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**Title:**

Reducing car-use for leisure: can organised walking groups switch from car travel to bus and train walks?

**Abstract:**

This paper deals with the significant leisure travel sector, focusing on the attitudes of organised walking groups towards public transport use. A series of interviews with walking group leaders explored the design of organised walks, and factors affecting journeys to and from start points. The themes presented suggest an overlying group culture involving mainly circular walks, reached by car. The research indicates an underlying engrained dependency on cars to reach walks and a degree of opposition to using public transport, which generally contradicts widely-held attitudes towards protecting the environment. Future research should focus more in depth on the long-term removal of psychological barriers to using public transport for leisure, and persuasive measures aimed at groups.

**Keywords:**

Behavioural change, rural tourism, recreational walking, leisure travel, modal shift

**Research Highlights:**

- An analysis of a significant niche of the UK leisure travel sector was made.
- The culture of organised walking groups is one of high car-dependency.
- Respondents generally share a desire to protect the natural environment.
- On the whole, environmental awareness does not change group travel behaviour.
- Modal switch for leisure travel to rural locations is a slow and ongoing process.

**1 Introduction**

Travel behavioural change has been the focus of increasing attention from governments and academics in order to reduce energy consumption, pollution and

CO<sub>2</sub> emission levels and combat the worst effects of climatic change. Transport is a significant contributor to global CO<sub>2</sub> emissions, and the reduction of car use is considered as one of three key areas to address (in addition to air travel and road freight), but as technologies alone are not enough to stabilise emissions, behavioural change through policy is required (Chapman, 2007). A wealth of academic studies have sought to understand travel behaviour change in overall terms, focusing on aspects such as the application of psychological principles (Seethaler and Rose, 2004), assessing which segments are most likely to switch mode (Stradling et al, 2000), the travel habits of households (Ampt, 2003) marketing techniques (Brög et al., 2002), the evaluation of persuasive measures (Fujii and Taniguchi, 2006, Stopher et al., 2009) and the potential of increased use of alternatives (Ogilvie et al, 2004). Generally, these studies concentrate on all trips, or primarily on utility travel. Comparatively little attention has been given to non-utility travel.

Travel for leisure and tourism purposes is a focal point in efforts to reduce car use. Recent literature has identified that transport geography studies can play a substantial part in understanding sustainable tourism mobility behaviour and perceptions, particularly as transport represents the most significant contributor to tourism-based greenhouse gas emissions (Hall, 2010). Whilst Hall's paper rightly acknowledges Gössling's work (Gössling, 2002a, Gössling: 2002b, Gössling et al., 2005), focusing on the ecological footprints of international trips for tourism, and studies on walking and cycling (such as Lumsdon and Tolley, 2004, Ingold and Vergunst, 2008) all of which represent '*common areas of substantial research and policy interest*', there is considerable potential to build on current understanding of sustainable mobility by focusing on domestic travel for leisure. In this context, Gronau and Kagermeier (2007) note that despite the high proportion of trips which are made for leisure, generally the use of public transport is low. To understand car-use reduction there is a need to further investigate attitudes towards modal choices for leisure travel.

This paper explores the issues underpinning high car-use for leisure, using recreational walking groups in Central and Western England as the focus of enquiry.

In particular the study addresses transportation to and from organised group walks. This is a niche of recreationists in terms of the proportion of car journeys made for leisure in the UK, as there are hundreds of groups travelling on a regular basis throughout the year to walk in countryside locations (Ramblers Association, 2013) and visit points of interest; mainly by car and often using multiple cars per group (Curry and Ravenscroft, 2001; Dickinson et al., 2004). The paper adopts a qualitative approach to understand further the wider context surrounding travel for leisure activities, and to explore issues affecting public transport as an alternative to the car. The research focuses on the attitudes of designers of group walks towards changing the present culture of high-car use particularly to, from and within rural areas. Recommendations are then made to inform future actions to increase sustainability amongst leisure travellers.

## **2 Literature review**

### **2.1 Managing the impact of leisure trips to the English countryside**

The English National Travel Survey found that approximately 30% of all journeys made in 2013 were for leisure purposes, accounting for 41% of total mileage (Department for Transport, 2014). The same study found that approximately 61% of leisure trips are taken by car. Day trips to rural areas are more likely to be car-based, with a modal share of 89%, as opposed to a 78% average for all trips (Visit England, 2013). Walking is among the most popular activities undertaken for leisure, and is the most frequent outdoor recreation activity (Natural England, 2015). Travel to countryside locations often entails longer journey distances (Cracknell, 1967) which result in higher levels of climate-changing greenhouse gases (Golob and Hensher, 1998), air pollution (Small and Kazimi, 1995) and water pollution (Hensher, 1998).

Car-use by leisure travellers is detrimental to the countryside in a number of ways. The design of the infrastructure often cannot handle large numbers (Jaarsma et al, 2009). Increasing numbers of cars in the countryside result in high levels of noise pollution (Gray et al, 2001). Parked cars are also a form of visual pollution (Tolley, 1996) and, particularly at honey-pot sites, rural car-parks often become overloaded, increasing the

likelihood of road-side parking and disturbance to local residents (Phillip and MacMillan, 2006). There are other problems relating to the increased visitor pressure associated with large groups walking in rural areas. They include added erosion of the ground, an increase in off-path deviation (Kierle and Stephens, 2004) and increased noise (Gramman, 1999) which among other things disturbs wildlife and reduces tranquillity.

Efforts to reduce the impact of vehicles in rural areas include traffic calming, road closure, car sharing schemes, speed reduction and the enhancement of publicity for public transport and routes for walkers and cyclists. Dickinson and Dickinson (2006) reviewed tourism and transport initiatives in the UK and reported that 70% were focused on public transport provision or promotion, whilst the remainder concentrated on traffic management, cycling or walking. Dickinson and Robbins (2008) found that any policy which restricts car-use or parking generally increases the public transport share. Road-pricing, a method used primarily in urban settings to reduce vehicle numbers, was trialled on rural roads in the Yorkshire Dales National Park (Steiner and Bristow, 2000). In this case, modal switch was achieved because of the additional presence of park and ride and complementary access measures. However, a study based in the Lake District National Park concluded that road-user charging was unworkable as a demand management instrument, as the forecasted equity costs exceeded road network efficiency gains (Eckton, 2003).

In terms of shifting leisure travel from car-based journeys to public transport, measures are often implemented at site level, by the management of National Parks, Areas of Outstanding Natural Beauty (AONBs) or other heritage sites, local government organisations or specific attractions. Understanding the organisational preferences and travel behaviour of groups and individuals engaged in leisure activities is a viable complement to fulfilling policy goals to protect rural environments and promote sustainable travel behaviour.

## **2.2 The potential for changing leisure travel behaviour**

Leisure travellers have several main motivations to visit the countryside. Experiences within natural settings which are pleasing, relaxing and exciting are more likely to achieve higher levels of satisfaction with the 'tourism product' than experiences associated with boredom and frustration (Chhetri et al, 2004). This encompasses travel experiences in which the primary motivation is pleasure. An attraction to natural settings, often accompanies a higher than average responsibility for the health of the natural environment. A general profile of visitors to the English countryside, obtained by the Countryside Commission, highlighted strong attitudes towards threats or changes to the countryside, a high level of concern for conserving the environment and the identification of the countryside as a place for experiencing peace and solitude (Phillips and Ashcroft, 1987, cited in Macnaghten, 1995). However, car-dependency is prevalent amongst visitors to the English countryside (Dickinson and Robbins, 2007). Therein lies the paradox: whilst on one hand this segment of society sees the countryside as a place to engage in positive experiences and one which should be protected, they are also responsible in part for potential damage to the environment caused by their travelling habits. Furthermore, the reliance on a car to and from walking locations may ultimately contribute to reducing the perceived benefits of the activity.

Determining the relationship between public attitudes to conserving the countryside and their actual behaviour is difficult, as people's views are complex, often ambiguous and are bound by perceptions of the environment as an *'exemplary arena where societal and policy agendas are often contradictory, paradoxical and highly controversial.'* (Macnaghten, 1995). Social psychologists have long attempted to understand public attitudes and the relationship strength or shortfall between attitudes and behaviour (Schwartz and Tessler, 1972; Ajzen and Fishbein, 1977; Fazio and Zanna, 1978; Ajzen and Fishbein, 1980). Situational factors have some influence on the likelihood of realising attitudes through behaviour (Davidson and Jaccard, 1979; Ajzen et al., 1982). In the context of walking, situational factors which might prevent groups from acting within the best interests of the environment include the weather, path condition, parking or the current public transport provision. An additional element of understanding the attitude-behaviour gap is the range of psychological barriers associated with changing travel behaviour. These include perceived behavioural control (the perceived ease of

making the behavioural change), self efficacy (the individual's level of confidence in their making the change), denial, instrumental and affective barriers, knowledge or awareness of the consequences and habit (Anable, 2006). A further barrier, perhaps more relevant to a group activity such as group walking, is the effect of 'group norms'. This refers to the social influence of groups on individual behaviour, and has been cited as a strong contributory factor to explain differences between attitudes and intentions on the one hand and actual behaviour on the other (Terry and Hogg, 1996).

Human activity approaches to transport behavioural study position travel as a link in the process of fulfilling needs through the formation and accomplishments of daily sets of activities (Fox, 1995). This refers to a more routine form of travel, and whilst timetables, route network layouts and the geographical positioning of 'social facilities' have an effect on increasing or constraining public transport use (Lenntorp, 1976), travel for leisure is considered as discretionary and gives the individual a greater freedom of choice regarding when and how to travel. There is therefore an opportunity for walking groups to consider a mode of transport other than the car. Walking groups may potentially change travel habits by encouraging walks which use public transport. This study analyses the findings of a project named 'Bus and Train Walks'. The phrase 'Bus and Train Walks' has been used to describe walks which reduce energy and pollution by

- (a) using existing public transport rather than the car to access the countryside for circular walks

- (b) featuring public transport as part of a linear walk, for example, between stations

The principal aim of the project was to explore the extent to which walking groups might consider changing the emphasis from car based circular walks to public transport based walks to reduce their environmental impact. There were three relevant objectives:

- 1) To review existing walks programmes of a sample of groups to understand existing travel behavioural patterns.
- 2) To understand the importance of transport in the design considerations of organised group walks.

- 3) To ascertain attitudes towards the use of the car, public transport and environmental impact, in the context of organised group walks.

### **3 Research method**

An initial review was made of walking group programmes in order to ascertain travel behaviour. To evaluate existing behaviour of walking groups, depth telephone interviews were conducted with programme organisers, group secretaries and walks leaders to determine attitudes towards walks which use public transport. The use of qualitative interviews allows a researcher to gain an understanding in depth of their subject through conversation and to ascertain a deeper meaning on the research area (Kvale, 1996). Whilst quantitative research uses standardised, reliable measures to make statistically relevant inferences on populations, qualitative research can get closer to the perspective of the individual regarding socially constructed processes (Silverman, 2005; Denzin and Lincoln, 2000). Although generalisation from findings is a key issue for qualitative researchers (Lewis and Ritchie, 2003), it is appropriate in this context as it can explain and illuminate people's attitudes, experiences and behaviour (Ritchie and Spencer, 2002). In studies that specifically focus on travel behaviour, qualitative methods give insight into public attitudes regarding travel-based problems and their solution (Clifton and Handy, 2003).

Qualitative research requires non-probability sampling, which relies on an assessment of the characteristics of the interviewee in relation to the requirements of answering the research question (Bryman, 2001). People who lead and design group walks were particularly significant because they offer an insight into the attitudes and behaviour of others in the group (therefore offering insights into a wider population than the initial sample). They are also decision makers in the design process and therefore have some influence over modal choices. The sample of 22 interviews was drawn from walking groups located in the Welsh Marches (the borderland between England and Wales) between Cardiff, South Wales and Crewe, situated near to the Marches railway route between Manchester and Cardiff. The

corresponding walks programmes of the 22 groups were initially reviewed to determine the design of walks and how they were accessed.

The interviews were undertaken during October 2008, and subsequently recorded and transcribed, with anonymity maintained throughout the research process. The analysis of the transcripts involved the use of a computerised software programme, Nvivo to establish key categories, themes and words which were then interpreted to determine insights regarding:

- designing and planning walks from a walk leader's perspective,
- the extent to which groups seek to reduce their environmental impact,
- attitudes towards providing linear and circular walks using local buses and trains.

## **4 Discussion of findings**

### **4.1 Review of walking group programmes**

Before the interviews were undertaken, the initial review of 22 walks programmes noted that the dominant message regarding travel was for walkers to meet at a car park where the walk commenced (50% of all walks). An additional 32% of walks provided unspecified meeting points which indicated grid references pertaining to car parks. In contrast, 10% of walks involved travel by train but only 1% were bus walks (linear walks using local buses) and less than 1% used minibus or coach. Thus, as a general rule, most walking programmes were predominantly geared towards access by car. It is important to note, however, that 4% of programmes advocated that car sharing would take place on arrival at a given meeting point. A member of each walking group was then interviewed.

The depth interviews lasted between 30 minutes and 1 hour. The respondents reflected a mix of ages, although there was a bias towards retirees and a gender split of 60% male/40% female. The analysis produced several key themes which are detailed in Table 1 below.

INSERT TABLE 1 SOMEWHERE NEAR HERE

#### **4.2.1 Designing recreational walks for walking groups**

All respondents had several years' experience of leading guided walks. They often walked with more than one group, and some had been part of the same group for up to 20 years. The discourse from the interviews suggested that group walk design is dependent on numerous considerations. Respondents saw scenery as the most essential factor of route design. A common theme was diversity and variation of landscapes: such as rivers, canals, hills, fields and hedgerows. Generally, walk grades were based on the ability required to complete them and were differentiated typically as either: easy, moderate and more strenuous. As groups were predominantly composed of people over 60, ability dictated that walks were typically 8 or 9 miles long. An important planning consideration was to research potential shorter routes to account for sudden changes of weather. The need for varying start and end points led to further implications regarding transportation requirements: such as the location of parking or bus stops.

Practical considerations such as refreshments and toilets were mostly considered as desirable requisites of route design, but not essential. However, several respondents saw the value of car parking as an important requirement. One recounted finding space for only two or three cars at the start of a walk, which caused problems and ultimately resulted in the walk not taking place. Circular walks were seen as the predominant design with linear walks an occasional variation.

*'I think 99 out of 100 walks are circular'*

The most significant barrier to linear walks for many respondents was the perceived difficulties caused by transport to and from the start or end of the walk. It was apparent that these difficulties were amplified in rural locations where public transport services were sometimes scarce. It is probable that car-dependency in people's everyday existences is reflected in their choices for leisure trip. These deeper habitual behaviours have been attributed to the physical separation of daily activities in residential areas (McEldowney et al., 2005) and may explain the

disconnect between groups' environmental policies and travel behaviour, discussed below.

#### **4.2.3 Environmental policies of walking groups**

When discussing group environmental policies, interviewees often initially focused on walking environments rather than transportation. They detailed efforts to fix stiles and gates, and 'keeping an eye' on farmers who grow crops across paths, plough fields too heavily and neglect to restore footpaths. There was a shared view that others' should behave responsibly towards the environment. Respondents spoke negatively about the use of 4x4 vehicles in the countryside and the activity in 'honey-pot sites' where 'ignorant' people climb on and damage dry stone walls. It was suggested by one interviewee that walkers, in particular large groups, should stick to non-sensitive areas on stronger stone-chipped paths. Some respondents didn't feel that they were responsible:

*'Nothing as yet. We're all getting into our seventies and I suppose it's the people who are coming up behind us who will have to lead that. I don't see our members at the moment looking at that'*

The common theme amongst groups reflects a degree of NIMBY (Not in my backyard) behaviour in this context which translates to environmental attitudes regarding travel behaviour. This may be explained further by looking at attitudinal variations. Anable (2006) explains differences between 'groups' of leisure travellers based on variations in a number of factors (moral norm, environmental attitudes, efficacy, behavioural norm and habit). Her groups included 'Malcontented Motorists' who although might be *'willing to reduce car use for altruistic motives and to avoid congestion, they are held back by weak perceptions of behavioural control.'* Although in principle, they have 'good' environmental intentions, they are less likely (and need more persuasion) than some other groups of people to consider alternatives to the car because they do not see their own car use as significant to the overall issue. Furthermore it is clear that there is a culture of denial which appears to override other psychological constructs including Perceived Behavioural Control.

#### 4.2.4 Transport to and from group walks

The locations which groups chose to walk in were distributed within a reasonably wide radius around their locality, often in the region of forty miles. Many groups travelled further afield to other regions of the UK, but infrequently, and so as to add variation to their walks programmes. Car travel was seen by some respondents as the only practical option of reaching start points:

*'one of the biggest problems is where to park...'*

*'Public transport is not a major consideration in our walks planning. Transport is not good in this area so we tend to use cars. Car sharing has always happened. There's no overall policy. That is the way it is.'*

Interviewees recognised that not all individuals have cars. However generally, other group members were willing to car share.

*'People are becoming more and more conscious of this...we use the minimum number of cars as possible.'*

Often groups had a specific system which involved designating a meet-point which group members could reach from their homes (almost always by car singly or as a couple). From here, they shared cars to the start of a circular walk. This was often intended to save fuel costs. One respondent discussed their group's travel, saying that they only began to car-share when prices increased, but stopped sharing when they decreased again a few months later. However, the majority of respondents noticed a change towards car-sharing in recent years and especially in relation to the oil price rises that occurred in 2008. A lack of parking area was not always considered a deterrent to walking groups:

*'People tend to park on the sides of roads and narrow lanes, without causing a hazard...perhaps on a side reservation. At one time we had twenty cars and that was too much. Meeting points aren't always advantageous. It depends where you meet in the borough. People are very reluctant, for example if we are going westwards and the meeting place is eastwards (from their point of origin) they won't be in agreement.'*

Coaches and minibus were booked by groups on an infrequent basis; there was a tendency to use them only for trips to other regions. Perceived benefits were the ability to do a linear walk (as a change to circular walks) and the atmosphere of travelling in a group. The group dynamic and social experience appeared more prominent in such excursions. Previous research by Lumsdon et al. (2006) has found that a bus service can provide a social element to persuade modal switch, albeit a less frequent 'carrot' than others such as parking issues and lack of stress. Some groups used a coach to walk a long distance trail in stages, whilst others walked a linear trail with separate start points (based on walker's ability and the length of the route). However, coaches were considered problematic in terms of the financial costs. If the weather was poor, for example, members were less likely to attend the walk. The Ramblers Association policy dictated that such trips could only be made if costs could be covered. Furthermore, respondents suggested that there was a perception amongst walkers, that coach travel was expensive, which often dissuaded them from hiring coaches.

There was a mixed response regarding using trains for linear walks. Most groups had included a train, steam train or bus walk in their programme but for the majority of groups this was an occasional activity rather than the norm. Again, barriers against using trains revolved around car-dependency. Several group leaders pointed to the wide geographical spread of their members, arguing that they would still have to drive to and from a station. Limitations of public transport were often set against perceived benefits regarding the convenience of car travel. Many groups wanted to take their walks on Sundays. In many areas, Sunday public transport services are infrequent, particularly in the morning. Groups were reluctant to change their programme to a Saturday, when services are more frequent. Delays or cancellations to services were seen as disastrous to the walk:

*'A one hour delay could throw the whole walk out'*

*'Corvedale, Teme Valley...I mean it is a pretty remote area. In a way it is part of the attraction. If the facilities were there I am sure we would design more walks around public transport but it is obviously limited.'*

Some groups operated in areas where the train company advertised 'rail rambles' but had not used them, preferring to 'stick to coach or car'.

Some groups did use buses for walking trips occasionally, and leaders were favourable to incorporating a bus journey for the group:

*'I find that with a little bit of research, and a little bit of hanging around, tailoring your walk to the time, it can be done'.*

Individuals who used buses for everyday travel were more positive about the possibility of their group using a bus, and one leader thought that the bus gave him a ready-made linear walk. Several respondents considered there were many real benefits when organising a linear walk: *"the progression and that you can avoid the need for roads...if you do a circular walk you have to do more tarmac."*

*"Sometimes linear walks are preferable as within a 10 mile stretch you can cover more countryside than...if you are doing a circular walk."*

However, there were concerns about the best way to do this:

*'The outward journey is dead good on public buses. The drag of the return journey is the anxiety of getting to the bus at the right time as a leader. The trick is getting there with enough time but not too much.'*

There was a consensus that bus walks should start with the bus journey outward and then walk back. There were not similar concerns about train walks between stations although timing was still an issue. Given the differing values of waiting time for each mode of transport (Wardman, 2004); this indicates another dimension ingrained of car-dependency causing a barrier.

Themes surrounding barriers to using buses for linear walks included: inaccessibility, (*'some places you just can't get to by public transport'*), potentially poor frequency and reliability. There were also concerns about fitting groups of up to 30 people onto a bus, and taking rucksacks and dirty boots on the bus. It appears that given the public nature of the bus, these concerns were greater than if talking about the group taking a coach.

*'If thirty people turn up for bus, what do the people who normally use the bus do?'*

*‘The thing is, our membership is a bit scattered, round the Moorlands and even into Stoke on Trent, so getting a bus to a start point might be difficult. We can pull people into the car park, put them in cars and go from there.’*

Whilst groups vary in terms of the balance of different influences on route design, the research indicates an underlying engrained dependency on cars to reach walks and a wide degree of opposition to using public transport, which contradicts generally widely –held attitudes towards protecting the environment. Hagman (2003) suggests that people more often than not see the benefits of using cars as unequivocal, and are also often likely to see information regarding disadvantages towards the environment of car-use as negotiable and relative, as the facts have been constructed by others in laboratories, and presented through various forms of media. The personal freedom offered by the car is a key reason why people choose not to use public transport. A lack of opportunity is cited more often as a reason for not using public transportation than price, trip duration or lack of interest (Steel, 1996). The age profile of this group of people suggests a generation who hold a certain level of denial towards the association of car-use with climatic change. Dargay (2001) identified a link between higher income, associated with higher age groups and car-use. This is a type of dependency which is not easily reversed, even after retirement. The interviews demonstrate that psychological barriers exist regarding public transport and may explain the attitude-behaviour gap in this instance.

#### **4.2.5 Use of public transport**

In principle, most respondents were positive about using public transport and argued that it was only because of the lack of services (or that they did not go to places they wanted to go) that held them back from actually using it.

*‘I think there’s a lot of positiveness out there. The trouble is that for this area it would be fairly limited.’*

Table 2 provides an overview of responses to several suggestions made by the interviewers as to how groups could encourage public transport based walks.

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In the recent past, practitioners and policy makers have sought to increase the provision of information about alternative forms of transport (Brög et al, 2002) and education regarding the affects of modal choices, and the benefits of not using cars (Seethaler & Rose, 2004). There is increasing potential for using mobile and information technologies to access public transport information in rural areas, and this is an area in which the leisure travel market can explore to enhance the benefits of switching mode. Owens & Driffill (2008) studied attitudes and behaviour in the context of energy consumption, and maintain that educational measures alone are not enough to change behaviour. They call for a detailed examination of the physical, social, cultural and institutional influences which shape and constrain people's choices, and advocate a greater degree of communication between governments, experts and the public. The accounts of walk leaders in this research suggest that efforts to remove perceived and situational barriers, and therefore alter group norms, are a key priority to stimulate a change in the culture of this market of leisure travellers. However this is a slow process which faces significant barriers relating to engrained habitual behaviour and deep psychological dependence on the car. The social experience is an important element of walking group culture and therefore may offer a means of using a community approach to changing norms. A more realistic solution would be to increase car sharing, thus circumnavigating public transport.

INSERT FIGURE 1 SOMEWHERE NEAR HERE

Figure 1 (above) summarises the considerations of walking group route design as identified by this qualitative investigation. Although such a framework cannot convey some of the complexities involved in the process, for instance the constructs at work in the formation and evolution of individual attitudes and group norms, it uses the key themes arising from the research to explain the choice of routes and associated transportation journeys made by walking groups. The top half includes influences relating to the groups themselves (which differ in terms of composition of individuals, group norms and preferences and location), or situational factors based

on the environment or transport provision. Some of the key design elements pertaining to route choice of walking groups are included in the bottom half of the framework, positioned parallel to the factors in the top half which may affect their importance in the final choice of route. For instance the route grade or distance is affected by the ability of individuals within the group, whilst a number of sets of factors influence mode choice: group norms, individual attitudes, place of residence, and transport and non-transport related factors.

## **5 Conclusion**

This study examined in detail the current attitudes of walks leaders with the aim of understanding the issues underpinning the travel behaviour of walking groups and the implications for the wider leisure travel sector. Transport was evidently not a major consideration in group walk design, and usually only considered in terms of car parking locations, reflecting an almost universal reluctance to consider alternatives. Individual and group attitudes towards the natural environment demonstrated that the intention to conserve it was clearly present, but in travel terms this notion was manifested in car-sharing from designated meeting points, reached by car.

The overlying group culture was presented as involving mainly circular walks, reached by car, undertaken on Sundays when public transport provision is diminished. Other barriers included the geographically scattered nature of group members, and the remoteness of preferred walking locations. Whilst some groups included one or two public transport walks in their annual programme, and there was some consensus that bus and train walks appeal because of their low impact, there are evidently perceived barriers to behavioural change. They include a perception of poor quality services, and in some cases the effort required to acquire information and convey it to the group. The engrained car-dependency which particularly defines this age group is a significant barrier, but emerging technologies may offer a partial remedy to information issues.

One of the cited reasons for not using public transport was the added time spent on the journey. Therefore other positive persuasive arguments for switching from car-use should be explored. Based on respondents' views, suggestions include: saving fuel money, enhancing the environmental arguments and the social experience of travelling together as a group. These are key factors which require further consideration. Given the positivity shown by respondents towards conserving the natural environment and saving CO<sub>2</sub>, with careful persuasive measures aimed at changing group norms, long term policy should focus on increasing bus and train walks by adopting local service routes and publicising walks on websites and through other media. However, the slow uptake suggests car-sharing as the most likely short-term focus. Furthermore, this does not resolve the issue of car parking in villages and sensitive areas and encouraging cars onto very lightly trafficked lanes which is prevalent in all national parks across Europe.

There also is a degree of feeling that policy makers encourage more use of local buses and trains by visitors because it helps to sustain them for residents. However, the product has to be right and information diffuse in the tourism sector for them to attract visitors. Perhaps, these services attract car owners on board because they are well established, reliable and go to places that visitors want to go to. There is also a counter culture in the UK towards walking without the car personified in the likes of 'Car Free Walks', 'Rail Ramblers' and 'Walking with Offa'. However, these are small in scale but nevertheless offer an alternative to car based walks. With such initiatives, a change in culture is possible, but it must be considered to be slow-paced at this point in time, given the issues identified here.

There are potential limitations to this research which are acknowledged by the authors. The use of qualitative research cannot guarantee a wholly accurate generalisation on the travel habits of walkers. Additionally, the interview focus on increasing public transport use by group members was potentially leading, and should perhaps have explored their attitudes towards their own car use to understand further the underpinning influences. Nevertheless the research value of this study can be found in the depth of insight gained from the attitudes of this group of leisure travellers, who represent new and important ground covered in academic study of this nature. Future

research should focus more in depth on understanding the culture of denial which surrounds leisure groups and other means of removing psychological barriers to switch to alternative modes of transport.

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