of UK Leisure and Tourism Transport Initiatives

Initiative	Location	Type of initiative	Comments	Source
Gateways to the Downs	Sussex Downs	Area wide tourism traffic management	Improvements to bus and rail Traffic calming	Transport 2000 Trust (2001)
Duxford shuttle bus	Imperial War Museum Duxford, Cambridgeshire	Bus from Cambridge station		Transport 2000 Trust (2001)
Devon and Cornwall Rail partnership	Devon and Cornwall	Leisure use of rail branch lines		Transport 2000 Trust (2001)
Ride to the rides	Alton Towers	All-inclusive entrance and rail travel from London and Leicester		Transport 2000 Trust (2001)
Landsker Countryside Holiday Bureau	Pembrokeshire	Walking and cycling holidays promoting access by rail	60% of visitors arrived by train. Around half bookings through overseas tour operators	Transport 2000 Trust (2001)
Cumbria on the net	Cumbria	Web site that links to public transport information		Transport 2000 Trust (2001)
First stop York by train	York	Cut-price admission to attractions for train users		Transport 2000 Trust (2001)
Hostel bus	Southern Lake District	Minibus link from Windermere station		Transport 2000 Trust (2001)
Country Lanes	Lake District, New Forest, Cotswolds	Organised cycle day trips, short breaks and longer tours	Rail travel encouraged in literature.	Transport 2000 Trust (2001)
The Bittern Line	North Norfolk	Encouraging leisure use of rail line		Transport 2000 Trust (2001)
Park and Steam	Dorset	Steam railway + park and ride to Swanage and Corfe Castle	Norden Park and Ride in the Purbeck study area	Transport 2000 Trust (2001)
Lake Cruising	Lake District	Steam train and lake cruise	Encourages sight seeing without car	Transport 2000 Trust (2001)
Ride with a guide	Northumberland, Hadrian's wall	Tour guide on bus		Transport 2000 Trust (2001)
Heritage open top bus	Brighton to Devil's Dyke (Sussex Downs)	Open top heritage bus	9000 passenger journeys between May and September 2000	Transport 2000 Trust (2001)
Car-free Polperro	Cornwall	Traffic restrictions	Non-residential traffic prohibited during main part of day in summer Visitors use 'Polperro trams' converted milk floats	Transport 2000 Trust (2001)

Moorsbus	North York Moors	Extensive bus network	27,000 passengers per year	Transport 2000 Trust (2001)
Ramblerbus	East Sussex	Bus connects with train and bus services at each end of valley	Cheap day ticket Community service driven by volunteers. £3 for round trip	Transport 2000 Trust (2001)
Coastal hoppa	Cornwall	Bus that links attractions along coast	Cheap day fares. 30 passengers per day of which 65% are car owners	Transport 2000 Trust (2001)
Buses that wait	Helston, Cornwall	Bus	Bus waits at Redruth station up to 10 mins. If train is later get free taxi to Helston. Buses have bike racks and large luggage racks. Also wheelchair accessible.	Transport 2000 Trust (2001)
Dartmoor Rover	Dartmoor National Park	All in one bus and rail ticket	National Trust offer discount entry to rover ticket holders. Guided walks start at bus stops. Doubled use of network over 5 years. A quarter of users could have come by car.	Transport 2000 Trust (2001)
Wales Flexi pass	Wales	8 or 15 day bus/rail ticket		Transport 2000 Trust (2001)
Mountain Goat	Lake District	Mini-bus tours	Two thirds come to area by car but like someone else to do the driving in area.	Transport 2000 Trust (2001)
Reinventing the country lane	Surrey Hills	Changing driver's perceptions of lanes		Transport 2000 Trust (2001)
Dartmoor speed limits	Dartmoor	40mph speed limits	Speeds fell in 1 st year, then rose in 2 nd year but dropped in 3 rd year when more enforcement.	Transport 2000 Trust (2001)
Plymouth Waterfront Walkway	Plymouth Devon	Walk	Urban walk along waterfront linking South West Coast Path on either side. Links between urban areas and countryside	Transport 2000 Trust (2001)
Jersey's Green Lanes	Jersey	45 miles of road with 15mph speed limit	19% of UK visitors use walking as their main form of transport on the Island. Attracted interest from tourism markets in Germany, Holland, Switzerland and Scandinavia.	Transport 2000 Trust (2001)
Greenways	Cumbria – Furness Peninsula	Routes for walkers, cyclists	To draw more users into quieter part of	Transport 2000 Trust

		and horse riders and links between communities, leisure, school and work	Cumbria. Based on network of rights of way and minor highways	(2001)
Lower speeds for villages	Suffolk	30mph speed limit in villages and 20mph in some villages	Speeds reduced by around 5mph and accidents cut by 19%	Transport 2000 Trust (2001)
England's cycling country	East of England Tourist Board	Branding plus 20 cycling discovery maps		Transport 2000 Trust (2001)
Celtic Trail	Wales	Cycle trail part of National Cycle Network		Transport 2000 Trust (2001)
Brecon's bike bus	Brecon Beacons National Park	24 bikes can be carried on trailer on Sunday bus from Cardiff		Transport 2000 Trust (2001)
Tarka Trail	Devon	180 mile cycle trail	150,00 cycle journeys per year	Transport 2000 Trust (2001)
Restricting village parking	Elterwater, Lake District	Residents' parking scheme	Car park outside of village	Transport 2000 Trust (2001)
Less traffic on country lanes	Lake District – Under Loughrigg Road	An access only order on a quiet lane to restrict to residents only	Also advisory speed limit of 20mph. 28% of residents made trips on bike or foot that previously made by car. 45% said the now walked or cycled more often	Transport 2000 Trust (2001)
Park, ride and climb	Roaches, Peak District	Bus from car park 6km away and restricted parking at site		Transport 2000 Trust (2001)
Traffic free road	Derwent Valley, Peak District National Park	>6 miles closed to car on Sundays, Bank Holidays and summer Saturdays. Minibus up valley	6,000 passengers per year on minibus Considering charging	Martin smith Derbyshire County Council
Gateway to Snowdonia	Snowdonia National Park	Park and ride at gateway towns	Aim for parking charges in the future to cover free use of buses. High parking charges in National Park.	Transport 2000 Trust (2001)
Parking charges	Seven Sisters Country Park in Sussex Downs	£1 to park – money used to fund conservation and sustainable transport	90% said no effect on length of stay, 9% visiting less often, 7% improved security of car park made visit more often, 11% said they had visited by other means	Transport 2000 Trust (2001)
Scenic rail to St Ives	St Ives, Cornwall	Rail	Drivers can park at St Erth mainline station or in summer park and ride at Lelant Saltings.	Transport 2000 Trust (2001)

			Special fare for 5 people and parking. Also bus park and ride from edge of town. From June to Sept access restrictions limit visitor traffic to the town. Traffic eased by the park and rides which are well used.	
Legoland Bus	Legoland Windsor	Bus from station every 30 mins	24,000 visitors per year	Transport 2000 Trust (2001)
Bus only access to Paul McCartney's home – Magical mystery tour	Liverpool	Bus	Run by the National Trust. Ticket from Albert Dock tourist office	Transport 2000 Trust (2001)
Travel plan - Public transport improvements	Yorkshire Sculpture park	Travel plan	Improvements to public transport, discounts on purchases for use of bus, links to cycle routes	Transport 2000 Trust (2001)
Prior Park	Prior Park Bath	No Parking on site – bus link from Bath		Transport 2000 Trust (2001)
Gateways to the Sussex Downs	Sussex Downs	Area wide strategy for tourism without traffic	84% arrive by car despite good rail access	Transport 2000 Trust (2001)
Car free leisure	All over UK	Various	Group of local authorities promoting car free leisure	
Burrator reservoir experiment	Dartmoor National Park	Road closure	Local opposition stopped	Cullinane et al 1996
Wayfarer project	West Yorkshire and Greater Manchester	Marketing of public transport		Cullinane et al 1996
Park and ride	Wordsworth Trust Lake District National Park	Park and ride and free bus	+10% visitors	Cullinane et al 1996
Real time information systems	Gower	Information on full car parks etc		Cullinane et al 1996
Snowdonia Sherpa	Snowdonia National Park	Car parking fees, park and ride, limiting parking on highways	'Sticks' were not effective	Cullinane et al 1996
Goyt Valley	Goyt Valley	3km section closed between 10.30-17.30 Sundays and Bank Holidays May to September	Park and ride introduced but not successful	Cullinane et al 1996
Trossachs Trundler	Scotland	1950s vintage bus	24,000 users May to September 1993 and 1994	Robbins 1996
Transmoor links	Dartmoor National Park	Seasonal bus links and explorer ticket		Coleman 1997

Road hierarchy	Exmoor National Park	Route hierarchy	Implemented by signposting and advisory routes plus some traffic regulations.	Coleman 1997
Park and Ride	Exmoor National Park	Park and Ride	Experimental. Not a success as hoped so abandoned.	Coleman 1997
Mountain bike centres	Southern Scotland	Cycling	£2 million to fund 7 centres – estimate will bring over 500,000 new visitors and £15 million to local economy	Countryside Recreation Network 2002
Carefree	Lake District National Park	Itineraries from visitor centres for car free days out		Ray Craig Traffic & Transport Officer Lake District National Park

Appendix 2: Example Interview protocol

Interviewee:.....

Date:.....

Have you received the information sheet sent on? If not or can't remember show now.

Are you happy with what you read before we proceed? Clarify any matters.

Go over the following details before start:

- **Purpose of interview** – This is an in-depth interviews to gain an insider's view of the transport and travel situation in Purbeck. You have been selected as a key informant to enable me to gain an understanding of local transport issues, local travel, local tourism, transport alternatives to the car and the rural setting. The objective is to understand issues from your perspective. I am interested in how you see the issues. I will ask you questions about your personal and professional experience of the issues.
- **Dissemination** - The research will form the basis of my PhD at Bournemouth University. The findings will also be published in academic papers and relevant findings will be presented to the Purbeck Heritage Committee.
- **Anonymity**- You will remain completely anonymous and no records of the interview will be kept with your name on them.
- **Length of interview** – this is variable but I anticipate half to one hour – is that OK?
- **Permission to record** – are you happy if I record the interview?
- **Do you have any questions before we begin?**

1. Background questions

Do you hold a driving license?

Are you a car owner or do you have the use of a car?

What is your main mode of transport?

What other modes of transport do you use regularly in Purbeck – stress in Purbeck area?

How long have you lived here?

How did you come to live here?

2. The Purbeck setting

Do you feel this area is urban or rural?

What are the features of this area which make it rural (or urban) for you?

-When I talk about a rural area, what does this suggest to you? What do you associate with rural areas?

What are the attractions for you of living and/or working in Purbeck?

-Tell me about your experience of living and/or working in Purbeck.

What do you most value about the Purbeck area?

3. Local tourism

Tell me about your experience of tourism in Purbeck?

- in a personal sense
- and professional sense
- what do you associate with tourism in Purbeck?

What do you feel tourism brings to Purbeck?

How does tourism affect the Purbeck area?

- In a positive sense
- In a negative sense
- Probe on social dilemmas (eg economic benefits vs environmental impacts)

4. Local travel

Tell me about your experiences of travelling in Purbeck?

- Do you travel much locally?
- Where/how?
- Do you have regular journeys?
- If so tell me about one.

I've noticed that there is particularly bad traffic congestion in parts of Purbeck (eg along the A351 at Sandford and along the Ferry Road). Can you tell me about your experience of this?

Have you thought about:

- Travelling less?
- Using your car less?
- Probe this

How do you think issues could be improved for local people?

5. Different modes of transport in Purbeck

Take participants through the following list of modes available in Purbeck and ask them:

- tell me how you feel about... in Purbeck
- if they are aware of them
- what service is provided (if applicable)
- do you have direct experience of ...
- if they have no experience how do they feel about using these modes and how did they form that opinion. (must get this information)

-bus

-train (steam and mainline)

-bike

-boat

-foot

Do you feel cost is an issue for car use or any alternatives? For you or other people

6. Alternatives to the car

How do you think car dependence could be reduced in Purbeck?

Do you think improved alternatives would benefit Purbeck? If so how and if not why not

Do you think car use could be restricted in Purbeck? If so how? If not why not? Prompt on pricing (car parks and roads), closure of roads, limiting capacity.

Tell me about any past/present initiatives to reduce car dependence in Purbeck?

- Success/failure
- Impact on traffic
- Other local benefits/issues
- Rationale/objectives for schemes (if relevant person to ask)
- Project management issues (if relevant person to ask)

What would be your targets for a Purbeck transport strategy?/ What do you see as the main transport priorities of people living, working and visiting Purbeck?

How well do you think transport is managed in the Purbeck area?

7. Further background questions

Do you benefit from tourism in this area in any way? How? (prompts: economically, or use of facilities)

8. End

Would you like to provide any other information?

Do you have any questions about the interview or project?

Thank you

Appendix 3: Information sheet for interviewees

Nature and purpose of the research

The aim of the study is to enhance the understanding of tourism and leisure transport and mobility in a rural tourism development context. A two-stage approach to data collection is being adopted. In stage one (the current stage), data will be collected using in-depth interviews to gain an insider's view of the transport and travel situation in Purbeck. Stage one will inform the design of a structured questionnaire survey of a large sample of visitors, residents and businesses in stage two. Analysis will focus on how widely held ideas about transport and mobility impact on tourism and leisure mobility in a rural area. The research hopes to suggest opportunities to develop more sustainable mobility patterns.

Purpose of interview

In-depth interviews will be used to gain an insider's view of the transport and travel situation in Purbeck. You have been selected as a key informant to enable me to gain an understanding of local transport issues, local travel, local tourism, transport alternatives to the car and the Purbeck setting. The objective is to understand issues from your perspective. I am interested in how you see the issues. I will ask you questions about your personal and professional experience of the issues.

Dissemination of the research

The research will form the basis of my PhD at Bournemouth University. The findings will also be published in academic papers and relevant findings will be presented to the Purbeck Heritage Committee.

Your consent

You can withdraw your consent at any stage before, during or after the interview. If you have any doubts about participating please let me know before the interview. You will remain completely anonymous and no records of the interview will be kept with your name on them.

Format of interview

The interview will take the form of a conversation around particular themes.

Length of interview

It is hard to determine the length of the interview but it is anticipated that it will last about one hour though some will be shorter and some could be longer.

Recording

Subject to your permission I would like to tape record the interview as it greatly improves my recall of what has been said and enables me to listen carefully instead of taking notes. I will also take additional notes to remind myself of key points as necessary.

My contact details in case you wish to get in touch at any stage

Janet Dickinson

Lecturer in Leisure and Recreation, School of Services Management, Bournemouth University, Talbot Campus, Poole, Dorset BH12 5BB.

Tel: 01202 595853

Email: jdickinson@bournemouth.ac.uk

Appendix 4: Travel diary record sheet

	Purpose of journey	Time left	Time arrived	From	To	in party	in party	Dog	Method of travel	mode (mins)	Vehicle used	Ease Cost	Equipment carried
1		am pm	am pm						1			easy/hard £ : p	
									2				
									3				
									4				
2		am pm	am pm						1			easy/hard £ : p	
									2				
									3				
									4				
3		am pm	am pm						1			easy/hard £ : p	
									2				
									3				
									4				
4		am pm	am pm						1			easy/hard £ : p	
									2				
									3				
									4				

Personal description of journey (this is important) - please tell me about any problems encountered, what you did about them and any unusual routes taken

1	
2	
3	
4	

Appendix 5: Travel diary questionnaire

Travel diary participant no.	
------------------------------	--

Questions for person completing diary

Where do you come from?	
Gender	M / F
Level of education completed	
Employment status	FT / PT / Unemp/ student/ other
Profession	
Driving licence	Y / N
Main mode of transport at home	Car / bus / train / walk/ cycle / motorcycle / other
Age	
Disability that affects travel	Y / N
Mobile phone on holiday	Y / N
Internet access on holiday	Y / N
First visit to the area?	Y / N

Questions about the vehicles on holiday

Type of vehicles on holiday	Car / cycle / motorbike / van / other				
Motor vehicle	Make	Model	Engine size	age	Fuel D / P
~ mileage	~ mileage over last 12 months				
If bike, type of bike	Mountain / road / hybrid		~ mileage over last 12 months		

Household questions

Composition of household	No.	Adults children's age <5 5-11 11-16 16-18	Relationship
Composition of holiday group	No.	Adults children's age <5 5-11 11-16 16-18	Relationship
No. dogs at home	No. dogs on holiday		
No. cars	No. motorcycles	No. cycles	No. other
Distance to bus stop	Distance to train stop		
Type and size of accom.			

Appendix 6: Travel diary information sheet

Visitor Travel Survey

Over the weekend I will be recruiting visitors to take part in a travel survey.

The owners of Tom's Field Campsite have kindly agreed to assist me in this study.

What does it involve?

- completing a travel diary for 5-7 days
- answering some background questions
- answering some questions about travel during your stay

What is it for?

A PhD research project examining transport and tourism in Purbeck focusing on mobility patterns of residents and tourists during holiday periods.

The incentive

Completing the travel diary will require a daily time commitment from each participant. Several local attractions have provided money-off vouchers as an incentive to take part. These are worth about £5 (some more, some less).

Who am I?

I am a lecturer in leisure and recreation studies at Bournemouth University. I will walk round the site on Friday and Saturday to recruit participants. I will carry my University ID card. If you are staying less than 5 days or feel you do not want to participate, just let me know.

Thank you for your kind attention.

Janet Dickinson
01202 595853

Appendix 7: Questionnaire

TRANSPORT AND TOURISM SURVEY

Could you please help with a study on transport and tourism by answering a few questions? The information you provide will be used in a PhD study being undertaken at Bournemouth University. The study will inform transport planning decisions at rural tourism destinations.

The questionnaire is completely confidential and will only take about 10 minutes to complete. Completion is voluntary and you may quit at any time. By completing this survey, you are giving your consent to participate in this study.

We ask that one person fill in the questionnaire only.
Thank you for your help.

Your Travel

Q1 Where have you travelled from today?

Q2 How have you travelled here today? (Please tick all that apply)

- | | | | |
|------------------|--------------------------|-----------------|--------------------------|
| Car | <input type="checkbox"/> | Bicycle..... | <input type="checkbox"/> |
| Bus | <input type="checkbox"/> | Coach..... | <input type="checkbox"/> |
| Train | <input type="checkbox"/> | Motorcycle..... | <input type="checkbox"/> |
| Steam Train..... | <input type="checkbox"/> | Boat..... | <input type="checkbox"/> |
| Walk | <input type="checkbox"/> | | |

Q3 Which was your main mode of transport? (i.e. mode used for longest part of journey)

Q4 Please list below as many reasons as possible for using your main mode of transport today.

Q5 Why was it important to you to use this mode of transport?

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Transport in Purbeck (Purbeck is the region you are visiting today)

Q6

Which of the following statements do you feel applies to each mode of transport in Purbeck?
(You can tick as many modes of transport as you like for each statement).

	Car	Bus	Cycle	Walk	None
A mode of transport you consider reliable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A cheap mode of transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A mode of transport that should be restricted in environmentally sensitive areas of Purbeck.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A mode of transport that should be charged for entry to Purbeck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A mode for which provision needs improving in Purbeck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A mode of transport you use regularly in Purbeck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A mode of transport you never use in Purbeck.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A mode you would use more if provision was improved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A mode of transport used primarily for leisure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A mode of transport used primarily by low income groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A mode of transport used primarily by visitors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Purbeck Setting

Q7

What is it about this area that made you want to visit today?

Q8

Here are some of the things which people have told us about tourism in Purbeck.
Indicate the extent to which you agree or disagree with each statement by ticking the appropriate number.

1=strongly agree, 5=strongly disagree

	1	2	3	4	5
The overall benefits of tourism in Purbeck outweigh the negative impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Further tourism development would be beneficial to Purbeck and should be encouraged.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The use of public funds for tourism promotion and infrastructure development is justified by the benefits this brings to the community.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tourism brings very little to the area, the benefits are over rated and negative impacts severe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preservation of the natural environment should take priority over tourism development in Purbeck.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The environment of Purbeck is being negatively affected by the presence of too many visitors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There would be few traffic problems in Purbeck if it were not for the tourists.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visitors should be required to pay more for the car parking they use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The main problem in Purbeck is that there are not enough facilities to cope with the number of tourists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The Purbeck road system needs to be upgraded to accommodate the growing demand from visitors.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As tourism causes traffic problems in Purbeck, visitors should be prepared to pay a reasonable fee for car use in the area to help with maintenance and environmental preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As tourism causes traffic problems in Purbeck, visitors should be prepared to use alternatives to the car.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Coping with tourism and transport issues

Q9 Please describe any problems you encountered on your journey here today.

Q10 If you encountered problems, did you do anything to cope with these problems? If yes please tell us about this.

About you

Q11 Gender:

Male Female

Q14 What is your age?

Q12 Are you a:

Purbeck resident Staying one night or more
Day visitor Second homeowner

Q15 Are you:

Employed full time Retired
Employed part time Looking after the home full-time
Not in employment Unable to work for medical reasons
Student

Q13 If you are a visitor, is this your first visit to the area?

Yes No

Q16 If applicable, what is, or what was your profession? .

Q17 Do you have a disability which affects how you travel?

Yes No

Q18 Including yourself, how many people are travelling in your immediate group?

Number of adults

Number of children under 5

Number of children 5-11

Number of children 12-17

Q19 What is the main purpose of your visit today?

[Empty box for Q19 answer]

Q20 How long are you planning to stay at this site today?

less than 1 hour from 2 to 3 hours
from 1 to 2 hours over 3 hours

Q21 Please indicate the number of days per week you generally use the following modes of transport:

Car

Bus

Bicycle

Walk (Do not include the short walk from the car park to shop or office)

Train

Q22 Do you have a driving licence?

Yes No

Q23 Do you own or have a access to a car?

Yes No

Q24 If you have any other comments you would like to make about travel in Purbeck, please use the space below.

[Empty box for Q24 comments]

Q25 Any other questions?

[Empty box for Q25 questions]

Thank you for you help. Please return the questionnaire to the researcher.
If you would like more information about this study please talk to the researcher who handed out the survey.

Appendix 8: Risk assessment: Questionnaire survey

Bournemouth University **General Risk Assessment Form** Your Reference No:

Notes:

Before completing this form, please read the associated guidance on 'I: Health & Safety/Public/Risk Assessment/Guidance'.

Use this form for all risks except from hazardous substances, manual handling & Display Screen Equipment (specific forms are available for these).

If the risk is deemed to be 'trivial' there is no need to formally risk assess.

All completed forms must give details of the person completing the assessment.

Risk assess the activity with its present controls (if any) -then re-assess if action is to be taken and after further controls are put in place.

The completed form should be kept within the School/Service/Department.

1. Describe the Activity being Risk Assessed: Distribution of questionnaire for PhD					
2. Location(s): Studland beach; Ferry Road Studland; Lulworth Cove; Swanage Beach and Seafront; Durlston Country Park, Swanage.					
3. Persons at potential Risk (e.g. Specific Staff only, General Staff, Students, Public etc.): Janet Dickinson					
4. Potential Hazards i.e. <u>What Could Happen?</u> (NB: List hazards without considering any existing controls): <ul style="list-style-type: none"> • Field work – interviewing public • Working at road side – moving vehicles (Ferry Road only) 					
5. Control Measures Already In Place: <p>Fieldwork: a record will be maintained of the date, times and locations where the survey will be taking place (attached). This will be left with a friend or colleague who will be informed on return. Where the survey takes place on private land, permission has been sought and staff will be informed when the researcher is on site and when she leaves the site. This applies at Studland Beach, Ferry Road, Lulworth Cove and Durlston Country Park. All survey sites are well populated public places</p> <p>Working at road side: a high visibility bib will be worn. Vehicles will be approached from the nearside (passenger side).</p>					
6. Standards to be Achieved: (if necessary, refer to Guidance on Risk Assessment)					
7. Are the risks adequately controlled (bearing in mind 4. & 5.)? Write 'Yes' or 'No': Yes but also see residual risk assessment. <p>If Yes, Step 8: <u>Ensure that those affected are informed of the Risks and Controls:</u> Confirm how you have done this (or intend to do this) e.g. written instructions: Precautions will be undertaken to ensure that risks associated with interviewing public are kept to a minimum and that adequate "check-in" procedures are followed to confirm whereabouts.</p> <p>Then, complete boxes below and the assessment is finished until the review date(s):</p>					
9. Person(s) Who did Assessment:	Janet Dickinson	10. Date:	7 th June 2005	11. Review Date:	June 2006
12. Checked By: (as necessary)	John Fletcher	13. Date:	7 th June 2005	14. Review Date:	
If No to Qu 7, go to next section and estimate 'Residual Risk'.					

Estimating the Residual Risk:

15. Choose a category that best describes the degree of harm which could result from the hazard, then choose a category indicating what the likelihood is that a person(s) could be harmed. Check only **ONE** box within the table which matches both of your choices.

Degree of harm likelihood	Slightly Harmful (e.g. minor injuries such as minor cuts/bruises not always requiring first aid)	Harmful (e.g. serious but short-term injuries such as broken bones or curable disease)	Extremely Harmful (e.g. would cause fatality, major long-term injuries or incurable disease)
Highly Unlikely	Trivial Risk <input type="checkbox"/>	Tolerable Risk x <input checked="" type="checkbox"/>	Moderate Risk <input type="checkbox"/>
Unlikely	Tolerable Risk <input type="checkbox"/>	Moderate Risk <input type="checkbox"/>	Substantial Risk <input type="checkbox"/>
Likely	Moderate Risk <input type="checkbox"/>	Substantial Risk <input type="checkbox"/>	Intolerable Risk <input type="checkbox"/>

16. Then note the advice below on suggested action and timescale

Residual Risk Level	Action and Timescale
Trivial Risk <input type="checkbox"/>	No action is required and no documentary records need to be kept.
Tolerable Risk x <input checked="" type="checkbox"/>	No additional controls are required. Consideration may be given to a more cost-effective solution or improvement that imposes no additional cost burden. Monitoring is required to ensure that the controls are maintained
Moderate Risk <input type="checkbox"/>	Efforts should be made to reduce the risk, but the costs of prevention should be carefully measured and limited. Risks reduction measures should be implemented within a defined period. Where the moderate risk is associated with extremely harmful consequences, further assessment may be necessary to establish more precisely the likelihood of harm as a basis for determining the need for improved control measures.
Substantial Risk <input type="checkbox"/>	Work should not be started until the risk has been reduced. Considerable resources may have to be allocated to reduce the risk. Where the risk involves work in progress, urgent action should be taken.
Intolerable Risk <input type="checkbox"/>	Work should not be started or continued until the risk has been reduced. If it is not possible to reduce the risk even with unlimited resources, work has to remain prohibited.

17. If 'Moderate' 'Substantial' or 'Intolerable': What New Control Measures are to be Considered to reduce risk?	18. Referred to:	19. On Date:
---	------------------	--------------

20. Ensure those affected are informed of the Risks & Controls

Confirm how you have done this (or intend to do this) e.g. written instructions: I am the person affected.

21. Person(s) Who did Assessment:	Janet Dickinson	22. Date:	7 th June 2005	23. Review Date:	June 2006
24. Checked By: (as necessary)	John Fletcher	25. Date:	7 th June 2005	26. Review Date:	

Planned survey dates

Date	
	PILOT
15 th June	Pilot – Swanage
17 th June	Pilot – Swanage
21 st June	Pilot – Lulworth
29 th June	Pilot – Swanage/ Durlston
Sun 3 rd July	Pilot – Studland/ Ferry Road
Sat 9 th July	Pilot – Studland / Ferry Road
	MAIN STUDY
Sat 16 th July	Lulworth
Sun 17 th July	Lulworth
18 th July	Swanage/Studland
19 th July	Studland/ Swanage
20 th July	Lulworth
21 st July	Swanage/Durlston
22 nd July	Studland/ Ferry Road
Sat 23 rd July	Studland / Ferry Road
Sun 24 th July	Durlston/ Swanage
25 th July	Studland/Ferry Road
26 th July	Swanage/Durlston
27 th July	Lulworth
28 th July	Durlston / Swanage
29 th July	Studland/Ferry Road
Tues 2 nd Aug	Studland//Ferry Road
3 rd Aug	Swanage/Ferry Road
4 th Aug	Studland/Ferry Road
5 th Aug	Swanage/Ferry Road
Fri 12 th Aug	Swanage/ Studland
Sat 13 th Aug	Swanage/ Studland
Sun 14 th Aug	Swanage/ Studland

Appendix 9: Tables relating to the travel diary results (Chapter 7.0)

9.1 Participant characteristics

Age	%
< 20	3
20-29	0
30-39	28
40-49	40
50-59	20
60+	10
Participants' children	
No children 18 or under	15
Children under 5	5*
Children 5-11 (primary)	40
Children 11-16 (secondary)	58
Children 16-18	10
Education level	
Left school before 16	0
Left school at 16	23
Left school at 18	33
Studied after 18 years	33
Degree	5
Postgraduate qualification	8
Employment characteristics	
Full-time	53
Part-time	23
Student	8
Retired	5
Housewife	10
Disabled not working	3
Profession (classified according to the Standard Occupation Classification 2000 used by the Government statistics Office)	
Managers and senior officials	20
Professional occupations	5
Associate professional and technical occupations	25
Administrative and secretarial occupations	10
Skilled trades occupations	3
Personal service occupations	10
Sales and customer service occupations	3
Process, plant and machine operatives	8
Housewife/househusband	8
Disabled not working	3
Student	8

*Visitors with children under 5 were not normally asked to participate due to the additional problems of holidaying with pre-school children.

9.2 Comments on problems encountered

Comment	Birchwod	Ullwell	Tom's Field	Ridge	Whitemead
Lost in Poole	3			2	1
Congestion:					
Swanage	1	1			1
Wareham bypass	3			2	
Bournemouth	3				
Sandford	3		1	4	
Wareham town centre			1		
Corfe Castle			1	4	2
Ferry Road					
Weymouth				1	10
Dorchester					2
Poole	1				1
Car park expensive:					
Swanage		3	1		
General		1			
Studland		3		4	1
Lulworth Cove			1		
Weymouth					1
Poor roads to Bournemouth	1				
Parking difficult:					
Weymouth	1				
Poole	2	1			
Studland		1	3		
Corfe castle			1		
Wareham				2	
Swanage co-op		2	1		
Swanage		8	1	3	2
Dorchester					1
Connections not viable:					
Land train Weymouth	1				
Disabled parking problems:					
Poole	2	2			
Dorchester		1			
Avoiding car park:					
Swanage		5	1	1	
Studland		1	1		1
Wareham				1	
Comment on cost of attraction:					
Steam train		1			
Tank museum					1
Ferry expensive		1			
Problems getting taxi		2			
Buses					
Bus late		1	1		
Bus didn't run			1		
Bus and carrying equipment		1			
Bus expensive			1		
Left early to park at Studland			1		
Crowded:					
Swanage			1	1	
Corfe Castle				1	
Norden P and R shuts 7.30pm so had to park in Corfe Castle			1		
Poor signage on paths:					
Ridgeway			1		
Corfe Common			1		
Short cuts on minor roads			5		

Appendix 10: Tables relating to the questionnaire results (Chapter 8.0)

10.1 Respondent characteristics

	Durlston Country Park	Lulworth Cove	Studland	Swanage	Overall
Gender	%	%	%	%	%
Male	46	43	38	47	43
Female	54	57	62	53	57
Age					
Mean age	46	45	45	47	46
Resident status	%	%	%	%	%
Purbeck resident	10	2	7	6	6
Day visitor	32	39	36	29	34
Staying one night or more	51	57	51	55	54
Second homeowner	7	2	5	9	6
First visit to area	22	36	12	15	20
Employment status					
Full-time	57	60	47	51	52
Part-time	18	16	25	17	19
Not in employment	0	3	1	2	2
Student	4	3	5	3	4
Retired	14	13	15	22	17
Looking after the home full-time	7	6	10	8	8
Unable to work for medical reasons	2	2	1	1	2
Disability that affects travel	6	5	5	4	5
Length of stay at site					
< 1 hour	6	1	1	5	3
1 to 2 hours	23	21	1	8	10
2 to 3 hours	40	25	17	20	23
> 3 hours	32	53	81	67	65
Driving license	90	96	95	90	93
Own or have access to a car	93	95	98	94	95

10.2 Features of Purbeck that made you want to visit

	%
beach	35
adjective	32
scenery/setting	26
sea/coastline	13
natural environment	7
attractions or specific attraction mentioned	6
return visitor	6
holiday home here/on holiday	6
family orientated	5
walking	5
peaceful	4
activity other than walking	4
clean	4
weather conditions	4
safe beach/safe environment	4
uncommercialised	4
countryside	3
relative here	3
day trip distance from home or where staying	2
never been before	2
tourist facilities	2
resident	2
interest/exploring	1
steam railway	1
ease of access	1

10.3 Main purpose of visit

	%
holiday	27
beach	21
recreation/leisure	11
relaxation	11
pleasure	7
walking	7
views/sightseeing/scenery	7
family/children	7
day trip	6
specific area/attraction mentioned	6
sea/coastline	5
activity not walk or swim	5
weather	4
swimming	3
socializing with friends/showing people round	3
nature	2
escape	1
other purpose	7

10.4 Origin of visitors on day of survey

From	%
Swanage	24
Poole	8
Bournemouth	7
Wareham	6
Weymouth	4
Corfe Castle	4
Other Purbeck	5
Other Dorset	4
London	3
Southampton	2
Other SE	6
Other SW	4
Midlands	1
Other	1
Unknown/unrecorded	2

10.5 Mean number of days of car use at home per week

	Mean	Std. Deviation
Car	5.36	2.202
Bus	.43	1.151
Bicycle	.55	1.303
Walk	2.96	2.848
Train	.32	.984

10.6 Modal choice and association with respondent characteristics

Association	Chi-square
Car use associated with day visitors	$\chi^2=21.584, df=3, p<0.001$
Walking with staying visitors and second home owners	$\chi^2=33.104, df=3, p<0.001$
Car use associated with employed full-time	$\chi^2=4.771, df=1, p=0.029$
Bus use associated with retired	$\chi^2=10.447, df=1, p=0.001$
Car use associated with longer stays	$\chi^2=12.868, df=3, p=0.005$
Driving licence associated with car use	$\chi^2=17.594, df=1, p<0.001$
Car ownership associated with car use	$\chi^2=32.066, df=1, p<0.001$

10.7 Modal choice in Purbeck and mean days mode is used per week at home

Main mode in Purbeck	Mean number of days used per week at home			
	Car	bus	Cycle	Walk
Car (n=598)	5.7	0.3	0.6	2.7
Bus (n=9)	3.0	1.9	0.9	5.7
Walk (n=92)	4.0	0.6	0.2	4.5
Cycle (n=6)	5.5	0	2.0	4.0

10.8 Correspondence Analysis Inertia: Transport Clusters

Dimension	Singular Value	Inertia	Proportion of Inertia	
Transport cluster 1				
1	.593	.352	.644	.644
2	.385	.148	.271	.916
3	.215	.046	.084	1.000
Total		.546	1.000	1.000
Transport cluster 2				
1	.468	.219	.598	.598
2	.370	.137	.374	.972
3	.101	.010	.028	1.000
Total		.366	1.000	1.000
Transport cluster 3				
1	.534	.286	.628	.628
2	.387	.150	.330	.958
3	.138	.019	.042	1.000
Total		.455	1.000	1.000

10.9 Correspondence Analysis Overview of Column Points: Transport clusters

MODE	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		Total
					1	2	1	2	
Transport cluster 1									
car	.359	-.803	.465	.169	.390	.201	.810	.176	.986
bus	.268	1.056	.497	.205	.504	.172	.863	.124	.987
cycle	.172	.458	-.825	.088	.061	.304	.244	.513	.757
walk	.201	-.367	-.785	.084	.046	.323	.192	.571	.763
none(a)	.177	.473	1.408	.659	.000	.000	.036	.205	.240
Active Total	1.000			.546	1.000	1.000			
Transport cluster 2									
car	.276	-.882	.553	.132	.459	.228	.761	.236	.997
bus	.198	.943	.727	.123	.377	.283	.673	.316	.988
cycle	.226	.530	-.382	.047	.135	.089	.626	.257	.882
walk	.300	-.211	-.703	.064	.028	.400	.098	.859	.957
none(a)	.228	.318	1.609	2.599	.000	.000	.004	.084	.088
Active Total	1.000			.366	1.000	1.000			
Transport cluster 3									
car	.281	-.926	.587	.166	.450	.249	.773	.225	.998
bus	.242	.967	.575	.154	.423	.206	.783	.201	.984
cycle	.249	.413	-.450	.053	.079	.130	.432	.371	.803
walk	.229	-.335	-.837	.082	.048	.414	.168	.760	.928
none(a)	.065	-.517	2.393	.614	.000	.000	.015	.234	.249
Active Total	1.000			.455	1.000	1.000			

a Supplementary point

10.10 Correspondence Analysis Overview of Row Points: Transport clusters

ATTRIBUTE	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		Total
					1	2	1	2	
Transport cluster 1									
reliable	.139	-.610	.045	.031	.087	.001	.978	.003	.982
cheap	.130	-.071	-1.257	.082	.001	.532	.005	.958	.963
restricted	.066	-.248	.517	.010	.007	.046	.230	.650	.880
charged entry	.029	.011	.876	.009	.000	.059	.000	.964	.964
need improving	.068	1.205	.636	.071	.165	.071	.824	.149	.973
use regularly	.093	-.904	.281	.049	.129	.019	.931	.058	.989
never use	.097	1.190	-.462	.113	.232	.054	.724	.071	.794
would use more	.065	1.349	.734	.088	.199	.091	.795	.153	.948
leisure	.109	-.546	-.246	.023	.055	.017	.836	.110	.945
low income	.104	.422	-.119	.018	.031	.004	.624	.032	.657
visitors	.100	-.747	.641	.052	.094	.107	.633	.303	.936
Active Total	1.000			.546	1.000	1.000			
Transport cluster 2									
reliable	.147	-.500	.076	.018	.079	.002	.980	.018	.998
cheap	.135	.260	-1.021	.057	.020	.380	.075	.918	.993
restricted	.087	-.034	.732	.017	.000	.125	.003	.997	1.000
charged entry	.018	-1.169	1.350	.024	.053	.089	.474	.500	.974
need improving	.014	.701	.365	.005	.014	.005	.631	.135	.766
use regularly	.101	-.878	.146	.038	.167	.006	.958	.021	.979
never use	.091	1.459	.750	.110	.415	.139	.823	.172	.995
would use more	.018	.930	.292	.008	.033	.004	.894	.070	.963
leisure	.127	-.176	-.737	.028	.008	.186	.065	.906	.972
low income	.123	.707	-.128	.035	.131	.005	.824	.021	.845
visitors	.139	-.518	.393	.026	.080	.058	.684	.312	.996
Active Total	1.000			.366	1.000	1.000			
Transport cluster 3									
reliable	.159	-.401	-.219	.017	.048	.020	.811	.176	.987
cheap	.119	.110	-1.147	.062	.003	.405	.013	.987	.999
restricted	.083	-.355	.974	.036	.020	.204	.155	.843	.998
charged entry	.030	-.904	1.392	.036	.045	.148	.364	.625	.988
need improving	.071	.959	.241	.039	.122	.011	.898	.041	.939
use regularly	.087	-1.029	.113	.051	.172	.003	.964	.008	.972
never use	.063	1.345	.579	.070	.215	.055	.882	.118	1.000
would use more	.062	1.280	.349	.058	.189	.019	.937	.050	.987
leisure	.110	-.294	-.573	.021	.018	.094	.242	.668	.910
low income	.109	.623	-.116	.035	.079	.004	.645	.016	.661
visitors	.107	-.668	.375	.031	.089	.039	.812	.185	.997
Active Total	1.000			.455	1.000	1.000			

10.11 Correspondence Analysis Overview of Column Points: Bus users, cyclists, car users, walkers

MODE	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		Total
					1	2	1	2	
Bus users									
car	.274	-1.013	.128	.118	.686	.011	.975	.015	.990
bus	.391	.225	-.558	.066	.048	.309	.122	.720	.842
cycle	.164	.484	1.267	.122	.094	.670	.129	.847	.975
walk	.172	.641	-.146	.057	.172	.009	.504	.025	.529
none(a)	.139	-1.908	.903	.482	.000	.000	.429	.092	.521
Active Total	1.000			.364	1.000	1.000			
Cycle users									
car	.249	.310	1.149	.166	.044	.707	.079	.921	1.000
bus	.215	1.204	-.682	.217	.568	.214	.786	.214	1.000
cycle	.314	-.578	-.268	.074	.192	.049	.782	.143	.925
walk	.222	-.696	-.251	.072	.196	.030	.814	.090	.905
none(a)	.088	1.307	.556	.322	.000	.000	.256	.039	.296
Active Total	1.000			.530	1.000	1.000			
Car users									
car	.329	-.818	.531	.156	.397	.256	.783	.216	.998
bus	.228	1.094	.525	.176	.492	.173	.861	.130	.991
cycle	.217	.422	-.506	.050	.070	.153	.426	.401	.827
walk	.226	-.316	-.818	.072	.041	.417	.173	.759	.932
none(a)	.134	.401	1.905	.627	.000	.000	.019	.280	.299
Active Total	1.000			.454	1.000	1.000			
Walkers									
car	.299	-.718	.664	.130	.294	.363	.621	.370	.991
bus	.234	.984	.400	.138	.431	.102	.857	.098	.955
cycle	.189	.641	-.431	.069	.148	.096	.593	.186	.779
walk	.278	-.488	-.759	.097	.127	.439	.357	.600	.957
none(a)	.128	.576	2.037	.689	.000	.000	.032	.282	.315
Active Total	1.000			.435	1.000	1.000			

a Supplementary point

10.12 Correspondence Analysis Overview of Row Points: Bus users, cyclists, car users, walkers

ATTRIBUTE	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		Total
					1	2	1	2	
Bus users									
reliable	.150	-.041	-.314	.012	.001	.037	.008	.470	.478
cheap	.128	.908	-.112	.046	.257	.004	.946	.014	.960
restricted	.077	-.258	.550	.014	.012	.059	.152	.661	.813
charged entry	.033	-2.067	.647	.064	.342	.035	.892	.084	.976
need improving	.058	-.544	-.475	.020	.042	.034	.349	.255	.605
use regularly	.084	-.106	-.827	.025	.002	.146	.016	.908	.924
never use	.062	-.087	1.987	.098	.001	.623	.002	.982	.984
would use more	.051	.037	-.051	.014	.000	.000	.002	.004	.006
leisure	.135	.344	.043	.008	.039	.001	.805	.012	.817
low income	.113	.616	.150	.020	.105	.006	.863	.049	.912
visitors	.109	-.860	-.442	.042	.198	.054	.795	.202	.997
Active Total	1.000			.364	1.000	1.000			
Cycle users									
reliable	.174	-.381	.147	.016	.046	.008	.886	.112	.997
cheap	.131	-.877	-.635	.082	.184	.113	.670	.298	.968
restricted	.081	.636	.852	.046	.060	.127	.396	.603	.999
charged entry	.037	.928	1.594	.062	.058	.203	.285	.714	.999
need improving	.054	.512	-.648	.023	.026	.048	.339	.461	.800
use regularly	.113	-.554	.302	.026	.063	.022	.737	.186	.922
never use	.051	1.883	-.908	.119	.330	.090	.829	.164	.993
would use more	.044	.855	-.882	.034	.059	.074	.514	.464	.979
leisure	.132	-.632	-.154	.031	.096	.007	.944	.048	.992
low income	.083	.667	-.760	.043	.067	.102	.472	.521	.992
visitors	.101	.243	.976	.049	.011	.206	.067	.913	.980
Active Total	1.000			.530	1.000	1.000			
Car users									
reliable	.156	-.529	-.004	.024	.079	.000	.999	.000	.999
cheap	.133	.043	-1.206	.070	.000	.535	.002	.998	1.000
restricted	.079	-.189	.639	.013	.005	.089	.118	.882	1.000
charged entry	.028	-.516	1.283	.021	.013	.125	.197	.798	.995
need improving	.050	1.144	.408	.039	.117	.023	.922	.077	.999
use regularly	.089	-.958	.283	.049	.148	.020	.926	.053	.979
never use	.084	1.391	.214	.095	.293	.011	.948	.015	.962
would use more	.049	1.399	.545	.060	.175	.041	.898	.089	.987
leisure	.114	-.387	-.451	.020	.031	.064	.460	.410	.870
low income	.107	.573	-.195	.028	.064	.011	.699	.053	.752
visitors	.110	-.615	.515	.034	.075	.081	.678	.311	.990
Active Total	1.000			.454	1.000	1.000			

10.12 (continued)

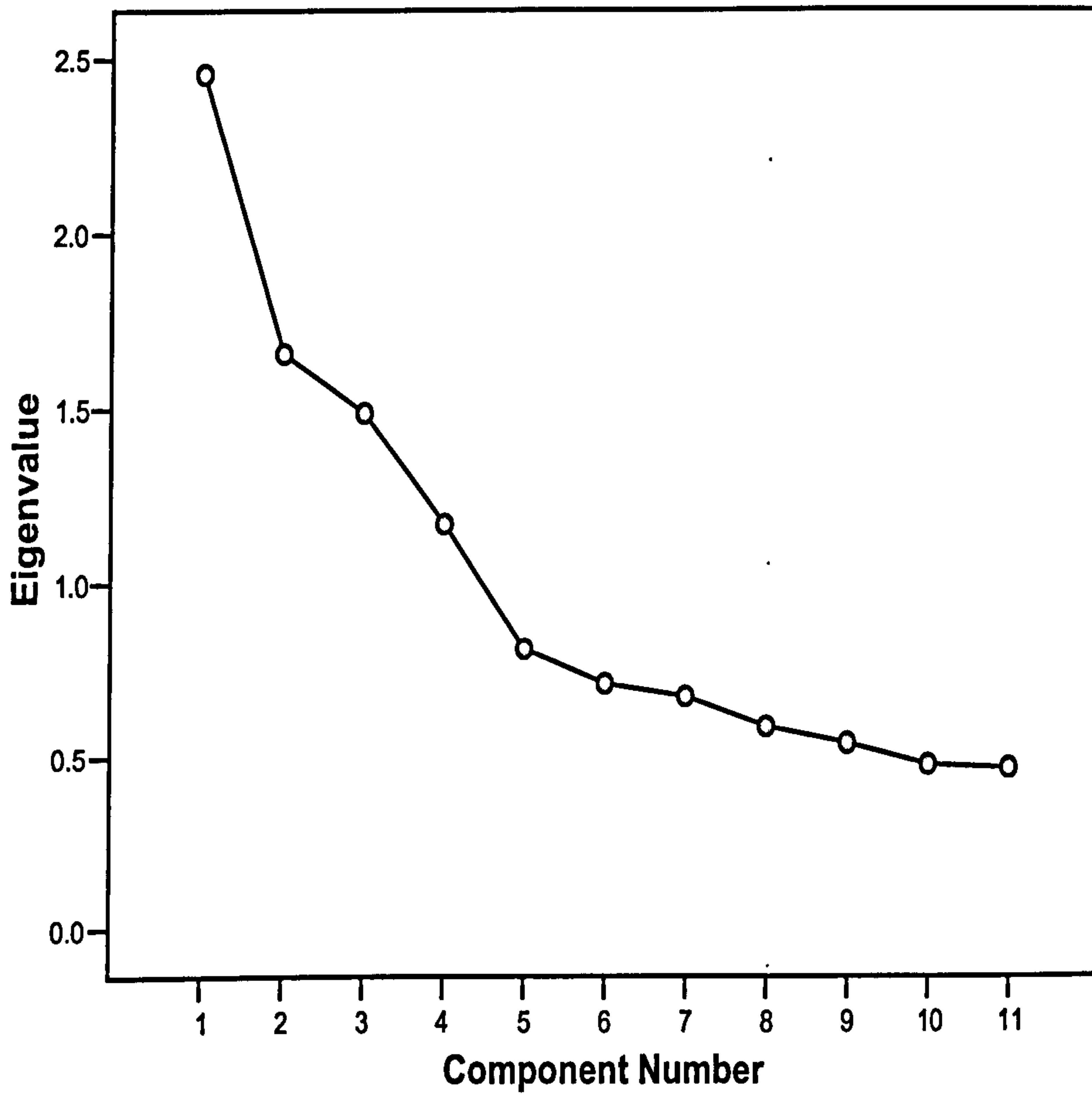
ATTRIBUTE	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		Total
					1	2	1	2	
Walkers									
reliable	.161	-.435	-.006	.016	.058	.000	.990	.000	.991
Cheap	.124	-.021	-1.190	.065	.000	.482	.000	.994	.994
restricted	.082	-.227	.895	.027	.008	.180	.084	.902	.985
charged entry	.026	-.578	1.441	.025	.017	.151	.186	.804	.990
need improving	.045	1.164	.384	.035	.117	.018	.920	.070	.990
use regularly	.106	-.815	-.017	.039	.134	.000	.945	.000	.945
never use	.074	1.411	.009	.088	.280	.000	.880	.000	.880
would use more	.048	1.573	.484	.070	.227	.031	.892	.059	.951
leisure	.112	-.366	-.397	.015	.029	.048	.520	.426	.946
low income	.098	.629	-.180	.029	.074	.009	.706	.040	.747
visitors	.123	-.490	.488	.027	.056	.080	.569	.392	.961
Active Total	1.000			.435	1.000	1.000			

10.13 Impact of respondent characteristics on tourism statements

Respondent characteristic	Tourism statement	Test/significance level
First time visitor	Further tourism development would be beneficial to Purbeck and should be encouraged	Mann-Whitney U 0.004
Access to car	The overall benefits of tourism in Purbeck outweigh the negative impacts	Mann-Whitney U 0.018
	Further tourism development would be beneficial to Purbeck and should be encouraged	0.003
	The use of public funds for tourism promotion and infrastructure development is justified by the benefits this brings to the community	0.004
	There would be few traffic problems in Purbeck if it were not for the tourists	0.010
	Visitors should be required to pay more for the car parking they use	0.023
	As tourism causes traffic problems in Purbeck, visitors should be prepared to use alternatives to the car	0.011
Resident status	Further tourism development would be beneficial to Purbeck and should be encouraged	Kruskal Wallace 0.001
	Visitors should be required to pay more for the car parking they use	0.025
	The main problem in Purbeck is that there are not enough facilities to cope with the number of tourists	<0.001
	The Purbeck road system needs to be upgraded to accommodate the growing demand from visitors	0.001
	As tourism causes traffic problems in Purbeck, visitors should be prepared to pay a reasonable fee for car use in the area to help with maintenance and environmental preservation	0.001
Length of stay	Visitors should be required to pay more for the car parking they use	Kruskal Wallace 0.017

10.14 Scree plot for Varimax Rotation of tourism statements

Scree Plot



10.15 Reasons for car use

	%
Convenience/ease of use	67
Carrying equipment	37
Speed or time	26
Presence of children	23
Independence and flexibility	18
No alternative	16
Cost	13
Number of people traveling	10
Distance traveled	10
Problem with walking	8
Public transport - not available	7
Age, disability or mobility issue	6
Comfort	5
On holiday	5
Own car so make use of it	5
Public transport - lack of knowledge	5
Reliable	3
Problem with cycling	3
Touring	3
Public transport – changing services	3
Public transport - poor (not specific)	3
Public transport - time consuming	3
Lack of familiarity with area	3
Public transport – cost	2
Presence of dogs	2
Work or business use	1
Public transport - unreliable	1
Public transport – carrying equipment	1
Public transport - frequency	1
Public transport - crowded	<1
Security	<1
Other	10

10.16 Reason for car use and association with respondent characteristics

	Category	Associated with	χ^2 p value
Gender	Women	Equipment	0.001
		Children	0.018
Resident status	Residents	No alternative	0.001
		Cycling/walking problem	0.018
		Public transport problem	0.049
	Tourists	Equipment	<0.001
		Children	0.001
Employment	Full-time	Speed	0.007
	Part-time	Public transport problem	0.03
	Not employed full-time	Equipment	0.038
		Children	0.01
		Cycle/walk problem	0.014
		Number of people	0.003
	Not retired	Speed	0.012
Children		0.03	
Look after home full time	No alternative	0.008	
	Children	0.008	
Disability	Not disabled	Convenience	<0.001
		Equipment	0.003
Length of stay	Over 3 hours	Equipment	<0.001

Appendix 11 List of material published in relation to this thesis

Refereed journal papers:

Dickinson, J.E., and Dickinson, J.A., 2006. Local transport and social representations: challenging the assumptions for sustainable tourism. *Journal of Sustainable Tourism*, 14, 192-208.

Dickinson, J.E., and Robbins, D., 2006. Using the car in a fragile rural tourist destination: a social representations perspective. *Journal of Transport Geography*, in press.

Refereed and published conference papers:

Dickinson, J.E., 2004a, Social constructions of tourism and local travel: implications for mobility in a rural tourism context. In: *Tourism State of the Art II Conference*, 28th to 30th June, University of Strathclyde, UK.

Dickinson, J.E., 2004b. Social representations of rural tourism: coping with tourism in a sensitive rural setting. In: *Tourism, Politics and Democracy Conference*, 9th to 10th September, University of Brighton, UK.

Published conference papers:

Dickinson, J.E., 2006. 'The traffic's never bad round here; you should see where I live': the relative experience of transport problems in a rural destination area. In: *European Transport Conference*, 18th to 20th September, Strasbourg, France.

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NUMBERING

AS ORIGINAL

Dickinson, J.E., and Dickinson, J.A., 2006. Local transport and social representations: challenging the assumptions for sustainable tourism. *Journal of Sustainable Tourism*, 14, 192-208.

Local Transport and Social Representations: Challenging the Assumptions for Sustainable Tourism

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The dilemma of how to manage tourism related traffic at rural destinations in the UK is examined using a social representation perspective. In transport initiatives, alternatives to the car typically gain low use levels and their perceived success is poor, while measures to limit car access and use are negatively perceived by the public. Traditional transport planning is based on analysis of objective data, such as road capacity, and measures of individual attitudes that predict how people will respond to a transport initiative. However, studies show that people do not behave in predictable patterns related to their attitudes. Travel is a social and cultural phenomenon and the social and cultural assumptions that underlie reported attitudes to transport have not been investigated. This paper poses a challenge to the assumptions of current research and proposes an approach that explores the multiplicity of social realities that underpin our attitudes towards transport, tourism and subsequent behaviour. A review of initiatives and transport research in this field examines how representations of transport and tourism are created, evolved and accepted into people's thinking about transport. Directions and approaches for future research are proposed together with directions for sustainable transport at destinations.

Keywords: local transport, transport planning, social representations, rural tourism

Introduction

While tourism related traffic is regularly cited as one of the biggest impacts of tourism on local people (Jurowski *et al.*, 1997; King *et al.*, 1993; Lindberg & Johnson, 1997; Perdue *et al.*, 1990), potential solutions to the problem at a local scale are rarely analysed and the topic is under-researched (Dickinson *et al.*, 2004; Schlich *et al.*, 2004). Studies that exist are atheoretical suggesting academics have steered clear of what Wheeler (1993: 124) termed 'the quicksand of the transport debate'. The topic is daunting yet the implications for society, the environment and the local economy are well rehearsed and often inter-linked. Existing studies usually examine a specific initiative and identify variables that lead to success or failure of the initiative through quantitative surveys based on standard attitude behaviour models that assume people make rational decisions based on objective data. This paper poses a challenge to the assumptions of current research and

proposes an approach based on Moscovici's social representations theory (Moscovici, 1981). The theory of social representations holds that we construct shared perceptions and theories that constitute the social realities that we inhabit. It is suggested that traditional transport attitude and behaviour studies, while useful for establishing baseline information and trends, do little to further our understanding of the social realities that underpin people's attitudes towards transport and tourism and their decisions about transport behaviour. This brings in a theoretical perspective that has been absent from tourism and local transport literature and is largely absent from the wider transport debate. Although no empirical data is reported in this paper the social representation approach is illustrated by an analysis of UK leisure/tourism transport initiatives and other secondary sources including a recent study by one of the authors in Purbeck, a rural tourist destination in southern England. The focus of this paper is local travel at rural destinations.

Approaches to Local Travel Problems Associated with Tourism

An overview of UK government policy shows that transport is a significant issue at a national, regional and local level. The government is keen to reduce dependence on the private car in order to reduce pollution and congestion. Following a period in the early 1990s when the then Conservative government viewed new roads as vital for economic development, the current Labour government's perspective is now one of reducing car dependence and encouraging the use of other forms of transport. In this respect public transport has dominated the policy literature with less attention paid to cycling and walking. However, there is little direct mention of leisure and tourism travel in any central government policy despite the fact that UK leisure travel now generates more mileage than journeys to work (Department for Transport, 2003).

While central government has paid scant attention to leisure and local tourism generated journeys there has been more impetus to act at a local level where the impacts of car traffic are felt. Many rural destinations in the UK have long recognised that leisure and tourism journeys can pose a problem. The response has been a variety of transport initiatives ranging from promotion of alternatives to the car through to providing new alternatives and prohibiting car use (Table 1). Transport initiatives are most commonly conceptualised in terms of incentives and disincentives or 'carrots' and 'sticks' (Cullinane, 1997; Cullinane & Stokes, 1998; Steiner & Bristow, 2000). The general consensus is that successful initiatives require a combination of 'carrots' and 'sticks' (Cullinane, 1997; Holding & Kreutner, 1998). However, there has been little evaluation of leisure travel initiatives (Dickinson *et al.*, 2004) despite several good practice guides (Countryside Agency, 2001; Transport 2000, 2001).

Therefore, although we have a myriad of choices of how to tackle the problem we are still not clear what works well, where and why. Many schemes are abandoned after short periods or when the initial grant aid runs out. It is often not clear what constitutes success as targets are rarely explicit (Eaton & Holding, 1996). Typically schemes are judged on economic viability, estimates of use and, most difficult to assess, estimates of uptake by car users. Schemes are often aban-

Table 1 Tourism and leisure transport initiatives

<i>Category</i>	<i>Examples</i>
Area wide tourism traffic management initiatives	<ul style="list-style-type: none"> • Gateway to the Sussex Downs • Reinventing the country lane, Surrey Hills – changing drivers' perceptions of lanes • Jersey's Green Lanes – 45 miles of road with 15 mph speed limit
Containment/restriction and pricing strategies	<ul style="list-style-type: none"> • Road closure in the Upper Derwent Valley, Derbyshire • Restricting village parking, Elterwater, Lake District National Park • Car-free Polperro, Cornwall
Encouraging use and development of public transport routes	<ul style="list-style-type: none"> • The Bittern Line, Norfolk – encouraging leisure use on rail line • Moors Bus network in North Yorkshire Moors National Park
Improving routes for cyclists and walkers	<ul style="list-style-type: none"> • UK's National Cycling Network • Brecon's Bike Bus, Brecon Beacons National Park • UK's Quiet lanes initiative
Initiatives at visitor attractions and accommodation providers	<ul style="list-style-type: none"> • Harewood House, Leeds – travel plan • No car parking at Prior Park, Bath • Hostel bus, Lake District – minibus link from train station • National Trust offer discounted tickets for visitors arriving without a car

done due to lack of use (Cullinane & Stokes, 1998) and plans to restrict car use are often abandoned following local opposition that suggests they will be politically difficult to implement (Charlton, 1998; Cullinane, 1997; Cullinane & Stokes, 1998; Cullinane & Cullinane, 1999; Eaton & Holding, 1996; Holding & Kreutner, 1998). It is not surprising in a rural context that public transport proves a poor competitor to the car. In areas with low population density, economic and use level criteria are unlikely to be met and dispersed destinations make it hard to offer transport alternatives that will appeal to a majority of people. Visitors to the countryside are predominantly car based (for example 89% arrive by car at the Lake District National Park [Lake District National Park Authority, 2004]) and rural residents are more likely to be car owners than their urban counterparts; 84% and 72% of households respectively (Countryside Agency, 2003). Thus alternatives generally have to compete with cars. Prideaux (2000a, 2002) argues there are three travel costs for visitors: financial, comfort and time cost. Public transport fares can be seen as an additional cost and can prove expensive for families

with three or more members. However, the real motoring costs are largely hidden and visitors are often unaware of high parking charges in destination areas. With respect to comfort even the UK Department for Transport admits that public transport is dirty, unreliable and slow (Department of Environment, Transport and Regions, 1998).

Lawson (2001) argues that traffic congestion may lead to loss of time to participate in leisure/tourism activities and Prideaux (2000a) suggests tourists may seek alternative destinations where travel is impeded by poor transport infrastructure. At present it is not clear to what extent visitors are put off visiting areas due to traffic congestion. Delay in your car is likely to be preferable to delay in public transport and to a large extent people are acclimatised to congestion. But people may simply stay at home if they experience congestion en route to leisure activities; this is not an option in a travel-to-work scenario (Lawson, 2001). An examination of UK heritage attractions showed that while congestion is a general problem experienced by a third or more of visitors there are particular attractions that are badly affected (Dickinson *et al.*, 2004). As congestion increases so may our reluctance to make long journeys to visit attractions (Dickinson *et al.*, 2004; Lawson, 2001). This could have far-reaching implications for the UK leisure and tourism industry particularly for attractions that are not close to major centres of population.

Prideaux's work on the Resort Development Spectrum model brings some theoretical insights to the role of transport in tourism development (Prideaux, 2000b). However, his focus is on travel to, rather than around, the destination and on broadly quantifiable aspects such as financial cost and time. Research has failed to address how particular perspectives on rural transport have come to prevail among providers, decision makers and users, thus transport decisions are made in a social and cultural vacuum according to deterministic studies and modelling of individual attitudes and behaviour. There is a tendency to quantify user characteristics and logistical aspects of supply. Studies of transport attitudes offer few theoretical insights into the problems or the solution. For this we need to turn to the literature on environmental attitudes and pro-environmental behaviour.

Research on Pro-environmental Behaviour

There are many studies both qualitative and quantitative that examine factors influencing pro-environmental behaviour (Barr *et al.*, 2003). Evidence points to people holding positive attitudes towards the environment but these do not translate into behaviour (Cassidy, 1997). Dietz *et al.* (1998) argue there are two approaches in studies of environmental concern and behaviour: social structural (socio-economic/demographic) and social psychological (attitudes, beliefs, values and worldviews). Numerous studies examine the effects of various aspects of social structure on environmental concern and behaviour although they are largely atheoretical. Of more interest here are the psychological approaches that attempt to define theoretical links between attitudes and behaviour and model attitude and behavioural change. Several theories dominate the literature in this area: Schwartz's norm-activation theory of altruistic behaviour (Garling *et al.*, 2003; Stern *et al.*, 1995), Ajzan and Fishbein's theory of reasoned

action (Ajzan & Fishbein, 1980; Barr *et al.*, 2003; Department for Transport, 2002; Garling *et al.*, 2003), social dilemma theory (Cassidy, 1997; Garling *et al.*, 2003; Tertoolen *et al.*, 1998), cognitive dissonance (Eiser & van der Pligt, 1988; Golob & Hensher, 1998; Tertoolen *et al.*, 1998); and psychological reactance (Tertoolen *et al.*, 1998). All of them share a focus on the individual, cognitive processes involved in deciding a course of action. For instance, in Schwartz's norm-activation theory the intention to perform pro-environmental behaviour is determined by awareness of the consequences of actions and norms about personal responsibility for action (Stern *et al.*, 1995). This induces an 'ascribed responsibility' to perform the behaviour that in turn activates a 'personal norm' or moral obligation to perform. Further modifications of the theory include awareness of consequences for oneself, for others and for the biosphere (Garling *et al.*, 2003) as determinants of intentions to perform behaviour. Similarly Ajzan and Fishbein's (1980) theory of reasoned action proposes that an individual's intention to perform a specific behaviour is a result of the combination of the attitude towards the behaviour, in terms of the consequences for oneself, and beliefs about how other people will view one's performance of the behaviour.

All of these psychological approaches assume that attitudes are stable, individual attributes that predispose individuals to react in different ways, and that individuals make rational decisions on the basis of available information and their own attitudes, goals and values. However, attitudes are part of complex cognitive schemata, they are interrelated and interdependent on one another and are not readily measurable as isolated variables (Cassidy, 1997). Studies of people's accounts of their feelings about various social issues have shown that they often hold contradictory attitudes and they may be unaware of these contradictions (Billig, 1996; Billig *et al.*, 1988). The deterministic studies of transport and pro-environmental behaviour assume people operate rationally and consistently but this may not be the case. Transport as well as being a logistical problem is also an emotive social issue. While theories such as reasoned action consider the social processes that affect individual decisions they neglect to consider what constitutes normative patterns of behaviour or how and why they have arisen. Studies focus on individuals and make predictions about collective behaviour by aggregating the responses of individuals. Other people as well as cultural and institutional forces shape our worldview (Joffe, 2003) but there has been little investigation of the shared assumptions about reality in which people operate and the processes of inter-subjectivity and consensus-making in relation to transport.

Social Representations: Challenging the Assumptions

A growing body of researchers argue that traditional attitude theory fails to take account of the variability of human thought and action (Burman & Parker, 1993; Clark *et al.*, 1994; Moscovici & Hewstone, 1983). Attitudes are not necessarily fixed things but a function of context (Burman & Parker, 1993). A contextual effect has been demonstrated in work on countryside leisure (Clark *et al.*, 1994; Macnaghten, 1995). These studies show how people's expressed opinions towards contemporary leisure dilemmas depend on how the issue is framed by the researcher. Surveys were preceded by 'voices' stating different perspec-

tives on the topic. Replies varied according to the 'voices' presented at the start. Both studies are critical of survey techniques as a reliable measure of people's views, concerns, needs and attitudes towards countryside and environmental issues. They argued that attitudes become actively constructed in the language and Macnaghten (1995) argues that people are more ambiguous and contradictory than traditional attitude theory supposes and that the contradictions made by individuals reflect wider discursive positions. Clark *et al.* (1994) show that government agencies cannot assume survey data are a reliable measure of the public's concerns as they are liable to reflect the policy agenda discourse. Macnaghten (1995) suggests this critique is particularly pertinent to views on the environment and transport issues as an arena where societal and policy agendas are often contradictory, paradoxical and highly controversial. When examining whether car use in the countryside should be restricted respondents were found to be in favour of 'restricting cars in the countryside', but at the same time unclear as to whether 'cars in the countryside should be unrestricted'. This suggests people can hold opposing views on the same countryside leisure controversy.

Conflicts over the increased use of cars in the countryside and the associated loss of tranquillity and 'ruralness' has emerged as perhaps, the most tangible and widely recognised dilemma between people's increasing desire for personal mobility and their accumulative social and environmental impacts. (Macnaghten, 1995: 138)

Typically, people seem to have dilemmas about social issues and practices rather than established attitudes. Traditional attitude theory assumes people are logical, rational and ordered in their thinking and able to classify concepts into equal-interval categories. Van Dijk (1997) demonstrates the importance of discourse in the acquisition, use and reproduction of ideas in everyday life. Some issues are non-conscious, people are not aware themselves. For instance, unconscious racism has been revealed in white New Zealanders' accounts of Maoris (Wetherell & Potter, 1992) and political discourses (Van Dijk, 1997).

The attitude statements typically employed in transport studies are particularly problematic. In many cases there are socially desirable responses. People avoid responses connected with a negative label and embrace the same responses when labelled positively. Consequently studies commonly find that quite positive responses to proposed public transport improvements fail to predict the number of actual users. In reality, users are put off by perceived additional cost, time taken, and poor comfort. The lack of link between expressed attitude and actual behaviour is a common problem (Pearce *et al.*, 1996; Pelletier *et al.*, 1998), though it remains a connection that transport studies are often keen to make.

Social representations theory proposes that attitudes reported in surveys reflect underlying social representations of reality that are widely shared in society (Halfacree, 1993). Social representations are shared perceptions of the nature of phenomena and the cause of events. They constitute the tacit, widely accepted knowledge and beliefs on which our attitudes are based. Moscovici (1981: 181) describes social representations as:

a set of concepts, statements and explanations originating in daily life in the course of inter-individual communications. They are the equivalent, in our society, of the myths and belief systems in traditional societies; they might even be said to be the contemporary version of common sense.

Social representation is a cognitive rather than discourse approach. It is based on Durkheim's collective representations, though Durkheim considered consensus relatively homogeneous in society. Moscovici prefers a conflict view of society in which there are numerous social collectives each having its own consensual understandings, its own social representations. Social representations are created and changed by social interaction. They emerge from the turmoil of everyday informal discussion and communication in order to satisfy the individual's need to understand the world (Hogg & Abrams, 1988). Representations are shared by groups of individuals and studies show people use their social representations to interpret their behaviour and that of other people (Moscovici & Hewstone, 1983).

Social representations have enormous inertia in so far as experiences and perceptions are distorted to conform to the representation. People try to verify rather than refute their hypotheses and conjectures. There is evidence that social representations distort reality in such a way as to preserve intact the preconception (Fredline & Faulkner, 2000) and furthermore that they can even create a reality that fits (Hogg & Abrams, 1988). Social representations help to define and organise reality and connect individuals to their social/cultural worlds (Pearce *et al.*, 1996). People cope with the non-familiar by drawing on familiar ideas shared by their reference group. We have deeply embedded visions and judgments. The way we explain things depends on what is familiar to us and what social representations of the world we use (Moscovici, 1981). Social representations theory focuses on the way people think or create their shared realities (Moscovici, 1981). Thus social groups develop shared meanings of phenomenon by aligning them with what is a familiar and comfortable interpretation for them. For instance, Moscovici's (1961) original research on the diffusion of psychoanalytic concepts in French society, that led to the development of his theory of social representations, found that people adopted Freudian concepts of 'complexes' and 'neuroses' but objectified them as physical entities akin to medical complaints. People have more accurate recall of facts that are consistent with their representations, and tend to modify facts that are inconsistent (Fredline & Faulkner, 2000).

Moscovici proposes varying levels of group consensus in relations to social representations (Fredline & Faulkner, 2000):

- Hegemonic representations are stable and homogeneously accepted by the whole community.
- Emancipated representations exist when sub-groups have somewhat differentiated opinions and ideas.
- Polemical representations exist in the context of group conflict.

Sources of representations are direct experience, which can enable people to question inconsistencies between prevailing representations and actual observations, mass media and social interaction. Elite groups play a major role in the

reproduction of ideas as they have more control over various forms of public discourse such as national and local media (Van Dijk, 1997). Social interaction is closely related to group membership as individuals adopt representations comparable with those of other group members. But people are members of more than one reference group and individuals may be forced to reconcile contradictory positions. Groups can be aware of alternative perspectives on issues and in a different social context individuals may demonstrate an alternative perspective reflecting the views of the group they are in (Clark *et al.*, 1994; Macnaghten, 1995). This interaction offers a path for the transmission of new social representations (Pearce *et al.*, 1996).

Transport and Tourism: A Social Representations Approach

While social representations theory has been applied in tourism studies that address the resident population's views of tourism (Fredline & Faulkner, 2000; Pearce *et al.*, 1996) there are no social representations studies in the transport literature. The theory is, however, well suited to be applied to views on transport which involve social dilemmas and contradictory perspectives and which regularly surface in government and media discourses. Furthermore, in a tourism context there are a variety of different stakeholders (for example, national and local government officials, tourists, local people, tourism businesses) who bring multiple social realities to bear on the transport debate.

To illustrate how an analysis of social representations might inform our understanding of how people think about transport, social representations are drawn from the literature on tourism transport initiatives and transport dilemmas together with a qualitative study undertaken by one of the authors in Purbeck, Dorset. The study involved in-depth interviews with 13 residents during winter 2003 and analysis of documentary evidence relating to transport and tourism. More details of the data collection and analysis can be found in Dickinson (2004a, 2004b). Purbeck has a thriving tourism industry due to its dramatic coastal and countryside scenery, including a World Heritage status coastline. It is a rural area and suffers acute seasonal travel problems. It is situated in south-west England close to the Bournemouth and Poole conurbation.

A by no means exhaustive review of literature identified 60 UK leisure/tourism transport initiatives for analysis. The majority of the initiatives related to provision or promotion of public transport (70%), 25% included measures related to cycling, 13% measures to improve walking, and 30% included various traffic management measures. Traffic management, while quite common, is in most cases rarely more than parking charges or traffic calming measures. Less than half of the traffic management measures included any form of restriction on car use. These initiatives ranged from removal of parking facilities to complete road closure and were part of a traffic management package including provision of alternatives. Where restrictions have been imposed, for example in the Derwent Valley (Peak District National Park) and Polperro (Cornwall), they are often very successful. From this overview it can be seen that public transport is the favoured approach. This follows from government policy that also focuses on public transport as a main alternative.

A review of why tourism transport initiatives fail reveals a number of practical problems:

- (1) *Failure to meet conventional measures of success.* Schemes are abandoned due to low levels of use (Cullinane & Stokes, 1998) or failure to meet economic criteria on withdrawal of grant aid.
- (2) *Opposition to traffic management and support for public transport.* In the transport arena there are a wide variety of stakeholders. Local opposition to traffic management schemes can be fierce, though may represent a minority view (Coleman, 1997; Lumsdon & Owen, 2004), the biggest issue being impact on local business. Councillors make decisions but need the votes of local people. This poses a problem, as 'carrots' are generally ineffective when employed alone (Cullinane, 1997; Holding & Kreutner, 1998), but 'sticks' are unpopular (Gatersleben & Uzzell, 2003). There is also a danger of perceived local opposition outweighing visitor support for initiatives, as tourists are more likely to view traffic restrictions as positive than day visitors or local people (Holding & Kreutner, 1998). In addition, 'carrots' may be poorly regarded by car users who may not be able to conceptualise public transport as a viable alternative (Cullinane & Cullinane, 1999). While car users are the dominant group there is the tendency to regard alternatives as something 'other' people use although the normative view in society is that public transport should be improved.
- (3) *Planning and managing provision.* There are many planning and management issues that pose problems for initiatives. For example, many restrictions on car use and parking are difficult to enforce in a dispersed rural area; funding and marketing is often too short term to generate any widespread awareness (Eaton & Holding, 1996) and schemes need to be gradually built up (Breakell, 1999); coordination can be complex, time consuming and slow; staff can lack experience and it can be difficult to recruit staff.
- (4) *Traffic generation versus reduction.* Some initiatives, such as off road cycle routes and heritage railway lines, generate additional car journeys to use the 'attraction' (Charlton, 1998) thereby defeating the object.
- (5) *Opportunistic and reactive.* Opportunities to develop initiatives are taken where they can be taken, even if they are not good strategic options. For instance, cycle way development on disused railways is a relatively easy option to develop, but in the UK prior to the National Cycle Network and a more strategic approach, routes were poorly connected. There is a tendency to react to acute problems with a 'must do something' approach. Initiatives are often *ad hoc* based on hunch, trial and error, or green tokenism approaches (Eaton & Holding, 1996).

These practical obstacles are the reasons usually given for the limitations and frequent failure of local transport initiatives, but applying the perspective of social representations theory allows us to identify a number of widely shared assumptions about reality that might also limit and undermine transport initiatives. The list that follows is not an exhaustive list of the social representation of mobility that might inform our understanding of transport issues but it includes representations that regularly surface in the literature on transport.

Social representation 1: Schemes must be economically viable and have large numbers of users

Alternatives to the car must be seen to reach some notional use level at all times (see e.g. Cullinane & Stokes, 1998). This is quite a challenge for many public transport routes, even seasonal tourist routes, which have temporal and spatial peaks and troughs. Together with economic viability this poses a key argument that has led to the demise of many schemes. For example, in Purbeck, a Linkrider bus was set up to serve a tourist area of heritage coast comprising small villages (including the world famous Lulworth Cove) and some small to medium attractions in the hinterland. The bus received 50% funding from the UK Countryside Agency but funding was discontinued in 2002 due to low use levels out of the tourist season. The service broke even and even made a small profit during the summer months but the Countryside Agency would not fund a seasonal initiative. Given the low population density of the area out of season it would be next to impossible to meet such use level criteria. But is economic viability and high use crucial for success in such scenarios, particularly given that many public services are based on subsidy? This is a familiar argument in the public transport debate regardless of the other merits of an initiative such as social inclusion.

Social representation 2: The car cannot be restricted

Transport initiatives often bring polemical perspectives to the fore. For instance, while users of alternatives derive their representations from experience, the dominant car-owning group derive representations of alternatives from a mixture of limited experience, mass media and social interaction, thus drawing on prevalent discourses in society. In Purbeck, documents include much talk of managing car use and relieving congestion but there is little on how this might be achieved. Only one consultant's report suggests car restrictions. Residents interviewed were reluctant to condone car restrictions or proposed them only for visitors (Dickinson, 2004a). Elsewhere, where restrictions have been planned, a minority of vocal residents are often successful at opposing them. In the North York Moors National Park, UK, parking charges and restrictions were planned but Coleman (1997) found local businesses equate the car with their livelihood and, if anything, want to increase parking capacity. Furthermore, discussion at a public meeting proved unhelpful as it provided a platform that enabled the opposition to shout loudest. Thus a representation is accepted, yet traffic free tourism destinations have been successful both in the UK and elsewhere (for example, the Saaser and Matterhorn Valleys in Switzerland) with positive results for tourists and residents alike.

The government can also develop the prevalent discourse, for example: cycling and walking are not safe; and public transport is dirty, unreliable and slow (Department for Transport, 2000; Department of Environment Transport and Regions, 1998). Here the prevailing view is that car use cannot be restricted because alternatives to the car are not viable. This representation of mobility helps to shore up the perception that car restrictions are 'sticks' and make it politically difficult to limit car transport.

Social representation 3: If public transport were improved people would use it more

The high proportion of transport initiatives providing or promoting public transport (70% of the UK initiatives examined for this paper) demonstrates that public transport is the preferred 'carrot' or alternative, yet it is perceived to be dirty, unreliable and infrequent. Existing levels of use are low in many destination areas. Use in the future, even with significant improvements, should be questioned on the basis of widely held views on the inadequacy of public transport. The literature on transport cites many examples of where public transport works; we want to think it will work even though many more schemes have been abandoned. As Gatersleben and Uzzell (2003: 390) state: 'Improving public transport is usually perceived to be the most acceptable and desirable measure. Financial measures such as road pricing, parking charges and fuel tax are least acceptable'. Purbeck residents held that public transport was an important alternative to be developed despite the fact that few participants ever used buses and the local bus service was not conceptualised as an alternative that they can or would want to use. Furthermore, the residents expressed dilemmas as they recognised buses were little used, poor, unreliable and circuitous (Dickinson, 2004a). The social representation process, whereby people draw on what is familiar to them, even in face of the opposite evidence, is apparent here. Regardless of its relevance to an individual, public transport is seen to be the main alternative to the car but while it does not meet people's individual needs the car cannot be restricted. On one level the social representation is that people think public transport needs to be improved, but on another, the *reality* is that public transport can never be improved enough to meet everyone's needs. Arguably people have developed a social construction of how to deal with transport problems whereby the failure of public transport reinforces the existing situation of high car use.

Social representation 4: Alternatives are for other people

A study in the Dartmoor and Lake District National Parks, UK, demonstrated that car drivers were almost unable to conceptualise public transport never mind use it (Cullinane & Cullinane, 1999). However, at the same time (see Social representation 3) there is clearly a normative view that alternatives should be improved and people make excuses about why they are unable to use alternatives, such as distance, children, carrying equipment, or the British weather. Similarly Barr *et al.* (2003) found people gave excuses for their non-participation in recycling, as it has become normative behaviour. In Purbeck residents talked about public transport in the context of other people, often from disadvantaged groups. Cycling was also considered largely in relation to 'others', particularly children and visitors. The problem is further illustrated by tourists being seen to be the cause of problems. Therefore, it was felt they should change behaviour not residents (Dickinson, 2004a). Thus alternatives to the car are seen as desirable and good for society but in practice users are conceptualised as 'other' people. People do not recognise that blame and responsibility might be attached to them, as it is a problem that other people (i.e. government) need to solve.

Implications for Tourism, Local Travel and Research

Given the dominance of car use in our society and lack of experience of alternatives, it is highly likely that our social representations of transport alternatives are drawn more from social discourse and media presentation of government options than from direct experience. The view that users of alternatives are other people and that government has the responsibility for sorting out transport problems suggests that, typically, responsibility for the problem is seen to lie elsewhere. Transport problems are a notorious social dilemma, which in many cases require the action of all individuals for the greater good of the community. While 'others' are seen to be the users of alternatives and blame for traffic problems is apportioned elsewhere, there is much less impetus for residents or visitors to take action. There needs to be wider recognition that problems stem from all car users and, in a tourist destination context, it is residents who are more able to tap into alternatives, through local knowledge, than visitors. Thus it might make more sense for planners and policy makers to focus on local residents and their needs as much as on tourists when developing transport initiatives in destination areas.

It is clear that people do not hold public transport in high regard and it is debatable that car users would switch to an improved system despite a widely held social representation that 'if public transport was improved people would use it more'. Thus the notion of improved public transport playing a major role in traffic reduction is somewhat debatable. However, beyond traffic management public transport plays an important role in social inclusion – a key element of any sustainable development decision-making framework. Given the strong representation that public transport should be improved, initiatives are likely to be supported by the public at least in principle if not in practical use terms. This is an opportunity to be built on, but it is important in our target driven culture to avoid setting critical use level and economic criteria that will not be met. Success could be measured in different terms and short-term initiatives avoided as the loss of a service typically reinforces the view that few people use public transport and it is not economically viable. A successful example is the Moors Bus initiative, in the North York Moors National Park, UK, which while monitoring use levels has an underlying social inclusion agenda (Breakell, 2003). Breakell (2003) argues that an ordinary service might see a return over three years but in a recreational setting you need to look long term to enable visitor recognition.

Alongside the view that public transport would be used more if it were improved, there is a representation that car use cannot be restricted. Given that the most successful transport initiatives have involved significant 'sticks', such as traffic restrictions, this limits the potential for traffic management and successful development of alternatives to the car at tourism destinations. The implementation of meaningful restrictions on car use is clearly a key challenge for transport planners. The representation that car restrictions are not viable can be particularly entrenched in the minds of powerful sectors of the community. Such groups are able to protect and perpetuate this representation through social interaction and powerful appearances at public meetings (Coleman, 1997). To challenge this representation planners need to confront those who present the

underlying source of this representation and awareness needs to be raised of successful initiatives elsewhere.

The apparent contradictions in people's representations pose a challenge to researchers. Scale items on questionnaires, while still potentially useful, are clearly influenced by the dominant social representation, as are individual's responses. There is a need to understand where social representations come from and how they are perpetuated in the community. Pearce *et al.* (1996) suggest analysis of survey data should focus on the commonality or consensus which exists among members of a group. Thus cluster analysis of respondents' responses rather than approaches that seek differences between respondents based on demographic or socio-economic variables is a better option.

In research on risk perception, Joffe (2003: 66) argues that more work is needed which explores the 'ideas that reside in structures outside of individual minds (e.g. in the mass media, scientific publications and text books)'. Her view is that data triangulation will help ensure that both an individual's thinking and its context are sampled. Researchers need to critically examine the political context both at a local and national level as this can shed light onto ideas circulating in the population. Media portrayals are also very relevant. At the time of writing a local newspaper published a headline that visitors and residents will be charged £1.50 to enter Purbeck. The story was based on one page of a 200-page transport study undertaken in Purbeck (Buro Happold, 2004). This page discussed the option of road user charging but drew no firm conclusion. This media portrayal sensationalised the item which was a very small element of a much wider study and took up many hours of planners' time dealing with enquiries.

Approaches such as participant observation and in-depth interviewing might usefully give insight into the acquisition and use of social representations. For instance, studies can focus on how powerful groups are able to reproduce their representations amongst the wider population. Qualitative data has effectively been employed in studies of attitudes towards recycling household waste, giving insight into the acceptance and awareness of the norm to recycle (the social pressure to take part) which had a great effect on intention and behaviour (Barr *et al.*, 2003). Similarly Dickinson (2004a, 2004b) has employed in-depth interview techniques to explore residents' representation of tourism and local transport in a rural area. Qualitative approaches can focus more on the underlying arguments used to communicate ideas. They can embrace the contradictory perspectives often encountered in transport studies which are problematic in scales and survey items. Dickinson (2004a, 2004b) found participants frequently articulated dilemmas about transport and tourism rather than a single view. Participants, while clearly drawing on a widely held social representation, also questioned this reality and raised contradictions. Thus the employment of a priori conceptualisation in traditional studies with uncritical use of scale items may simply reinforce a view that residents may actually be trying to challenge. Interviews can reveal more clearly hidden meaning through in-depth discussion. For instance, people's real views on public transport become more transparent in conversation than when assessed by scale items which lead to normative and socially desirable responses.

Transport planning has a long pedigree of decision-making based on the objective reality of logistics together with supposedly objective studies of people's

behaviour. A social representations perspective demonstrates the importance of examining the social reality and the social processes that underlie people's decision making. People make their transport decisions in the light of the social reality in which they live. Social representations theory is interested in why and how society creates that social reality and the common-sense outcomes that arise from this. It is this that influences behaviour rather than the objective reality of buses, cycling and walking that many people know little about.

Tourism management academics are perhaps better placed than transport planners to acknowledge the dilemmas people hold, as there is a developing tradition of post-positivist studies which are more reflexive and address the social construction of reality. In applying these ideas to tourism management there is a need to recognise that dominant social representations may mask underlying dissent and that in fact people's views are far more variable and contradictory. It is important not to ignore wider social processes and the societal pressures in which individuals make decisions. This paper has discussed issues in a developed world context. In such tourism settings the differences between host and visitor are somewhat negotiable as all potentially have experience as tourists and some tourists become hosts. However, there is still a divide that residents, in particular, are very aware of. This divide enables one group to put responsibility onto another and this is particularly so for contentious issues such as transport impacts. People are also adept at identifying 'others' who are affected (for example, disadvantaged people who use buses) or 'others' who need to take action (for example, tourists, local or national government). Thus, in order to address transport impacts in a tourism context the divide between different groups: hosts and guests, advantaged and disadvantaged, general public and government, needs to be recognised and addressed. Destination managers need to understand how this sense of 'other' and in particular 'others' bearing responsibility is potentially divisive, iniquitous and a source of power.

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Using the car in a fragile rural tourist destination: a social representations perspective

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Abstract

The visitor experience of place is inextricably linked to our ability to travel around an area at will, yet this mobility creates many problems especially in scenic rural areas of the UK. The study presented here attempts to unravel the visitors' experiences of mobility using Moscovici's social representations approach. Travel diaries were employed to explore visitors' transport choices and mobility patterns during the peak season in Purbeck, Dorset, UK. Analysis focuses on how such patterns reflect a social representation of mobility and the implications this has for visitor travel at destinations.

Keywords: transport; visitors; destinations; social representations

1. Introduction

Within the academic discipline of transport, studies that focus on leisure or tourism settings are limited (Lumsden and Page, 2004; Page, 2005) and yet leisure traffic can be significant. In the UK it accounts for 30% of all trips and 40% of all trip miles if visits to friends and relatives are included and it is dominant in the long distance market accounting for 58% of all UK trips over 50 miles (Department for Transport, 2005). This situation is not unique to the UK, for instance, German figures estimate leisure trips account for 48% of all passenger kilometres (Schlich et al., 2004). However the UK government agenda appears to focus on daily commuting and trips to school (Department for the Environment, Transport and the Regions 1998), while leisure receives a small mention in more recent transport white papers (Department for Transport, Local Government and the Regions, 2000; Department for Transport, 2004).

National governments are keen to promote tourism and leisure for the economic benefits (Department for Culture Media and Sport, 1999) whilst at the same time there is an agenda to reduce congestion, greenhouse gas emissions and tackle other environmental problems associated with travel by car by reducing road traffic growth (Department for the Environment, Transport and the Regions, 1998; Department for Transport, 2004). The apparent contradiction of policy objectives is explored by Robbins and Dickinson (2006). At a local government level there is limited effective guidance on the most appropriate ways to manage tourism traffic demand. Many places have adopted a 'must do something approach' which has only limited impact and in many cases simply fails (Dickinson and Dickinson, 2006). Most research is based on analysis of data on visitors' behaviour: where have they come from, how have they travelled and their attitudes to alternatives to the car. Such studies are useful for predicting number of car movements that may be generated by new developments but as yet there are few initiatives that have successfully made alternatives to the car attractive, particularly in a leisure context, without a high degree of intervention.

This paper sets out to re-examine the geography of mobility experiences. The starting point is the lived experience of residents and visitors. From this, the social conceptions that drive people's experience of transport at a tourism destination are explored. The study adopts a social representations perspective (Moscovici, 1981) and is interested in the underlying social knowledge which people draw on to make every day transport choices. This parallels a sociological analysis of transport behaviour such as Jensen's (1999) analysis of transport behaviour as it appears in today's society. This paper brings a social psychological perspective to the transport and tourism debate and a theoretical analysis which has been largely absent to date.

In order to illustrate these ideas a study is presented of Purbeck, a rural tourism area of Dorset, UK. The study draws on a wealth of secondary material together with primary data drawn from travel diaries kept by visitors. The paper follows from earlier work which reported the social representations of residents (Dickinson, 2004a; Dickinson, 2004b; Dickinson and Dickinson, 2006). The objective of this paper is to analyse the travel behavioural patterns and modal choices made by visitors within the area in the context of the social representations of residents. While data are presented from Purbeck the results have resonance beyond the immediate context having implications for tourism destinations more widely and for non-leisure travel.

2. Theoretical perspective

Social representations theory is a social psychology theory which holds that we construct shared perspectives that enable us to make sense of the social world we inhabit and communicate with other people. These shared perspectives form a widely accepted knowledge of the world on which individuals base their decisions. Moscovici, the French psychologist who first proposed social representations, gave the following definition (1981: 181):

“a set of concepts, statements and explanations originating in daily life in the course of inter-individual communications. They are the equivalent, in our society, of the myths and belief systems in traditional societies; they might even be said to be the contemporary version of commonsense.”

As the term ‘social’ implies, groups create these representations through social interaction so they become shared. They become the tacit framework through which we interpret our own actions and those of others (Moscovici & Hewstone, 1983).

The theoretical perspective has been applied to tourism studies most notably by Pearce et al. (1996). Aside from an earlier contribution by one of the authors (Dickinson and Dickinson, 2006) the perspective has not been applied to transport studies, although social representations theory offers an interesting opportunity to examine how representations help structure and organise views of transport choices. Fredline and Faulkner (2000) in a tourism impacts study argue that representations can distort experiences and perceptions to conform to those which are accepted by the population while Hogg and Abrams (1988) go further to suggest they can even create a reality that fits. The theory thus enables us to explore the extent to which people’s choices are constrained by the objective reality of transport alternatives or by the social reality as they expect it to be.

The theory is also well suited to addressing the social dilemmas and contradictory perspectives involved in the realms of transport planning. Moscovici presents a view of society in which conflict is present with a number of groups having their own social representation. In the transport field conflict is well documented with groups reinforcing their own consensual understandings of a particular transport issue. A typical example is the economic perspective that car restrictions will reduce visitor numbers (Holding, 2001; Coleman, 1997). However, social representations are not fixed and there are several pathways for change. Individuals can be members of more than one reference group where they encounter alternative representations which provide a pathway for the transmission of new social representations (Pearce et al., 1996). Studies by Clark et al. (1994) and Macnaghten (1995) also show that individuals are aware of different perspectives on issues such as transport and can respond differently depending on the social context in which they are situated. Thus social representations theory offers an alternative perspective to the usual attitude and behaviour studies common in transport.

3. Data and method

The study setting was Purbeck, an attractive coastal and countryside destination located in southwest England close to the Bournemouth and Poole conurbation. It is both a seaside destination and an area of countryside recreation activities attracting an estimated 2,330,000 day and 490,000 staying visitors each year (Purbeck Heritage Committee, 2002). The local population is 44,000 residents (Buro Happold, 2003). Upwards of 60% of the Purbeck area is protected by national and European landscape and ecological designations (Buro Happold, 2004). The designation of the coastline as a World Heritage site in 2001 creates a typical conflict between tourism development policy and traffic management. Whilst it brings wider recognition to the area and ultimately more visitors, congestion is common at particular bottle-necks and at the main coastal destinations. While the alternatives to the car are not excellent, they are reasonable given the rural nature of the area, with key places served by an hourly bus service. There is a steam railway and a developing cycle network.

A social representations approach requires research that examines where social representations come from and how they are perpetuated in the community (Dickinson and Dickinson, 2006). As you are seeking the respondents’ views and meaning it is important to examine their perspective rather than test out a priori ideas of the researcher. Social representations researchers are particularly interested in the ideas that circulate in society. Many studies examine the mass media as a means to sample the context and as part of a data triangulation exercise with other sources of data (see for example, Foster, 2002;

Sotirakopoulou and Breakwell, 1992). In this study the context was sampled by examining media reports, local government documents, external consultancy reports, holiday brochures and leisure and tourism transport initiatives in the area. In-depth interviewing with key informants was employed to explore residents' representations of tourism, local transport and the rural setting. It enabled the exploration of underlying arguments and proved particularly successful for revealing contradictory perspectives and underlying meaning. The aim was to gain an insider's view (emic) and develop an analytical description of residents' views that may challenge traditional perspectives on the transport problem. This stage was participant led to explore how the topic is culturally constructed. The findings of this study have been reported elsewhere (Dickinson, 2004a, Dickinson, 2004b, Dickinson and Dickinson, 2006) thus, comment here is brief.

The travel patterns of visitors within the area were explored through the use of a travel diary. The purpose of the travel diary was not to develop a picture of visitors' social representations of transport but to examine their behavioural patterns in the context of the representation presented by residents. Tourists were sampled at campsites which account for a large proportion of beds in Purbeck (Purbeck Heritage Committee, 2002) and offer a convenient point to distribute and explain travel diaries to participants. Five campsites of varying size and type were selected from Purbeck wards covering the variety of different geographical and socio-economic characteristics of the area. Given that campsite visitors mainly arrive by car they are likely to have a vehicle available during their stay and the sample largely excluded visitors without access to a car (1 participant did not have access to a car). The design of the travel diary was based on a German study (Axhausen et al., 2002) and the UK National Travel Survey (Stratford et al., 2003). Due to the time required to set up the diary only participants planning to stay 5 nights or more were recruited thus short-stay visitors were excluded and are being covered in future research. The travel diary was explained to participants in a face-to-face meeting which facilitated collection of background data on participants. Diaries were collected from visitors at the end of the week. The diary generated largely quantitative information on: travel patterns; modal choice; trip chaining; purpose of journeys; attractions visited; and distance travelled. In addition an open section allowed participants to give a personal description of their trips and any problems encountered. This data was then analysed in relation to the social representations perspective and car trips were examined and potential alternatives that participants might have used identified.

Due to a reliance on untrained volunteers the quality of the data collected varied. It was clear some participants either systematically or occasionally omitted details. For instance, the time of the trip was commonly omitted presumably as participants completed the diary later in the day and could not remember. There was also potential for errors such as over-estimating the time taken. The most obvious problem was the under recording of walking at the end of car trips or trips by other modes where it was clear from people's descriptions a walk, sometimes up to 1km, was involved. The diary was voluntary and involved a high degree of commitment from participants which was likely to have effected who participated. Few participants with pre-school children were recruited for instance.

4. The findings

4.1. Review of leisure/tourism transport initiatives

Public transport initiatives dominated attempts to reduce car dependence in Purbeck until recently. There are currently a number of ongoing cycling initiatives which is partly in response to a group of local cycle enthusiasts and the appointment of a project officer to examine transport issues over the last 2 years. An analysis of 60 UK leisure and tourism transport initiatives (Dickinson and Dickinson, 2006) confirmed the majority of initiatives (70%) focused on public transport provision or promotion, 30% focused on traffic

management and few focused on cycling or walking. The dominance of public transport initiatives suggests this is the preferred 'carrot' or alternative. In Purbeck there are areas with serious traffic congestion problems yet traffic management initiatives are limited. Dickinson and Dickinson's (2006) analysis of why initiatives fail highlights that there is often fierce opposition to traffic management, also observed in Snowdonia by Lumsdon and Owen (2004), while public transport is supported.

4.2 Interview and document context

The interview and documentary methodology and analysis has been presented elsewhere (Dickinson, 2004a and 2004b) thus this section will present a summary of the main findings. There is a clear representation of Purbeck as unique rural area with a diverse natural and human heritage and a rural community. The area is also represented as a leisure space and as such there is a widely recognised conflict scenario which is presented in terms of the balance between positive and negative impacts of tourism and leisure: 'Tourism is vitally important to the area but has some negative impacts'. However, the picture is more complex as though many participants used the 'balance' scenario they also contradicted this perspective. This suggests that the social representation has distorted perceptions and the initial preconception remains intact despite contradictory evidence (Fredline and Faulner, 2000). For instance, tourism impact studies typically identify economic impacts as a positive benefit (see for instance, Andereck and Vogt, 2000; Gursoy et al., 2002; Jurowski et al., 1997; Vaughan et al., 2000). While this study also found this to be so, some Purbeck participants questioned this reality and raised contradictions.

"I pay my council tax, what do I get out of tourism? Nothing, absolutely nothing but grief..." (I. 4). (Dickinson, 2004b)

Thus, there was a second perspective: 'Tourism brings very little to the area, the benefits are over rated and impacts severe'.

The study also reveals the dilemmas people have about social issues within the Purbeck area. For instance, while tourism is seen to cause problems and it is felt tourists should change behaviour not residents, there is recognition that residents are privileged to be able to live in the area (Dickinson, 2004a; Dickinson, 2004b). Interviews suggest residents have developed a way of life adapted to cope with tourism. There is arguably a continuum of coping which could be described as what Ireland and Ellis (2004) term 'communities of fate' and 'communities of choice'. That is the ability to make choices rather than have them imposed and the financial provision to cope. When coping strategies were examined in depth it seemed that residents were able to cope with tourism but the wider problems faced by residents in a rural area were where the more significant transport problems lie. These revolved around changes in the community structure, economic and employment base resulting in a need to travel out of the area, however, poor public transport infrastructure often limited such opportunities. This was particularly framed in terms of problems encountered by 'others' usually from disadvantaged groups. So one can see a socially constructed consensus shaping the views of tourism. The accepted social representation shapes the issues yet these are challenged and contain contradictions. Tourism is only a part of a bigger picture. The changes to the nature of Purbeck as a rural area are more fundamental and effect views of tourism (Dickinson, 2004b).

With respect to transport and mobility the 'carrot' and 'stick' mentality dominates the social representation with 2 dimensions apparent:

- 'The car cannot be restricted'
- 'If public transport was improved people would use it more'

The view prevails that alternatives must be improved (carrot) before car use can be managed (stick). This is also evident in Dickinson and Dickinson's (2006) review of leisure and tourism transport initiatives. However, there is a further dimension in the representation which complicates this picture. Alternatives to the car are seen to be for 'other' people therefore it is not clear there would be much up take of 'carrots' were they to be improved.

Another element of this dimension is that tourism is seen to cause the traffic problem therefore tourists should change their travel behaviour not residents. This further reinforces the perspective that the problem needs to be solved by 'other' people. Lastly cycling and walking were largely represented as leisure activities rather than a means of transport.

4.3 Travel diary findings

40 useable diaries were returned (89% response) (Table 1) which generated 844 trips. The participants were 43% male with ages ranging from 17 to 70. People under 30 were under-represented compared to the national population, however, this reflects the family market staying at campsites with children of 18 or under accompanying 85% of participants. Participants came from a range of socio-economic backgrounds but included a large proportion from higher socio-economic groups again reflecting the campsite market. The car was the main mode of transport at home for the majority of participants. Only 3 visitors were on their first holiday in the area thus the majority had some knowledge of Purbeck.

[Table 1]

4.3.1 Mode of transport

Car use by visitors is high in Purbeck (Table 2). This comes as no surprise and ties in with other studies in Purbeck (Purbeck Heritage Committee, 2002; Southern Tourist Board, 1999) and rural tourism destinations elsewhere (Lake District National Park Authority, 2004; Forestry Commission, 2004). On the other hand, walking and cycling are also high relative to national levels (Department for Transport, 2005). This reflects the recreational participation in these activities in Purbeck (Scott Wilson Resource Consultants Tourism Associates, 2000) and might be an opportunity the area can build on. There are some distinctive modal patterns for each campsite which partly reflects the geographical location and options available to participants (Table 1). Alternatives to the car were particularly limited at Birchwood, while best at Whitemead and Ulwell. Birchwood visitors were very car dependent with the 4% cycling being one individual who cycled daily for pleasure. It was visitors at Tom's Field who made best use of alternatives. Tom's Field is close to cliff top walks so many people come for this purpose hence walking is high. The high level of cycling at Tom's Field was also attributed to one enthusiastic individual.

[Table 2]

4.3.2 Purpose of trip

General leisure trips with no specific purpose other than a day out visiting various sites and shopping were the largest generator of trips. The latter comes as no surprise given that visitors were staying in self-catering accommodation (Table 3). The car was particularly prominent as a mode of transport to visit paid attractions (Table 4). There is some variability in travel purpose by campsite. However as the diaries were not all completed during the same week some of this might be explained by variability in weather conditions. For instance there are few trips to the beach from Ridge and Whitemead as the weather was cold and wet during that week and a high volume of general leisure trips as participants sought respite from the rain.

[Table 3]

[Table 4]

4.3.3 Destination of trip

The trip destination was as diverse as the participants, however several places were regularly visited. Swanage was the top destination as a large proportion of participants stayed nearby and it is the main seaside resort in the area (Table 5). There was a relationship between geographical location of campsite and destination, although there were exceptions. Car dominated trips to Weymouth and Poole, despite a train service from Wareham and Wool.

Car use was also very high to Studland where there is an hourly bus service passing Ulwell campsite (Table 6).

[Table 5]

[Table 6]

4.3.4 Distance travelled

The mean trip length was 10km. Ulwell visitors tended to make the shortest trips (mean trip length 6km) which is probably a reflection of the location in Swanage. Birchwood, on the other hand, is furthest from the sea and some distance from main attractions thus travel distances were longer (mean trip length 17km). 47% of all trips and 41% by car are 5km or less indicating there is potential for people to use alternatives (Table 8). Dickinson et al. 2003 cite British Medical Association evidence that journeys of less than 5 km are within cycling distance for most people and in the context of travel to work, Glaister et al. (1998) and Newson (1997) suggest there is cycling potential where people travel up to 8 km, though this may not be applicable to a leisure context. The car was used for 40% of trips less than 1km (Table 7) which could be walked. What participants recorded as a general day out resulted in the longest trips (Table 9). Given these trips are most numerous they are of special interest. What might encourage visitors to make more local trips using alternative modes given they have no specific purpose and therefore do not need to reach a specific destination?

[table 7, 8, 9]

4.3.5 Problems encountered

Comments on problems were not as widespread as anticipated with congestion mentioned on 42 trips and a variety of comments made on parking problems (general problems mentioned 29 times, cost mentioned 13 times). Participants reported paying up to £9 which was for a days parking in Weymouth. Most participants parked in car parks (77%) as oppose to on the road. On 56% of trips there was no parking charge. Some participants disliked paying for parking, particularly for short stays. It was common for people to spend time looking for free, on road, parking before resorting to paying a car park fee. One participant commented:

“Went to park in municipal car-park but at £4.00 decided to park on road instead, although car-park completely empty – road parking quite difficult to find space.” [Swanage Sunday 25/7/04, 7pm]

Congestion was encountered in a variety of places in Purbeck and outside of Purbeck in Poole and Weymouth. Several experienced delays getting into or out of Weymouth and very few visitors were aware of the park and ride scheme and paid high parking costs in the town centre as a result. A few participants attempted alternative routes to avoid congestion though this was not always successful as they were not familiar with the area.

4.4 Analysis of implications for transport in Purbeck

To explore the extent to which visitors were constrained by the objective reality the analysis now focuses on whether alternative travel options might have been feasible for the car journeys undertaken. This has been analysed in two ways.

1. **Maximum trips potentially feasible by alternatives** - trips that could be walked (5 km) or cycled (10 km) in about one hour and routes where public transport is available. Routes were not included where more than one mode of transport was required such as a long walk to catch the train or bus, or bus followed by train.
2. **Realistic proportion of trips feasible by alternatives** – this takes into account that most visitors do not have cycles, would not be prepared to take a circuitous bus journey (trips requiring a change and/or journey times in excess of twice the car

journey time were excluded) and excludes trips where bulky gear was carried (67% of trips).

A relatively high proportion of car journeys could be undertaken by alternatives (Table 10) however, the realistic proportion is lower. The proportion of trips that might have been completed by alternatives at Tom's Field, Ulwell Cottage and Whitemead was high (Table 10). These sites are on public transport routes and Tom's Field and Ullwell Cottage are within walking or cycling distance of some key attractions. On the other hand the alternatives are very limited at Birchwood.

A large proportion of trips to Swanage, Wareham, Weymouth and Wool could be completed by alternatives (Table 10). Car use was high to Studland which also generated long journeys. Here the problem is a combination of location and carrying beach equipment. Studland is on a good bus route (one per hour) which passes Ulwell Cottage, but no-one used this service. This open-top bus is busy in summer but mostly caters for people making a day trip from Swanage to Bournemouth or vice-versa. Visitors at Tom's Field and Ulwell could cycle to Studland but this would be dependent on them having cycles available and being prepared to tackle a long, steep hill on the journey out and back. This would exclude many people. Thus the realistic possible by alternatives to Studland is low.

A large proportion of long car trips were associated with people making a general leisure trip with no particular purpose in mind. Only 24% of these trips could be converted to alternatives largely due to the distance travelled to far flung destinations (Table 10). These unplanned trips have the potential to be converted to shorter trips or an alternative mode of transport that offers a leisure experience (Robbins, 2003). The problem is they are unplanned and thus information needs to be available to suggest alternative, more local day trips which might also benefit the local economy. Shopping trips feature as an important generator of trips and, while one that could be made by alternatives, is tied to the car depending on the size of shopping load. Visiting the beach poses a similar problem as many people wish to take bulky beach gear. Car use was particularly high to paid attractions which reflects the out of town location of attractions in Purbeck. While many are on bus routes, the network is not extensive and in most cases visitors would need to get more than one bus to make the journey. Thus only 57% of trips could be made by alternatives. Most attractions have more than ample car parking for obvious business sense so there is no 'stick' to make visitors consider an alternative. Walking as a leisure activity was also a generator of car trips. As all the campsites lie within good walking country walking should be encouraged in the environs of the campsite.

[Table 10]

4.4.1 The role of social representations

To recap, a number of dimensions of a social representation of mobility in Purbeck were identified from resident interviews and document analysis (Dickinson, 2004a):

- If public transport was improved people would use it more
- The car cannot be restricted
- Cycling and walking are only for leisure
- Alternatives to the car are for other people
- Tourism causes traffic problems therefore tourists should change their travel behaviour not residents

These are now considered in relation to the findings from the travel diaries.

A large proportion of the trips were possible by alternatives using the existing public transport network, either buses or the main line train. This questions the notion that 'if public transport was improved people would use it more' as it is clear that people were not using the existing provision. As all but 3 visitors had been to the area before, sometimes several times a year, it

is probable that visitors were aware of at least some of the alternative services available. However, a visitors' local knowledge may not encompass public transport knowledge and even where some of the current provision is regarded as good for a rural area (i.e. hourly) it may not be easy for visitors to tap into this knowledge. Given the difficulties of supporting rural bus services it is unlikely that a more regular service be viable and yet here there may be a significant mismatch between expectation and viability. Visitors from urban areas will regard the hourly headways as 'poor' with urban expectations projected onto rural areas. Thus the established representation that public transport should be improved before car use is priced or restricted becomes an imponderable barrier.

If it proved possible, perhaps with funding from charging cars, would an improved public transport frequency result in greater use? Empirical evidence is largely mixed, dated and drawn from urban areas. Fairhurst and Edwards (1996) point out that nationally large increases in bus miles operated (the best available proxy for frequency of service) in the decade from the mid 1980s to the mid 1990s had little effect on overall bus demand. On the other hand there are local examples of quite dramatic increases in bus use resulting from frequency improvements, particularly where there was conversion to minibus services from traditional large vehicles. The best documented example is Exeter, which saw a 200% increase in ridership over several years from 1984 (Watts et al., 1990) (White, 1995) although this example is atypical. Bus use in Exeter was well below the national average in 1984, so the dramatic growth can be seen as a return to normal levels of bus use. Nevertheless minibus conversions seem to have stimulated additional demand in several locations, working best where initial service levels were low, every 25 – 30 minutes (White, 1995). This suggests the greatest scope for ridership gains are in areas with an initial poor frequency. Urban levels of frequency are clearly impossible on cost grounds, but if frequencies of say every 30 minutes can be offered on the busiest routes in the most congested areas, the established representation would be tested more rigorously.

While many participants either encountered or, given they were familiar with the area, were well aware of traffic problems and high parking costs this did little to deter car use. This suggests visitors did not find them severe which may reflect their more urban centric views compared to residents and it must be questioned whether the existing road conditions would prove to be a significant 'stick' to effect modal shift. Those in the 'know' sometimes set off early to avoid parking problems or took routes that avoided congestion hotspots. Restrictions on car use such as car free areas have been developed in resorts elsewhere (for example, Alpine ski resorts; Polperro, Cornwall; Upper Derwent Valley, Peak District) yet this remains a hotly contested topic. Residents blame tourists for traffic problems and believe tourists should be using alternatives. Yet, the travel diaries show that they do not use the alternatives available and one clear way to get them to do so would be a 'stick' such as severely restricting parking or developing car free areas which opens up opportunities for cycling and walking.

Resident interviews indicated that cycling and walking were largely not considered to be modes of transport but leisure pursuits and activities undertaken by 'other' people (Dickinson, 2004a). Over the last few years the carriage of cycles on cars has become much easier and increased in popularity. 8 participants brought cycles with them. However, the cycling trips recorded were all due to 3 participants who made good use of their cycles. Two of these used their cycles largely for leisure orientated rides as opposed to a means of transport to reach a destination or activity. This lends support to the 'cycling is only for leisure perspective'. Walking, while overall accounting for 10% of trips, was low from most sites except Tom's Field and Whitemead. At the latter site most of the walking was dog walking. Given that all sites were situated in good walking country this is disappointing. It is also evident that people resort to the car for many short trips and often drive to the start of a walk. 40% of car trips were 1km or less, a distance that can be walked in about 10 minutes. There is clearly a reluctance to consider walking on many short trips which may be due to lack of knowledge of the distance involved.

Overall the patterns from the travel diaries would seem to fit the social representation of transport and tourism established in resident interviews and document analysis. It is important to recognise that this representation will go on perpetuating itself if it remains unchallenged. Dickinson and Dickinson (2006) recommend focusing on local needs as much as visitor needs as residents are more able to develop the local knowledge to tap into alternatives. Furthermore given that people feel public transport should be improved any improvements are likely to be viewed positively. However, providing alternatives simply fits the acceptable representation of transport and will not translate into reduced car use. Transport planners need to tackle the view that car use cannot be restricted. There is a common fear that car restrictions will reduce visitor numbers (Holding, 2001; Coleman, 1997) and this brings economic dis-benefits, however, studies elsewhere show this is not the case (Holding, 2001). While restrictions are often seen to be counter freedom, they create other freedoms such as better opportunities for cycling and walking. Dickinson and Dickinson (2006) particularly draw attention to the divide between different groups be that residents or visitors, the advantaged or disadvantaged or the general public and government. They argue that responsibility for transport problems is seen to lie elsewhere which at a tourism destination relieves both residents and visitors of the need to take action.

4.4.2 Ways to tackle the problem

While the above analysis paints a rather gloomy outlook, a number of aspects could be tackled. Many visitors make unplanned leisure trips covering considerable distance as oppose to short local trips that might be managed on foot or other means. Thus there is scope to encourage more local trips. Over the last 2 or 3 years a Purbeck Transport Pass has been discussed which, as part of the holiday package, integrates accommodation providers, attractions and transport providers to offer discounts on public transport, cycle hire and entry to attractions should visitors travel by alternatives. So far this scheme has not progressed. A blanket approach with a unitary pass for all would probably do little to change visitors' modal choice. However, a place specific pass designed for specific accommodation centres might encourage tourists to make shorter journeys by alternative modes and address the 'responsibility lies elsewhere' scenario. The idea would be to promote attractive days out using alternatives from specific locations and has been developed to some extent in a series of cycle leaflets launched in 2005 entitled 'Out of Car Experiences'. However, at present this is an area wide initiative and has yet to be targeted at specific locations.

It would also be important to draw people's attention to the problems they might encounter when using the car such as congestion, parking limitations and high parking charges, although whether these would prove to be a significant deterrent remains to be seen. Furthermore, as shopping was a main generator of car trips, local shops and food outlets could be promoted. The principle is similar to personalised journey planning (Department for Transport, 2002) which was tested in Australia (Rose and Ampt, 2001) and the Netherlands (Tertoolen et al., 1998) although there is evidence of psychological reactance resulting in limited changes in travel behaviour. This would be a more personalised approach which enables visitors to take responsibility. To illustrate this principle an example is given for one of the campsites:

Tom's Field

Problems to avoid:

- Swanage: congestion, parking charges, competition for parking spaces
- Studland: congestion, high parking charges, competition for parking spaces

'Out of car experiences':

- walk/bus to Swanage
- bus to Swanage and boat to Brownsea Island
- bus to Corfe Castle, steam train to Swanage then bus home
- walk to Corfe Castle

Shop at:

- Langton Matravers village store

This goes over and above making available bus timetables or cycle maps. The pack would need to be more personalised and would hopefully address the unplanned, long and car reliant general leisure trips by suggesting local alternatives. The idea is similar to a scheme initiated by Breakwell (2003) in the North York Moors National Park where the Moors Bus, a successful tourism transport initiative, runs. Here visitors can pick up journey planners for a specific location. There is no need for visitors to work out timetables as the options for that location are clearly set out. The focus is on local leisure options and these are made more personal for visitors. The Devon and Cornwall 'Car Free Day Out' also promotes an integrated rail and bus network around various destination areas (Devon and Cornwall Rail Partnership 2006). A further development which has been suggested locally (Keen, 2005) is a dedicated person based in the tourism information service who might offer a personalised journey planning service to visitors.

5. Conclusion

The travel diaries highlight high levels of car dependence as might be expected in the Purbeck area. The car is used for many short trips that could be walked and other alternatives such as buses were rarely used when they might have replaced car journeys. This brings into question the provision of and promotion of public transport as an alternative. The representation that public transport must be improved is powerful yet this study shows where it is available it is little used. Cycling is seen as a leisure experience therefore there are opportunities to develop this further as an attraction at destination areas. Walking also needs to be encouraged for local trips. Visitors are unlikely to be aware of local facilities or the distance or time it might take to walk. Walking trips may be perceived to be too long thus awareness needs to be raised by signage and maps available at accommodation rather than destinations. People seem have lost the skills needed to access areas as a pedestrian and there is a need to re-discover this knowledge. However, while it would be positive if visitors were to change their car use behaviour, unfamiliarity with the area will always be an obstacle to some degree. Thus the priority in the first instance lies in improving opportunities for residents.

Both residents and visitors fail to acknowledge responsibility for problems and this together with a perspective that 'others use alternatives' is problematic. The aversion to car restrictions is complex as it is politically difficult to take action at a local level. However, it is unlikely there will be much change without 'sticks' and despite their unpopularity many areas would benefit from a car free environment. 'Sticks' might be better accepted with a more personalised approach that can also counter the 'others use alternatives' perspective. To do this would need a shift that emphasises promotion of local leisure opportunities and the fun, relaxing and problem avoiding angles of using alternatives to the car. In policy terms this needs a move away from the focus on modes of transport and transport to attractions to focus on the visitor's experience of mobility from their accommodation base. There is a need for more research on people's feelings of responsibility, the tendency to locate blame with other people and the dilemmas people hold in respect to transport and tourism. Further research examining visitors' social representations of transport is currently under review. There is also a need to test out the personalised marketing of days out from accommodation providers and to study visitors who have made lifestyle changes to reduce their car use.

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Table 1
Details of campsites involved in the study

Campsite	Number of diaries completed	Dates completed	Alternatives to the car
Birchwood, nr Wareham	6	17 th to 24 th July	-Bus one day a week to Wareham -4km from train station -11km from steam railway station -1 participant brought a bike
Ullwell, Swanage	9	24 th to 31 st July	-Hourly bus to Swanage and Bournemouth -17.5km from train station -2km from steam railway station -2 participants brought a bike
Tom's Field, Langton Matravers	8	24 th to 31 st July	-2 hourly bus to Swanage, Corfe Castle, Wareham and 4 per day to Worth Matravers -14.5km from train station -3km from steam railway station -1 participant brought a bike
Ridge, nr Wareham	9	7 th to 14 th Aug	-Nearest bus route 2km -4km from train station -6km from steam railway station -3 participants brought a bike
Whitemead, Wool	8	7 th to 14 th Aug	-On the Weymouth to Bournemouth train line. -Buses to Monkey World, Tank Museum, Lulworth Cove, Wareham -0.4km from train station -13km from steam railway station -1 participant brought a bike

Table 2
Main mode of transport by campsite

	Total trips	Birchwood	Ridge	Tom's Field	Ullwell	Whitemead
	%	%	%	%	%	%
Walk	10	1	4	18	9	16
Cycle	4	4	9	9	0	0
Car	82	94	86	68	84	84
Bus	2	0	0	2	7	0
Steam train	1	2	2	3	1	0

Table 3

Purpose of trip by campsite (categories with 10 trips or more)

	Total trips %	Birchwood %	Ridge %	Tom's Field %	Ullwell %	Whitemead %
General day out	21	17	32	8	20	27
Shopping	19	29	21	15	12	21
Visit beach	18	10	7	30	27	12
Eat out	7	3	8	7	10	5
Walk	7	0	3	13	4	11
Visit paid attraction	6	4	5	3	6	11
Fishing	3	13	2	4	1	1
Collect relative	3	0	1	4	8	1
Cycling	2	4	2	6	0	0
Visit friends or relatives	2	1	1	1	2	4
Swanage railway	2	3	2	2	2	0
Visit Brownsea	1	2	2	1	1	0

Table 4

Main mode of transport by purpose of journey (purposes with 10 or more trips)

	Walk	Cycle	Car	Bus	Steam Train
General day out (%)	7	0	90	0	3
Shopping (%)	3	6	89	1	0
Visit beach (%)	5	4	84	7	1
Eat out (%)	15	7	78	0	2
Walk (%)	65	0	29	6	0
Visit paid attraction (%)	2	0	98	0	0
Fishing (%)	8	0	92	0	0
Collect relative (%)	0	0	100	0	0
Cycling (%)	6	82	12	0	0
Visit friends or relatives (%)	6	0	94	0	0
Swanage railway (%)	0	0	58	0	42
Visit Brownsea (%)	10	0	90	0	0

Table 5

Destination of trip by campsite (destinations with 10 or more trips)

	Birchwood %	Ridge %	Tom's Field %	Ullwell %	Whitemead %
Swanage	4	5	22	34	3
Wareham	10	16	1	2	5
Studland area	2	5	10	6	5
Poole	13	10	1	1	2
Weymouth	5	1	0	1	8
Corfe Castle	0	3	3	2	2
Wool	0	1	0	0	9
Sandbanks Poole	3	5	0	0	0
Kimmerage Bay	0	1	3	1	1

Table 6

Main mode of transport by destination of trip (destinations with 10 or more trips)

	Walk	Cycle	car	bus	Steam train
Swanage (%)	12	1	79	4	4
Wareham (%)	2	11	87	0	N/A
Studland area (%)	4	0	96	0	N/A
Poole (%)	0	0	100	0	N/A
Weymouth (%)	0	0	100	0	N/A
Corfe Castle (%)	6	11	61	0	22
Wool (%)	50	0	50	0	N/A
Sandbanks Poole (%)	15	0	85	0	N/A
Kimmerage Bay (%)	10	10	80	0	N/A

Table 7

Distance travelled by main mode of transport

Distance travelled (km)	Walk	Cycle	Car	Bus	Steam Train
1km or less (%)	53	5	40	0	3
1.5 to 3 km (%)	11	6	78	6	0
4 to 5 km (%)	15	4	81	0	0
6 to 10km (%)	5	5	82	0	8
11 to 20km (%)	0	4	95	1	0
21-30km (%)	0	0	100	0	0
31-40km (%)	0	0	100	0	0
41-50km (%)	0	0	100	0	0
over 50km (%)	0	0	100	0	0

Table 8

Mode of transport by distance travelled

Distance travelled (km)	Total %	Walk %	Cycle %	Car %	Bus %	Steam Train %
1km or less	10	50	11	5	0	17
1.5 to 3 km	28	30	39	27	87	0
4 to 5 km	9	15	8	9	0	0
6 to 10km	16	8	19	16	0	83
11 to 20km	23	0	22	26	13	0
21-30km	11	0	0	13	0	0
31-40km	2	0	0	2	0	0
41-50km	1	0	0	1	0	0
over 50km	1	0	0	2	0	0

Table 9

Mean Distance travelled by purpose of journey (top 8 categories only)

	Total	Birchwood	Ridge	Tom's Field	Ullwell	Whitemead
	(mean km)	(mean km)	(mean km)	(mean km)	(mean km)	(mean km)
General day out	16.3	28.5	15	5.9	14.5	17.7
Shopping	7.9	11.8	7.7	4.3	4.8	9.1
Visit beach	10.4	24.9	16.1	10	3.4	18.3
Eat out	6.1	15	12.6	3.5	2	6.6
Walk	4.1	0	4.3	4.1	3.4	4.1
Visit paid attraction	10.8	23	12	16.5	7.5	8.1
Fishing	9.5	14.1	14.7	3.8	2	0.5
Collect relative	6.5	0	10	15.7	2.2	9
Cycling	10.5	5.5	4.5	15.3	0	0
Visit friends or relatives	16.2	10	3	40.5	13	15.7
Swanage Railway	9.4	11.3	12	7.7	6.7	0
Visit Brownsea	13.6	19	14.5	13	7	0
Total	10.3	16.9	11.5	8	6.1	11.8

Table 10

Proportion of car trips that might be completed by alternatives

	Trips possible by alternatives (%)	Trips realistically possible by alternatives (%)
Campsite		
Ridge	34	20
Birchwood	20	15
Tom's Field	80	36
Ullwell	77	53
Whitemead	60	52
Destination		
Swanage	82	54
Wareham	90	71
Studland area	50	15
Poole	10	5
Weymouth	64	50
Corfe Castle	64	36
Wool	88	75
Sandbanks Poole	0	0
Kimmeridge Bay	0	0
Purpose		
General day out	24	23
Shopping	76	57
Visit beach	78	20
Eat out	67	59
Walk	88	88
Visit paid attraction	57	43
Fishing	38	13
Collect relative	100	69
Cycling	0	0
Visit friends or relatives	56	11
Swanage railway	60	40
Visit Brownsea	20	20

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Social constructions of tourism and local travel: implications for mobility in a rural tourism context

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Tourism transport and mobility at destinations while a logistical problem is also a phenomenon driven by social and cultural patterns of behaviour. There are increasing concerns about the social, environmental and economic impacts of car traffic and conditions at many rural tourism destinations in developed countries are set to worsen in the near future. This paper aims to enhance the understanding of tourism and leisure transport and mobility in a rural tourism context using Moscovici's social representations framework. The study adopted an emic approach collecting data using in-depth interviews to identify the important value concepts for the resident population on tourism, transport and mobility in Purbeck, Dorset, UK. Social representations were also captured from a variety of documentary sources. The social representations used by various local stakeholders to conceptualise local transport, travel, tourism, and the rural setting are identified and described. Analysis focuses on how people use the social representations available to them to explain travel behaviour. The social dilemmas of travel behaviour are apparent, as are some contradictions for tackling transport and mobility at the destination. The social reality is discussed in the context of developing sustainable transport for tourism.

Tracking number: 65

INTRODUCTION

Car based travel in rural areas has some serious consequences for the quality of visitor experience and quality of community life. A whole host of tourism studies identify increased traffic as a significant impact of tourism development (for example, King et al, 1993; Perdue et al, 1990; Jurowski et al, 1997; Lindberg and Johnson, 1997). Yet it is increasingly recognised that leisure travel is under-researched (Dickinson et al, 2004). There is a low level of government interest in leisure travel and it is low on the policy agenda in the UK. The focus has been on commuting and the school run which cause daily problems throughout the UK rather than seasonal problems in particular places. The solutions to the leisure/tourism transport problem seem largely intractable as journeys are more ad-hoc than predictable commuting or school run habits, and while patterns can be identified at destinations the people involved vary from day to day. The traffic problems at destinations result from the competing needs of tourists, day-visitors and local residents undertaking a variety of leisure or utility journeys. Hall (1999: 184) argues that “although the sustainability of tourism activity is a much discussed concept, the substantial tourism impacts literature rarely addresses the externalities and inequalities arising from transport”. This study attempts to plug some of this gap by analysing residents’ social conceptions of transport and the social reality that shapes travel behaviour at rural destinations.

Transport and tourism in rural areas

Car dependence in rural areas of the UK is high (Countryside Agency, 2003) and car impacts are likely to become more acute over the next few years as traffic is predicted to grow fastest outside of the urban areas (Commission for Integrated Transport, 2001). Most recent rural traffic growth can be attributed to leisure and tourism (Charlton, 1998). Addressing tourism and leisure traffic is however, fraught with problems as rural destinations have relatively poor public transport, populations are dispersed, leisure traffic is generated at varied times and people often wish to transport bulky items associated with modern leisure pursuits (Charlton, 1998).

In the UK a variety of tourism transport initiatives have been tried ranging from promotion of alternatives to the car through to providing new alternatives and prohibiting car use. Initiatives can be divided in to five broad categories (Table 1). However, there has been little evaluation of leisure travel initiatives (Dickinson et al 2004) despite several good practice guides (Countryside Agency, 2001; Transport 2000, 2001). Transport initiatives are most commonly conceptualised in terms of incentives and disincentives or ‘carrots’ and ‘sticks’ (Cullinane, 1997; Cullinane and Stokes, 1998; Steiner and Bristow, 2000). The general consensus is that successful initiatives require a combination of ‘carrots’ and ‘sticks’ (Cullinane, 1997; Holding and Kreutner, 1998).

While there are 100s of initiatives around the UK it is not clear what works well, where and why. There are some successes while other schemes fail to get off the ground or fade away when external funding comes to an end. An analysis of public transport schemes in the 1980s found that over 50% failed to achieve their targets and performed worse than expected (Groome and Tarrant, 1984 cited in Cullinane et al, 1996). However, given that targets are rarely explicit and usually relate to levels of use, reduction in car use and economic viability this is hardly surprising given that in a rural context public transport is a poor competitor to the car. Visitors are predominantly car based (over 90% arrive by car at UK national Parks (Cullinane, 1997)), rural residents are more likely to be car owners than their urban

counterparts; 84% and 72% of households respectively (Countryside Agency, 2003), and dispersed destinations pose almost insurmountable problems for implementing transport behavioural change. Furthermore, it is politically difficult to impose barriers to car use thus alternatives have to compete with cars. There are also practical conflicts between local people and visitor transport needs (Robbins, 1996) and the travel needs of tourists and day visitors also vary, for instance travel can be a component of the leisure experience or utilitarian travel to the leisure site. In general public perceptions of alternatives are poor (Cullinane et al, 1996). Cullinane and Cullinane (1999) found that car drivers were almost unable to comment on public transport in the Lake District and Dartmoor national parks, never mind use it, it simply was not considered a viable alternative to the car. However, perceptions can vary in different situations and public transport can be perceived to be viable where it is viewed as a leisure activity in its own right (Eaton and Holding 1996, Robbins 2003).

Residents' attitudes towards tourism and tourists

There are numerous studies on community perceptions of and responses to tourism in rural settings in developed countries. Most identify both positive and negative impacts (Andreck and Vogt, 2002). Typically issues are examined under economic, social and environmental headings (Ap, 1990; Gursoy et al, 2002; Hall and Page, 1999). The majority of studies have been based on a questionnaire survey employing multi-item scales and factor analysis. The factors identified are largely dependent on the questions asked based on the researchers' *a priori* conceptualisations (Andreck and Vogt, 2002). Allen et al (1993) suggest a number of confounding variables and this would appear to be a limitation of these studies as it is practically impossible to account for all these. Most studies are atheoretical (Ap, 1990; Gursoy et al, 2002) however, more recent studies suggest theoretical frameworks and models that might explain the findings. The most common model employed is that of social exchange (Ap, 1992; Pearce et al, 1996; Jurovski et al, 1997). Ap (1992) argues residents recognise there is a trade off between tourism's positive and negative impacts which results in tourism being accepted or not, though this argument has been questioned by Ryan and Montgomery (1994) as too rational.

APPLICATION OF A SOCIAL REPRESENTATIONS FRAMEWORK

This paper argues that social discourse perpetuates many of the commonly held views on transport and tourism. For instance, in the studies on community perceptions of tourism economic benefits are widely held to arise from tourism whether respondents have direct experience of this or not. Research has failed to address the dominant perspectives that prevail among providers, host communities and tourists. In order to understand these issues a different approach has been adopted in this study.

Social representation theory developed by Moscovici is among the theories and approaches adopted in social psychology that challenge the dominant psychological methods of, for example, rating scales that underlie attitude theory. A number of researchers argue that traditional attitude theory fails to take account of the variability of human thought and action (Burman and Parker, 1993, Moscovici and Hewstone, 1983, Clark et al, 1994; Pearce et al, 1996). It is assumed people are logical, rational and ordered in their thinking and able to classify concepts into equal-interval categories (Burman and Parker, 1993). Attitudes are not necessarily fixed things but a function of context and the link to behaviour is not clear (Pearce et al, 1996).

Moscovici proposes that individual attitudes reflect broader social representations. Social representations are

“a set of concepts, statements and explanations originating in daily life in the course of inter-individual communications, ... the equivalent, in our society, of the myths and belief systems in traditional societies; they might even be said to be the contemporary version of common sense” (Moscovici, 1981: 181).

Representations are shared by broad categories of people, they establish a group identity, facilitate communication and guide social action (Moscovici and Hewston, 1983). We make sense of the unfamiliar using concepts that are familiar to us (Moscovici and Hewstone, 1983) and preconceptions are often reinforced, even when there is disparity between the representation and the actual phenomenon (Fredline and Faulkner, 2000). Preconceptions can even create a reality that fits (Hogg and Abrams, 1988). Studies confirm that when people share a representation they interpret their own conduct and that of others in the light of this knowledge (Moscovici and Hewstone, 1983). Groups can be aware of alternative perspectives on issues and in a different social context may demonstrate an alternative perspective. For instance, Clark et al (1994) found that the stance taken by the researcher on countryside issues influenced respondents' views on countryside leisure.

Social representation theory has been applied by a number of researchers in the countryside recreation/tourism context (see, for example, Clark et al, 1994; Fredline and Faulkner, 2000; Macnaghten, 1995) and in studies on the nature of rurality (see, for example, Halfacree, 1993 and 1995; Haartsen et al, 2003). Fredline and Faulkner (2000) argue the theory is particularly applicable to situations involving group conflict, this is typical in relation to tourism transport. Conflict is often the result of groups holding different social representations. “In this situation the groups have no common framework or understanding, and resistance to change, the development of polemical representations, and polarization can be expected” (Pearce et al, 1996: 46). Studies show people can hold contradictory representations of tourism. For instance on the Hawaiian island of Moloka'i some resident groups supported a growth machine perspective, which is supportive of mass tourism development, yet still valued the traditional way of life which conflicts with the tourism they supported (Canan and Hennessy, 1989).

Our knowledge of transport and tourism may be derived from direct experience or be socially derived and communicated through social groups and the media. Reality for the individual is to a high degree determined by what is socially accepted as reality (Scott, 2000). It is argued that our views on transport and mobility and hence our transport and mobility patterns are socially constructed and people will draw on familiar arguments to justify their behaviour. The transport and tourism literature is replete with deterministic studies that assume causal links between attitudes and behaviour. Studies typically employ attitude scales in an uncritical way. This approach fails to understand the social reality that underpins patterns of behaviour. People can share a number of views on transport and tourism that are on the face of it mutually exclusive and there are conflicts and inconsistencies between views and behaviour.

RESEARCH APPROACH

The study took place in Purbeck, Dorset, and adopted an emic approach in order to define the important value concepts for the population in the study area relating to transport and tourism (Fredline and Faulkner, 2000, Pearce et al, 1996, Fontana and Frey, 1998). Two sources of

information were used: taped in-depth interviews with key informants and documentary evidence.

Key informants were drawn from stakeholders resident in the area. A purposeful sample selected information rich cases for in-depth study using a snow-ball process. 13 interviews were undertaken, the sample included:

- County, District and Parish level councillors
- Representatives of tourism dependent and non-tourism dependent businesses
- Representatives of local transport/environment campaign groups
- Public transport users and cyclists

The interviews took place during winter 2003.

The same general areas of interest were covered in all interviews but standardized questions were not used. The aim was to develop an analytical description of insiders' views on transport and tourism and set it in the Purbeck context, the subjective view is what mattered (Marshall and Rossman, 1999). The interviews covered:

- the Purbeck setting
- local tourism
- local travel
- different modes of transport
- alternatives to the car

An interview protocol was amended to suit each informant and as the topic began to focus – an iterative approach (Rubin and Rubin, 1995). The interviews were recorded and undertaken at the informant's place of work or home. Interviews lasted between one hour and two and a quarter hours.

The following documentary evidence was examined:

- Local policy and planning documents
- Reports of transport and tourism studies commissioned by the local authority
- Minutes of meetings eg Voluntary campaign groups such as the Dorset Cycling Network and local authority groups such as the Purbeck Heritage Committee
- Holiday brochures for the area – images and text

The interviews were transcribed and, together with documentary evidence, thematically content analysed (a qualitative rather than quantitative procedure) to identify social representations used. Data were initially organised by interview themes into categories. Then, new content categories and sub-categories were derived from the data itself. This process enabled the researcher to get to know the data and led on to an iterative process of theme generation and theorising.

RESULTS AND DISCUSSION

Study area

Purbeck was selected as a study area due to its rural nature, dramatic natural setting including a World Heritage status coastline, thriving tourism industry and acute seasonal travel problems. It is located in south west England close to the Bournemouth and Poole conurbation. Purbeck can be considered rural on typical socio-spatial definitions of rurality based on census variables such as population density, indeed this is how planning and policy

documents define the area. It does however, have strong links with the nearby conurbation with many residents working or using services in the urban area on a daily basis and few residents being employed locally in typically rural activities. Urban residents have moved to the area to retire or seek a rural lifestyle while commuting to jobs elsewhere. This is typical of the changing nature of rural areas in the UK and both Halfacree (1993) and Hall and Page (1999) argue traditional approaches to defining rurality are becoming less meaningful. Based on a social representations approach adopted by Halfacree (1995: 4) informants were asked: "Do you feel this area is urban or rural?" followed by "What are the features of this area which make it rural (or urban) for you?" Informants reinforced the above interpretation that Purbeck is a rural area but there are strong associations with the adjacent urban area and a feeling that some settlements had grown and taken on an urban feel.

An estimated 2,330,000 day visitors and 490,000 staying visitors come to Purbeck each year (Purbeck Heritage Committee, 2002). Tourism is significant for the economy contributing about £116 million annually although tourism related employment has declined in recent years (Purbeck Heritage Committee, 2002). Car use is high in Purbeck and the population is relatively affluent although there are pockets of disadvantage (Purbeck Heritage Committee, 2002). Congestion is a problem during the summer tourism months, particularly during school holidays and weekends. The problem is compounded on hot sunny days as day-visitors seek out the beaches. However, congestion is not restricted to the summer months and some routes encounter problems throughout the year. Key informants saw bypasses as part of the solution and indeed one has been implemented around Wareham, however, further bypasses have encountered problems due to a variety of environmental designations, based on wildlife protection, that cover much of the area. Typically the community was split on this issue with many recognising that bypasses would just push problems elsewhere and that further bypasses were highly unlikely due to site constraints.

Social representations of Purbeck, transport and tourism

There is a strong image of Purbeck that comes through analysis of documentary evidence and interviews. The World Heritage status afforded the coastline in 2001 seems to confirm what everyone already believed, that Purbeck is unique. In a small area there is a great diversity of landscape character that has arisen from natural and human processes. The coastline is rugged and dramatic yet offers opportunities for traditional seaside bucket and spade holidays. The area is also an Area of Outstanding Natural Beauty (an amenity landscape designation in the UK of similar standing to UK national parks), and large areas are designated with numerous conservation designations. Heritage is conceptualised in various ways: in geological terms through fossils and dinosaurs; in the built environment through castles and old villages; in terms of wildlife and habitat; and as a romantic idyll of an idolised countryside. Holiday brochures draw attention to the range of opportunities for land and water based outdoor activities. The area is seen as leisure space that affords opportunities for local people and visitors alike. Informants often commented on their fortune at living in such a spectacular area that thousands of others seek to visit, for example:

"It's unique, it really is. You've got a small market town like Wareham and a seaside town like Swanage surrounded by this beautiful area and people from all over the country, and perhaps all over the world, see it and admire it, and here am I living right in the middle of it, so we're privileged to live here."

(I. 6)

Planning and policy documents draw attention to what might be termed a conflict scenario arising from the need to exploit leisure opportunities in the stunning landscapes and internationally important wildlife habitats due to the economic importance of visitors to the area. In places documents argue that there are too many users and in others suggest the need to increase opportunities for leisure to accommodate demand and maximise potential economic benefits.

“The Purbeck Heritage Committee is well aware that the problems and opportunities in Purbeck are closely related. The natural beauty of the area attracts large numbers of visitors, leading to problems of congestion and opportunities in the tourism industry.” (Purbeck Heritage Committee, 2002: 10)

The economic importance of visitors did not go unquestioned, while policy and planning documents supported it with facts and figures on spending, there was suggestion of developing a more balanced economy less dependent on tourism and there was some disquiet evidenced in interviews. Indeed, there was some resentment of local taxes being spent on tourism promotion and facilities, for example:

“I pay my council tax, what do I get out of tourism? Nothing, absolutely nothing but grief...” (I. 4).

Under the conflict scenario there are several issues:

- Does leisure and tourism make too much of a demand on the natural environment?
- Should more visitors be encouraged into the area?
- Does tourism bring real economic benefits?
- Do benefits outweigh negative impacts?

These questions remain unanswered. Policy and planning documents argue for ‘sustainable tourism development’ though this term was widely used for tourism projects generally.

In relation to transport, documents emphasise an integrated approach but little in way of explanation of what this is. The term came into wide circulation after its use in the Transport White Paper of 1998. It has become a buzz-word and while the intention is perhaps clear it is largely used in the context of improvement and promotion of alternatives to the car.

Residents were clearly in many cases acclimatised to tourism. Indeed, some people found it hard to conceptualise transport issues in relation to tourism as oppose to rurality. The tourism transport impacts while acute were in many cases seen as short-lived. It was something you could put up with for the privilege of living in the area. A universal response was some sort of coping mechanism that residents devised to deal with traffic congestion:

- Reorganisation of daily activities (residents use different routes and go at different times), for example:

“we try to avoid going to Poole to a cash and carry at 4pm in the afternoon as when you come home you know it will be jammed up with traffic” (I.7).

- Retreating from normal life (stay at home at certain times and avoid particular places visiting alternative destinations)

“you adjust your way of living to suit the conditions. For instance, we know on a Sunday, friends will ring up in Wimbourne and say it’s lovely, we’re having a barbeque. Sorry, we can’t get there, because on a Sunday afternoon the traffic coming from Studland beach is chocker all the way through, so you never arrange anything, you stay at home on Sunday afternoon.” (I. 6)

A third coping mechanism was also apparent, though not as a response to transport issues specifically, this was the need to reaffirm one’s identity as a resident and not be confused with tourists (Brown and Giles, 1995). One informant summed it up with her son’s views:

“I hate when Easter comes... because we have all these people walking around the town and they look at me as though I’ve got 2 heads, I don’t belong here” (I. 8).

There is arguably a continuum of coping. While key informants were able to cope there was much reference to residents who were unable to cope. This was largely in terms of the rural nature of the area rather than in relation to tourism impacts. A key coping strategy was car ownership. Informants argued that many people found it so difficult to cope with the poor transport infrastructure that they moved away from the area. Thus coping strategies relate to rurality as much as tourism impacts.

There are 4 social representation of transport and tourism that are worthy of discussion.

Social representation 1: the car cannot be restricted

Management of car use, while widely cited in documents is not expounded beyond a suggestion of car parking management. Similarly there is much talk of relieving congestion but documents are unable to say how this will be achieved. This is not unsurprising of policy and planning documents and hints at a wider issue which was the reluctance of informants to condone restricting the car. Only one consultant’s report suggested car restrictions. Informants viewed car restrictions as unmanageable or proposed them only for visitors.

“They will get there what ever... Have you ever been down there in the summer and seen them in the ditch, on the bank, upside down?... I don’t see how you can work restrictions” (I. 10).

Social representation 2: if public transport was improved people would use it more

Public transport was widely held to be an important alternative to be developed despite the fact that few informants showed evidence of ever using it themselves. Buses were not conceptualised as an alternative that they can or would want to use. Indeed, documents and informants suggested public transport was little used, poor, unreliable and circuitous. There is a social representation from national government down to individuals that improvements are needed to public transport and then more people will use it. However, while most informants supported this view there was some scepticism:

“Obviously better public transport is one answer, but whether it could be made viable is really rather difficult... I certainly don’t think you’d get the tourists away from their cars.” (I. 3)

There was often a sense that other people would use it but who are these others? This is not to dismiss the value of public transport in dealing with social exclusion in rural areas but as a significant solution to congestion problems there is doubt.

Support for social representation 3 was often proclaimed by the success stories of 2 transport initiatives:

- Norden park and ride – a car park to facilitate a steam train ride into Swanage
- X53 – bus from Wareham to Exeter serving the World Heritage Coast

Both were cited as successful, but in what terms? As a visitor attraction, for example:

“it works as an experience, the train is an experience, the bus isn’t”, as a social inclusion mechanism (the X53 is regularly used by elderly residents for a day out), or in getting cars off road – in the latter case impact must be minimal. Both are important initiatives in the local area and have no doubt attracted users and thus had some impact on road traffic, but impacts are minimal relative to perceived success.

Social representation 3: cycling and walking are only for leisure

Cycling and walking were rarely considered as an alternative for utility journeys. Indeed, people could largely only conceptualise these modes for leisure. Cycling hazards were often raised mostly in relation to children cycling and cyclists on pavements:

“Kiddies without their helmets on” (I. 11).

“I’ve definitely got views on cycling, views on cycling on footpaths, pedestrians and cyclists don’t go together” (I. 8).

Cycling is conceptualised in terms of ‘others’.

Social representation 4: tourism causes the problem therefore tourists should change behaviour not residents

In general the transport problem was conceptualised as congestion caused by tourism although there were other issues such as the school run and the basic problems of rurality. The school run is a well-rehearsed social representation of a transport problem where blame is apportioned to a specific group of car users. The emphasis was on tourist and day visitors using alternatives to the car or being restricted as oppose to local people.

“I think traffic is becoming a problem, probably going to get worse unless they come up with some kind of quota system that only lets so many people in... presumably residents would have stickers on their cars so they couldn’t be counted.” (I. 1)

Several documents reinforce this view with the suggestions that Purbeck is a good place to implement alternatives to the car for leisure trips and there are realistic opportunities for non-car based leisure travel. Indeed, the Purbeck holiday brochure took on the task of encouraging cycling, walking, buses and the steam train as a means to explore the area. This is not easy to achieve, as visitors are much less likely to have the local knowledge to enable them to use alternatives than residents.

The car was generally seen as essential and informants were keen to justify their need for a car. Social representations 2 and 3 were typically used to justify travel behaviour. Most showed no evidence of having used alternatives. Issues were often expressed in terms of other people’s experiences, as informants could not always draw on their own. This was often done by relating to disadvantaged groups and loss of employment opportunities due to public transport difficulties.

Social representations were not hegemonic and polemical perspectives were expressed by some informants especially those who relied on or regularly used alternatives (3 informants relied on alternatives and 2 informants regularly used alternatives). The informants without access to a car while critical of some aspects of alternatives were perfectly able to get to jobs and carryout their daily activities without a car. These informants had actively embraced a car free lifestyle. They were able to cope due to where they lived in relation to public transport routes and their job.

IMPLICATIONS FOR TRANSPORT AND MOBILITY

The representation ‘if public transport was improved people would use it more’ poses problems given that this is rarely based on any experience of use. There are a number of public transport routes in the Purbeck area with good, regular services in the context of rural areas. All informants were able to access these services but largely saw them as irrelevant to

themselves. Use was mostly conceptualised in terms of 'others'. Similarly the view, found in a variety of other studies on host communities, that blame lies with tourists not local people suggests that typically responsibility for the problem is seen to lie elsewhere. Transport problems are a social dilemma which in many cases require action of individuals for the greater good of the community. While 'others' are seen to be the users of alternatives and blame for traffic problems is apportioned with 'others' there is much less impetus for residents to take action. There needs to be wider recognition that problems stem from all car users and it is residents who are more able to tap into alternatives through local knowledge than visitors. It is clear that numbers likely to use improved public transport will be limited and thus the notion of improved public transport playing a major role is somewhat debatable.

Views of cycling were entrenched in the notion that this was not a viable alternative except for children or a leisure activity. While there are problems for cycling in rural areas, notably distance and weather conditions, there are also opportunities afforded by quiet lanes and scenic routes. Again this may be a case of 'others' as in tourists or day visitors being seen as the prime users. This sets all cycling initiatives in a leisure and tourism context, divorces it from local utility use and thus limits potential users. Schemes elsewhere, such as the Camel Trail in Cornwall, have found that a significant number of utility journeys were undertaken by residents on what was intended as a leisure route.

From a logistical perspective, restrictions on car use may be viable in parts of Purbeck but it is clear from this study that residents would reject this. Even a scenario that applied restrictions only to visitors was not considered viable. Local opposition is commonly cited as a reason for traffic management schemes to be withdrawn (Charlton, 1998; Cullinane, 1997; Cullinane and Stokes, 1998; Cullinane and Cullinane, 1999; Eaton and Holding, 1996; Holding and Kreutner, 1998). Yet, traffic free tourism destinations have been successful elsewhere such as the Sasser and Matterhorn valleys in Switzerland. Given that the most successful transport initiatives have involved significant 'sticks' such as traffic restrictions this limits the potential for traffic management in the area.

The extent to which tourism is the major transport issue is also debatable. Views were mixed on this, with some informants seeing tourism congestion as a short-term problem that could be lived through without too much stress. Rurality stands out as more of an arching issue posing year round transport problems for residents that couple the mobility issue with problems of accessing jobs and facilities such as shops. To a large extent informants suggest residents find ways of coping with tourism but in some instances rurality can only be coped with by leaving the area. Thus what residents cannot cope with has little to do with tourism but more to do with the nature of rurality.

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Table 1 Tourism and leisure transport initiatives

Category	Examples
Area wide tourism traffic management initiatives	<ul style="list-style-type: none">• Gateway to the Sussex Downs• Reinventing the country lane, Surrey Hills – changing driver's perceptions of lanes• Jersey's Green Lanes – 45 miles of road with 15mph speed limit
Containment/restriction and pricing strategies	<ul style="list-style-type: none">• Road closure in the Upper Derwent Valley, Derbyshire• Restricting village parking, Elterwater, Lake District National Park• Car-free Polperro, Cornwall
Encouraging use and development of public transport routes	<ul style="list-style-type: none">• The Bittern Line, Norfolk – encouraging leisure use on rail line• Moorsbus network in North Yorkshire Moors National Park
Improving routes for cyclists and walkers	<ul style="list-style-type: none">• UK's National Cycling Network• Brecon's Bike Bus, Brecon Beacons National Park• UK's Quiet lanes initiative
Initiatives at visitor attractions and accommodation providers	<ul style="list-style-type: none">• Harewood House, Leeds – travel plan• No car parking at Prior Park, Bath• Hostel bus, Lake District – minibus link from train station• National Trust offer discounted tickets for visitors arriving without a car

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Social representations of rural tourism: coping with tourism in a sensitive rural setting

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Tourism brings economic benefits to rural areas in the UK, yet at the same time, it is widely perceived to cause social and environmental impacts. Furthermore, the local community can question economic benefits bringing polemical perspectives to the tourism development debate. This paper, which is work in progress, aims to enhance the understanding of tourism in a sensitive rural setting using Moscovici's social representations framework. The study adopted an emic approach collecting data using in-depth interviews with residents which were then thematically analysed to identify the important value concepts for the study population on tourism and rurality. The study collected data from individuals in a social context (ie conversation based interviews). Dorset was selected as the study area due to its rural nature, dramatic natural setting, abundance of protected areas and thriving tourism industry. The multiplicity of social representations used by various stakeholders to conceptualise local tourism and the rural setting are identified and described. Analysis focuses on the coping strategies adopted by residents in relation to tourism and also the rural context. Coping strategies emerged from the study as a key dimension. There is a social representation that tourism impacts on the community and residents have to cope with this impact. However, to a large extent residents readily find ways of coping with tourism, but the nature of the rural area poses year round problems for residents such as accessing jobs and facilities. In some instances rurality can only be coped with by leaving the area. The findings shed light on how, through the social representation process, a socially constructed consensus develops which shapes views of tourism. In the Purbeck context the view of tourism is fundamentally effected by the nature of the rural setting.

Keywords: Social representations, rural tourism, tourism impacts

Introduction

There seems to be a consensus from an abundance of studies since 1980 that tourism development brings positive and negative impacts (Andreck and Vogt, 2002). Typically these impacts are grouped under economic, social and environmental headings (Ap, 1990; Gursoy et al, 2002; Hall and Page, 1999). In general residents perceive economic impacts positively and social and environmental impacts more negatively (Jurowski et al 1997). Most studies are atheoretical (Ap, 1990; Gursoy et al, 2002), though more recent studies commonly employ social exchange theory (Ap, 1992; Pearce et al, 1996; Jurowski et al, 1997). Ap (1992) argues residents recognise there is a trade off between tourism's positive and negative impacts which results in tourism being accepted or not, though this argument has been questioned by Ryan and Montgomery (1994) as too rational. Where communities have long been exposed to tourism, it is suggested they adapt and accommodate its effects although opposition may still exist (Hall and Page 1999). At a mature stage of tourism development where communities have adapted to tourism through experience or migration, Faulkner and Tideswell (1997) suggest an altruistic surplus effect where individuals may perceive negative impacts but are still favourable to what they perceive as the overall benefits of tourism.

The majority of studies examining community perceptions of tourism adopt a positivist perspective and are based on a questionnaire survey employing multi-item scales and factor analysis. Studies typically employ attitude scales in an uncritical way. The factors identified are largely dependent on the questions asked based on the researchers' a priori conceptualisations (Andreck and Vogt, 2002). Most studies attempt to relate attitude scales to a whole host of socio-economic, demographic or psychological variables. Allen et al (1993) suggest a number of confounding variables and this would appear to be a limitation of these studies as it is practically impossible to account for all these. This deterministic approach fails to understand the socially constructed consensus of tourism impacts. People can share a number of views on tourism that are on the face of it mutually exclusive and there are conflicts and inconsistencies between views and behaviour. Few studies develop the list of impacts from the participant's perspective (Kneafsey, 2001; Pearce et al., 1996).

This paper poses a challenge to some of the assumptions of current research and proposes an approach based on Moscovici's social representation theory (Moscovici, 1981). Social representation theory has been applied by a number of researchers in the countryside recreation/tourism context (see, for example, Clark et al, 1994; Fredline and Faulkner, 2000; Macnaghten, 1995) and in studies on the nature of rurality (see, for example, Halfacree, 1993 and 1995; Haartsen et al, 2003). The theory of social representations holds that we construct shared perceptions and theories that constitute the social realities that we inhabit. It is suggested that traditional tourism perception studies, while useful for establishing baseline information and trends, do little to further our understanding of the social realities that underpin people's attitudes.

Studies of people's accounts of their feelings about various social issues have shown that they often hold contradictory attitudes and they may be unaware of these contradictions (Billig, 1996; Billig et al., 1988). Typically, people seem to have dilemmas about social issues and practices rather than established attitudes. Traditional attitude theory assumes people are logical, rational and ordered in their

thinking and able to classify concepts into equal-interval categories (Burman and Parker; 1993). Social representation theory proposes that attitudes reflect underlying social representations of reality that are widely shared in society (Halfacree, 1993). They arise during interactions in our daily life and become the tacit, widely accepted, knowledge and beliefs on which our attitudes are based (Moscovici, 1981).

Social representations have enormous inertia in so far as experiences and perceptions are distorted to conform to the representation. People try to verify rather than refute their hypotheses and conjectures. There is evidence that social representations distort reality in such a way as to preserve intact the preconception (Fredline & Faulkner, 2000) and furthermore that they can even create a reality that fits (Hogg & Abrams, 1988). Social representations help to define and organise reality and connect individuals to their social/cultural worlds (Pearce et al., 1996). People cope with the non-familiar by drawing on familiar ideas shared by their reference group. Social representations theory focuses on the way people think or create their shared realities (Moscovici, 1981). People have more accurate recall of facts that are consistent with their representations, and tend to modify facts that are inconsistent (Fredline & Faulkner, 2000). Social representations can change through assimilation and accommodation they are dynamic.

Moscovici proposes varying levels of group consensus in relations to social representations (Fredline & Faulkner, 2000):

- Hegemonic representations are stable and homogeneously accepted by the whole community
- Emancipated representations exist when sub-groups have somewhat differentiated opinions and ideas
- Polemical representations exist in the context of group conflict

Sources of representations are direct experience, which can enable people to question inconsistencies between prevailing representations and actual observations, mass media and social interaction. Social interaction is closely related to group membership as individuals adopt representations comparable with those of other group members. But people are members of more than one reference group and individuals may be forced to reconcile contradictory positions.

Method

The study took place in Purbeck, Dorset, and adopted an emic approach in order to define the important value concepts for the population in the study area (Fredline and Faulkner, 2000, Pearce et al, 1996, Fontana and Frey, 1998). Data is drawn from in-depth interviews with key informants undertaken during winter 2003/2004. The study was undertaken with the primary aim of understanding the residents' perspective on transport and tourism in a rural setting. In order to do this the interview began by exploring the rural setting and participants experience of tourism in the area. This paper largely draws on these elements although additional material is drawn from the latter part of the interview which focused on transport.

Key informants were drawn from stakeholders resident in the area. A purposeful sample selected information rich cases for in-depth study using a snow-ball process. 13 interviews were undertaken, the sample included:

- County, District and Parish level councillors

- Representatives of tourism dependent and non-tourism dependent businesses
- Representatives of local transport/environment campaign groups
- Public transport users and cyclists

An interview protocol was amended to suit each informant and as the topic began to focus – an iterative approach (Rubin and Rubin, 1995). The aim was to develop an analytical description of insiders' views on rurality and tourism, the subjective view is what mattered (Marshall and Rossman, 1999). The interviews were recorded and undertaken at the informant's place of work or home lasting between one hour and two and a quarter hours. The interviews were transcribed and thematically content analysed (a qualitative rather than quantitative procedure) to identify social representations used. Content categories and sub-categories were derived from the data itself using an iterative process of theme generation and theorising.

Study area

Purbeck is an Area of Outstanding Natural Beauty (an amenity landscape designation in the UK of similar standing to UK national parks), and much of the area is protected by national and European ecological designations. In 2001 its coastline achieved World Heritage Site status. It is located in south west England close to the Bournemouth and Poole conurbation. Purbeck can be considered rural on typical socio-spatial definitions of rurality based on census variables such as population density. It does however, have strong links with the nearby conurbation with many residents working or using services in the urban area on a daily basis and few residents being employed locally in typically rural activities. Urban residents have moved to the area to retire or seek a rural lifestyle while commuting to jobs elsewhere. This is typical of the changing nature of rural areas in the UK where traditional approaches to defining rurality are becoming less meaningful (Halfacree, 1993; Hall and Page, 1999). The population is relatively affluent although there are pockets of disadvantage (Purbeck Heritage Committee, 2002).

Purbeck has a thriving tourism industry. An estimated 2,330,000 day visitors and 490,000 staying visitors come to Purbeck each year (Purbeck Heritage Committee, 2002). This is in the context of a resident population of 44,000 (Buro Happold 2003). Tourism is significant for the economy contributing about £116 million annually although tourism related employment has declined in recent years (Purbeck Heritage Committee, 2002).

Social representations of the rural setting and local tourism

While all participants felt the area was rural several debated whether there was an element of urbanisation taking place and suggested that rurality was a relative concept. Rurality was predominantly described in terms of: the countryside and landscape diversity; settlement size, low population density and lack of infrastructure; agricultural land use; and as a leisure space. To a lesser extent participants identified the changing nature of agriculture which is playing a less key role in the area and a resistance to change which was seen as a negative element. There was little direct reference to the popular conceptions of rural areas which Hall and Page (1999) suggest are based on "images of rusticity and the idyllic village life", however, this was more apparent in the way people valued the area.

People value the diversity of the area, its natural and man-made heritage, wildlife and the space. The World Heritage status afforded the coastline in 2001 seems to confirm what everyone already believed, that Purbeck is unique. In a small area there is a great diversity of landscape character that has arisen from natural and human processes. The coastline is rugged and dramatic yet offers opportunities for traditional seaside bucket and spade holidays. Heritage is conceptualised in various ways: in geological terms through fossils and dinosaurs; in the built environment through castles and old villages; in terms of wildlife and habitat; and as a romantic idyll of an idolised countryside. The area is seen as leisure space that affords opportunities for local people and visitors alike.

A strong social representation was that of a rural community and, within this, community breakdown. Community was expressed through belonging to community action groups, community volunteer groups and in terms of helping or being helped by friends and neighbours. It was an attractive feature of the area that had drawn people to a rural lifestyle and was a way of life many wanted to protect. Long-term residents used representations of community breakdown. In addition, the representation of community could be extended to people visiting the area, for example

“you get the same people coming back year after year... and then as their families grow they come back so you’ve got the same nucleus all the time. If I’m in the museum and someone comes in they bring their grandson in to see it as they’ve come for many years, it seems to be an ongoing thing.” (I. 8)

A number of participants suggested they held a position of privilege to be able to live in such a beautiful location that afforded so many opportunities and thousands seek to visit, for example:

“Well it’s just a lovely, lovely place isn’t it... there’s lots of people who want to come here to look, to see, to swim, to enjoy it. One of our parish councillors wants to see if there can be some restriction on it. You can’t restrict people coming here, because it’s a lovely place and people want to come and see it and appreciate it, like we’re lucky enough to be able to live here... Sunday morning we walk the kids on the beach, people spend 5 hours in a car just to do it.” (I. 10)

It was also widely held that the area offers unrivalled recreational opportunities and was quiet out of the main tourist season. A dimension of this privilege was the dilemma held by one participant in particular on living in the area but feeling people should live in compact urban settlements. This participant presented a sophisticated argument often juggling several opposing social representations to articulate the dilemmas about social issues. On the other hand there were some participants who took, or described in others, what might be called an isolationist stance on local problems. This was particularly expressed in the view of rapid rises in house prices though this has taken place across the UK and the area not adapting to change. Brunt and Courtney (1999) in a study of Dawlish, Devon identified something similar in what they describe as “local attitudes stimulating resentment”.

Tourism was conceptualised as a balance between positive and negative impacts although there was a strong feeling among many, though not all, participants that the negatives outweigh the positive contrary to typical studies (Andreck and Vogt 2002).

There was a hegemonic representation that tourism brings economic benefits although this was viewed with some cynicism by many participants. Indeed, there was some resentment of local taxes being spent on tourism promotion and facilities, for example:

“I pay my council tax, what do I get out of tourism? Nothing, absolutely nothing but grief...” (I. 4).

Similarly employment benefits while viewed as positive were recognised to have negative features due to low pay, seasonal unemployment, part-time or unsocial hours and employment of a migrant student population. Many participants were quick to claim no direct benefit from tourism although it was felt by some that they benefited indirectly from better local services such as shops and buses that were supported by visitors. The sheer volume of people in a number of concentrated areas and the resultant traffic congestion, pollution and even grid lock were held to be a major problem. Erosion of the coast path was seen as a particular problem and those with knowledge of its management cited limited funding as a major cause for concern.

It could be argued that polemical social representations of tourism exist. On the one hand a representation that tourism is vitally important to the area but has some negative impacts, while on the other that tourism brings very little to the area, the benefits are over rated and impacts severe. The latter group often argued that the only people who feel tourism is positive are those who gain direct economic benefits.

“If you go and speak to the people who promote tourism you’ll find they’re hoteliers or they’ve got some connection in the tourism industry. Walk up the street and ask any local person what they think about tourism... they’ve lived here all their life it just grows with them, but ask them what benefits it brings them, it doesn’t, it brings problems to them.” (I. 6)

Indeed it was suggested that tourism was irrelevant to the bulk of the population who had grown to accept it and deal with the impacts.

Due to the topic focus of the interviews, traffic problems such as congestion dominated the discussion of tourism impacts. There is clearly a social representation that tourism causes the problem therefore tourists should change behaviour not residents. For example:

“I think traffic is becoming a problem, probably going to get worse unless they come up with some kind of quota system that only lets so many people in... presumably residents would have stickers on their cars so they couldn’t be counted.” (I. 1)

However, while the transport problem was readily highlighted by all respondents as an impact of tourism, analysis revealed other problems which could be attributed to local people’s travel behaviour, for example:

“Local people to start with – you get the person who gets in the car just to go to town. They know where in the town they can park in one of the lanes and come back through the town to get home. If there was a different system of where they had to use the bypass to go out of the town rather than congesting it, a lot of people would find it quicker and easier to walk to town”. (I8)

Another example is the school run which is a well-rehearsed social representation of a transport problem where blame is apportioned to a specific group of car users.

“At 9.00 round the school times, it’s a nightmare... when I worked I travelled west of here towards Dorchester and quite honestly it was a waste of time me bohering to go between 8.15 and 9.15 because I wouldn’t get to work any earlier because you get stuck in the school traffic.” (I. 7)

The basic problem of rurality was also cited as a reason for high car usage:

“I’m afraid we very much rely on cars for our transport as so many people do... young people living here have virtually got to have a car it’s very unlikely that the train will take them conveniently just to where they work and it’s a big problem... one of the major problems with the motor car and all this congestion is the very great distances that people travel to work and I just don’t know what the answer is I mean this link with housing, people’s with a desire to live out in the country” (I. 3)

Access and egress to the area was raised as an issue for residents and tourists there being few routes into the area. So at one level tourists are blamed for the problem but at another there is recognition that tourism is only part of the picture.

Coping with tourism in a rural area

A strong dimension that emerged from the study was the ‘coping mechanisms’ employed to deal with tourism impacts and the rural area. Strategies were learnt in response to two dimensions of tourism: traffic congestion and overcrowding at key sites. This reflects the findings of Brown and Giles (1995) and Burns and Holden (1995 cited in Brunt and Courtney 1999) who examine behavioural responses of residents to tourism rather than attitudes. Brown and Giles suggest the response to tourism impacts could be a function of residents’ ability to reorganise their activities largely due to a desire to avoid congestion and crowding. Brown and Giles found coping reduced spontaneity and took 3 forms:

- reorganisation of daily activities (changing times and locations of activities)
- retreat from normal life (stopping/ avoiding certain activities and planning ahead to avoid need to go out)
- reaffirmation (a desire to reaffirm one’s identify as a resident and not to be confused with tourists)

They also found some recognition of respondents embracing the crowding as it brought vitality to the area.

In Purbeck traffic congestion and overcrowding while seen to be acute were viewed as concentrated and short-lived. They are something you could put up with for the privilege of living in the area.

“it’s a fact of life, basically, and it is intensely concentrated over the 6 weeks break during the summer holiday” (I. 2)

“everybody will tell you the traffic problems in summer, that’s due to the pressures of tourism, if you live here you learn to live with it, it’s no good complaining, you’ve just got to live with it.” (I. 6)

Acceptance or a process of coming to terms with impacts is arguably an initial coping mechanism. Residents were clearly in many cases acclimatised to tourism and accepted it as ‘fact of life’. Indeed, as in the study by Brown and Giles some participants actively embraced tourism and the associated crowding as it brought vitality to the area.

“in terms of the difference between summer and winter, personally I enjoy the fact that there is a difference. iust as you get tired of crowds and

crowds of people they go away and then when you get tired of it being not a ghost town but well very quite it starts livening up again" (I. 1)

Participants learnt to avoid particular places, routes and times of day (re-organisation of daily activities), for example:

"we try to avoid going to Poole to a cash and carry at 4pm in the afternoon as when you come home you know it will be jammed up with traffic" (I.7).

Residents also stayed at home more on certain days (retreat from normal life), for example:

"you adjust your way of living to suit the conditions. For instance, we know on a Sunday, friends will ring up in Wimbourne and say it's lovely, we're having a barbecue. Sorry, we can't get there, because on a Sunday afternoon the traffic coming from Studland beach is choker all the way through, so you never arrange anything, you stay at home on Sunday afternoon." (I. 6)

The need to reaffirm one's identity as a resident and not be confused with tourists was apparent in one participant's comments:

"I hate when Easter comes... because we have all these people walking around the town and they look at me as though I've got 2 heads, I don't belong here" (I. 8).

However, this was not something that most participants readily identified with and may be related to the contemporary ambiguity between resident and visitor at UK destination (Hall and Page 1999). Many visitors are relatively local living in locations where Purbeck residents work or use services. There was some accord with what Kneafsey (2001) found in Brittany, France where there are similar changes to agriculture, declining rural populations but in-migration of a mobile, affluent and retired population and what Kneafsey describes as a weekend structure of rural society – "residential spaces associated with urban systems". Kneafsey argues "the categories of local and incomer are best seen as negotiable". In Purbeck many residents initially visited the area as a tourist and as, in the study by Brunt and Courtney (1999), some tourists (including one participant) have now become hosts. Indeed several participants were keen to point out that they knew very well that it was a popular tourist destination with traffic congestion problems during the summer months prior to their move.

"We knew it was a tourism area before moved here" (I. 5)

"we just chose it as a retirement place... for instance, quite a lot of information was sent to us about properties in Corfe Castle, we rejected them, we knew the traffic condition was very bad, we didn't really want to live in a village that had thousands of tourists wandering round all the time all the summer" (I. 3)

Thus to a large extent the impacts were accepted and dealt with at the time of the move and, in the latter example above, the choice of location is apparent as an avoidance mechanism.

Tourists were not all considered bad, indeed many participants drew a distinction between good and bad tourists. Generally day visitors were bad tourists because they drive into the area and contribute less economically

"it's the day visitors who drive into the area clog up the roads park everywhere. bring their lunch with them and don't spend anything in the

area at all and this is a really big problem. The people who come and stay in the area I don't think are a problem, but it is the day trippers who come in and clog the area up and this is an extremely difficult problem to address." (I. 7)

Second home owners were also singled out as they took up accommodation which remained empty most of the year, increased house prices and reduced the resident population contributing to the local economy.

To a large extent, residents readily find ways of coping with tourism and some people found it hard to separate tourism issues from problems posed by the rural area. The nature of the rural area poses year round problems for residents such as accessing jobs and facilities, thus coping with lack of key services was a key dimension. Public transport is perceived as poor, under utilised with poor connections. As one participant put it, "there is an end of the line feel", operators are not interested due to low use levels. Shops and other services are also felt to be poor and costs perceived to be high. Childcare, for instance, is hard to organise. Many groups were seen to be disadvantaged including the young, elderly and people with disabilities. There was, however, a level of counter argument to this perspective. Three participants in particular refuted this suggesting, in fact, public transport and shops were good, particularly given the rural nature of the area and linked to this was the view that tourism improved these aspects.

Two main coping mechanisms were apparent in relation to rurality: the ability to make choices rather than have them imposed and the financial provision to cope. The participants through personal circumstances were able to make choices such as choosing a suitable place to live which enabled them to access jobs, transport and other services. While making financial provision was seen as a means to overcome transport problems primarily through car ownership and certainty of access to private transport. Car ownership was seen as a necessity by most, though not all, participants (three did not have access to cars). People in Purbeck are relatively affluent and have high levels of personal mobility and thus distance from services and employment is less of an issue for some. However, this has resulted in services becoming de-localised posing problems for others.

"people who choose to come and live here are relatively wealthy... you know Church Knowle, there's no bus service there's nothing and I'd say 90% of those houses are folks, elderly folks and they've chosen to live here, they've chosen to buy that house, they know that they're going to retire there and live there the rest of their life, they make financial provision so there's a couple and he gets to the age when he realises he can't drive anymore, they've got financial provision to get a [taxi]... but country folk that live there, they find it much more difficult they really do, they rely on their friends and neighbours to give them a lift to Wareham to get some shopping." (I. 6)

In addition, the mechanisms employed in relation to tourism congestion were also used to deal with congestion that was increasingly seen to be a feature of rurality. This was creating something of a vicious circle as residents took alternative routes to avoid peak congestion thus extending the journey distance and spreading problems to minor roads.

There is arguably a continuum of coping. While participants were able to cope examples of people unable to cope were readily given. Those described as not coping were unable to access jobs, found it time consuming to travel from some areas and faced transport problems due to poor public transport. Some people cope using the community (family and friends) as a support mechanism while in some instances, it was argued, rurality could only be coped with by leaving the area. This was apparent in the ageing population as young people had left to access jobs and there was a shortage of skilled trades people in the area. Thus, whilst tourism is strongly represented as a problem it is acknowledged as transient and something residents adapt to, however, rurality is unavoidable. As Brunt and Courtney (1999: 497) suggest "tourism often contributes to social and cultural change rather than being the cause of such change".

Conclusion

There are a number of social representations of tourism and rurality that are apparent in Purbeck.

- 1. tourism brings economic benefits*
- 2. tourism causes the problem therefore tourists should change behaviour not residents*
- 3. a rural community*

However, in-depth study reveals complex dimensions and contradictions suggesting that social representations distort perceptions and preserve intact the preconception (Fredline and Faulner, 2000). Typically tourism impact studies identify economic impacts as a positive benefit. While this study also found this to be so, the Purbeck participants questioned this reality and raised contradictions. Thus the employment of this a priori conceptualisation in traditional studies with uncritical use of scale items is reinforcing a view that residents may actually be challenging. A further example is how the need to develop coping strategies tends to reinforce the view that tourism causes a problem. Yet people develop effective coping mechanisms and acknowledge that tourism is short-term and avoidable. The study also reveals the dilemmas people have about social issues within the Purbeck area, for instance, the recognition that residents are privileged.

Underlying the tourism dimension are the wider problems faced by residents of rural areas. This is perhaps where the real problems lie. The nature of rural areas and the rural population are changing. This creates significant issues for long term residents over and above those of tourism. A strong social representation is that of a rural community and within this community breakdown. However, the problems participants encountered were framed in terms of 'others' and this could be an example of a social representation passed on via discourse. Further research will need to find and work with the 'others' identified by participants of this study.

So we can see a socially constructed consensus shaping the views of tourism. The accepted social representations shape the issues yet these are challenged and contain contradictions. Tourism seems to be only a part of a bigger picture. The changes to the nature of Purbeck as a rural area are more fundamental and effect views of tourism. The nature of residents is changing, blurring the distinction between visitors and residents. It is not just about coping with tourism it is about coping with rurality and changing rural structures. Tourism is a filter for these changes.

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'THE TRAFFIC'S NEVER BAD ROUND HERE; YOU SHOULD SEE WHERE I LIVE': THE RELATIVE EXPERIENCE OF TRANSPORT PROBLEMS IN A RURAL DESTINATION AREA

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ABSTRACT

Within the tourism impacts literature transport is regularly cited as causing key impacts at destination areas. Thus studies of transport and tourism start from the base that there is a problem to be addressed. This study started from this perspective but the findings challenge this. The study focused on dilemmas and contradictions found within travel behaviour using Purbeck, Dorset, a rural tourism destination in the UK, as a case study. The paper will present data on travel patterns, travel behaviour decisions, experiences of travel problems and coping mechanisms. Exploratory research involving in-depth interviews with residents identified a typical emphasis on local travel problems. Congestion and parking stress were key themes. Residents went on to describe a variety of coping mechanisms that were employed. Problems and subsequent coping mechanisms thus became a theme in further research with the visiting population. However, data compiled using travel diaries and a large scale questionnaire survey revealed car based visitors had few concerns. Problems were seen to be minor and there was felt to be little or no need to modify behaviour to cope in any way. Visitors expressed concern about high parking charges but these did little to deter car use. Bus users and cyclists identified proportionally more problems though many of these were minor. Analysis suggests problems are shaped by people's experience of place, are socially constructed and reproduced with consequent implications for transport management. The paper will in particular explore the implications for responsibility. Residents project the responsibility onto visitors yet visitors do not identify with the problem in the first place thus see little need to take action and feel persecuted by high parking costs. Sampling bias is also considered and the potential to neglect those who have encountered travel problems through the use of attraction based surveys.

1. INTRODUCTION

The tourism impacts literature highlights transport impacts as one of the main issues for host communities (see for example, King et al., 1993; Jurowski et al., 1997; Lindberg and Johnson, 1997) especially in rural areas (see for example, Andereck and Vogt, 2002; Perdue et al., 1990). Typically the local impacts relate to congestion and parking stress as a result of the influx of car based visitors to

areas with relatively poor infrastructure. In natural areas a deterioration of the environment is also apparent due to visual intrusion, noise and erosion due to poor parking. In the UK numerous initiatives have set out to affect a modal shift in rural destinations, especially National Parks (see for example, Coleman, 1997; Cullinane, 1997; Cullinane and Cullinane, 1999; Eaton and Holding, 1996). To date, while many initiatives maintain a steady use level, few have affected significant modal shift and many have been very short-lived falling foul of limited funding and the need to meet economic and use level criteria (Dickinson and Dickinson, 2006).

Car use is a typical social dilemma (Tertoolen et al., 1998). While car users are largely aware of their impact the individual benefits mean use continues. In this type of situation rational decision making models typically fail and there is a clear gap between attitudes and behaviour (Annable, 2005). Studies in social psychology show that people's views are often much more contradictory and dilemmical (Billig, 1996; Billig et al., 1988). People's views are multifaceted, they can vary according to the context or social situation, can be modified to suit an individual's stance at any one time and are therefore far from stable (Clark et al., 1994; Macnaghten, 1995). This study started from the perspective that there was a travel problem in rural destination areas to address. The focus of the study was on how people's views of transport modes and travel are to a large extent social derived and the impacts this has on transport decisions in a destination area. The study was interested in the dilemmas and contradictions relating to views of transport. As the study progressed it became clear that not everyone shared the perspective that there was a travel problem to address and this potentially has important implications for initiatives aiming to affect modal shift. Thus the aim of this paper is to analyse travel behaviour decisions, the transport problems encountered by residents and visitors and the implications of their responses for future transport planning in a rural destination.

The paper reports on data collected in Purbeck, Dorset, UK. Purbeck is a rural destination area on the southern coast of England close to the Bournemouth and Poole conurbation. Purbeck has a range of natural attractions and a spectacular coastline, designated a World Heritage Site, with excellent sandy beaches and rocky coves. It is a popular UK holiday destination for families and outdoor recreation enthusiasts. The area attracts an estimated 2,330,000 day and 490,000 staying visitors each year (Purbeck Heritage Committee, 2002), while the resident population numbers 44,000 (Buro Happold, 2004). Exploratory research identified traffic issues typical of rural destinations: congestion; parking stress; and a perception of poor alternatives to the car. The local planning authorities responsible for the area recognise there are transport issues in Purbeck and as a result, a number of studies have been commissioned and initiatives established to tackle problems. Thus transport issues appear widely recognised and there is ongoing action locally to tackle some of the problems.

2. METHODOLOGY

The study was conducted in three stages. The approach adopted, of a qualitative exploratory phase followed by a quantitative survey, is widely used despite what many consider to be a quantitative/qualitative divide (Bryman, 2001) and the epistemological arguments against multi-strategy research. The first stage adopts an emic approach (Pearce et al., 1996; Fredline and Faulkner, 2000). This stage was exploratory and aimed to define the important value concepts for the population in the study area relating to transport and tourism. The main source of information used was 13 in-depth interviews with key informants during winter 2003-2004. Residents' experiences of transport and tourism in the Purbeck context were explored. The detailed findings of this study have been reported elsewhere (Dickinson, 2004a; Dickinson, 2004b; Dickinson and Dickinson, 2006).

The second stage explored travel patterns and travel behaviour of residents and visitors to the area through the use of a travel diary during summer 2004. This produced largely quantitative information on: travel patterns; modal choice; trip chaining; purpose of journeys; attractions and places visited. In addition an open section allowed participants to give a personal description of their trips and they were encouraged, in particular, to explain problems encountered and how they dealt with them. Data from the 40 visitor's diaries are presented here. Tourists were sampled at campsites which account for a large proportion of beds in Purbeck (Purbeck Heritage Committee, 2002). The design of the travel diary was based on a German study (Axhausen et al., 2002) and the UK National Travel Survey (Stratford et al., 2003).

Finally as the travel diary focused on visitors staying at campsites, a questionnaire survey was undertaken with visitors at various attractions in the area during summer 2005 (n=830). This enabled data to be captured from residents, day visitors and staying visitors. Measures employed in the questionnaire arose directly from the findings of stage 1 and 2. Among other things, data were compiled on people's explanations for travel behaviour, the problems encountered and responses to these problems by employing open questioning techniques. Open questions freely elicit views without prior categorisation thus respondents are not prompted to identify a problem such as 'congestion' by this being given in the question. The data generated were coded by content analysis according to the steps suggested by Weber (1990). Inter-coder reliability was assessed by Cohen's Kappa (travel behaviour, $k=0.85$ (almost perfect agreement), problems, $k=0.77$ (substantial agreement) and for coping mechanisms, $k=0.75$ (substantial agreement)) (Stemler, 2001). Data were then entered into SPSS as binary data for each category, ie present/absent data. Cluster analysis was employed to identify groups of respondents based on their explanations for car travel.

3. FINDINGS

3.1 Residents' perspective

During interviews tourism was conceptualised by residents as a balance between positive and negative impacts although there was a strong feeling among many, though not all, participants that the negatives outweigh the positive contrary to typical tourism impact studies (Andreck and Vogt, 2002). The sheer volume of people in a concentrated area and the resultant traffic congestion, pollution and even grid lock were held to be a major problem. In general the problem was seen to be caused by tourism and it was felt visitors should take some responsibility and use alternatives. However, the traffic congestion and overcrowding from tourism while seen to be acute were viewed as concentrated and short-lived. They are something you could put up with for the privilege of living in the area.

“it's a fact of life, basically, and it is intensely concentrated over the 6 weeks break during the summer holiday” (I. 2)

“everybody will tell you the traffic problems in summer, that's due to the pressures of tourism, if you live here you learn to live with it, it's no good complaining, you've just got to live with it.” (I. 6)

Tourism as the cause of the problem formed the dominant discourse but other issues became apparent as interviews unfolded. These might be seen as subordinate but no less important. For example, problems that could be attributed to local people were identified:

“Local people to start with – you get the person who gets in the car just to go to town. They know where in the town they can park in one of the lanes and come back through the town to get home. If there was a different system of where they had to use the bypass to go out of the town rather than congesting it, a lot of people would find it quicker and easier to walk to town”. (I. 8)

Another example is the school run where blame is apportioned to a specific group of car users.

“At 9.00 round the school times, it's a nightmare... when I worked I travelled west of here towards Dorchester and quite honestly it was a waste of time me bothering to go between 8.15 and 9.15 because I wouldn't get to work any earlier because you get stuck in the school traffic.” (I. 7)

The basic problem of rurality was also cited as a reason for high car usage:

“I'm afraid we very much rely on cars for our transport as so many people do... young people living here have virtually got to have a car it's very unlikely that the train will take them conveniently just to where they work and it's a big problem... one of the major problems with the motor car and all this congestion is the very great distances that people travel to work and I just don't know what the answer is I mean

this link with housing, people with a desire to live out in the country” (l. 3)

Access and egress to the area was raised as an issue for residents and tourists there being few routes into the area. So at one level tourists are blamed for the problem but at another there is recognition that tourism is only part of the picture.

An aspect which emerged from the resident interviews was the ‘coping mechanisms’ employed to deal with tourism impacts and the rural area. Strategies were learnt in response to: traffic congestion and overcrowding at key sites. This reflects the findings of other studies examining behavioural responses of residents to tourism (Brown and Giles, 1995; Burns and Holden, 1995 cited in Brunt and Courtney, 1999). Brown and Giles suggest the response to tourism impacts could be a function of residents’ ability to reorganise their activities largely due to a desire to avoid congestion and crowding. Brown and Giles found coping reduced spontaneity, two aspects of this were apparent in this study:

- Reorganisation of daily activities (changing times and locations of activities). In Purbeck residents avoid particular places, use different routes and go at different times, for example:
“we try to avoid going to Poole to a cash and carry at 4pm in the afternoon as when you come home you know it will be jammed up with traffic” (l. 7).

Reorganisation of daily activities was also apparent in the residents’ travel diaries as they undertook journeys at times to avoid congestion and when they knew they would be able to park.

- Retreat from normal life (stopping/ avoiding certain activities and planning ahead to avoid the need to go out). In Purbeck residents stay at home more at certain times for example:
“you adjust your way of living to suit the conditions. For instance, we know on a Sunday, friends will ring up in Wimbourne and say it’s lovely, we’re having a barbeque. Sorry, we can’t get there, because on a Sunday afternoon the traffic coming from Studland beach is chocker all the way through, so you never arrange anything, you stay at home on Sunday afternoon.” (l. 6)

3.2 Visitor travel diaries

Travel diaries revealed that car use by visitors is high in Purbeck (Table 1). This comes as no surprise and ties in with other studies in Purbeck (Purbeck Heritage Committee, 2002) and rural destinations elsewhere (Lake District National Park Authority, 2004). On the other hand, walking and cycling are also high relative to national levels (Department for Transport, 2005). This reflects the recreational participation in these activities in Purbeck (Scott Wilson Resource Consultants Tourism Associates, 2000) and might be an opportunity the area can build on. There are some distinctive modal patterns for each campsite which partly reflects the options available to participants.

Table 1. Main mode of transport by campsite

	Total trips %	Birchwood %	Ridge %	Tom's Field %	Ullwell %	Whitemead %
Walk	10	1	4	18	9	16
Cycle	4	4	9	9	0	0
Car	82	94	86	68	84	84
Bus	2	0	0	2	7	0
Steam train	1	2	2	3	1	0

Participants were invited to add additional comments about their trips especially in respect to any problems encountered and any unusual routes taken. Weather conditions were unusually poor during summer 2004, particularly during August which was very wet. This is likely to have reduced the number of visitors, particularly those making day trips, as Purbeck depends to a large extent on outdoor attractions. As a result, fewer participants than anticipated encountered problems travelling around the area and several commented that the road conditions for driving were surprisingly good.

Congestion was encountered on only 42 out of 844 trips recorded. A few participants attempted alternative routes to avoid congestion though this was not always successful as they were not familiar with the area. On only 6% of visitors trips parking was categorised as hard though when this was the case it was commonly commented on in the open area (general problems mentioned 29 times, cost mentioned 13 times). Participants reported paying up to £9 which was for a days parking in Weymouth. Most participants parked in car parks (77%) as oppose to on the road. On 56% of trips there was no parking charge. Some participants disliked paying for parking, particularly for short stays. In one case this resulted in the trip being aborted. It was common for people to spend time looking for free, on road, parking before resorting to paying a car park fee. One participant commented:

“Went to park in municipal car-park but at £4.00 decided to park on road instead, although car-park completely empty – road parking quite difficult to find space.” [Swanage, Sunday 25/7/04, 7pm]

Bus users were inclined to comment on late buses and the cost.

3.3 Questionnaire

The characteristics of respondents reflect those of other data for Purbeck (Purbeck Heritage Committee, 2002) and were broadly similar for all sites. The car dominates modal choice in Purbeck, however, there is some variation by location with lower car use and more walking to Durlston Country Park and Swanage (Table 2). This can be explained by the relative proximity of

accommodation to these two sites together with some visitors to Durlston engaging in long distance walks as a leisure activity.

Table 2. Mode of transport on day of survey

	Durlston Country Park %	Lulworth Cove %	Studland %	Swanage %	Overall %
All modes used that day*					
Car	70	94	96	69	83
Bus	2	1	0	4	2
Train	2	1	<1	<1	2
Steam train	2	0	0	5	2
Walk	54	11	8	34	23
Bicycle	1	1	2	2	1
Coach	0	2	0	4	2
Motorcycle	1	1	<1	1	1
Main mode (based on distance)					
Car	64	94	95	68	82
Bus	2	1	0	3	1
Train	2	1	<1	<1	1
Steam train	1	0	0	2	1
Walk	28	2	2	23	12
Bicycle	1	0	1	1	1
Coach	0	1	0	3	1
Motorcycle	1	1	<1	0	<1
Boat	0	0	<1	1	<1

*Adds up to greater than 100% as respondents may use more than one mode

For the purpose of analyzing car travel behaviour decisions those categories used by less than 10% of the respondents were excluded as has been suggested elsewhere (Hammond, 1993). Convenience and ease of use dominate the reasons for car use (Table 3) while several other pragmatic reasons are also clearly important (carrying equipment, speed, presence of children). There are also responses which describe problems with the use of alternatives (problems with walking, cycling and public transport) despite not being asked about alternatives directly.

Table 3. Reasons for car use (categories used by 10% or more of respondents)

	%
Convenience/ease of use	67
Carrying equipment	37
Speed or time	26
Problem with public transport	24
Presence of children	23
Independence and flexibility	18
No alternative	16
Cost	13
Number of people	11
Problem with cycling or walking	10
Distance traveled	10

These categories were entered into a cluster analysis. A pattern difference measure for binary data was used with an average linkage within groups method which produces tight clusters. 3 clusters were identified as follows:

Cluster 1 (n=132) associated with:

- Cycle or walking problem
- Number of people
- Public transport problem

Labelled: alternative apologists

Cluster 2 (n=325) associated with:

- Convenience
- Independence
- Cost
- Speed
- Equipment
- Children
- Distance

Labelled: satisfied car users

Cluster 3 (n=103) associated with:

- No alternative

Labelled: single minded car users

Surprisingly few problems were identified on trips especially when compared to other studies where a third or more of visitors experienced congestion (Dickinson et al., 2004). Cyclists and bus users identified most problems and walkers the least (Table 4). As numbers of cyclists and bus users are low the problems have

not been quantified, instead they are listed in Table 5. Problems with cycling and bus use were also a feature of the reasons for car use.

Table 4. Problems identified by mode

Mode	% identifying a problem
Car	25
Bus	41
Walk	11
Cycle	41

Table 5. Problems identified by bus users, cyclists and walkers

Bus user problems	Cycle problems	Walking problems
<ul style="list-style-type: none"> • Congestion/volume of traffic • Not enough public transport • Buses late • Buses slow 	<ul style="list-style-type: none"> • Congestion/volume of traffic • Fast traffic • Buses travelling dangerously • Hills • No cycle lanes • Car parking hazards • Speed of traffic • Abuse from car drivers • Walkers and dogs causing an obstruction • Lack of access to Poole Harbour • Poor car driving • Ticketing problem at Sandbanks' ferry 	<ul style="list-style-type: none"> • Congestion/volume of traffic • Volume of people • Dog mess • Hills • Physical fitness • Car parking hazards • Rain

The biggest problem identified by car users was congestion (Table 6) although much of this referred to congestion before they had reached the Purbeck area on the motorway network in particular. Congestion was also highlighted by bus users, cyclists and one walker. Parking was the second problem highlighted. Here it was a combination of high parking costs and problems finding spaces. Car drivers typically accepted the problem, as part of the experience of visiting a tourism destination area in high season (Table 7). Comments at the end of the questionnaire suggest some visitors had expectations of problems particularly on good weather days and others had amended their travel plans, usually by setting off early, to avoid problems they might encounter.

Table 6. Problems identified by car users (% is of those who identified a problem, n=157)

	%
Congestion/ volume of traffic	50
Parking costs high	12
Shortage of parking/ difficulty finding space	11
Poor signage	15
Road works	3
Could not park where wanted	2
Accident	2
Queuing for ferry	1
Volume of people	1
Finding free parking	23
Other	

Table 7. Coping mechanisms use by car users (% is of those who mentioned a coping mechanism n=80)

	%
Accept it	41
Alternative route finding	11
Drove slowly	5
Took time/ looked for parking	4
Parked on road	4
Would not come again	1
Other	35

4. DISCUSSION

Typical reasons were given for car use with convenience and ease of use dominating the responses with a variety of pragmatic reasons also being apparent. The presence of objections to use of alternatives is interesting. Respondents were not asked why they failed to use alternatives yet some gave a response focusing on problems with public transport, walking or cycling. This suggests that some respondents are troubled by their use of the car and rather than justify why they used the car by describing its positive features they explain why they could not use alternatives. There is therefore, arguably a norm for people to consider alternatives and make excuses for their lack of use. For instance, other parts of this study revealed there is a discourse that public transport should be used and would be but for the fact that it is expensive relative

to the car at point of use and difficult to use (Dickinson and Dickinson, 2006; Dickinson and Robbins, 2006). Similarly Barr et al. (2003) found people gave excuses for their non-participation in recycling, as it has become normative behaviour.

Three groups were identified on the basis of their explanation for travel behaviour. The likely response of these groups to car reduction strategies is considered. The largest group (satisfied car users) love the car and embrace positive features of car travel. This group is unlikely to respond positively to alternatives which cannot reproduce these features. The 'alternative apologists' and 'single minded car user' groups are of interest from a behavioural change perspective as their reason for car use includes consideration of alternatives, albeit from a negative perspective. However, these groups use the problems with alternatives as a powerful excuse for car use and are thus also unlikely to switch mode. In particular the 'single minded car user' group are not able to identify alternatives in the context of their present circumstances. It is unclear how such a group might respond to alternatives being made available. Would they embrace the options or would they unwilling to engage? Given that alternatives are available in many cases the latter seems likely.

Though the exploratory research with residents revealed an emphasis on local travel problems that is typical of the tourism impacts literature (for example, King et al., 1993; Jurowski et al., 1997; Lindberg and Johnson, 1997) residents' views were mixed on this. The overriding problem cited by residents was traffic congestion. Some informants viewed tourism congestion as a short-term problem that could be lived through and was avoidable, while wider issues relating to rurality posed greater problems. Interviews suggest residents have developed a way of life adapted to cope with tourism. Underlying tourism issues are wider problems faced by residents of rural areas. Thus the extent to which tourism is the major transport issue is debatable. Rurality stands out as more over arching issue posing year round transport problems for residents that couple the mobility issue with problems of accessing jobs and facilities such as shops.

While interviews show residents recognise local travel problems, the travel diaries and questionnaire survey revealed that car based visitors had few concerns. Relatively few visitors identified problems, the most common concern being congestion, however, the congestion referred to was often outside of the Purbeck area, for instance on the motorway network. After congestion, parking was a concern identified by both residents and visitors. The problems related to finding parking spaces and a dislike of paying for parking. In open comments visitors expressed some concern about high parking charges but these did little to deter car use. The survey demonstrated that car based visitors mostly just accepted the problems they encountered, they were expected in a holiday destination and mostly less severe than expected.

In the survey bus users and cyclists identified proportionally more problems and walkers less. This tends to suggest travel conditions are less favourable for bus users and cyclists. This is a concern as these are both important alternatives to the car and while they are poorly received they are less likely to encourage use. Problems with cycling and bus use also featured as reasons for car use and suggest there is a norm to consider these modes problematic.

Three important caveats need to be considered in relation to the visitors' low identification of problems. Firstly, poor weather conditions during the later part of the travel diary implementation period may have reduced the incidence of problems encountered. It is also possible that sampling bias in the survey reduced the number of visitors experiencing problems. As visitors were surveyed at attractions those who had encountered problems may have turned back, gone elsewhere or arrived later in the day. However, it was felt that this was unlikely to have had a major impact on either sample. Secondly, an issue may be visitors' expectations and experience of problems. Many come from urban areas where they are acclimatised to more serious traffic problems. Indeed, open comments revealed visitors had expectations of problems, particularly on good weather days, and expressed a willingness to put up with them. Thirdly, visitors are better placed to avoid problems as leisure trips are less dependent on specific time frames and the destination can even be modified.

The analysis raises questions about the pervasiveness of transport problems in rural destinations. Residents readily identify a problem and tend to project responsibility onto visitors although even as they do so there is recognition that tourism is not just to blame. Visitors on the other hand do not identify readily with the problem in the first place. This has important implications for where responsibility to take action lies. Residents would like visitors to take responsibility, yet the visitors do not recognise the problem, see little need to take action in the first place and in turn feel persecuted by high parking costs. High parking charges are, at present, the main 'stick' implemented in the area and while visitors express concern about these costs they appear to do little to deter car use. Thus the situation is at a stalemate.

Analysis suggests problems are shaped by people's experience of place. A large proportion of visitors come from urban areas where congestion and parking problems are an almost permanent feature. From an urban centric perspective the problems in Purbeck are not significant. Furthermore, cycle and bus users identify more problems and 2 groups of car users were identified (alternative apologists and single minded car users) with negative views of alternatives. Thus, through social transmission, negative experiences of alternatives potentially re-enforce the embracing of car use. Problems are therefore socially constructed and reproduced with consequent implications for transport management.

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