

Beyond Transport: Understanding the Role of Mobilities in Connecting Rural Elders in Civic Society

Parkhurst, G.*, Galvin, K., Musselwhite, C., Phillips, J., Shergold, I., Todres L.

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*Corresponding author (graham.parkhurst@uwe.ac.uk).

Introduction

The present chapter argues for an understanding of connectivity through mobility by elders living in rural areas that goes beyond the traditional transport planning focus on the supply and demand of transport services. This involves consideration of not just physical movement but also all the other ways in which older people can be ‘mobile’ for connectivity and the wider benefits and meanings mobility brings, for example video-calling grandchildren using computer software, finding out about shopping delivery services for use in bad weather, or compiling a scrapbook about a past alpine holiday. Following a brief review of methods, a conceptual framework for mobility which can be applied across the lifecourse is presented. The following section applies this framework as context to understanding some of the key mobility policy and practice challenges for the promotion of connectivity of rural elders, which relate to the availability of mobility options - cars in particular - and the associated issues of accessibility and mobility-linked social exclusion. It is concluded that the more holistic appraisal of mobility for older citizens bring important conceptual benefits. A picture emerges of rural areas being ‘car intensive’, but less car dependent than identified in previous studies, with accessibility for connectivity also relatively unproblematic for the majority, although with minorities representing important exceptions. Practical relevance is drawn out for planning and urban design as well as for health and social care professionals.

Methodology

The analysis draws on the quantitative survey described in Chapter One and two qualitative data collection activities conducted specifically for the mobility and transport study that was part of the GaPL project: 45 semi-structured interviews, for which the participants were selected to represent a range of mobility lifestyles, and ten phenomenological interviews with participants selected according to varying health and mobility statuses.

The GaPL survey contained a series of mobility-related questions which addressed travel patterns and behaviours, mode choice (including over time), and whether mobility played a role in either exclusion from, or engagement with, the local community. Participants in the semi-structured interviews were mostly recruited from volunteers identified through the quantitative survey, but due to the low representation in the quantitative survey sample of a particular group

of interest (people who had recently given up car driving) seven further participants were recruited from outside of the quantitative survey sample. Potential interviewees were initially contacted by letter or email, with arrangements for home-based interview made by phone. Interviews were typically undertaken on a one-to-one basis (but occasionally with couples) and were recorded digitally and transcribed. Age group (60-69, 70-79 and 80+) and gender were also approximately matched between the six locations.

The interviews focussed on mobility issues, both at a personal level and for the wider community of older people, and lasted on average around an hour. Some participants were active cyclists or mobility scooter users, others were ex-drivers, or were users/non-users of public transport, or were people who had re-located in order to achieve better access to services and facilities. Questions were arranged around five themes; exploring the meaning and importance of current mobility, the benefits and dis-benefits of the most commonly used mode(s) of travel, the impacts of losing access to a car (when relevant), personal mobility biographies, and a forward-looking theme covering which included sustainability issues related to travel. The data were analysed using a framework based on the research questions, assisted by the use of Nvivo software.

Participants for the phenomenological interviews were all recruited from volunteers identified during the quantitative survey. The interviews lasted between one and three hours and focused on what it was like to live in their locality of residence. The mobility aspects explored trips regarded as necessary ('have to', 'must do') and desired ('want to') by the participants, with the questioning intended to allow understanding of the meaning of transport in people's lives and the meaning of mobility within the context of rural space to emerge. The analysis of this group of interviews was also phenomenological in orientation, following a sequential approach which began with holistic and background understanding, followed by the identification of discrete 'meaning units', and then finally these were transformed into more general expressions about the essence of that meaning. Todres and Galvin (2012) provide further detail of the phenomenological approach.

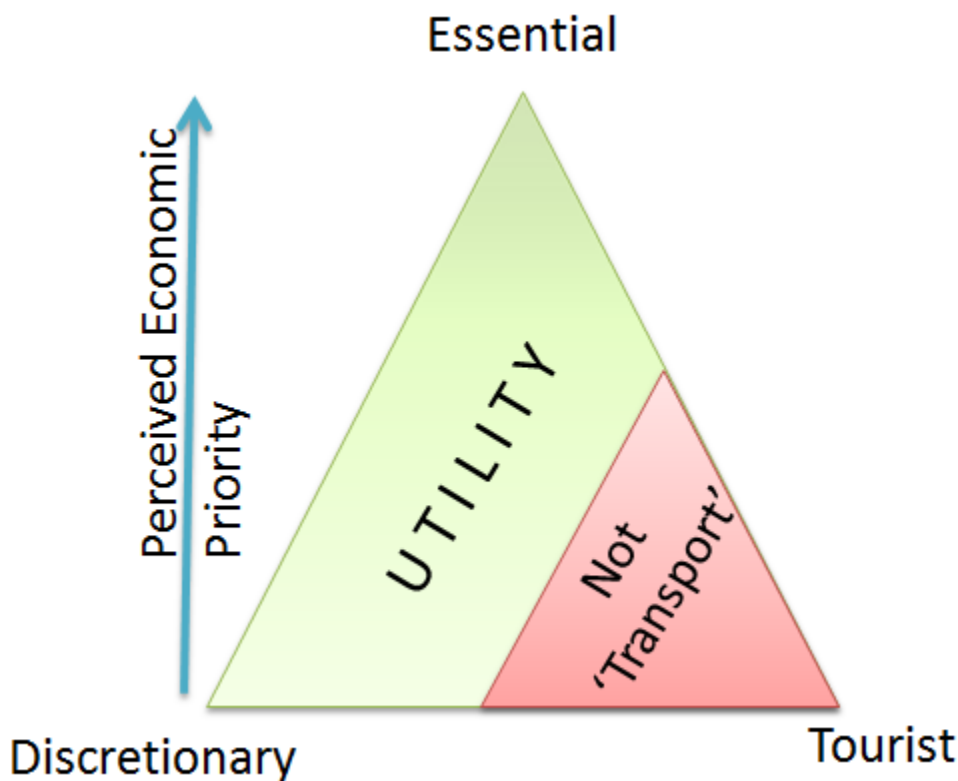
From transport to connectivity

As a particular focus of academic transport studies and practical transport policy, the mobility needs of older citizens in rural areas have traditionally been dominated by disciplinary perspectives which have emphasised economic efficiency principles which hold space and distance to be inefficient inconveniences to be overcome (for example Moseley, 1979; Nutley, 2003). Such accessibility planning approaches have their value, particularly for highly functional journeys such as journeys for medical treatment, or goods movements which are life-critical, such as the restocking of food stores. They also draw empirical support from studies which show travellers often do exhibit attitudes and behaviour which place importance on the money costs of travel, a disproportionate weight on time spent waiting for transport services and often preferences for faster journey times, particularly in the context of routine travel (for example TRL, 2004).

However, this approach encourages a simplistic classification of trips drawing on a limited range of factors (see Figure 5.1). Daily or routine journeys, such as to work or to shops, are seen as having no direct value in themselves, regarded as a 'waste of time', to be minimised

through travel-time reductions or delivery services. Even the space between the formal activities can be seen as a devalued obstacle (Cresswell, 2010). Consideration of journeys for tourism perhaps illustrates the shortcomings most starkly: in these cases the journey may literally be seen as richer, more satisfying and desirable than the destination activity. As tourist travel does not fit with the efficiency-maximising paradigm it has traditionally been on the margins of transport planning. Locations in which it is significant are viewed as anomalous, and tourists themselves as dislocated from their routines. Implicit in this perspective is that novelty enriches travel, while repetition, familiarity and the mundane are undesirable. It also ignores the opportunity routine travel offers for time safeguarded from social and familial obligations (Jain and Lyons, 2008) and, as will be argued later, the importance of engagement with the familiar locale.

Figure 5.1: Implications of the narrow economic-efficiency approach to trip characterisation



In a further extension of the economic logic employed by some transport planners, those routine trips which are identified as creating net benefits within the formal economy are referred to as *utility travel* - implying that other types of trips are lacking in value – whereas routine trips seen as less urgent and lower priority – such as a walk in the countryside, or to ‘windowshop’, and for social purposes - are termed *discretionary*. ‘Discretion’ implies choice and voluntariness, and that such trips can be foregone without essential needs being unfulfilled. People making such trips may also be assumed to seek to minimise the time costs of travel, but at the same time the consequences of long journey times or unexpected delay are seen as less important than they are for high-utility heavy goods vehicle deliveries, business-to-business meetings, or the peak-hour commute.

Further, the utility/discretionary/tourist characterisation of trips also relies on a distinction which also often breaks down in practice: in the GaPL study justifications made by the older respondents blurred between ‘subsistence shopping’ and social connectivity:

‘I could shop online, give up using the greengrocers... But you make friends... if you don’t go in the shops as a regular customer you would miss that.’
(Female 60s)

Another of the participants in the GaPL research identified how a hybrid trip, almost without an explicit purpose, could even be identified as a social norm:

‘Nowadays it’s part of life to go and wander around the supermarket and have a cup of coffee and a cake... when you have got time to do it, it’s the sort of thing you do.’ (Male 60s).

Implications for older citizens

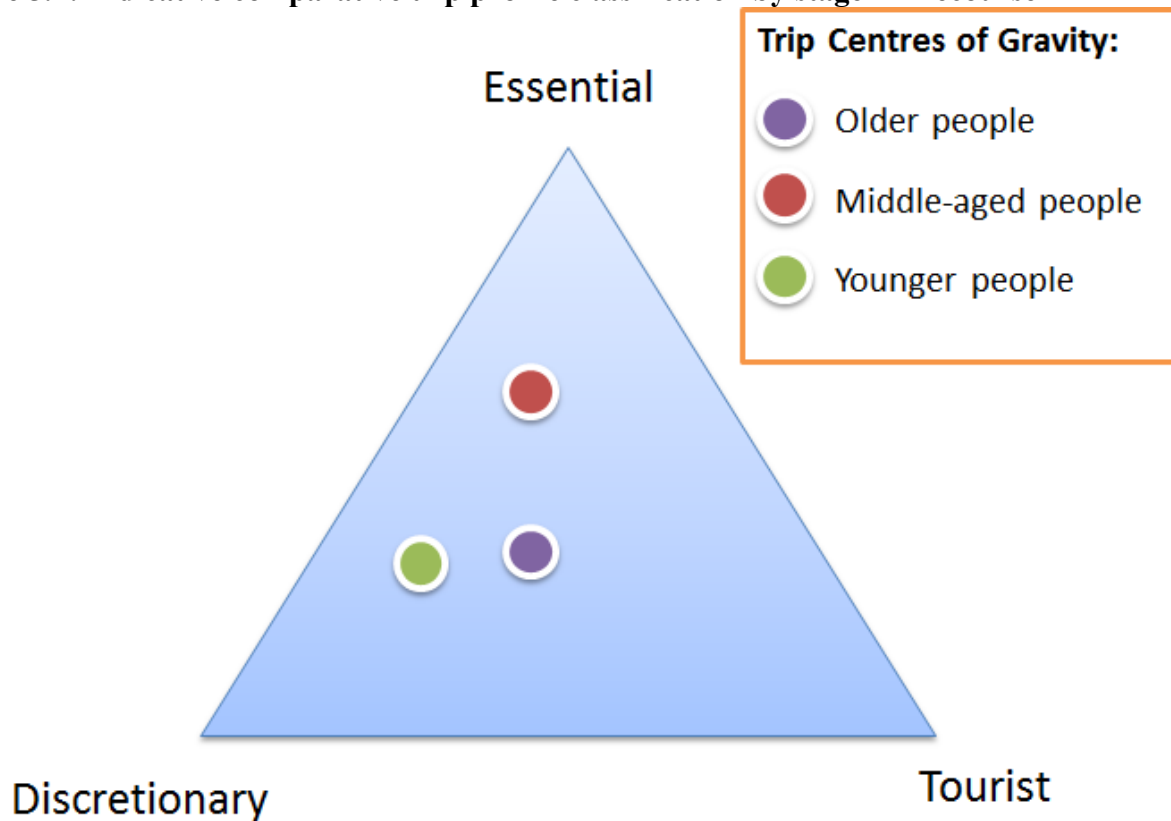
The categorisation of trips has practical as well as academic importance: the triad is particularly disadvantageous for considerations of the transport and mobility needs of older people and younger people, due to their lower involvement in high-profile, ‘high utility’ economic production, notably paid work. The definition of ‘utility’ has an implicit meaning of ‘essential’, which risks marginalising the travel aspirations and needs of older people through categorising them as discretionary - and therefore low priority for transport policy - leaving trips to access the short-run basics of life – groceries and health care – as the main priorities (Figure 5.2).

And as the majority of formal economic activity, and the traffic congestion transport planning tends to focus upon, occur in urban areas, this approach is also not well oriented towards understanding the transport problems of rural areas. Hence, older citizens living in rural areas may be doubly marginalised by professional practice, whilst experiencing fewer mobility opportunities. Urban-dwellers are more likely to have independent access to service centres offering a range of essential and discretionary services, so a visit by bus primarily to a food store might be combined with a visit to a social club or perhaps a cinema. However, a rural dweller is more likely to need to rely on a lift in someone else’s car, in which case the activities may be rationalised to minimise the impact on the lift-giver’s schedule, with the ‘discretionary’ trips which enhance the quality of life or have special significance, such as reunions and funerals, being those most likely to be forgone (Davey, 2007).

The focus on the formal wage economy also marginalises the important unpaid work contributed by older citizens. People in the UK aged 65-74 are those most likely to be involved in voluntary activities (Department of Communities and Local Government, 2010), a mobilisation essential to the present emphasis of numerous governments upon civic engagement as a way of meeting needs at a time of austerity budgets for the public sector (see Chapter One). Equating paid employment with high-priority, productive economic activity is one process which systematically disenfranchises volunteering and familial social care. Another is that they rarely appear as a trip purpose category in transport planning surveys, models, or analyses, despite the importance of these to welfare (the broader economic notion of utility) and even to the wider

issues such as climate change and the sustainability of much modern social services provision (Evans et al, 2012).

Figure 5.2: Indicative comparative trip profile classification by stage in lifecourse



Even from the perspective of economics, the definition of utility employed in some transport analyses has also been excessively short-run, focussing on the immediate production and welfare consequences of journey characteristics. Health economics is becoming increasingly aware that the utility benefits of enabling leisure walking include long-run welfare benefits both for the individual walker and in reduced cost to health services through avoided poor health (Cavill et al, 2008) and this awareness is becoming increasingly influential on transport economics, with the benefits of promoting physical fitness now included within official UK government transport project appraisal procedures (DfT, 2013).

Here too, however, movement is identified as providing a measureable functional output with a specific derived objective: staying healthy and avoiding imposing costs to the healthcare system. In contrast, Musselwhite and Haddad (2010) have provided a hierarchical conceptualisation of a much broader and in respects less tangible range of benefits from mobility including satisfying affective needs by establishing personal agency, status and role and aesthetic needs derived from travel, for example, from experiencing nature.

As in the case of transport studies, gerontology has been identified as focusing excessively on mobility as ‘actual realised movement’ (Ziegler and Schwanen, 2011, p 760) or physical functioning, for example, someone’s ability to shop or use public transport.

Nevertheless the gerontological literature has been more aware of the wider benefits of travel, including the importance of maintaining independence and wellbeing (Gabriel and Bowling, 2005; Sugiyama and Ward Thompson, 2007), maintaining social inclusion (Scharf and Bartlam, 2006) and avoiding isolation (Victor et al, 2005). Mobility constraints are seen as not just creating additional constraints in accessing the destinations of goods and services, but also as potentially limiting different life spaces and hence they are implicated as a contributory factor in the incidence of physical disability and loss of independence (Hirvensalo et al, 2000). Gerontology has begun to recognise the multidimensionality of mobility (Ziegler and Schwanen, 2011) with authors such as Mollenkopf et al (2011) exploring the subjective meaning of mobility over time. In the next section, past approaches are synthesised and developed, considering how a wide range of modes of connectivity can be variously important for wellbeing over time, according to personal needs, aspirations, and capacities.

A continuum of mobilities for connectivity

Urry (2007) emphasises how social connectivity arises from relationships maintained across distance with varying extents of face-to-face meeting or ‘co-presence’. Social groups have particular expectations and rules about how distance is managed which influence how the social life of that community is established. While this has always been the case, new technologies have influenced the nature of how these mobility relationships are negotiated, and have also brought new mobility options. Urry identifies five forms of mobility, which can be summarised as:

- ‘corporeal mobility or the physical movement of the body through space,
- the movement of objects such as goods,
- ‘imaginative travel’ by which the mobility experience is solely within the mind, typically triggered through audiovisual media, but with no connectivity with the actual environment across space,
- ‘virtual travel’, facilitated by information-communication technologies, whereby the quality of the experience substitutes corporeal mobility,
- ‘communicative travel’, whereby information is passed through high and low-technology media including letters, text messages and telephones.

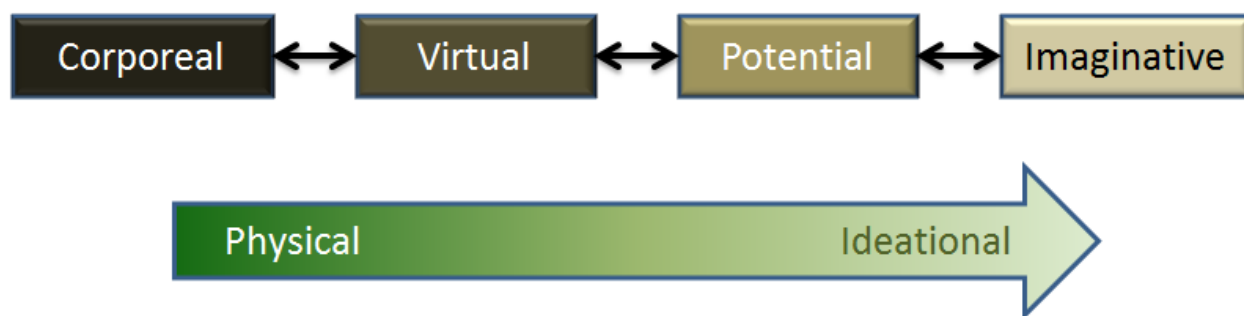
The five forms of mobility are not always straightforward to independently establish – a letter involves both the movement of an object but also communicates from sender to recipient. Virtual travel and communicative travel in practice seem to differ by the quality of the experience, whereby taking part in a videoconference achieved through high-quality facilities may be (nearly) equivalent to being co-present whereas a poor-quality videophone call may amount to communication rather than co-presence. Hence, the term ‘virtual mobility’ rather than ‘virtual travel’ is used here to address both these forms.

Older age cohorts in industrialised states are developing diverse corporeal mobility narratives. Overall they arguably have a wider availability of transport resources than any previous cohort of older people, with rates of driving licence holding and car access continuing to rise, the introduction of new forms of mobility using flexible bus services and single-person electric micro-vehicles. In some locations public transport supply is at an all-time high and, in

the UK, older people can travel free on most public bus services, while discounts are provided in many other states.

Parkhurst and colleagues (2013) presented a continuum of modes of connectivity which links corporeal mobility with three other mobilities: virtual, potential and imaginative (Figure 5.3).

Figure 5.3: A continuum of modes for connectivity



Virtual mobility comprises the real-time aspect of Urry’s ‘virtual travel’, where there is the experience of visiting a location without corporeal movement, such as through internet-connected cameras; his ‘communicative travel’, namely the exchange of person-to-person information through ICTs; and traditional media such as paper, and the procurement of goods and services without corporeal travel by the consumer. Virtual mobility is rising among older citizens as well as the wider population, and is expected to continue to rise as older cohorts in the future are increasingly technologically-enabled and engaged.

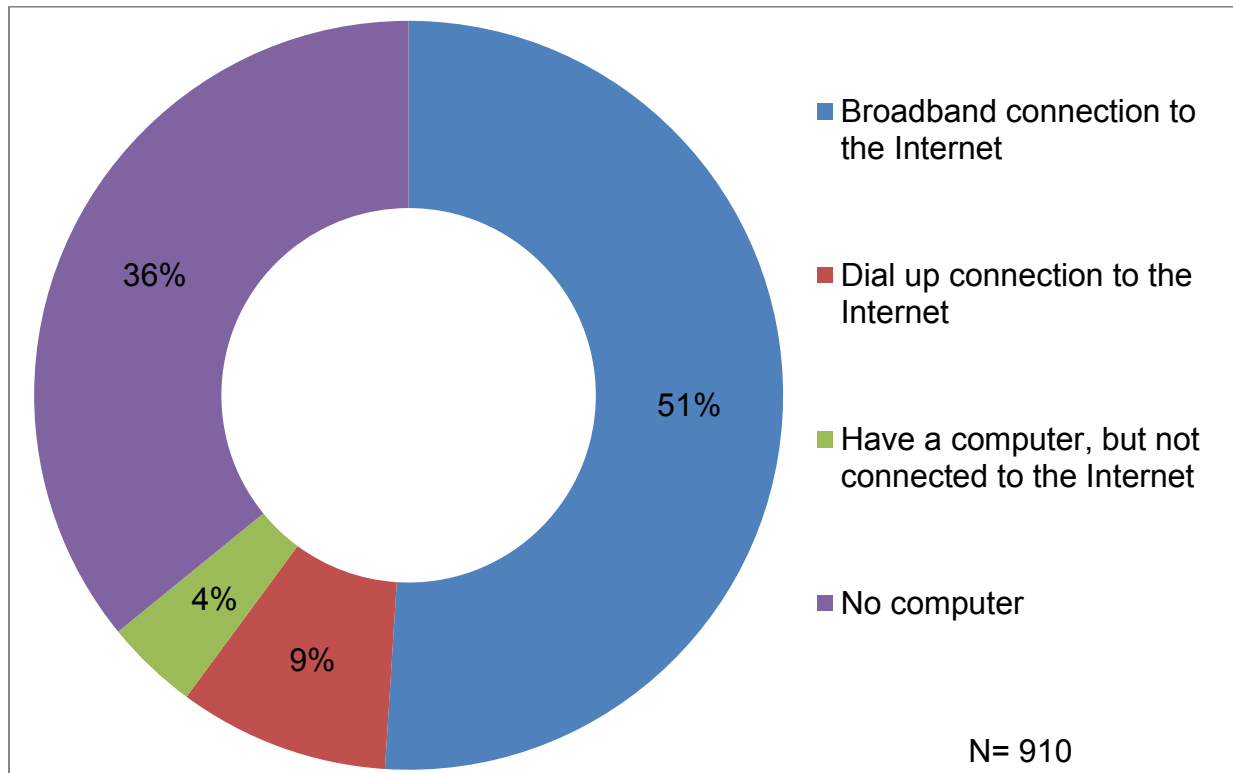
‘Yes I use the internet. Buying things and especially emails. Oh gosh...it’s a godsend. I’ve got lots of friends all over the place so it’s a wonderful way of keeping in touch with them. I look at it every day and use it quite often.’ (Female 80s)

The GaPL research found that, already, 60% of older households were internet enabled (Figure 5.4).

However, ICTs are also subject to capability constraints, due to limited dexterity or visual acuity or cognitive ability. While these constraints are by no means exclusive to older people, they experience them more frequently than younger people. Therefore the extent of universality of use will depend in part on the extent to which future technological development is inclusive. In the GaPL study, resistance to the proliferation of higher virtual mobility technology was also identified:

‘Two of my eldest daughters have said, why don’t you get a computer daddy, a laptop... but you know I’ve already had a computer and I gave it away because I did not see the sense in having it. I said what is wrong with picking up the phone and phoning me, or me phoning you, which we do.’ (Male 70s)

Figure 5.4: Reported use of internet for banking and shopping by age group



The rise of ICTs has led to debate around the extent to which virtual connectivity might and should substitute or compliment physical connectivity for those with limited corporeal mobility and, in extremis, those who have temporarily or permanently lost independent locomotive ability within and beyond the home completely. Substitution has at times been identified, from a moral perspective, as a negative development. Physical connectivity is identified as superior to virtual connectivity and therefore to be preferred where possible, to minimise perceived associated ‘desocialisation’ effects and related psychological threats. Alternatively, ICTs may be viewed as a liberating force, enabling the ‘global village’ or new forms of social group not primarily based around proximity in physical space. In practice, Kenyon (2010) found virtual activities to be *additional* to physical mobility, resulting in an overall increase in participation in activities and connectivity; neither adding to nor reducing physical travel demands. Kenyon examined a sample without identified physical mobility constraints and of mixed age. However, if virtual mobility is in part additional, and if ICTs do continue to be increasingly important within society, then people of all ages who do not engage with them will exhibit increasing *relative* interaction ‘deficits’ in quantitative terms (although not necessarily in terms of their quality).

Where corporeal mobility is limited or impossible, however, the reservations about virtual mobility replacing literal mobility are reduced or eliminated: even for the virtualisation-sceptics ICTs are identified as a next-best and important way of maintaining citizen independence; through online shopping and banking, remote health ‘telecare’ and through social

media. Rowles (1981) also identified that remote technologies allowed older people's 'surveillance zones' to broaden, as people in care environments used remote technology to monitor the comings and goings of residents, staff and visitors.

Emerging from a sociological rather than a psychological perspective, Urry's classification emphasises expressed mobility. However, mental wellbeing also reflects emotional considerations such as feelings of independence and having mobility options. To this end, the desire to maintain *potential mobility* may result in the retention of vehicles and driving licences - often at the cost of a considerable share of household disposable income - as a psychological and practical 'insurance policy', to address needs that may not arise, or desires that are not in the event fulfilled.

'I kept my driving licence, there is no reason why I shouldn't... but I consider that my reflexes aren't good enough for driving. I don't need to drive, she can drive, but I kept my driving licence in case there was an emergency and I had to drive.' (Male 80s - mobility scooter user).

Metz (2000, p 150) hypothesised that 'potential travel - knowing that a trip could be made even if not actually undertaken' is an important element of mobility. Davey (2007, p 50) identified examples of such trips being the possible need to travel at short notice to respond to family emergencies, or 'journeys "on a whim" for pleasure or aesthetic enjoyment'. The implication of potential mobility is that aspirations to be mobile do not necessarily need to be *expressed* to contribute to wellbeing: feeling that one *could* move in response to a strong desire or necessity is in itself sufficient, 'as if' the person had moved. Hence, the *potential* to be mobile can itself contribute to overcoming feelings of isolation and entrapment. However, the feelings of potentiality can be psychologically complex: Davey (2007, p 55) identified one case in which a respondent maintained a car 'ready for use, even when no one in the household was licensed to drive. It remained a symbol of independence, control and of "not being beholden" to anyone'.

Although potential mobility has been most linked to the car, the GaPL research found that buses could also elicit similar phenomena: these respondents talked in positive and knowledgeable terms of the pleasures that others had apparently experienced riding buses, before adding that they had not experienced this as literal mobility themselves.

'...it is actually a social thing because you meet up with people and you can sit there and admire the view on the way. It's like being chauffeur-driven on the bus. You can stop for coffee and sandwiches... I haven't done it myself.' (Male late 60s)

'In fact some people go all over the place [by bus] don't they? We don't... but could do.' (Male late 70s)

In these cases it was public transport valued as a 'carefree' option perhaps due to an association in the UK policy which means bus travel is free of charge for most trips made by older people. Andrews et al (2012) concluded from a study of concessionary bus pass holders and the benefits they identified from the policy for free travel, that the pass had become for some UK older people the 'plastic embodiment' of freedom and individualism.

While actual movement may sometimes be seen as a defining characteristic of being human and social, being human or social does not of course end with the absence of corporeal mobility. Ziegler and Schwanen (2011, p 776) also argue that Urry's mobility paradigm does not represent psychological being and propose 'imaginary mobility'. Their approach emphasises memory and reflection upon previous experience as having particular importance for wellbeing, through maintaining the continuity of self-identity. In the present chapter we apply this concept as *imaginative mobility*, defined as the ways in which people extend their sense of connectedness to, and meaningful engagement with, life activities that were previously addressed by corporeal mobility. This does not involve a simple replacement of a previous literal mobility activity (for example going to the pub to meet longstanding friends) but the achievement of a different but allied experience through other means (such as reminiscing about longstanding friends and stories with visitors and through photographs). Imaginative mobility experiences require no, or virtually no, corporeal mobility by the person experiencing them; no more than moving within a building to a window, balcony, or just outside into a garden.

The GaPL data provided examples of imaginative mobility where the movement was mainly metaphorical - 'back in life' - although the inclusion of transport infrastructure is also suggestive of a more literal reimagining of movement:

'The canals remind me of the past. We had no money. If we could not catch a rabbit or the hens didn't lay, we did not have enough food...we had no money but we so enjoyed everything there.' (Female, 70s, registered disabled)

Other accounts appeared to be drawing upon a spatial cognitive representation to revisit a corporeal mobile experience:

'There is a dingle down there and there is a tunnel up the other end and there is a tunnel of trees.' (Female, 80s, housebound)

However, there was also more limited evidence within the GaPL data indicating a more direct representational symbolic re-experience of corporeal mobility might be occurring. For example this could be through the re-imaginative movement of the body in dance, alongside the relocation to happy times, the elicitation of both being assisted by listening to music.

'It's something I knew a long time ago - dancing and the happy times then...the music takes me back there.' (Female, 80s, housebound)

The four modalities of mobility can be seen in terms of Kaufmann's (2002, p38) 'motility capital', or 'the factors that define a person's capacity to be mobile'. These factors are partly the outcome of social processes, which influence the availability of mobility systems, their conditions of use and availability of information about them. They also partly derive from individual aptitudes, aspirations, time constraints and desire to obtain knowledge about mobility options and opportunities. Kaufmann recognises the role of stage in lifecycle as one of the factors which can influence capacity. While the concept of motility capital has most relevance for those which are expressed – corporeal and virtual – he also envisages that it can be potential. Imaginative mobility represents an extension of the development of motility capital in that it

draws on past corporeal mobility experience for its investment and expression, such as trips like this one:

‘I suppose most fine days in the evenings I go out on the scooter and go and see what the local farmers are doing...just getting out of the house and keeping an eye on what the local farmers are doing: I see the sheep, see the dairy cows out, I see the barley harvesting and all that sort of thing. I am naturally a farmer anyway.’ (Male 80s)

The phenomenological interviews in particular emphasised the multiple and personal meanings that mobility has in creating a ‘textured locale’, by which means past journey purposes become current narratives: the valuing of a local rural vicinity as a ‘storied’ place that was rich with personal, communal and landscaped history, which gives the immediate locale ‘a human face’:

‘...this old house, a ruin really. I’ve known it since a toddler and we go there regularly....we’ve always loved it and there is a fountain which is fantastic to see.’ (Male, 60s)

Changing ‘mobility styles’ across the lifecourse

Clarke and Dix (1983) noted that the degree of independence of mobility choices will be greatest in single-person households and most constrained in those where children or dependent adults are present. Hence younger-old couples will be interdependent in their travel choices and may, as a household, be relatively unconstrained, unless they are caring regularly for grandchildren. For the older old, much will depend on health status and whether one of a couple is caring for the other, or one survives the other.

Lanzendorf (2003) developed the ‘mobility biography’ approach to examine how critical events in the individual’s life can disrupt long-established behaviour patterns. Events that are particularly relevant for older people are retirement, which brings more discretion about how time is spent, changes in health status, changes in car availability and bereavement. In addition, some of these critical life events are likely to trigger secondary events such as household relocation to a new locality. Relocation has been associated with a significant change in mobility behaviour, as it requires the reassessment of mobility options in the context of a new environment which may vary from the previous one in terms of the density of local opportunities and the transport options available to reach them (Stanbridge, 2007).

Hence, the literature tends to emphasise changes in mobility styles as arising as consequences of other choices or external constraints. In the GaPL interviews, however, there were frequent references to more direct, internally-motivated changes arising from altered *desire* for the different kinds of mobility across the later lifecourse. These generally related to reduced corporeal mobility with rising age. For some respondents this decline could be seen as implicit with age. In this case the change had apparently been accepted, or at least rationalised:

‘Well I used to go a lot more than I do now ’cause I mean my eldest sister, she’ll be ninety-five this year. And the one below me would be eighty-six, so... and my brother is

eighty-one. So, you know, we don't travel. If I go up there I have to see them all.'
(Female 80s)

In other cases, there seemed to be a sense of a lifetime 'travel budget' beyond which the rewards were not worth the physical or psychological efforts:

'As far as I am concerned, I have spent 40 years of my life overseas anyway so I have no desire to go to these places or to move around.' (Male 70s)

Sometimes previous corporeal mobility had been very effectively transformed into other forms of mobility, in this case virtual mobility:

'...my husband and I were very keen on rugby. My husband used to play rugby. When we were in London we followed London Welsh and when they were playing we'd go and watch them in Twickenham. Saturdays were filled with that. Now I love watching it on television.' (Female 80s)

Although for another interviewee, this transformation seemed less successful because it felt imposed:

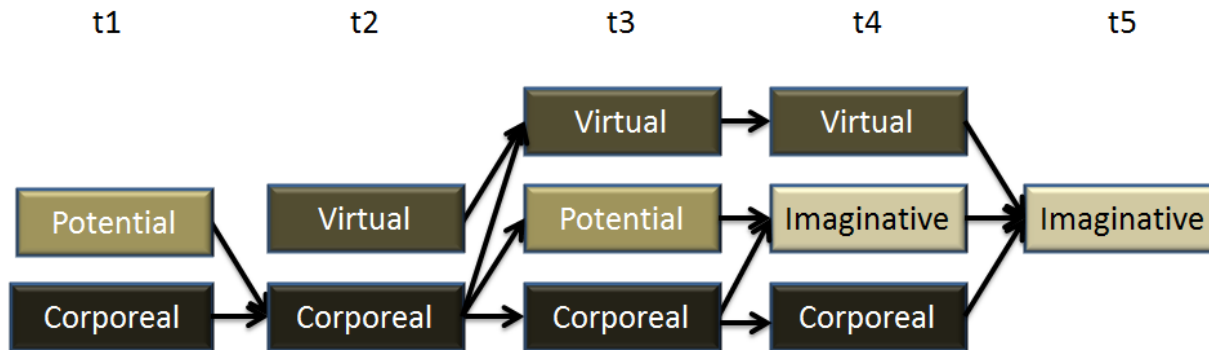
'It's frustration I think. Of not just being able to go somewhere...wanting something you can't have I suppose. Getting bored of watching Jeremy Kyle.' (Female 70s)

Similarly it can be hypothesised that imaginative mobility is particularly valued by older people whose potential for both literal mobility and virtual mobility is receding (either due to increasing physical limitations, ill health, or lack of desire). Portals to imaginative mobility, such as reminiscence triggered by conversation or in response to music or visual media, were found to be significant aids for some of our rural elders by which pathways were opened up to either a life that is possible or to a life that was being held onto. It can also be hypothesised that imaginative mobility will develop in richness and vivacity in compensation for a reduced role for other mobilities.

Given variation in motility capital across the lifecycle it can be hypothesised that the four mobilities will often coexist with each other, with some combinations having durations of many years, and others being transient, perhaps lasting a few months. Figure 5.5 provides a hypothetical example of how an individual may experience the mobility continuum in older age. It perhaps presents an individual who enters older age (t1) as corporeally mobile, both using active travel and motorised vehicle modes, with a satisfactory income but hitherto little engagement with ICTs, and hence limited experience of virtual mobility. Until now, potential travel has mainly occurred in respect of scoping foreign holidays which due to conflicting priorities were not in all cases taken. However, having more time in retirement, ICTs are explored for the first time (t2), and connectivity with relatives in Australia reaches a lifetime peak. More intense interaction combined with receiving a retirement lump sum motivates a long-mused (corporeal) trip to visit them and potential mobility becomes actual. Developing virtual mobility becomes a boon in the next decade (t3) when car ownership ceases at the age of 73, due to rising financial outgoings and a decline in real-terms income, combined with a sense that

negotiating the road network as a driver was no longer ‘worth the hassle’ given free bus travel from a stop ten minutes’ walk away. However, walking to the bus stop when the weather is poor is not always as attractive as having a car on the drive, so corporeal mobility reduces as a consequence and this lacuna is partially satisfied psychologically through a growth in potential motility capital through reflection on options and practical actions, for example obtaining information about a door-to-door flexible bus service. A decade later (t4) a sense of interest in local spatial community combined with greater physical and psychological effort experienced in being corporeally mobile means that those trips become shorter and imaginative mobility, recalling foreign places visited, takes on an important role in psychological life. Virtual mobility proves invaluable in keeping up with the village hall committee work through emails, without having to hand-deliver notes to the members. Finally, for a very brief period in the latter stages of life (t5), corporeal mobility becomes rarer and virtual mobility more of a challenge as a result of poorer eyesight, and as a result imaginative mobility becomes the dominant aspect of mobile life.

Figure 5.5: Example five-stage biographical transition across the mobility continuum



In this notional biography a relatively linear progression is followed, but in the myriad of other possible biographies the sequences may be reversed and/or repeated.

The connectivity of older people in rural areas

The first half of this chapter has presented a holistic framework for understanding the mobility and connectivity of older people in a broad sense, drawing on examples from rural ageing. The second half now applies that framework in considering three linked rural policy dilemmas. The issues examined can be expressed as concerns that arise from the nature of rural areas: generally requiring greater distances to reach destinations, having lower population densities and having more limited transport services, which mean they might be expected to:

- exhibit high levels of car dependence and show great vulnerability to the consequences of not having car access,
- experience difficulty in accessing goods, services and opportunities for social connection, particularly if they do not have car availability, and
- experience greater potential for social exclusion due to limited mobility opportunities.

Car dependence

In principle, walking, cycling, and use of private taxis, public buses, community transport services and informal lift-giving provide mobility options alongside owner-driven cars in rural areas. However, there are a number of barriers to the effectiveness of these alternatives for meeting all corporeal mobility needs. These include a lack of confidence in walking ability (Avineri et al, 2012), inadequate walking infrastructure - even in urban areas (Newton et al, 2010), the limited extent of rural bus services and the effects of winter weather on walkability (Shergold and Parkhurst, 2010). More subtly, social factors such as norms and stereotypes can encourage, but instead often deter, public transport use (Musselwhite and Haddad, 2010; Musselwhite 2010).

Ownership of at least one car occurs at higher rates in UK rural households (91%), compared with households nationally (75%) (DfT, 2011a). Smith and colleagues (2010) identify that the poorest rural households were more likely to allocate spending on car travel than urban households with equivalent wealth. Although it has long been recognised that vehicle operating costs can result in poorer rural households rationing their car use (Root et al, 1996), such costs have been rising sharply in recent years, and car ownership overall may have peaked (Goodwin, 2013).

However, even wealthier older people who have relied on cars throughout their lives are likely to face a period of life without effective car access, due to the temporary or permanent withdrawal of a driving licence within the household of residence. Rabbitt et al (1996) found that UK ex-drivers on average ended their driving careers at 72 years of age. Even where car access is maintained, this may be graduated, through informal regulation of the routes and conditions in which they drive to avoid potentially challenging situations (such as motorways, driving at night, or even turning across busy roads):

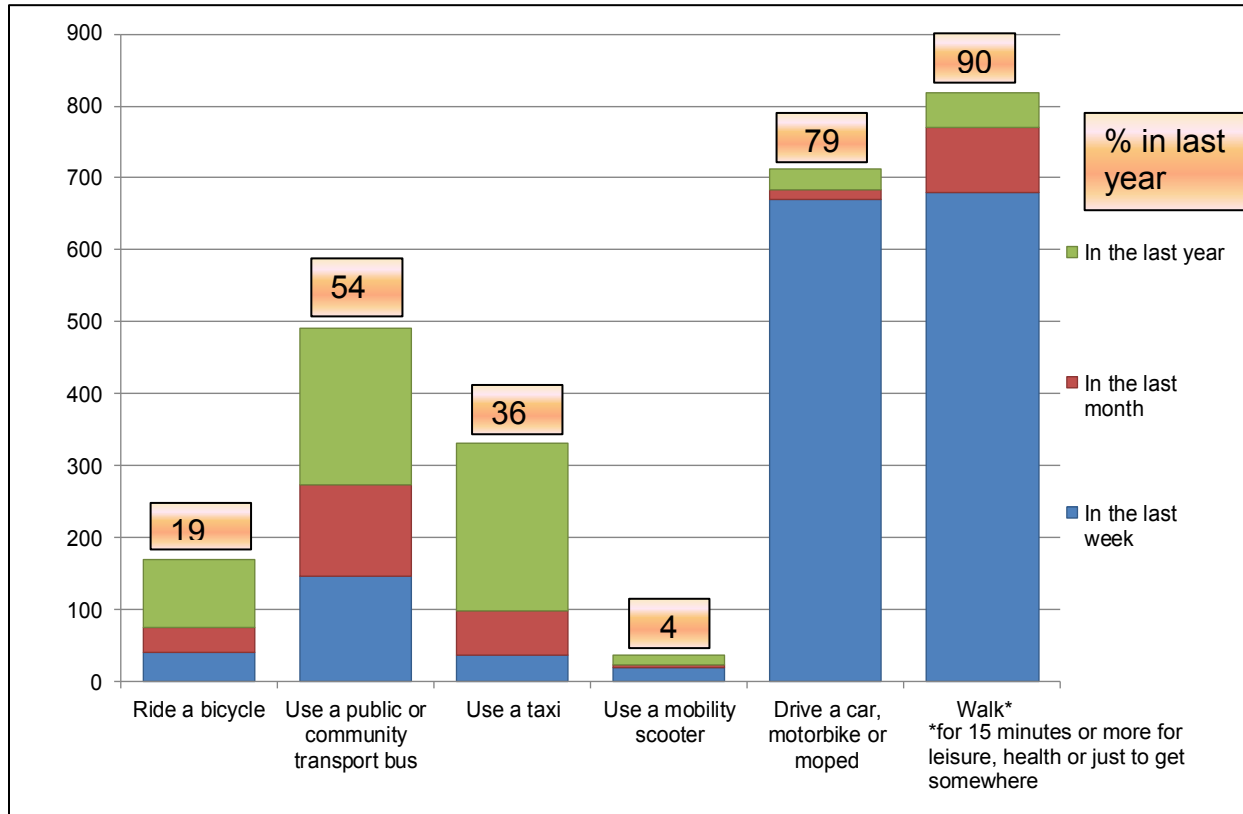
‘Well, I am a nervous... I don’t like driving far I’m afraid. I once had a panic attack on a motorway which has worried me ever since. I am happy on minor roads: that’s why we don’t go far to be honest... It does mean we do tend to cancel things you know, if I feel I can’t cope with it...’ (Female 80s)

Such self-regulation may also be influenced by friends and relatives. Evidence suggests regulation can show both over and under caution, as well as accurate assessment of risk (Oxley et al, 2003; Berry, 2011).

The findings from the GaPL project only partially supported the emphasis on the car as the dominant and most appropriate corporeal mobility option in rural areas: 87% of respondents reported access to a car in the household, and around three-quarters had travelled in one in the last week (Figure 5.6). However, car availability in the household fell to 60% for respondents aged over 80. For the whole sample, as many had walked for a trip lasting at least 15 minutes as had travelled in a car in the previous week. While these statistics do not describe the overall intensity of use of the different means of mobility, it is notable that a pattern of greater ‘multimodality’ over time was revealed which is often missed by a focus on the main or most

used mode: 62% of respondents had used 3-6 different modes in the year prior to survey, including buses, taxis, cycles and, notably for rural areas, mobility scooters.

Figure 5.6: Most recent use of a range of transport options



Therefore the corporeal motility capital of the sample emerged as high, with the ‘other’ modes generally used on an infrequent basis. In the case of the minority who used mobility scooters particular ‘competences’ and ‘materials’ were required before the new mobility practice could be adopted (Shove et al, 2012) and these were sometimes an obstacle to use:

‘Yes it’s heavy. And it has to be assembled and disassembled.... To be quite truthful, with the battery on charge, it’s such a performance to go into the garage, get the battery out and put it on the little thing, get the [scooter] out, drive it there, come back, take the battery off. It’s easy to get in the car: turn the key and off you go.’ (Male, 60s)

In terms of the other means of transport featured in Figure 5.6, taxis are highly flexible but relatively expensive, particularly compared with buses, which are mostly free to concessionary pass holders. Although bus services are not ubiquitous, 57% of UK rural households lived within ‘13 minutes’ walk’ of an hourly bus service in 2010 (DfT, 2011b). The GaPL evidence about walking indicates that most of the sample was in any case walking this distance on a regular basis. However, the standard measure for bus stop proximity doesn’t allow

for weather conditions and is in practice modelled as an 800-metre distance, so therefore assumes a walking pace of 2.3mph, which would not be achievable by all.

Around a fifth of the sample demonstrated through recent use that they had retained the motility capital necessary to cycle on occasion. In other words, they had access at least sometimes to a bicycle, had been in good enough health to ride, and had somewhere acceptably safe to ride.

Notwithstanding the range of mobility options discussed here, a lack of transport *was* seen as a barrier to engaging in community activity for a minority of GaPL participants. Although this minority included some who reported access to a car, it was predominantly comprised by those without car access. A quarter of those reporting difficulties agreed they were prevented from participating in community activities as a consequence. One reason why older people with ‘access to a car’ could sometimes be influenced in their travel choices is that another household member may use that car for another purpose at the desired time of travel.

‘...I mean the British Legion, which is here, bimonthly, and I have the car that day. You know the wife has to get on the train that day, because I have the car to come.’ (Male 70s)

This situation might then lead to some households choosing to maintain two vehicles in order to facilitate their involvement with, and connectivity with their communities.

Lifts from family and friends might be another potential source of mobility for some older people, but this is often perceived as not being a choice, as a consequence of privacy concerns about the journey purpose (such as visits to healthcare), or to avoid ‘being a burden’ on others.

‘...one doesn’t like to keep on asking friends for a lift to things like that. I know they’re quite willing to do so but you feel a bit under an obligation doing that all the time, don’t you?...A lot of people, a lot of my contacts will say, “I don’t like to ask”.’ (Female 70s)

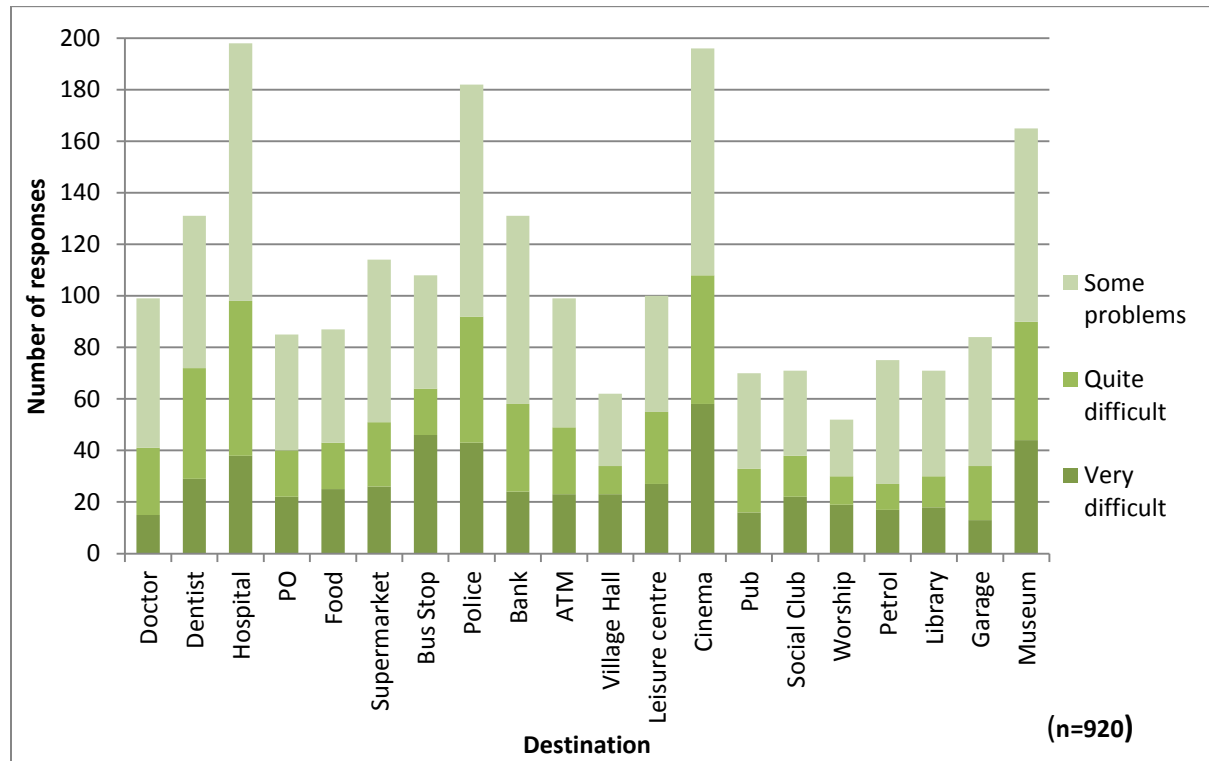
Reported and perceived accessibility

Although some facilities are provided to rural residents at lower densities than urban residents in order to minimise travel needs, for most services rural residents need to travel further to achieve the same level of accessibility (see Shergold and Parkhurst, 2012 for a fuller account). People living in rural areas of England and Wales travel approximately 40% further per year than people in most urban areas, with almost all of this excess travelled by car (DfT, 2010). Rural dwellers also spend a third more on motoring costs, public transport tickets and taxi fares than urban residents (Office for National Statistics, 2010). Being a rural resident often involves an element of choice, however, which can influence the extent to which the lower density of goods and service provision described above is judged as adequate:

‘...we accept we have got 25 miles to get to anywhere, and 50 miles to get to anywhere decent.’ (Male 60s)

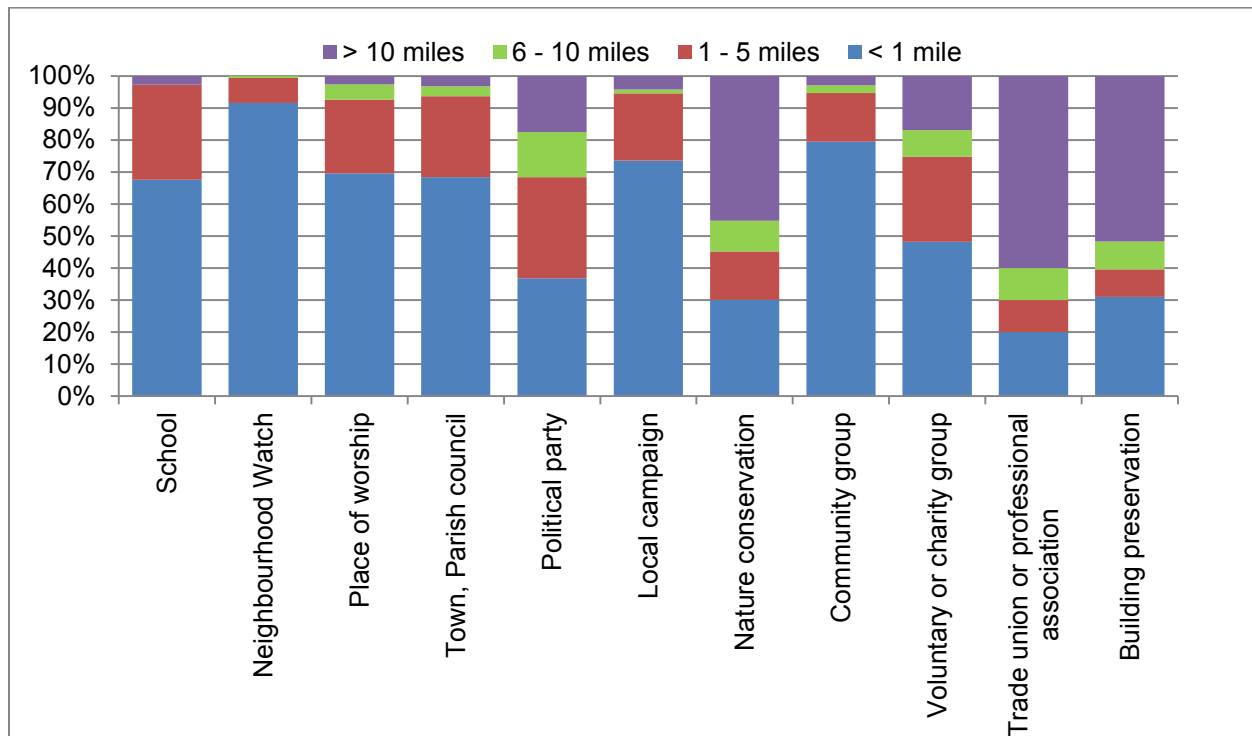
Perceptual compensation about what is realistic to expect in terms of accessibility perhaps explains why few GaPL respondents reported finding access to each of 20 nominated service and activity locations ‘very difficult’ (Figure 5.7), and no more than a fifth reported some level of difficulty. People aged over 80 were however more than twice as likely as those aged 60-79 to report at least one location type as being ‘very difficult’ to access.

Figure 5.7: Reported difficulty in accessing services, facilities and locations of social connection



Davey (2007) hypothesised that ‘discretionary’ trip purposes might particularly suffer in rural areas due to more limited mobility options. Two such locations – museum/gallery and cinema - were among the four identified with a higher level of problems, presumably due to them being relatively infrequent in provision and typically located in urban areas or on urban fringes. However, the locations of more routine social connectivity – places of worship, social club venues, libraries and village halls were among the least problematic. Further analysis revealed a notably short distance required to undertake the kinds of activities enjoyed at such locations (Figure 5.8).

Figure 5.8: Distribution of distances reported travelled to locations of social and community connectivity



Rising virtual mobility may also explain why greater difficulty was not found in respect of some of the ‘utility’ purposes:

‘I will order stuff on the internet rather than going to town to buy it, so I don't make that journey and it is just so much simpler on the internet. Somebody else comes and drives and delivers it to your door.’ (Male 60s)

Of those using a computer at least weekly (around half of respondents), more than half reported having used the internet for banking and nearly two-thirds for shopping, although again, a decline was noted with increased age (Figure 5.9).

There were also examples of engagement with ICTs for social connectivity, with the technology playing a critical role in some cases:

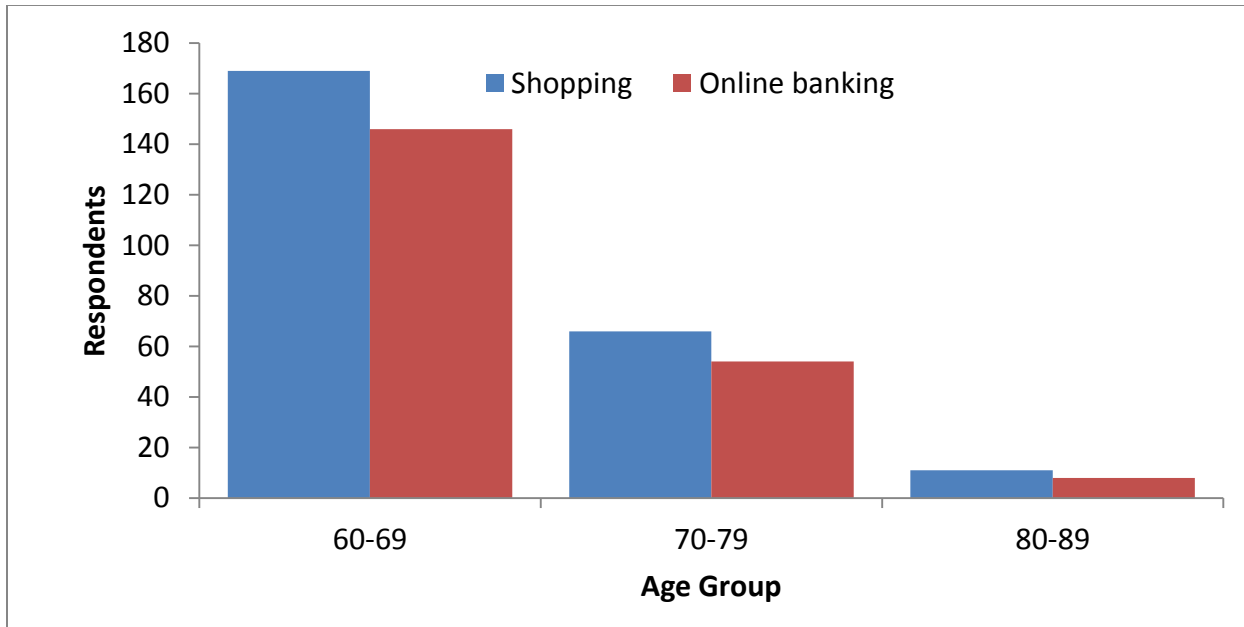
‘We keep in touch with family, grandson and so on from overseas on Skype, and it keeps the family together, it keeps the family as a unit.’ (Male 70s).

And while familial ties were some of the clearest examples of the importance of virtual mobility, friendship connections were also important:

‘I used to be a preacher you see...Other guys who are abroad, you know on the mission field. I keep in touch with them through the internet, yes.’ (Male 70s)

‘...having worked overseas we have got a lot of friends overseas... And it is a godsend for that, Canada, Caribbean, South Africa, Norway, and Germany.’ (Male 70s)

Figure 5.9: Reported use of internet for banking and shopping by age group



Hence some of the reports were in line with Kenyon’s (2010) findings that at least some ICT use is additional to corporeal mobility, therefore enhancing connectivity beyond the physical locale:

‘I certainly see more of my grandson because of Skype.’ (Female 60s)

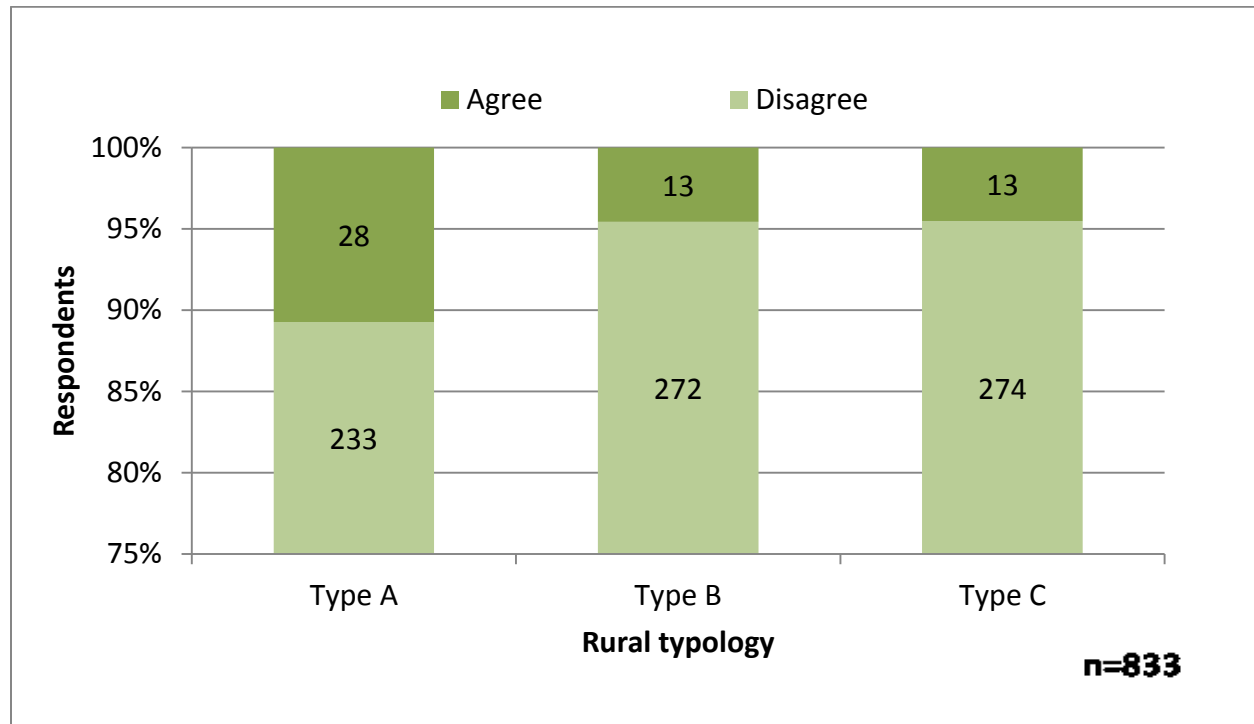
Social exclusion

Levitas et al (2007, p 9) defined social exclusion as follows: ‘... the lack or denial of resources, rights, goods and services, and the inability to participate in the normal relationships and activities, available to the majority of people in a society, whether in economic, social, cultural or political arenas. It affects both the quality of life of individuals and the equity and cohesion of society as a whole’. Most analyses of social exclusion regard it as multifaceted (e.g. Church et al, 2000), with mobility is implicated as having a mediating role (Kenyon et al, 2003). While the lack of car access does not inevitably lead to opportunities missed and exclusion, mobility overall is of paramount importance in the context of a hypermobile society (Kenyon et al, 2002). In rural areas older people seeking to use alternatives to the car have to overcome greater constraints than urban elders if they are to maintain access to a particular range of opportunities.

Just 6% of GaPL survey respondents agreed that they ‘often felt excluded within my community’, with what constituted that community having been left open to individual interpretation. A similar number were uncertain, leaving a clear majority who disagreed and

hence did not feel clear feelings of social exclusion. Statistically significant differences were found between the incidence of feeling excluded and living in the two most rural of the six areas studied (Figure 5.10) (χ^2 15.236, df 2, $p < .001$), but no significant difference was found between age groups.

Figure 5.10: Perceptions of feeling excluded by degree of rurality of residence



Concerning corporeal mobility options, there was no significant difference between reported exclusion and not having access to a car in the household. However, the GaPL survey also explored the extent to which the respondents were as involved as they wanted to be in their communities, which is a more implicit measure of exclusion. 83% were satisfied, but there was a statistically significant relationship between car availability in the household (χ^2 8.032, df 1, $p < .01$) and whether the respondent was satisfied, indicating that car access did provide either a perceived or actual advantage.

Access to virtual connectivity was also associated with a greater sense of inclusion in community, as there was a small significant effect linking respondents agreement that they were excluded with not having home internet access (χ^2 6.361, df 2, $p < .05$). As considered earlier in the chapter, though, virtual mobility seems to strengthen social connectivity where it is identified as additional mobility, or is used by preference rather than replacing a traveller's corporeal mobility against his or her volition, underlining the importance for quality of life of feeling that one has choices about mobility:

'If I couldn't get to places..., although I've got a computer, I would stagnate. Because I like the social aspect of things. And I like the different characters you come across and it

stimulates your thinking and makes life worthwhile to be able to go out and meet others.’
(Male 70s).

Conclusions

The traditional approach to understanding mobility has been criticised in this chapter as being limited by not considering the alternatives to corporeal mobility for connectivity. It was also found that the transport and travel of older citizens is given less priority in these traditional approaches than the movement of those in employment or study, or the needs of business. This situation understates the importance of connectivity for wellbeing and largely ignores the contribution of volunteer labour by older citizens. The conception of trips as having easily-assessable utility and the movement processes themselves as being without value has some credibility for managing the conflicting claims for peak-hour congested highway capacity but fails to capture the complexity of motives for movement by the older residents of rural localities. Their journey patterns are more likely to suffer from scarcity of demand than competition for space, and their time is not effectively considered by appraisal methods which emphasise productive loss to the formal economy.

The alternative approach to conceptualising rural elders’ connectivity emphasises the importance of the connection itself, even if the mobility at times remains potential or indeed is a re-imagination of previous mobility experiences. Central to the presentation of a fluid continuum of physical to ideational mobilities is that an individual will experience them in varying combinations through the lifecourse, according to aspirations about how much mobility is desired, opportunities such as available technologies and constraints, and his or her disposable income and health status. A community’s connectivity will depend on its collective motility capital in creating connectivity opportunities, establishing means of connectivity and communicating and sharing those resources, be they lift-giving services, community internet pages or oral history projects about past mobility experiences.

It is in this context that both virtual mobility and imaginative mobility become important alternatives to literal mobility as well-being resources. Thus it is important to consider these three forms of mobility in relation to one another when considering the transport needs of older rural people. Here it is noted that the interface between imaginative and virtual mobility becomes increasingly permeable: with the rise of ICTs enabling technical practices including video telephony and webcams streaming live images from the environment, it may be that for future age cohorts, being homebound will be accompanied with greater reliance on a wider range of virtual mobility to supplement imaginative mobility.

There were glimpses in the research as to how future imaginative mobility experiences are engendered by earlier experience. As imaginative mobility relies in part on the corporeal mobility of the past, and in the future will perhaps also rely on virtual mobility experiences, then it is important for built environment disciplines such as architecture, spatial planning and urban design to understand more about those aspects of structure, form and function in design which make a locale memorable and meaningful when experienced in the course of travel. This has implications for a more inclusive and integrated approach to producing and managing change in the built environment, with ambience and ‘feel for a place’ as important as the physical

structures that assist in the development of cognitive maps and the quality and strength of reminiscence. Such changes will enable the locale to contribute to narrative memory for current and future wellbeing resources.

Imaginative mobility could be a useful assessment as well as a therapeutic tool in the arsenal of the social care professional in relation to quality of life and wellbeing. The benefits of reminiscence for those who are cognitively impaired have been widely demonstrated (Ingersoll-Dayton and Bommarito, 2006). Such tools should sit alongside and compliment elements of social care rather than replace them. The benefits of life history work also demonstrate that it is beneficial for social care professionals as well as older people as memories are shared (Gibson, 2011).

In aggregate quantitative terms, the participants of the GaPL study emerged as intensive car users and car reliance was the key mobility practice for maintaining accessibility, and avoiding social exclusion. However, older people also emerged as more multi-modal than usually perceived, demonstrating that intensity of use does not always imply dependence. The failure of previous studies to identify multi-modality may arise from traditional transport planning methods failing to record the full range of trips made and modes used, or not giving sufficient emphasis to the potential role of corporeal mobility options used relatively infrequently. It may also reflect the policy for free bus use by older citizens in the UK or public awareness campaigns about the importance of obtaining sufficient exercise through walking. However, it is also important to remember that the GaPL sample was of rural-dwellers, some of whom had self-selected to retire to rural areas in order to enjoy the countryside and so this may be a rural-specific finding.

Given the rising costs of car ownership, concerns about retirement incomes, and potential for the greater safety regulation of drivers in the future, this is an important and positive finding. Policy needs to promote this multimodality: the evidence is that those who cease their driving careers from a mobility style with wide-ranging motility capital have more successful transitions than those with greater car dependence (Musselwhite and Shergold, 2012).

Similarly, the identification of relatively few accessibility problems needs to be put in the context that some rural citizens accept that their residential locations inevitably mean poorer accessibility, and that they will have to 'settle for less' (Farrington and Farrington, 2005) and this is likely to be reflected in more positive attributions in surveys than urban counterparts would provide. 'Low travel horizons' are identified as an issue which can lead to exclusion even in prosperous areas (Siraut and Gay, 2009), with those at most risk of exclusion adapting their behaviour to undertake fewer activities which require trips to be made (Stanley et al, 2010).

An unexpected material factor, which supported the findings that accessibility was not as problematic for the sample to the degree sometimes identified by the media or practitioners, was the relatively short distances that needed to be travelled to many local community activities. As a result active travel would be an option for many and lifts in cars are more likely to be offered. Virtual mobility also emerges as a way of achieving access to some goods and services for many of the GaPL participants.

However, a number of uncertainties arise about the future of virtual mobility. It can be hypothesised it will be of growing and likely to be of particular value during bad weather episodes or during periods of poorer health status. But there was a strong sense in the qualitative findings that it should not be seen as a replacement for corporeal mobility for local social connectivity. It remains to be seen how far this is a cohort effect, and further research would be useful.

The rise of virtual mobility will create additional challenges to traditional transport planning for older citizens: increasingly, the journey purposes which relate to the restricted conception of 'high utility', such as shopping and banking, will be those easiest to deliver without corporeal mobility by the consumer: through home grocery shopping with delivery and online banking. As the travel generating activities currently held to be most essential in fact become those for which travel is *least* necessary, there will be greater need for physical and psychological wellbeing reasons to promote corporeal mobility for less tangible reasons such as community connectivity and exercise. The policy and practice challenges will be that the requirements to facilitate such mobility – perhaps enhanced pavements and lighting and off-road tracks to emphasise active travel relatively locally – will be rather different than the current focus on 'lifeline' bus services to the nearest market town.

Important implications also emerge for the future of health and social care: the application of virtual mobility can widen the horizons of older people who are housebound. Through telecare some aspects of social care can be provided remotely such as monitoring. However such developments must proceed with caution: social care is as much about human interaction as providing physical care and Burholt and Dobbs (2012) identified that most of the benefits to date seemed to be recognised by providers rather than recipients.

The findings in respect of imaginative mobility suggest that remaining within a particular locale may have important psychological and broader welfare benefits. This suggests a need for caution even where a physiologically-led assessment may suggest relocation, perhaps to a specialist care home which is only available outside the locale or nearer to a hospital where it will in some practical respects be easier to manage a chronic illness. This may also be an important factor at play in place attachment (Rubenstein and Parmelee, 1992); reinforcing the policy notion that 'ageing in place' is important to older people. Attachment to place is associated with long time periods of exposure to place and has significantly contributed to how we give meaning to the spaces inhabited and used by older people (Phillips et al, 2011). Such memories and meaning can make rural spaces and places significant for older people as they experience declining physical mobility (see Chapter Four).

References

- Andrews, G., Parkhurst, G., Susilo, Y.O. and Shaw, J. (2012) 'The grey escape: investigating older people's use of the free bus pass', *Transportation Planning and Technology*, vol 35, no 1, pp 3-15.
- Avineri, E., Shinar, D. and Susilo, Y.O. (2012) 'Cross walking behaviour: the effects of fear of falling and age', *Accident Analysis and Prevention*, vol 44, no 1, pp 30-4.

- Berry, C. (2011) *Can Older Drivers be 'Nudged'?* RAC Foundation/International Longevity Centre - UK, London.
http://www.ilcuk.org.uk/index.php/publications/publication_details/can_older_drivers_be_nudged
- Burholt, V. and Dobbs, C. (2012) 'Research on rural ageing: where have we got to and where are we going in Europe?', *Journal of Rural Studies*, vol 28, no 4, pp 432-46.
- Cavill, N., Kahlmeier, S., Rutter, H., Racioppi, F., and Oja, P. (2008) 'Economic analyses of transport infrastructure and policies including health effects related to cycling and walking: a systematic review', *Transport Policy*, vol 15, no 5, pp 291-304.
- Church, A., Frost, M. and Sullivan, K. (2000) 'Transport and social exclusion in London', *Transport Policy*, vol 7, pp 195-205.
- Clarke, M. and Dix, M. (1983) 'Stage in life-cycle: a classificatory variable with dynamic properties', in S. Carpenter and P. Jones (eds) *Recent advances in travel demand analysis*, Oxford Studies in Transport, Aldershot: Gower, pp 215-31.
- Cresswell, T. (2010) 'Towards a politics of mobility', *Environment and Planning D: Society and Space*, vol 28, no 1, pp 17-31.
- Department of Communities and Local Government (2010) *2008-09 Citizenship survey - volunteering and charitable giving topic report*, London: CLG.
- Davey, J. A. (2007) 'Older people and transport: coping without a car', *Ageing & Society*, vol 27, no 1, pp 49-65.
- Department for Transport (DfT), 2010. Travel in Urban and Rural areas: Personal Travel Factsheet – March 2010, <http://www.dft.gov.uk/statistics/series/national-travel-survey/>
- Department for Transport (2011a) *Household car ownership by region and area type: Great Britain, 1995/97 and 2009/10 National travel survey table NTS9902*, London: Department for Transport, <http://www.dft.gov.uk/statistics/tables/nts9902/>
- Department for Transport (2011b) *Time taken to walk to nearest bus stop by area type and bus availability indicator: Great Britain and England, 1998/00 and 2010 national travel survey table NTS0801*, Department for Transport, London, <http://www.dft.gov.uk/statistics/tables/nts0801/>
- Department for Transport (2013) *Transport analysis guidance: Environment objective*, London: Department for Transport, <http://www.dft.gov.uk/webtag/overview/index.php>
- Evans, S., Hills, J. and Orme, J. (2012) 'Doing more for less? Developing sustainable systems of social care in the context of climate change and public spending cuts', *British Journal of Social Work*, vol 42, no 4, pp 744-64.

- Farrington, J. and Farrington, C. (2005) 'Rural accessibility, social inclusion and social justice: towards conceptualisation', *Journal of Transport Geography*, vol 13, no 1, pp 1-12.
- Gabriel, Z. and Bowling, A. (2005) 'Quality of life from the perspectives of older people', *Ageing & Society*, vol 24, no 5, pp 675-91.
- Gibson, F. (2011) *Reminiscence and life story work. A practice guide*, London: Jessica Kingsley.
- Goodwin, P.B. (2013) 'Peak Car' - Where did the idea come from? And where is it going? Paper to 45th UTSG annual conference, St Anne's College, Oxford, January 4, 2013
- Hirvensalo, M., Rantanen, T. and Heikkinen, E. (2000) 'Mobility difficulties and physical activity as predictors of mortality and loss of independence in community- living older population', *Journal of the American Geriatrics Society*, vol 48, no 5, pp 493-98.
- Ingersoll-Dayton, B. and Bommarito, A. (2006) 'Reminiscence and life review', in B. Berkman and S. D'Ambruoso (eds) *Handbook of Social Work in Health and Aging*, Oxford University Press, pp 781-87.
- Jain, J. and Lyons, G. (2008) 'The gift of travel time', *Journal of Transport Geography*, vol 16, no 2, pp 81-9.
- Kaufmann, V. (2002) *Re-Thinking Mobility*, Aldershot: Ashgate.
- Kenyon, S., Lyons G. and Rafferty, J. (2002) 'Transport and social exclusion: investigating the possibility of promoting social exclusion through virtual mobility', *Journal of Transport Geography*, vol 10, no 3, pp 207-19.
- Kenyon, S., Rafferty, J. and Lyons, G. (2003) 'Social exclusion and transport in the UK: a role for virtual accessibility in the alleviation of mobility-related social exclusion?', *Journal of Social Policy*, vol 32, no 3, pp 317-38.
- Kenyon, S. (2010) 'The impacts of Internet use upon activity participation and travel: results from a longitudinal diary-based panel study', *Transportation Research Part C: Emerging Technologies*, vol 18, no 1, pp 21-35.
- Lanzendorf, M. (2003) 'Mobility biographies. A new perspective for understanding travel behaviour', Paper to 10th International Conference on Travel Behaviour Research, Lucerne (CH), August.
- Levitas, R., Pantazis, C., Fahmy, E., Gordon, D., Lloyd E. and Patsios, D. (2007) *The multi-dimensional analysis of social exclusion*, Bristol: Department of Sociology and School for Social Policy, Townsend Centre for the International Study of Poverty and Bristol Institute for Public Affairs, University of Bristol.
- Metz, D. (2000) 'Mobility of older people and their quality of life', *Transport Policy*, vol 7, no 2, pp 149-152.

- Mollenkopf, H., Hieber, A. and Wahl, H-W. (2011) 'Continuity and change in older adults' perceptions of out-of-home mobility over ten years: a qualitative-quantitative approach', *Ageing & Society*, vol 31, no 5, pp 758-81.
- Moseley, M.J. (1979) *Accessibility: The rural challenge*, London: Methuen.
- Musselwhite, C.B.A. (2010) 'The role of education and training in helping older people to travel after the cessation of driving', *International Journal of Education and Ageing*, vol 1, no 2, pp 197-212.
- Musselwhite, C. and Haddad, H., (2010) 'Mobility, accessibility and quality of later life', *Quality in Ageing and Older Adults*, vol 11, no 1, pp 25-37.
- Musselwhite, C.B.A and Shergold, I. (2013) 'Examining the process of driving cessation in later life', *European Journal of Ageing*, vol 10, no 2, pp 89-100.
- Newton, R., Ormerod, M., Burton, E., Mitchell, L. and Ward-Thompson, C. (2010) 'Increasing independence for older people through good street design', *Journal of Integrated Care*, vol 18, no 3, pp 24-9.
- Nutley, S. (2003) 'Indicators of transport and accessibility problems in rural Australia', *Journal of Transport Geography*, vol 11, no 1, pp 55-71.
- Office for National Statistics (2010) *Family spending: A report on the 2009 Living Costs and Food Survey*, <http://www.ons.gov.uk/ons/rel/family-spending/family-spending/2010-edition/family-spending-2010--living-costs-and-food-survey-2009-.pdf>
- Oxley, J., Charlton, J. and Fildes, B. (2003) *Self-regulation of older drivers: A review*, Austroads Publication No. AP-R221/03, Sydney: Austroads Incorporated, <https://www.onlinepublications.austroads.com.au/items/AP-R221-03>
- Parkhurst, G., Galvin, K., Musselwhite, C., Phillips, J., Shergold, I. and Todres L. (2013) 'A continuum for understanding the mobility of older people', <http://eprints.uwe.ac.uk/16952/>
- Phillips, J., Walford, N. and Hockey, A. (2011) 'How do unfamiliar environments convey meaning to older people? Urban dimensions of placelessness and attachment', *International Journal of Ageing and Later Life*, vol 6, no 2, pp 73-102.
- Rabbitt, P., Carmichael, A., Jones, S. and Holland, C. (1996) *When and why older drivers give up driving: Summary report*. Basingstoke: Age and Cognitive Performance Research Centre, The University of Manchester, on behalf of The AA Foundation for Road Safety. <http://www.roadsafetyfoundation.org/library-homepage/library-items/when-and-why-older-drivers-give-up-driving.aspx>
- Root, A., Boardman, B. and Fielding, W.J. (1996) *The costs of rural travel: Final report*. Oxford: Energy and Environment Programme, Environmental Change Unit, University of Oxford. <http://www.eci.ox.ac.uk/research/energy/downloads/smartreport.pdf>

- Rowles, G.D. (1981) 'The surveillance zone as meaningful space for the aged', *The Gerontologist*, vol 21, no 3, pp 304-11.
- Rubenstein, R. and Parmelee, P. (1992) 'Attachment to place and representations of the lifecourse' in I. Altmann and S. Low (eds) *Human behavior and environment*, New York: Plenum Press, p 139-63.
- Scharf, T. and Bartlam, B. (2006) *Rural disadvantage. Quality of life and disadvantage amongst older people*, London: Commission for Rural Communities.
- Shergold, I. and Parkhurst, G. (2010) 'Operationalising" "sustainable mobility": the case of transport policy for older citizens in rural areas', *Journal of Transport Geography*, vol 18, no 2, pp 336-39.
- Shergold, I. and Parkhurst, G., (2012) Transport-related social exclusion amongst older people in rural Southwest England and Wales. *Journal of Rural Studies*, Special Issue on *Growing Old in Rural Places*, vol 28, no 4, pp 412-421.
- Shove, E., Pantzar, M., and Watson, M. (2012) *The Dynamics of Social Practice: Everyday life and how it changes*, London: Sage.
- Siraut, J. and Gay, N. (2009) 'Expanding travel horizons: overcoming barriers to travel for socially excluded groups', *Local Economy*, vol 24, no 8, pp 694-704.
- Smith, N., Davis, A. and Hirsch, D. (2010) *A minimum income standard for rural households. Report to the Commission for Rural Communities and Joseph Rowntree Foundation* York: Joseph Rowntree Foundation.
- Stanley, J., Stanley, J., Vella-Brodrick, D., and Currie, G. (2010) 'The place of transport in facilitating social exclusion via the mediating influence of social capital', *Research in Transportation Economics*, vol 29, no 1, pp 280-86.
- Stanbridge, K. (2007) *Residential relocation and travel behaviour change*, PhD Thesis, Bristol: University of the West of England.
- Sugiyama, T. and Ward Thompson, C. (2007) 'Older people's health, outdoor activity and supportiveness of neighbourhood environments', *Landscape and Urban Planning*, vol 83, nos 2-3, pp 168-75.
- Todres, L. and Galvin, T. (2012) 'In the middle of everywhere: a phenomenological study of mobility and dwelling amongst rural elders', *Phenomenology & Practice*, vol 6, no1, pp 55-68.
- TRL and Partners (2004) *The demand for public transport: A practical guide*, Crowthorne: TRL, <http://www.demandforpublictransport.co.uk/>
- Urry, J. (2007) *Mobilities*, London: Polity.

Victor, C.R., Scambler, S.J., Bowling, A. and Bond, J. (2005) 'The prevalence of, and risk factors for, loneliness in later life: a survey of older people in Great Britain', *Ageing & Society*, vol 25, no 6, 357-375.

Zeigler, F. and Schwanen, T. (2011) "'I'd like to go out to be energised by different people'": an exploratory analysis of mobility and wellbeing in later life', *Ageing and Society*, vol 31, no 5, pp 734-57.