A Continuum for Understanding the Mobility of Older People

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Abstract

Socially-progressive transport policies have traditionally focussed on identifying accessibility deficits and enhancing access to services defined as essential, notably related to physical health. Physiological and economic needs are important, but an over-emphasis on these motivations for mobility can under-represent the wider importance of being connected within society for a fulfilled, high-quality life. The present paper takes a holistic wellbeing approach to developing the concept of mobility as multifaceted, considering in particular the case of older people living in rural communities. Concepts of mobility are reviewed, beginning with the traditional approach of literal mobility, through the established media of virtual mobility, to encompass the psychological and phenomenological perspectives of potential and imaginative mobility, leading to the positing of a continuum from the physical to the ideational along which mobility can be perceived and experienced; each point offering consequent wellbeing benefits. The theoretical development is supported and exemplified by analyses of data drawn from a quantitative questionnaire survey (n=920) and from 45 semi-structured interviews and 10 phenomenological interviews. The paper concludes by considering the importance of the different mobilities through the later lifecourse, both for current and future cohorts, and draws out the significance of their being multiple modalities of mobility for social care and the built environment disciplines.

1. Dominance of the utility concept in traditional transport planning

Transport planning has been dominated historically by disciplinary perspectives which have regarded space, and distance, as inconveniences to be overcome. Travel for 'everyday life' has been held as distinct from travel for tourism. In the case of 'daily' or routine travel, such as to work or to shops, the journey itself is regarded as being a 'waste of time', to be minimised through travel-time reductions. Such trips can even be referred to by transport planners as *utility travel*, implying that other types of trips are lacking in value (Figure 1).

Figure 1: Traditional transport planning trip categorisation
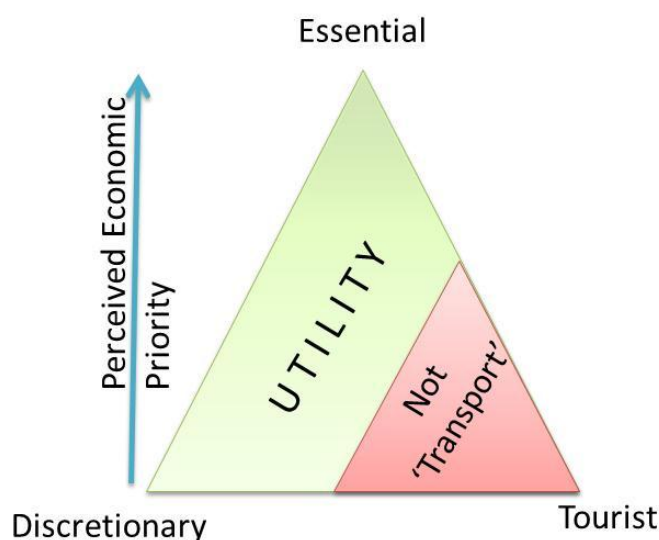
In contrast, tourist travel, traditionally on the margins of utility transport planning, is seen to be a flow significant for transport networks only in unusual, anomalous locations. Journeys for tourism may literally be richer, more satisfying and desirable than the destination. Tourists themselves are seen as dislocated from their routines, as having taken on a new temporary identity as 'traveller', rather than 'destination-seeker'. Implicit in this perspective is that novelty enriches travel, whilst repetition, familiarity and the mundane are undesirable.

Positing that not all *utility* trips have the same urgency, priority and – implicitly – value, transport planning recognises a third category of *discretionary travel*. It tends to encompass travel to undertake leisure and recreation at a specific location, certain kinds of shopping,

and for social purposes. It lies distinct from tourism as most of the trips occur within the 'routine', local, activity space. 'Discretion' implies choice and voluntariness, and that such trips can be foregone without essential needs being unfulfilled. Transport planning implicitly characterises these trips as being similar to utility trips, as the trip-makers are 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 heavy goods vehicle deliveries, business-to-business meetings, or the commuter peak-hour. Indeed, the formal practices of transport planning have traditionally been dominated by consideration of trips made for utility purposes; seen as the most economically important, creating the greatest engineering challenges, and attracting the lion's share of resources.

These traditional attributions are not without logical basis or empirical support: travellers exhibit attitudes and behaviour which indicate aversion to and avoidance of unexpected delays, and often preferences for faster journey times, particularly in the context of routine travel. Public concern would generally be higher for the timely restocking of supermarkets than the exact timings of a steam train excursion. However, the utility/discretionary/tourist triadic characterisation of mobility relies on a distinction which also often breaks down in practice: tourism may be combined with business travel (e.g. conferences held in ski resorts), whilst, even within more routine travel, trips may fall between the utility and discretionary chasm; 'leisure shopping' is almost a contradiction in transport planning terms, where essential items are bought in a context of social experience and entertainment, with the destination not being determined by generalised cost calculations, but strongly influenced by the desire for novelty, variety and even the desire to travel. For some with busy lifestyles, travel for diurnal purposes can even be a 'gift' (Jain & Lyons, 2008). Data collected by the authors (described in detail in Section 2) supported these arguments, specifically for older people: discretionary and utility attributions for trips became 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*)

> *We actually like to go out physically and do our shopping and we have lunch over there. (Do59 - Male 70s)*

> *Certainly Tesco's deliver here to my neighbours… Once again as far as we are concerned it's an outing, my wife enjoys it, it's an outing you know…(M45b – Male).*

Being physically mobile, even without a purpose, could be identified as complying with a social norm:

> *Nowadays its 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).*

The categorisation of trips in this way has practical as well as academic importance: the segregated triad of mobility is particularly politically threatening to interpretation 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 (Figure 2). People in the UK aged 65-74 are those most likely to be involved in voluntary activities (CLG, 2010), a mobilisation essential to the success of the 'big society' idea promoted, *inter alia*, by the UK Government. 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 trip purposes 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 sustainability of social services (Evans, Hills & Orme, 2012). As well as being narrow, the transport planner's conception of utility is also short-run, focussing on the immediate production and welfare consequences of journey characteristics. However, 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).

Figure 2: Indicative comparative trip profile classification by age group
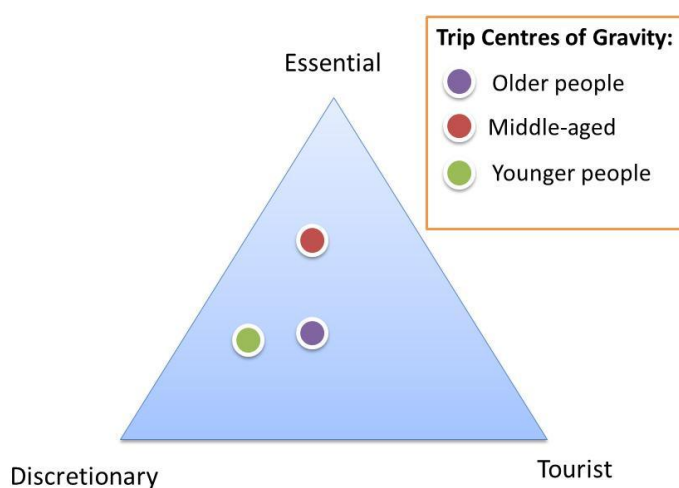
More generally, it is argued here that the utility and formal-visible economy focus of transport planning risks marginalising the travel aspirations and needs of older people through categorising them as discretionary, and therefore low priority for transport policy, leaving trips to access the short-run basics of life – groceries and health care – as the main priorities. In recent years the 'health and quality of life turn' in transport planning – first formally recognised in UK transport policy through the five strategic priorities of the white paper 'Towards a Sustainable Transport System' (Department for Transport [DfT], 2007) – challenge this doctrine. This new approach recognises a number of arguments and debates which take policy beyond the role of transport as a derived demand for the fulfilment of rational economic needs. The present paper adds to this discourse through a focus on older people in rural areas, emphasising that:

1. mobility is about much more than travelling from 'A to B' to satisfy physiological needs: to be mobile is to participate in society; to be 'connected'; to observe and experience community and fellow people directly and at close quarters;
2. movement may not have an explicit, conscious purpose: leaving the home space may simply be a habit, or have a vague purpose such as to change scenery or to expose the traveller to uncertain or unknown chance encounters. The conscious purpose may change during the course of the trip;
3. there are physical and mental health benefits to maintaining active travel and passive transport. Active travel in particular can deliver benefits through maintaining physical capabilities and personal independence later into the lifecourse;
4. all of the above are important to quality of life and wellbeing.

These are all points recognised in the gerontological literature around older people, rurality, mobility and social support networks, which considers barriers to connectivity and the crucial importance of mobility for maintaining independence and wellbeing (Sugiyama & Ward Thompson, 2007; Gabriel & Bowling, 2005), for social inclusion (Scharf & Bartlam, 2006) and avoiding isolation (Victor *et al.*, 2005). Mobility difficulties (and car cessation) can also limit different life spaces and lead ultimately to physical disability and loss of independence (Hirvensalo *et al.*, 2000).

Placing this debate in a wider context, the traditional approach of transport planners and geographers has been criticised more generally by the 'new mobilities' paradigm (Sheller & Urry, 2006). However Shaw and Hesse (2010) identify a substantial overlapping middle ground between the 'new' and 'traditional' approaches, at least in terms of methods, and argued for greater synthesis between the approaches in order to advance both the state and status of the field of knowledge. Theoretical frameworks that have attempted to bring the individual and environmental aspects of mobility together (Lawton & Nahemow, 1973; Webber *et al.*, 2010) have focused on the physical aspects related to the person and the environment. Similar to transport studies, gerontology has focused on mobility as 'actual realised movement' (Ziegler & Schwanen, 2011, p. 760) or physical functioning, for example, someone's ability to shop or use public transport.

Increasingly, gerontology is recognising the multidimensionality of mobility. Ziegler and Schwanen (2011) identify the mobility of the self (of identity), a person's attitudes towards mobility practices, imagined mobility and electronic mobility, all related to the wellbeing of older people. Mollenkopf *et al.* (2011) explore the subjective meaning of mobility over time. However, despite the move to broaden perspectives, there is a lack of spatial reference (urban-suburban-rural) in most studies.

Hence the paper seeks to synthesise a new perspective on understanding mobility aspirations and needs through the development of an experiential continuum to replace the transport planning constructs based on a particular discourse around economic efficiency priorities. The intention is to exemplify the spatial dimension through a focus on mobility and ageing in rural areas, contributing to the empirical evidence for constructs such as potential mobility, hitherto limited (Kellerman, 2012). Explanatory power is enhanced through the sharing of perspectives from transport planning, travel behaviour studies, humanistic psychology, social network theory and phenomenological philosophy, and the deployment of positivist and humanist data collection techniques in line with Shaw and Hesses' shared multidisciplinary locus of inquiry. Section 2 provides an overview of the methodology. Section 3 posits the continuum as a theoretical construct and then considers, in four subsections, different ways of being mobile along the continuum, drawing in each case on existing literature and new research findings. Section 4 considers the dynamic interrelationships between the four modalities on the continuum and the significance of their identification for the social care and the built environment disciplines.

2. Methods

The analysis draws on research undertaken for a social science and arts study of the connectivity of older people in rural areas: 'Grey and Pleasant Land?' (GPL). Participants were recruited in 2010 from six areas of rural Wales and Southwest England (within the counties of Dyfed, Powys, Monmouthshire, Cornwall, Dorset and Gloucestershire) via a recruitment question on a quantitative survey. Each of the study areas was based on several local government electoral 'wards', which on average have a population of around 5500, although this can be less in lower-density rural areas. The study areas exhibit a gradient of rural and social characteristics, using a categorisation adopted by the UK Government's Department for Food, Agriculture and Rural Affairs (2009). The Cornwall and Dyfed study areas represented 'remote and deprived' areas with low average incomes, difficult access to owner-occupied housing, and with a high dependency on agriculture. Those in Dorset and Powys were 'less remote and deprived', with average regional incomes, average reliance on agriculture and tourism, less problematic access to owner-occupied housing, and quite a high proportion of people over 60. The areas in Gloucestershire and Monmouthshire were 'relatively affluent and accessible' locations with low dependence on agriculture and tourism, a relatively young age profile and high levels of commuting. The participants lived in settlements which ranged in size from isolated homesteads to communities of several thousand people.

Stratified random sampling was employed for the quantitative survey. Participants were contacted at home, face-to-face, with the interviewer-completed questionnaire lasting around 30 minutes. The resulting sample showed a slight bias towards the 'younger old', but was broadly in line with 2008 population projections for split of age-groups (60-100) from the Office for National Statistics (ONS, 2009) for England and Wales. There was also a slight bias with respect to the gender split in the 2008 projections, the sample having slightly fewer men, and slightly more women. Approximately 150 older people completed the questionnaire in each of the study locations, with overall, 920 participants providing responses to questions encompassing community activity and involvement, health and welfare issues, as well as general demographic data. The 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.

The qualitative research participants were recruited from a list of volunteers who had agreed to follow-up interviews via a filter question on the quantitative survey. 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.

Fifty-five interviews were semi-structured, with the participants selected to represent a range of mobility lifestyles: some 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. The majority had access to a car, reflecting the high overall level of access to cars amongst the elderly in both the UK rural population and the quantitative study sample. Age group (60-69, 70-79 and 80+) and gender

were also approximately matched between the six locations. Due to the low representation in the quantitative survey sample of people who had recently given up car driving, seven further participants were recruited from outside of the quantitative survey sample in one of the Welsh study areas.

The semi-structured 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. 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 older people's mobility as well as sustainability issues related to travel. The data were analysed using a content analysis approach, assisted by the use of Nvivo software.

Ten phenomenological interview participants were selected according to the criteria: people who were well and who had relatively good access to transport; people who were well and who had limited access to transport; people who were experiencing health difficulties to such an extent as to restrict their mobility; people who could not leave their homes. 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 classified as 'must-do' (e.g. shopping), 'have-to' (e.g. medical appointments), and 'want-to' (desired). The questions were developed to allow understanding of the meaning of transport in people's lives and the meaning of mobility within the context of rural space.

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 & Galvin (2012) provide further detail of the phenomenological approach.

3. Towards a conceptual model of mobility

Musselwhite and Haddad (2010) gave consideration to the hierarchical benefits of physical mobility, distinguishing the functional aspects of mobility from the high-order psycho-social benefits it brings in satisfying affective needs, by establishing personal agency, status and role, and aesthetic needs, particularly derived from travel 'for the sake of it' or from experiencing nature. However, our understanding of the ways in which mobilities other than for physical movement can be important for wellbeing has seen much more limited theoretical and evidential development. Physical mobility may be seen as a defining characteristic of being human and social. However, this relationship is complex, as being human or social does not end with the absence of physical mobility. The range of metaphors of movement, for example linking 'mobility' within society with individual progress or regress, and the representation of life itself as a journey, remind that mobility is a socially-constructed and partly ideational phenomenon. It is also mediated by technology, physically, through transport systems, and increasingly so virtually, through information-communication technology (ICT) networks.

Figure 3 represents four hypothesised points on a continuum which leads from physical interaction – literal mobility - through to the entirely mental symbolism of imaginative mobility

Figure 3: A physical-ideational continuum for understanding the diversity of mobilities influencing wellbeing
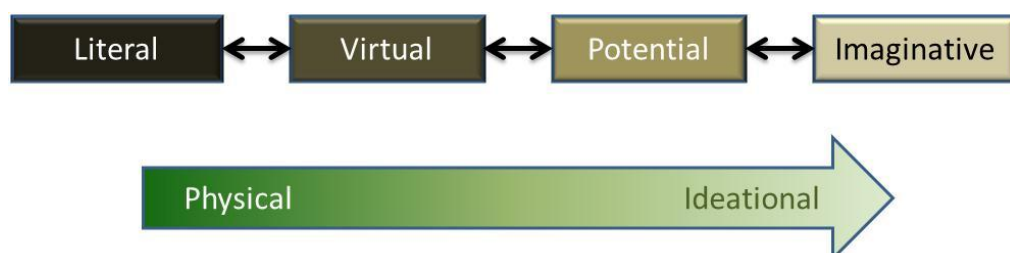
Virtual mobility essentially substitutes physical mobility, with the objective of achieving the same welfare outcomes through the movement of electrons and waves, whilst potential mobility retains some aspects of physical mobility, but is essentially symbolic; no physical

mobility occurs, even though its possibility is appraised. Imaginative mobility instead does not apprehend movement as an intentional possibility, nor does it use technology to connect with other people or observe the environment across space. Movement is solely within the neurons and the mind.

3.1 Literal mobility

The older age cohorts in the industrialised states are developing diverse literal mobility narratives. As a group, they have arguably the widest availability of transport resources, 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 microvehicles, and in some locations public transport supply at an all-time high. In the UK, older people can travel free on most public bus services. However, mobility researchers have documented the barriers to physical mobility as including being unable to walk or cycle for long periods or distances, having difficulty in physically accessing vehicular transport (Schlag, Schwenkhagen & Trankle, 1996), fear of falling (Avineri, Shinar & Susilo, 2012), and lack of pavements or street lighting (Newton *et al.*, 2010). Moreover, such practical constraints on older people's mobility tend to rise with the physiological changes associated particularly with ageing, which place particular significance on the fact that the rates of growth in the older population are in many countries highest amongst the oldest-old: in the case of the UK the over-85 group is forecast to increase from 1.3 million in 2008 to 3.3 million by 2033 (ONS, 2009).

Davey (2007: 49) examined the utility/discretionary distinction, referring to discretionary and "serious" trips, finding that the former were more likely to be affected by limited access to transport, but were felt by a sample of New Zealand elders to be particularly important for quality of life. Discretionary trips were more likely to be reduced due to an absence of car access in the household, as public transport was seen as less suitable for trips such as: spontaneous pleasure outings, for which respondents were also unwilling to ask relatives for lifts for such 'extravagancies'; special occasions such as reunions and funerals, particularly if these would not be of interest to a potential lift-giver; and any shopping which was not target-oriented, such as in response to a sale offer, or just browsing. Davey also hypothesised that discretionary trips might particularly suffer in rural areas due to more limited mobility options.

Indeed there is a particular rural geography of mobility and ageing in the industrialised states. This departs from the point that the rural population is relatively old, the proportions of those aged over 60 increased from 17% in 1975, to 23% in 2005, compared to 15% and 19% in urban areas (UN, 2009). Whilst 91% of UK rural households own at least one car, compared with 75% nationally (DfT, 2011a), Shergold and Parkhurst (2010) showed from census data that ownership by locality varied considerably (60-97%) even within a rural Gloucestershire parish. Households without car access may be reliant on (costly) taxis or the availability of lifts from others for their car-based mobility. Even for those with cars, vehicle operating costs represent a rising barrier, which some identify as of greater significance in rural areas (Root, Boardman & Fielding 1996, Smith, Davis & Hirsch 2010).

In respect of public transport, the widespread introduction of free fares for older people in the UK has reduced financial barriers to bus use, but there must be a viable bus service. The UK National Travel Survey (DfT, 2011b) reported that the percentage of households in the most rural areas with a bus stop within 13 minutes' walk fell from 87% to 83% in the decade to 2010, although the share of households with an hourly service at that range rose from 45% to 57%). As Shergold and Parkhurst (2010) consider, however, this measure is based on an average walking capability, and does not reflect the accessibility of citizen with walking constraints, nor allow for the effects of topography and inclement weather conditions, notably surface ice. There are also psychological or perceived barriers to using the alternatives to cars, including a lack of confidence in knowing the 'norms' surrounding bus use (Musselwhite & Haddad, 2010; Musselwhite, 2010). For some social groups, modes may also attract a negative stigma or a deterrent feeling that certain modes of transport are not 'meant' for them (Davey, 2007; Musselwhite, 2010).

Therefore the reality for the older rural people engaging in the research reported in this paper was likely to be a lower level of both bus and car availability than standard quantitative indicators of access suggested, and hence the study sought to quantify and qualify the effectiveness with which mobility is achieved in respect of the first point on the continuum.

Where, in the past, rural transport policy has traditionally focussed on identifying accessibility deficits based on the proximity of the nearest example of a particular service type, the approach here recognises that individual's priorities may vary, and personal agency in identifying what is important is critical to quality of life. The findings from the GPL quantitative survey were that, although 87% of respondents had access to a car in the household, a wider range of modes were reported as used; notably a large majority walked at least 15 minutes (for any reason) at least weekly, and public buses, taxis and cycles were used by minorities of the sample, particularly at lower frequency (Figure 4). 62% of respondents had used 3-6 different modes in the year prior to survey.

Figure 4: Intensity of use of transport modes
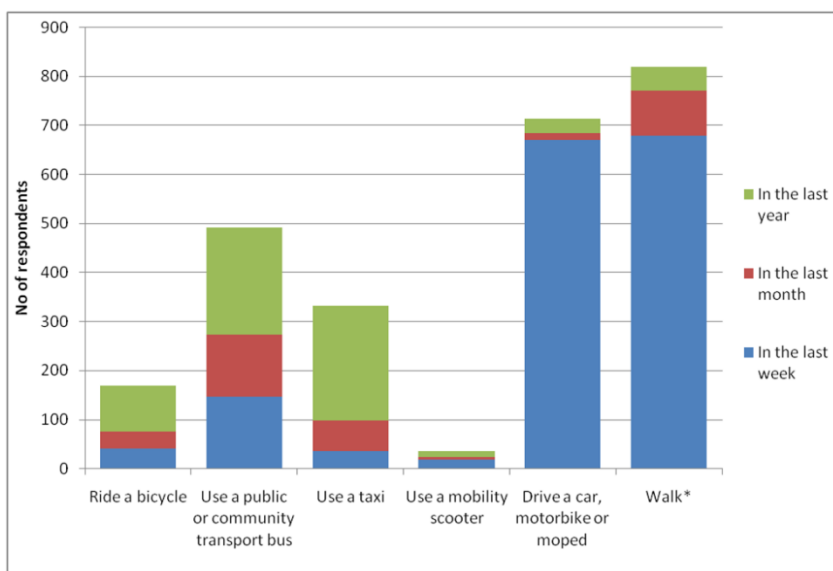
Overall, few participants reported they found accessing 20 nominated service and activity locations 'very difficult' (Figure 5), and no more than a fifth reported some level of difficulty for each of the locations. People aged over 80 were however more than twice as likely as those aged 60-79 to report accessing at least one location being very difficult.

Figure 5: Reported difficulty in accessing services and facilities
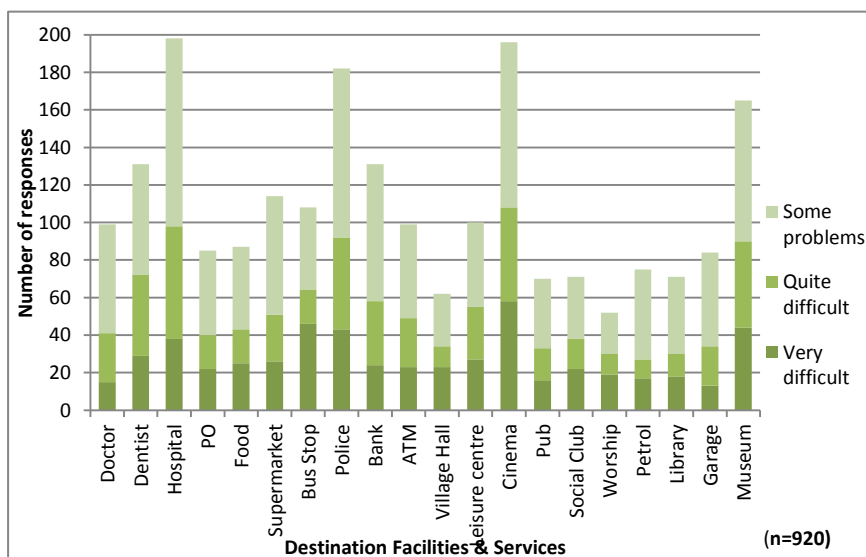
Only 6% of respondents overall regarded themselves as socially excluded, but statistically significantly differences were found which associated a higher incidence of reported exclusion with: being in the most rural area type and not having access to a car in the household. No significant difference was found between age groups (See Shergold & Parkhurst, 2012 for further details of these analyses).

Even for those not currently perceiving exclusion or a mobility deficit, it emerged from the semi-structured interviews that participants recognised material and spatial constraints as creating a level of threat for the future, due to the distance of residences from services of appropriate quality:

…everything that I need is outside of this village, so if I can't get out for any reason then I am really stuck. (Female, in 70s)

It would be nice to have hospitals closer. I did worry when I first had the heart thing that I might die in an ambulance on the way… (Male, 60s)

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

The phenomenological interviews emphasised the multiple affordances that mobility has, whatever the purpose, through the creation and experience of 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':

…my granddaughter says they we live in the middle of nowhere, but we live in the middle of everywhere.

The well-being possibilities of this textured locale generally begin outside the front door and stretch for a number of miles according to an individual's 'activity space' and include places necessary for day-to-day requirements (such as post office, doctors surgery, local shop), as well as places that are important for older peoples' sense of enjoyment, usually related to preferences for rural living (such as garden centres, heritage sites, coastal walks, and familiar places that have personal historical significance for them.

3.2 Virtual mobility

Although for some older people constraints in the form of limited dexterity or visual acuity limit interactions with ICTs future older people will have had greater life experience with the technologies and this is expected to result in increasingly technologically-enabled and engaged older cohorts in the future. 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 literal mobility and, in extremis, those which have lost independent literal mobility within and beyond the home completely, either for specific periods of life, or the remaining lifespan.

Substitution has at times been identified as a negative development – from a moral perspective which identifies physical connectivity as superior to virtual connectivity and therefore to be preferred where possible, to minimise perceived associated 'desocialisation' effects and related psychological threats. Some support was provided for this view in the GPL interviews:

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)

People will be able to access things like food and stuff well do their food shopping from home. And I bet everyone will do it…I don't think I would personally, but I imagine the missus would miss running into people she knew. (Po2)

However, Kenyon (2010), who applied an activity diary method, found virtual activities to be *additional* to physical mobility, resulting in an overall increase in participation in activities and connectivity; neither adding to or reducing physical travel demands. However, Kenyon examined a sample without identified physical mobility constraints, and of mixed ages. Moreover, if ICTs do continue to be increasingly important mobility media within society, then people of all ages who do not engage with them will exhibit increasing 'deficits' in quantitative terms (although not necessarily in terms of quality of interactions).

Similarly, depending upon commentators' value attributions towards the importance of the physical locale, ICTs may be viewed as a liberating force enabling the global village and connecting diversity, or undermining 'real' community in order to favour one which is not able to generate the effective social capital essential to provide practical support for the vulnerable, and quality of life for all.

Specifically in relation to older people, Rowles (1983: 299) identified three decades ago, before the mass-adoption of ICTs such as the internet and mobile telephony, that the *"manifestations of attachment to place"* showed greater *"vicarious involvement in displaced settings"* for an under-75 cohort than an older-75 cohort, who remained more strongly attached to their proximate environments, with this change attributed to the increasing physical mobility of older people. Although cohort effects may exist as well as age effects, from this perspective, a strengthening with age of the importance of physical locale in the experience of the elderly may be a strong tendency.

Where literal mobility is limited or impossible, however, moral reservations 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.

The present research sought to document the extent of practical engagement with ICTs and examine perspectives on the importance of physical locale for connectivity for older people in rural communities in the UK at the end of the 2010s. It was found that nearly two-thirds of respondents had access to a computer at home, and all except 7% of these computers had an internet connection. Most were broadband connections. Around half of those with access to a computer used it at least weekly, although there was considerable decline in frequency of use by age. Of those using it weekly, more than half reported having used the internet for banking and nearly two-thirds for shopping (Figure 6). A small but significant association was found between respondents reporting social exclusion and not having access to the internet at home (Shergold & Parkhurst, 2012).

Figure 6: Reported use of internet for banking and shopping by age group
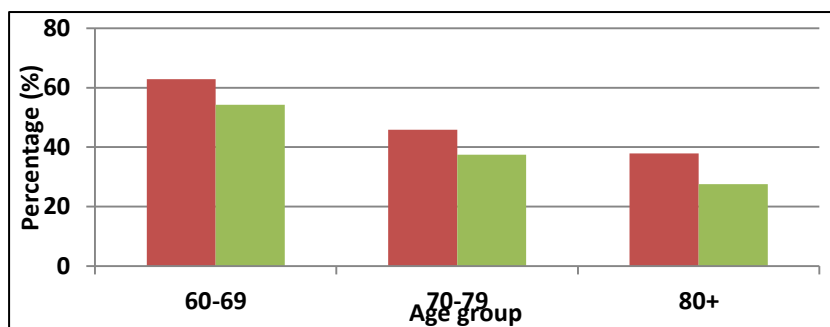
Analysis of the semi-structured interviews illustrated that some virtual mobility choices clearly replaced a trip (although in this case there is no information if other travel occurred instead):

> *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).*

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

> *I 'messenger' which is... I keep in - you know - contact with my daughters and my granddaughters" (Female 60s)*

> *My daughters, all four daughters phone me up at least once a week, and we keep in touch…The phone is my link, and if I don't phone them they will phone me. (Male C12)*

> *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 (M18).*

And whilst 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)*

> *Well I have got a lot of friends, 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. (M18)*

Non-synchronous social networking was also identified:

> *I now use Facebook....my youngest granddaughter has her own Facebook....so we access that (Male late 70s).*

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

> *I certainly see more of my grandson because of Skype (Female 60s).*

In this case several hours travel was implied for the relatives to be literally co-present:

> *"Well we've got family in Sussex.... and we talk to them regularly on the phone, internet, Skype and things (Male 70).*

However, individual limits to the nature of virtual mobility were identified: the interviewee who was so reliant on phone communication did not wish to engage with computer-based ICTs:

> *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 C12).*

3.3: Potential mobility

Metz (2000: 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: 50) developed the concept, identifying 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". Kellerman (2012) considers that potential mobility can exist at the social level as well as that of the individual.

A number of implications follow from the identification of this third point on the continuum. Sometimes 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. The potential to be mobile can itself contribute to overcoming feelings of isolation and entrapment. The idea of being able to make a journey is important independently of the experience of actually making it. However, the feelings of potentiality can be psychologically complex: Davey (2007: 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"*.

Hence 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. Corroboration was found in the semi-structured interviews for the GPL research:

> *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).*

A notable addition was to identify potential mobility arising outside of the modal context of the car: 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 public transport was valued as a 'carefree' option but hitherto that had turned the potential into the literal.

3.4: Imaginative mobility

The final point on the continuum, the concept of 'imaginative mobility' brings novel insights about the ways in which semblances of motion are (re)created in the mind in the absence of actual movement, through memory, engagement with media, or through accessing the experiences of others; indeed any way in which people extend their sense of connectedness and engagement to life activities that were previously addressed by physical mobility. It was hypothesised that where this spatial engagement is meaningful, quality of life benefits from mobility are therefore maintained. Evidence for imaginative mobility came from the qualitative data collection.

Imaginative mobility experiences involve no, or virtually no, physical mobility by the perceiver; no more than moving within a building to a window, balcony, or just outside into a garden, perhaps to observe others' movement in the immediate environment. However, physical mobility may often be involved in others becoming co-present with the perceiver in order to trigger imaginative mobility; through the reports of changes in the outside world they bring, or through triggering explicit or implicit recall of past travel. Clearly, imaginative mobility is not a simple replacement of a previous, established activity, such as 'going to the pub to meet longstanding friends' but rather involves something that is more complex: the achievement of a different but allied experience through other means, for example reminiscing about longstanding friends and stories with visitors and through photographs. Audio-visual technologies also engender imaginative mobility through recall, from photographs of past trips, or television documentaries about places visited. Social network media are also growing in importance as a means of promoting autobiographical documentation and recall.

Imaginative mobility is particularly valued by older people whose potentials for both literal mobility and virtual mobility recede, due to increasing physical limitations, ill health, or even simple lack of desire:

> ....so I'm not worried if I don't get to shopping or the sea because I know that, as regards shopping, it will be done for me by my lovely neighbours, and the sea is always going to be there (Male late 70s).

The need to understand mobility in the context of 'dwelling', being 'at home', was clear, where dwelling refers to an overall 'willingness to be here', for some, as a place of birth and near continuous presence; for others as a place of choice, following a selective process, perhaps at retirement, due to that place having specific qualities,

> We picked here (to live) because of sustainability and access, there is no doubt about that, but the basic goal was to come back to our roots for some unknown reason. I mean I am happy, but it was driven by my wife and not by me (Male M45b),

or reflecting a preference for a less active lifestyle in a rural context - 'dunroamin':

> 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 Dy4),

> I don't want to travel. I like it here. I go for walks here and I take my dog for a walk…I love living here (Female P27),

or being a space of personal significance, even 'journey's end':

> …we hope we can finish our life up here... (Female 60s).

There was some evidence that imaginative mobility experiences might be particularly important for those rural older people who valued or had indeed sought the 'rural idyll': a preference for peace, privacy, beautiful natural views, 'being in nature', far from the crowd, and distinct from urban life:

> ....you deliberately live in an isolated village because you want the peace and quiet (Male 70s).

> *I would miss not getting out and about. But look at the view from my garden of the fields. Look at it. If I really couldn't go out again I'd be a lot more better off than other people and other people in urban areas (Po2).*

And related to the importance of imagination, rural areas perhaps have particular imaginative qualities, linked to access to views of the landscape, close proximity to nature, and gardens in this case the view offering a sense of temporality, or the movement to the rhythm of the seasons:

> *…look out my window don't you think I am very privileged.... people have got pictures like that hanging on their walls...I sit by here and I see the changing seasons and the sunrise on it.... (Female 80s).*

4. Discussion and conclusion: dynamic relationships between the mobilities

The findings confirmed that a distance and time-based accessibility needs and deficits approach to transport planning which prioritises particular travel motivations is limited for a number of reasons: the value of making individual trips by particular modes, the importance of physical mobility at all for difference purposes and judgements about the value of particular destinations are particular and individualistic priorities which may show variation over time. Virtual mobility, for example, may be of particular value during bad weather episodes or during periods of poorer health status.

Moreover, the rise of virtual mobility creates an additional challenge to the past tendency within transport planning to focus on a particular, restricted conception of utility: through the rise of effective virtual services such as home grocery shopping with delivery and online banking, and the emergence of telecare, then the travel generating activities currently held to be most essential may in fact become those for which travel is *least* necessary. However, where the physiological need for literal mobility recedes, and moment for these purposes declines, the socio-psychological needs for mobility increases, whether through literal mobility or imaginative mobility, the latter drawing on knowledge of textured locale to retain the quality of life benefits of having a mobile dimension to existence.
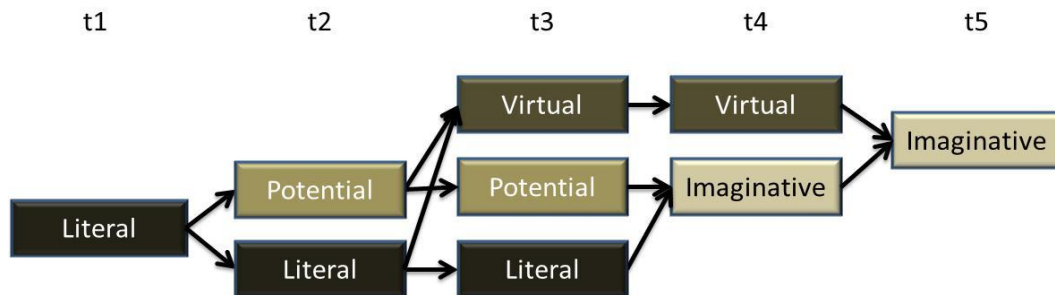
Concerning potential mobility, the present paper confirmed an important symbolic role for the car within mobility, but also suggested a symbolic role for other modes as well. In the UK it is likely that the opportunity for older people to travel free on local buses has contributed to potential mobility. Andrews *et al.* (2011: 13) 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.

Nonetheless, considerable research gaps exist around the concept of potential mobility: the extent of potential mobility phenomena amongst individuals of different personality and circumstance, and the importance within a particular individual's 'motility capital' (Kaufmann, 2002: 40). Kaufmann *et al.* (2004) identified three interrelated factors which determine a person's motility: access to mobility options, competences or skills to use then and cognitive appropriation or evaluation of the relevance of options. However, evidence exists about the circumstances in which potential mobility replaces other mobilities, and the duration over which a mobility practice remains potential.

More generally, the four mobilities will often coexists with each other, with some combinations having durations of many years, and others being transient, perhaps lasting a few months. Figure 7 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 a literally active and mobile individual but has had hitherto little engagement with ICTs and hence virtual mobility in adult life. However, the individual gives up driving in his/her early seventies and experiences a period of reduced literal mobility and partially satisfies this lacuna psychologically through developing potential mobility capital. However, the reduction in literal mobility still represents a loss, and a few months later (t3) he/she attends computer training, and rather rapidly develops virtual mobility capital, undertaking a number of practical and social activities online. A decade later (t4) physical illness ends the individual's ability and desire to be physically mobile and imaginative mobility takes on an important role in psychological life, although virtual mobility capital is still drawn upon in retaining a degree of independence. Finally, for a very brief period in the latter stages of life (t5), virtual mobility

becomes impossible due to failing faculties and a sense of peace is found in imaginative mobility.

Figure 7: Example five-stage biographical transition across the mobility continuum

t1　　　　　t2　　　　　t3　　　　　t4　　　　　t5

Virtual → Virtual →

Potential　　　Potential　　　Imaginative → Imaginative

Literal

Literal → Literal

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.

There were glimpses in the research as to how future imaginative mobility experiences are engendered by earlier experience:

> *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.*

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.

In summary, the paper has considered how transport planning and policy needs a broader conception of how mobility interacts with quality of life of older people than the physiologically and economically-driven accessibility planning and utility models. Understanding that there is a continuum of mobilities, each which provides for welfare and wellbeing in different ways offers an alternative to false distinctions between 'necessary' and 'discretionary' travel. Empirical evidence provided support for the importance of each of the four mobilities. The extent of importance of each mobility can be expected to vary between individuals and across lifecycles. The relationships between the modalities are complex and dynamic, and continuing to be influenced by technological change.

There are implications for a range of social care and built environment professions. Exploring the multi-dimensional nature of mobility offers increased potential for older people in receipt of social care in rural areas. The impact of new technologies can widen the horizons of older people who are housebound or at a distance and provide some aspects of social care remotely such as monitoring. However it is in this area that we need to be cautious as social care is as much about human interaction as providing physical care.

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. 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.

As imaginative mobility relies in part on the physical mobility of the past, then it is important for built environment disciplines such as architecture, spatial planning and urban design to consider the variety of structure, form and function necessary for a locale to become rich enough when experienced through travel, such as to contribute to narrative memory for current and future wellbeing resources. Imaginative mobility can also add to the rich history

of places and spaces as well as for individuals. For planners and architects this suggests that ambience and 'feel for a place' is as important as the physical structures that assist mobility. This has implications for a more integrated approach to spatial planning and development control.

The findings in respect of imaginative mobility suggest that remaining within a particular locale may have important psychological and broader welfare benefits, even where a physiologically-led assessment may suggest relocation, perhaps to a 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 & Parmerlee, 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). Attachment to place is also tied into collective memories of places and times (Burholt, 2006). Such memories and meaning can make rural spaces and places significant for older people as they experience declining physical mobility.

This paper, similar to others (Farquar, 1995; Mollenkopf et al., 2011) also calls for a broader perspective within the different mobilities identified in the continuum. Being able to go out and to be active and to meet friends and family remains significant for older people, not only for keeping fit but also to gain a sense of 'pleasure in just moving about' (p796). Apart from movement we need to look at physical mobility as imbued with meaning (Mollenkopf *et al.*, 2011). This strengthens the argument of this paper that we need to explore multiple modalities rather than be constrained by a single approach. For older people in rural areas this has increased significance as distance can be a barrier for certain older people who are restricted to their locale due to disability or lack of transport options. Distance is also known to be a risk factor in loneliness and social isolation; something which can potentially be remedied through a re-conceptualisation of the meaning of mobility.

Acknowledgement

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