

University of Groningen

Mundane mobilities in later life - Exploring experiences of everyday trip-making by older adults in a Dutch urban neighbourhood

van Hoven, Bettina; Meijering, Louise

Published in:
Research in Transportation Business and Management

DOI:
[10.1016/j.rtbm.2019.100375](https://doi.org/10.1016/j.rtbm.2019.100375)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2019

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):
van Hoven, B., & Meijering, L. (2019). Mundane mobilities in later life - Exploring experiences of everyday trip-making by older adults in a Dutch urban neighbourhood. *Research in Transportation Business and Management*, 30, [100375]. <https://doi.org/10.1016/j.rtbm.2019.100375>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

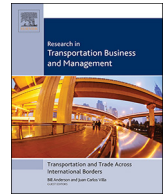
If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.



Contents lists available at ScienceDirect

Research in Transportation Business & Management

journal homepage: www.elsevier.com/locate/rtbm

Mundane mobilities in later life - Exploring experiences of everyday trip-making by older adults in a Dutch urban neighbourhood

Bettina van Hoven*, Louise Meijering

Faculty of Spatial Sciences, PO Box 800, 9700 AV Groningen, the Netherlands



ARTICLE INFO

Keywords:

Urban neighbourhoods
Mobility
Older adults
Qualitative methods
The Netherlands

ABSTRACT

Mobility in later life is key to ageing actively and well. Mobility is not merely about moving around, but is related to aspects such as perceived reasons for trip-making, feelings of (in)security and (lack of) confidence, and social and spatial knowledge. Through adopting a relational and contextual perspective, the complexities and nuances of everyday mobility can be uncovered. In this context, the aim of this paper is to examine how older adults experience their everyday trip-making in the interplay between increasing losses and deficits in the process of ageing, and characteristics of the environment in which they perform daily activities. We draw on an exploratory study with older adults living in a suburban post-war neighbourhood in the Northern Netherlands. Methods used include in-depth interviews and neighbourhood walks. We found that mundane and everyday routines and practices at the level of the body and neighbourhood are pertinent to the everyday mobility and quality of life of older adults. In conclusion, we emphasise the relationality of experienced mobility based on how older adults assessed their daily perception of fitness and the various aspects that comprised the trip to be made, i.e. social, physical and affective. To facilitate mundane mobilities in later life, it is important that accessible, clearly structured and predictable urban environments are provided, as these allow older adults to make daily use of their neighbourhood on their own terms.

1. Introduction

Considering that “cities are home to 43.2% of all older population in the OECD region” and numbers are steadily increasing (OECD, 2015: p.7), establishing age-friendly cities is an important policy context (WHO, 2007). Mobility is a key ingredient in achieving goals associated with the WHO ‘Global Age-Friendly Cities’ project, such as social participation, social inclusion, (accessing) community support and health services, (making use of) outdoor spaces and buildings and (allocating) housing, aside from the obvious attention to transportation. All these dimensions together are meant to enable older adults to ‘age-in-place’.

Various authors have emphasized that quality of life and wellbeing in older age are related to mobility (Kwan & Schwanen, 2016; Nordbakke & Schwanen, 2014). Webber, Porter, and Menece (2010), for example, stated that “mobility is *fundamental* to active ageing and is intimately linked to health status and quality of life” [p. 443, emphasis added] as it is related to the ability to exercise agency, remain socially connected, be autonomous and independent (see also Ziegler & Schwanen, 2011). This ties in with ideas about mobility in later life, in the sense of having the freedom to go about as one wishes, and connects to the idea of mobility as a human right or entitlement for (older)

people. The capability approach has been used to look at capabilities as certain human potential or substantive freedom of functioning (see Nussbaum, 2003; Sen, 1999). Although this is beyond the focus of the current paper, we have used the capability approach in another paper that focuses on independence and mobility in later life (Meijering, van Hoven & Yousefzadeh 2019).

For the current paper, it is important to consider that mobility takes place *somewhere*, and in exploring mobility in relation to ageing-in-place and wellbeing, its embeddedness in a local neighbourhood connects it to place attachments. Indeed, walking has been considered a place-making practice (see Lee & Ingold, 2006; Pink, 2008; Waitt, Gill, & Head, 2009), and Andrews, Hall, Evans, and Colls (2012) maintain, place attachment and ageing-in-place are “closely related, even overlapping concepts which have a strong development in policy and in the literature” (p. 157).

In relation to the geographic context of our study, i.e. the Netherlands, it is important to note that urban policy subscribes to the concept of ageing-in-place. This policy results in many neighbourhoods being assessed by municipalities in terms of age-friendliness regarding housing, facilities and public transportation, in order to enable older adults to remain independent for as long as possible (see, for example,

* Corresponding author.

E-mail addresses: b.van.hoven@rug.nl (B. van Hoven), l.b.meijering@rug.nl (L. Meijering).

<https://doi.org/10.1016/j.rtbm.2019.100375>

Received 4 March 2019; Received in revised form 19 August 2019; Accepted 19 August 2019

Available online 24 August 2019

2210-5395/ © 2019 Elsevier Ltd. All rights reserved.

the concept of 'Integrated Service Areas' as described by [de Kam et al., 2012](#) and [Jansen, Pijpers, & de Kam, 2018](#)). In municipalities that formally subscribe to the concept of WHO's age-friendly cities, or/and the Integrated Service Areas, many facilities (shops, healthcare, recreational facilities) are located within a 500 m radius. Many neighbourhoods in the Netherlands developed an infrastructure that includes sufficient and well-maintained sidewalks, often separated from roads and cycling paths. In general, Dutch urban areas are well-served by public transport such as buses, and sometimes elaborate over- and underground railway systems. In addition, as a result of the vibrant cycling culture, there is an abundance of designated bicycle paths. This way of planning transport infrastructure also serves ageing-in-place policy. For persons with mobility impairments, shared and subsidised taxis are available as well. Considering the multitude of studies on ageing in the US and UK, where cities are less 'compact', have lower diversity of means of transportation, fewer accessible facilities and are less walkable, at least generally speaking, the Dutch geographic context is interesting to consider in relation to older adults' everyday mobilities.

In the context outlined above, our paper examines more closely the experiences of older adults' everyday, mundane mobilities as they simultaneously negotiate increasing losses and deficits in the process of ageing. We draw on an exploratory study with older adults living in a suburban post-war neighbourhood in the Northern Netherlands. We used in-depth interviews and neighbourhood walks as methods to identify and discuss the mobility choices and experiences of older adults, who experience reduced mobility. Before doing so, in the following sections, we first give a brief overview of the theories on mobility in later life that frame our discussion. We focus on the complexities of mobility in later life and the various factors that co-determine the extent and experience of mobility and which make it a relational experience. We then describe the specific context of our study and the research approach.

2. Mobility in later life

Mobility in the social sciences has long been conceptualised as the movement between place A and place B. In transport research, for instance, focus has been on measuring movements in space by individuals and groups ([Buliung & Kanaroglou, 2006](#)). Indeed, such research on older adults is characterized by measuring out-of-home mobility in terms of distance, speed, and locations visited, in more recent years often through devices such as GPS-trackers ([Chan, Helfrich, Hursh, Rogers, & Gopal, 2014](#); [Hirsch, Winters, Clarke, & McKay, 2014](#); [Voss et al., 2016](#); [Winters et al., 2015](#)).

In the 1990s, ideas on mobility have begun to change to incorporate the purposes, experiences and outcomes of movement, and the (in)equalities in access to mobility. These changes in ideas have been labelled as the "mobility turn" ([Sheller & Urry, 2006](#)). The mobility turn has resulted in studies on experiences of everyday mobility in later life, foregrounding mobility perceptions and satisfaction, that are mainly qualitative in nature (see [Goins et al., 2015](#)). Studies have shown, for example, that the mobility of older adults is closely related to that of their significant others, and that it often focuses on engaging in social and leisure activities ([Aird & Buys, 2015](#); [Burnett & Lucas, 2010](#); [Gardner, 2014](#); [Goins et al., 2015](#)).

In the past decade, a shift thus occurred from mapping mobility patterns to understanding the nuances and specificities of older adults' mobilities. For example, [Webber et al. \(2010\)](#) explain this as "a potential of the person that may be realized under certain psychological, social, and emotional or affective conditions" (p.413). [Kaiser \(2009\)](#) emphasized that participation in traffic emerges as a complex social action comprising aspects like perceived needs and motives for trip-making, the degree of anxiousness and feelings of insecurity, adaptation to new roles as ageing person, adaptation through acquiring new social and spatial knowledge, and a person's biography. Cultural and gendered barriers cross-cut these dimensions. [Webber et al. \(2010\)](#), for instance,

maintain that women demonstrate greater limitations to mobility compared to men (see also [Siren & Hakamies-Blomqvist, 2009](#)). In addition, even though individuals may be able to drive or walk, their lack of self-confidence may inhibit and self-restrict them. Authors like [Harper and Laws \(1995\)](#), [Milligan, Bingley, and Gatrell \(2005\)](#) and [Minichiello, Browne, and Kendig \(2000\)](#) have highlighted the perceptions and representations by the public of the older body in relation to place and illustrate how these can restrict the movements of older adults' public space (see also [Phillips, Walford, Hockey, Foreman, & Lewis, 2013](#)). [Leda and Muraki \(1999\)](#) confirm this and note that single older adults go out less often except when absolutely required, yet going out is also associated with a sense of fulfilment which is implied in the discussion on neighbourhood attachment as well ([Lager, Hoven, & Huigen, forthcoming](#)).

[Risser et al. \(2010, p.74\)](#) highlight the role of technical preconditions, such as built-up infrastructure, and accessible public transport, as well as legal or policy preconditions, such as traffic policy, and enforcement of speed limits as impacting the mobility of older adults. [Alsnih and Hensher \(2003\)](#) also critique urban environments for not actually giving older adults sufficient incentives to walk (regularly). Indeed, [Banister and Bowling \(2004\)](#) list the importance of physical aspects such as even and non-slip surfaces, benches to rest, lighting, safe crossing points with extended green times, and protection from fast moving traffic as important for urban environments that are conducive to walking.

In this article, we understand 'mundane mobility' as inextricably linked to the physical, social and affective context of the neighbourhood. The often short, but regular movements in urban neighbourhoods that we observed can easily be ignored in the context of organizing human movements through urban spaces, but they contribute to a sense of attachment and wellbeing by older adults (see also [Wiles & Allen, 2010](#)). Although limited to a smaller radius, older adults develop intimate knowledge of their environment which can increase a sense of control over 'their' place (see [Holland et al., 2005](#)). Even in neighbourhoods that present 'environmental press' through poor maintenance, facilities and social context (see [Smith, 2009](#); [van der Meer, Droogleever Fortuijn, & Thissen, 2008](#)), older adults can remain strongly attached, self-sufficient and confident as a result of their interaction with the neighbourhood through routine and everyday mobilities. As early as the 1970s, [Rowles' \(1978, 1983\)](#) provided a study that also demonstrated how meanings of place result from the routine practices older adults conduct in everyday life. These routines have physical, social and autobiographical dimensions, which provide people with a sense of 'insideness' in a place ([Rowles, 1983](#)). This insideness, or sense of familiarity, is developed over time through spatial routines and habits, through social integration in the community and through the accumulation of memorable events within a place. In doing so, it contributes to feelings of independence, competence and control. For older adults coming to terms with their ageing bodies, 'insideness' can be helpful in remaining active within a neighbourhood, since their bodies have internalized routes and routines and older adults have developed strategies and practices to navigate public space (see also [Lager, 2015](#)). In the words of [Schwanen, Banister, and Bowling \(2012\)](#), their environments have become 'zuhanden' (*at hand*).

Recently, the relationship between the ageing body, mobility and the local neighbourhood has been reiterated by authors drawing on phenomenology. Authors like [Antoninetti and Garrett \(2012\)](#) and [van Eck and Pijpers \(2017\)](#) highlight the experiential dimensions of the person-environment relationship and how "bodies actively construct places and are equally shaped by them" ([Antoninetti & Garrett, 2012, p. 2](#), see also [Lee & Ingold, 2006](#)). [van Eck and Pijpers \(2017\)](#) discuss how the 'subject-body' enables meaningful experiences with the world by employing skills and behaviours which are acquired over time. These might act as 'navigation tool' (see [Duff, 2010](#)) when walking through the neighbourhood. [Lee and Ingold \(2006\)](#) argue that "walking allows for an understanding of places being created by routes" (p. 68). When a

route becomes routine, a “thicker association of the route with the walker” develops, thus contributing to place attachments and experiences (Lee & Ingold, 2006, p. 77; see also Jones & Evans, 2012).

Schwanen, Banister, & Bowling, (2012) exemplify the way in which independent mobility in older age is relational to specific combinations of an ageing body, mobility aids, and lengths, destinations and purposes of trips made. The authors illustrate, for instance, “that [participant] Anne learns that different body-and-device assemblages offer different action possibilities and create different lived bodies: a stick is not required within her home, good enough for strolling in a market but inadequate for a trip from an origin to a destination. Another device is needed for the latter. Bodily competences, then, emerge only in specific contexts and differences across contexts can be substantial” (p. 1319). In particular Schwanen et al.'s work informs our own understanding of relationality in exploring and understanding mobilities as experienced by older adults. Schwanen et al. (2012) show that respondent Anne could feel competent in navigating the neighbourhood, perhaps less old when physical aspects of the urban requirement necessitate just the walking stick. But she might feel ‘old’ and agonized by high curbs, uneven and poorly maintained sidewalks, and the lack of places to rest since these make it difficult for her to pursue her ‘mundane mobility’ (see also Lager, Hoven, & Huigen, forthcoming).

The above considerations demonstrate that considering mobility in later life, especially in relation to active ageing, requires careful consideration of a *multitude* of interrelated aspects. In addition, as Siren and Hakamies-Blomqvist (2009) emphasise, in considering mobility, “the question is not just about transport needs but rather about needs for maintaining the sense of self and continuity, and manifesting one's own identity” (p.7). And beyond this, if one agrees that “bod[ies] actively construct places and are equally shaped by them” (Antoninetti & Garrett, 2012, p. 2), it is important to highlight that even small and mundane mobilities shape the nature and quality of age-friendly environments.

3. Methodology

3.1. Neighbourhood description

In this paper, we draw on empirical research conducted in Groningen, a ‘compact city’ in the Northern Netherlands. The city of Groningen brought together various social housing corporations, care providers, city planners, architects and other local stakeholders to develop the policy vision for age-friendly neighbourhoods called ‘*Zorgen voor Morgen*’ (i.e. Care for tomorrow, Gemeente Groningen, 2007). In such urban neighbourhoods, older adults may live in a variety of housing types, including (semi)detached houses, terraced houses and apartments. Until 2015, it was also an option for older adults to move to a more institutional context by choice, thus taking charge of their residential wishes. Such an institutional context might comprise sheltered housing and/or assisted living and/or a nursing home. Older adults were able to still live independently even in an institutional context, choosing to participate in offered activities and services or not, yet benefitted from living in a space with adjusted door frames (to accommodate mobility aids), situated on one-level and with an option of specialist care nearby for future use. In 2015, national legislation changed. As older adults experienced deteriorating health, care was primarily provided at home either by family or volunteers to assist them using a so-called ‘personal budget’ from the government, or/ and by professional care reimbursed by their health insurance. Only those older adults ‘with an indication’, i.e. those persons who are unable to live by themselves at all and needing specialist care, as certified by their family doctor, could apply for a residence in an institutional care setting.

The Groningen policy for ageing-in-place takes as a starting point that age-appropriate housing should be located within a 500 m radius of a variety of amenities such as shopping centres, health facilities,

libraries etc. Indeed, the way in which the built environment should be arranged in terms of housing, infrastructure, and public services and amenities is such that it is relatively easy for older adults to make use of this environment on a regular basis. As a result, these neighbourhoods resonate with the concepts of age-friendly environments as well as ‘Integrated Service Areas’ and should enable older adults to comfortably ‘age in place’.

Our data were collected in one of the post-war neighbourhoods in Groningen, developed in the late 1960s. In the Dutch context, it is a typical post-war neighbourhood in that a so-called ‘stamp’ structure was applied in which three types of housing units (terraced houses, low rise and high rise units) were repeated and spaced out evenly. There was an urgent need for housing in the 1960s in the Netherlands and therefore, quantity of housing overruled quality. As a result, the housing stock is characterized by large structures and cheaper materials, lacking architectural detail. In this neighbourhood, 80% of housing is social housing. As a whole, the neighbourhood includes many green spaces within the neighbourhood and around its edges. In addition, everyday services and amenities are located in the centre of the neighbourhood, and include grocery stores, drug stores, household appliance stores, health care, primary and secondary schools, sports centres, and community centres. This neighbourhood is ideal for families but there are many university students as well (see also Lager & Hoven, 2019), and the number of older adults is above the city's average. In fact, in this neighbourhood, the highest increase in 65–74 year olds is expected in the next ten years (Monitor Leefbaarheid en Veiligheid, 2012). Many older adults have lived in the neighbourhood for most of their adult lives.

Due to the physical deterioration of housing stock and public infrastructure, as well as social problems, including drug- and alcohol related problems, vandalism and lack of social cohesion, from the mid-1990s, the neighbourhood has undergone significant urban renewal. This renewal included renovating, sometimes merging, as well as tearing down and rebuilding housing units, some of which specifically designed as ‘age-proof’ housing. It also included explicit consideration of traffic routing and safety. As a result, new roundabouts were constructed, as well as speed bumps, and more and safe(r) crossings.

The neighbourhood monitor shows that, after urban renewal has been carried out, in particular facilities for older adults are highly valued by residents, and score 84% (content) compared to 69% for the city of Groningen, as are facilities for people with impairments 74% (compared with 66% city average). The figures suggest that the organisation of services and facilities within a 500 m radius from age-appropriate housing contributes to their sense of comfort and well-being in the neighbourhood. Older adults can enjoy multiple opportunities for social interaction as well. For example, less expensive breakfasts or coffee are available during certain hours of the day in some retail stores with restaurants, and community centers offer games, company, as well as sometimes help with arrangements around housing, healthcare and welfare, typically supported by volunteers.

Data for our study were collected in a care facility which offers several types of accommodation as well as different levels of care, such as nursing home facilities, apartments with residential care, sheltered housing and assisted living. The study was conducted amongst older adults who lived independently in apartments within the care facility. The participants' apartments are adjusted to meet the potential needs of frail older adults, and have, for example, widened doorposts and hallways to accommodate walkers, mobility scooters and wheelchairs; no doorsteps; elevated toilet seats, and brackets on the wall in the bathroom. The residents have a large degree of control over their homes: how they are decorated, who enters (other residents, friends, family), when and how long; if they receive care, and if so from which care provider. There are many services and facilities available to the residents of the facility, but they decide which one(s) they make use of. Available services include access to a personal alarm, assistance with getting out of and into bed, help with showering and getting dressed,

provision of warm meals, and help with household tasks. Located on the ground floor of the facility are a restaurant, hairdresser, small shop and theatre. Furthermore, various activities, such as playing cards, bingo, fashion shows, concerts, and handicraft are organised for the residents. The care facility also has a neighbourhood function: the restaurant, for instance, is open to the general public.

3.2. Research design

We adopted a qualitative research design to allow us to gain insight into experiences of mobility and quality of life in later life. Permission to carry out the study was obtained through the activities coordinator of the care home, to which the participants' homes were adjoined. Potential participants were informed about the study by a letter which was delivered via their mailbox, rather than approaching people in the public spaces of the residential care home randomly. This letter contained information about the study, as well as contact details of the research assistant who conducted the interviews. The interviewer then followed up in person to ask potential participants if they would be interested in participating in the study. All participants gave informed consent. The data were collected by the research assistant. She was a trained qualitative researcher, who had previous experience in conducting in-depth interviews with older adults. She was further trained and mentored by the authors, who are both senior researchers. Two in-depth interviews and two of the neighbourhood walks were carried out jointly by the research assistant and a senior researcher.

A self-selected sample of seven older adults participated in semi-structured in-depth interviews. The interview-guide that served to guide the conversations was drawn up in the research team (research assistant and the two authors) and piloted with an older adult from our own network. Based on the pilot interview, the guide was adapted - mainly shortened - and finalised, to include topics such as social contacts, daily movements and activities, health, home, institution and environment, were discussed. Mobility turned out to be a key issue and emerged at the different scale levels from the body to the city. In order to explore more in-depth experiences of mobility outside of the home, we initiated neighbourhood walks (see, for example, Lager, 2015) as these enabled us to see, first hand, concrete experiences including the role of the social and physical environment as older adults walked their daily, mundane routes to the supermarket or through the park. Three participants agreed to such a neighbourhood walk. The other four were either not interested in doing a walk or they were unable to because of physical limitations.

The participants' background characteristics are recorded in Table 1. The names used in the table are pseudonyms. The information disclosed by the participants as well as their identities were treated confidentially. The in-depth interviews and neighbourhood walks were audio-recorded and transcribed verbatim. Subsequently, they were analysed, using QSR Nvivo 8.0, according to the principles of thematic analysis (see Joffe & Yardley, 2003). A combination of deductive (theory-driven) and inductive (data-driven) coding was carried out, using codes such as cycling, grocery shopping, daily routines, physical impairments, and contact with family members. This allowed for exploring both themes that were pre-identified, such as moving around

home and neighbourhood (combining codes on transportation modes and daily routines), as well as newly emerging themes, such as the role of fatigue in mundane mobilities (linking physical and cognitive impairments to experiences of mobility). The authors jointly developed a coding scheme and subsequently coded the data independently. They then discussed the coded documents and their interpretations, before they finalised the coding scheme and the first author went on to do a more in-depth analysis focusing on everyday mobility.

3.3. Limitations

Our sample size is small, and, as in most qualitative research, participants were self-selected. Our sample included both participants with significant mobility restrictions (Mrs. Lutz, Mrs. Jensen, Mrs. Hart and Mr. Baker) and participants whose subjective wellbeing was reported as low (Mrs. Jensen and Mrs. Hart). Overall, our participants experienced a variety of impairments that are often associated with age, ranging from hip and back problems, to stroke, cancer and memory issues. Yet, these participants may be still more mobile and have higher subjective well-being than non-participants. In addition, three participants agreed to engage in a neighbourhood walk. The participants in the walking interviews were able to get around on foot, but did experience impairments that impacted their mobility, and we would argue that Mrs. Lutz was one of the most frail participants. Yet, considering the lack of data from other participants, this does restrict the insights we obtained with regard to concrete aspects of the physical and social environment in relation to everyday mobility.

In spite of the small sample size, the data reveal rich insights as our participants were able to give detailed accounts of their daily lives and encounters. The combination of in-depth interviews with neighbourhood walks enabled us to draw out and reflect on the mundane aspects of mobility with our participants in particular. These insights can be usefully contextualized in the existing body of literature thus building theory with a different, Dutch case. It must be kept in mind, of course, that our case comprises an urban environment that is highly conducive to 'mundane mobilities' involving walking (with mobility aids). As such, we were able to show that such environments not only stimulate walking regularly and maintaining independence when ageing-in-place, we also drew attention to the relevance of routes as meaningful spaces for older adults sense of wellbeing in and of themselves.

4. Findings: Mundane mobilities

During the interviews, older adults gave vivid descriptions of their daily lives, movements and encounters. They narrated how they organised routine tasks and thought about tasks that required more organisation such as a trip to the theatre, the city or another location in the Netherlands. In doing so, our participants emphasized what they could do and how they developed specific strategies to cope with challenges they encountered (see also, *Reference anonymised for peer review*).

The interviews show how respondents have begun to limit their action radius to the local neighbourhood as they experienced age-related health issues. For example, Mrs. Casper, Mrs. Hart and Mrs. Lutz assert:

Table 1
Participant characteristics.

Name	Age group	Gender	Mobility aids	Health problems	Walking interview
Mr. Baker	91–95	M	Walker	Back pains	No
Mrs. Caspers	76–80	F	No	Heart problems, fatigue	No
Mrs. Hart	76–80	F	Walker	Stroke, fatigue	No
Mrs. Jensen	56–60	F	Mobility scooter	Stroke	No
Mrs. Lutz	76–80	F	Walker and mobility scooter	Fatigue	Yes
Mrs. Page	71–75	F	No	No	Yes
Mrs. Veitch	81–85	F	No	Forgetfulness	Yes

“I used to have someone take me into the city centre, but I cannot walk for long anymore, I cannot keep up. So I made a little programme at home, those are the places I want to go to. It has to be within a small radius, though and I can sit down for some coffee to get a bit of rest. [...] It's relatively easy for me to let go of things [...] I would love to roam around but I cannot do it anymore.”

Mrs Casper

“I don't know the streets anymore. Just around here, where I come regularly to do my shopping [...] I used to get some fish at the market but I cannot walk well on those cobblestones anymore. I will trip. So I am really hesitant to go there [...] It's no longer my town anymore. It's too busy, I feel like people bump into me [...] We actually have everything here at the shopping centre.”

Mrs Hart

“That [beyond the shopping centre] is a kind of Russia, or whatever. It is outside my limit.”

Mrs. Lutz

Decreasing health, a certain fear of lack of control due to physical (cobblestone) and social aspects (busy streets) deter participants from making a trip further away. Even within the neighbourhood, not many residents seemed to have a large action radius but most found reasons to go outside to walk, or go to the shops nearby at a daily basis. Participants gave varied accounts of their personal mobilities using different types of mobility aids. One participant still used her bicycle and another mentioned her dog as a means to keep active. However, mobilities could be different from day-to-day or even within a day, always embedded in specific circumstances and situations (see also Schillmeier, 2008; Schwanen et al., 2012). In the sections below, we address ‘doing mobility’ first by introducing the ageing body as a context, emphasising the significance of relational mobility as defined above (and drawing on Schwanen et al., 2012). We then explore mobility in the local neighbourhood in order to convey a sense of ‘what it is like’.

4.1. Doing mobility in an ageing body

For our participants, ageing is present ‘in the body’. Some of the health problems they experience, and which affect mobility, are the result of bodily deterioration associated with ageing. Participants describe shortness of breath; osteoporosis; loss of function in limbs as a result of a stroke as well as cognitive impairment (difficulty focusing, difficulty remembering); fatigue and dizziness (e.g. following cancer treatments) and stiffness of their limbs. Mrs. Jensen, for instance, told us:

“You know, because of the stroke, I get tired easily. [...] I always have big plans, but that's just not doable anymore, I mean you're tired quickly, and I never used to experience that in the past, of course.”

Mrs. Jensen

Mrs. Jensen's story illustrates how deteriorating health limits her range and type of activities. It is important to emphasise, though, that these symptoms are not experienced as fixed but can be more or less intense, experienced alone or in combination. Oftentimes, the extent of such burden is relational to activities on the previous day, how well a participant slept, the amount and activities carried out in the home (e.g. is it a ‘showering’ day, a laundry day, a visitor day, to name a few). Other factors played a role, too, such as in the ability to focus, whether or not other people are present, or outside activities and noises. Mr. Baker talks about playing games and how slow response decreases his joy in certain types of games. And Mrs. Hart, for example, explained: “I am tired in my head, because it is too much of a strain. Because I have to watch what I say. I am afraid of making mistakes.” For one and the same person with the same kind of impairment or illness, the

experience of this may be different from day to day depending on the specificity of spaces and places. It is important to emphasise here, that we did find that our participants used a diversity of strategies to negotiate the ‘burden’ of ill-health in later life.

The participant experiences resonate, at least in part, with the Selective Optimisation and Compensation (SOC) theory as proposed by Baltes and Baltes (1990). This theory explains that to age ‘successfully’, older adults have to carefully choose which personal goals to focus on (*selection*); to try and *optimize* the gains from the resources they use; and to *compensate* for lost resources through accessing new resources.

When exploring older adults' mobilities in our research, this subjective experiences health and well-being in relation to contextual aspects as outlined above was important for the participants to determine the type of activities, modes of mobility and distances covered in the neighbourhood. Specifically, when assessing a potential trip, older adults also gave consideration to the specificities of routes, weather conditions and even the routines of other persons they may encounter (so they might avoid contact). Some participants worried about tripping on loose tiles in the sidewalk, or falling on a rainy day if they needed to walk along a route with slippery surfaces. For older adults in our study, tripping implied the potential risk of breaking a hip and losing independence. Mrs. Veitch told us how she tries not to worry too much about these things, although she does acknowledge falling as a realistic danger, especially when going out without a walker: “Yes, I may fall, I don't intend to do it, but should it happen, I'll see what happens. I won't whine about what might go wrong, because then you can't do anything anymore.”

Most participants assess the risk of, for instance a fall, in relation to different circumstances, both internal to their bodies, and external, such as related to the environment. For instance, the weather in combination with the feeling of fragility played a role in assessing distance. Regular routines to the store may be changed because routes become ‘too far’ in specific circumstances. Long routes can be interrupted on days with mild weather conditions if older adults have the possibility to rest on their walker or a bench, if available. This is not an option in rain or snow. Some older adults may walk without mobility aids on even, dry surfaces but need to use a walking stick or walker otherwise. It emerges from the examples given by our participants that feeling independent and ‘well’ is relational to context: one and the same person may feel independent and well on a good-weather day where a walk to the local store can be undertaken, while they can feel dependent, fragile, ‘old’ and possibly excluded if they cannot. As a result, older adults weigh their options for mobility, depending on how they feel (as described above) and according to what they may gain from a trip. Deteriorating physical health implies they need to re-assess possible benefits of a trip made in light of using mobility aids that may offer greater flexibility but at the same time can be hard to operate and can make them feel ‘old’. We illustrate this in the following section.

4.2. Navigating the neighbourhood

In our study, our focus was on the neighbourhood destinations and mobilities that our participants themselves felt were meaningful. During the walking interviews, many facets became evident that contributed to a specific mobility experience. The route between the participants' homes and the shopping centre, at around 200 m distance, emerged as a significant one in their everyday mobilities. Mrs. Veitch even stated that she specifically moved to this location. She said: “I had demands [before moving here] that I need to be able to walk to the supermarket and the library, otherwise I wouldn't move here.”

The following section therefore focuses on this route. The shopping centre comprises services and facilities such as supermarkets, drug-stores, and health care providers. In addition, the area surrounding the shopping centre has been designed to allow multiple modes of mobility. As Fig. 1 shows, motorised traffic, bicycles and pedestrians are each allocated designated routes, sometimes separated by green buffers. The



Fig. 1. Route through the neighbourhood, with separated traffic lanes.
Source: GoogleMaps.

route between the residential care home and the shopping centre also contains well-maintained sidewalks and dropped kerbs. Pedestrian crossings are clearly marked. Even though many participants are able to travel this route on foot, using a walker, or mobility scooter, there are also bus stops allocated next to the residential care home and the shopping centre, to enable travel by public transport.

The route to the shopping centre is relevant when discussing our participants' mundane mobilities. The shopping centre itself came up as a meaningful destination, but also travelling along the route was a relevant source of experienced wellbeing. In addition to the apartment buildings located along the route, greenspace, a primary school playground, a daycare, a library, and a fire station can comprise a potential stop, or become a source of interesting events and incidents. Especially since the shopping centre is at short distance and typically reachable on foot, participants' stories showed how they made it part of their regular routines and felt a sense of belonging, local expertise and acknowledgement by others (see also Gardner, 2011). The local expertise is relevant for keeping active and being able to keep walking. Mrs. Veitch explained:

“When I go to the supermarket, I take the shortest possible route, behind the houses [...]. But if I my trolley is packed with fragile items, I take the main road, because that is entirely smooth that... the surface on which [the shopping trolley] rides [and] it is the most convenient to be right by the backdoor then [...] but there is a large part where you cannot get on and off the pavement.”

Mrs. Hart

In the remainder of this section, we illustrate how our participants navigate the neighbourhood, and how they attach meaning to encounters and incidents that happen both on the route and at the shopping centre as a destination. We draw extensively on our walking interview with Mrs. Lutz, who chose this route as typical for her weekly routine. Her interview explicates issues other participants addressed in sit-down interviews as well as incorporates her responses to the physical, social and affective aspects of the neighbourhood as we went along. Therefore, we determined it to be an appropriate illustration for the points this paper is making about ‘mundane mobility’ as typically encountered in our study.

The walk that Mrs. Lutz took us on comprised the direct route from her apartment to the shopping centre. On the day of our walk, it was market day, and the weather was mild. Different aspects along the route provided probes for Mrs. Lutz to talk about such as the kerb, the crossing, the apartments, other people present, and herself and her mobility aids, the walker. She highlights events that occur regularly and the things that are meaningful to her as she walks to the shopping centre. As her regular route, she knows the physical aspects well (curb,

surface of sidewalk, time geographies, differences by weather conditions, etc), and she walks this “automatically” (see also Schwanen et al., 2012). Mrs. Hart's quote above equally shows the relationship between knowledge of one's environment and using this in strategies to remain mobile (see also Lager, 2015; van Eck & Pijpers, 2017).

During the walk, Mrs. Lutz describes how the sidewalk provides both sun and shade as a result of the tree line as well as the buildings present, which makes walking there a pleasant experience. Even if she tires or if the wind blows, she emphasizes, she is not easily put off her regular walk since she can take a rest by sitting on her walker, which she has renamed her “girlfriend”: “Now that I have my girlfriend [...] I put it somewhere on the side and then watch people and sit on it [...] If the weather is good, I'll sit and watch, if the weather is bad, I'll turn around and go home.” Several other respondents also commented on the use of their mobility aids as resting place when there is none provided in the public space they visit. In particular, they comment on this as useful as they otherwise may have to spend money for a drink in a café just to be able to sit and rest. Mrs. Casper, for example explained: “If you have that thing [mobility scooter] you can just go and look around and you don't have to sit somewhere to drink coffee or whatever....”

It is interesting to note that, even though the theoretical benefits are acknowledged, many participants still have a conflicted relationship with their mobility aids. While they prefer alternative routes which can be managed without, Mrs. Lutz's description of her walker as ‘girlfriend’ marks the fact that she has incorporated her walker into her everyday mobility, as an adaptive strategy (see also Baltes & Baltes, 1990). In doing so, it allows her to build the walker and the routes taken into her mobility routine.

When prompted about the traffic along this route, Mrs. Lutz remarks that her mobility aids, which do mark her as an older person, also helps gain respect from cars and she feels safer when crossing the road, for example. As the market is approached en route, it emerges that this location comprises a conflict. On the one hand, and unlike Mrs. Hart, she notes that she avoids the market because she finds it busy and messy with obstacles like cables on the ground (Fig. 3), market stalls and parked cars. Yet, she also states that she enjoys the shopping centre (where the market is located) and would even like to go every day. She explains: “if I have no pain or if I feel better than the day before, I would love to go every day. I like the people there”.

Mrs. Lutz' story highlights the relative ease of access as a result of both the physical environment and route as well as her attitude and use of mobility aids. On a few occasions, she explains how the walker can be used strategically to enhance mobility (see also Webber et al., 2010). At the shopping centre, Mrs. Lutz remarks, if she encounters obstacles, for example in the supermarket, she'll sit on her walker and wait “and

then they'll come quickly to clear it up". As this quote shows, Mrs. Lutz uses her walker to signal her own physical impairment and apparently, for other people this is a cue to come and help her. However, she also points out that in spite of many advantages, the walker as a visible marker of disability can make her feel vulnerable as well. She explains "If you want to take out money at the supermarket, well you are there in a big hall before you go shopping... so I get there with my walker or mobility scooter and it is 200% visible that I am disabled [...] so I fear they are just going to kick you, and then you lose your purse outside."

The routine-ness of the walk and the intimate knowledge of the route, combined with the availability of mobility aids also enable her to be independent and spontaneous. She says: "I am not really someone who likes to plan ahead." Indeed, Mrs. Lutz emphasizes she prefers walking to the shared taxi or the mobility scooter because she feels those modes of travelling require too much planning and make her feel less independent.

During the walking interview, Mrs., Lutz's intimate knowledge of the route becomes clear as she explains the goings-on at the different locations on the way, i.e. the school, the playground, the library and the firebrigade, the schedule of the local farmers' market, etc. Without necessarily going into the same level of detail in the sit-down interviews, many other participants comment on the various facilities along this route, most notably the school and library, like Mrs. Veitch who notes "I go there really quickly, pick like 15 books and then run home again to the dog". Equally, Mrs. Hart explains that she always goes "mostly on Thursdays [...] to the butcher because he has an offer on that day, three sausages for 5 euros." Mrs. Lutz likes that there is always the potential of something interesting happening. Even when there is not much to see, she lets her mind wander along ordinary objects, such as the different coloured geraniums people have in various apartments and says she likes to imagine who might live there (Fig. 2).

Although Mrs. Veitch and Mrs. Hart comment more on a destination, Mrs. Lutz also remarks that the route itself holds value. As Middleton (2009) also pointed out, the choice of route can be based on speed and efficiency (i.e. from A to B) or for one's "desire and enjoyment" (p.1946). In doing so, the walk/ route/ routine contributes to maintaining physical activity in later life, as has recently been emphasized by Phoenix and Bell (2019), but also to satisfying older adults' need "to feel noticed and be visible in the world" (Gardner, 2011, p. 268).

During our interviews, we also addressed the role of locations beyond the shopping centre. In these conversations, other mobility aids



Fig. 3. Encountering cables on the ground at the market.

and modes of transportation were discussed. Mrs. Caspers' quote above, for example, explained the theoretical benefits of a mobility scooter, i.e. "you don't *have* to sit somewhere to drink coffee or whatever...". She also notes that it might be beneficial to enhance mobility. She says "the mobility scooter is great to have, then you don't have to think 'am I feeling well?'. However, she explains, how she is not comfortable with the technical side of using the mobility scooter, as she is not sure how to use the buttons and how to navigate. Mrs. Hart confirms that this type of mobility aids is difficult to utilize: "I once bumped into a tree when I was waving at someone [...] That thing makes me nervous." Both



Fig. 2. Colourful geraniums on a balcony.
Source: authors.

conclude that they *may* familiarise themselves with the mobility scooter in the future if they really need to.

Similar to the concerns with mobility scooters, our participants also had issues with incorporating the use of the shared taxi into their routines. Even though the participants do know about the shared taxi, they hardly consider it as a desirable alternative for transportation even if they feel concerned about using the mobility scooter. The reasons given were related to the long waiting times, the frequent misunderstandings about pick up times and locations, the hassle of requesting the taxi, and the need to plan thoroughly ahead, all of which implies a lack of independence. For instance, Mrs. Hart told us about her experiences with using a shared taxi service:

“I can take the [shared] taxi, but when I then have to wait for half an hour, I get so sad and mad. [...] Then I think, I'll just grab my stuff and walk. But well, then I am very tired by the time I get home.”

Mrs. Hart's story illustrates how the use of a shared taxi did actually not always facilitate being (more) mobile and instead resulted in a negative experience as well as a compensation strategy that requires routes and routines that are within a smaller action radius but can be taken on foot or with a walker independently. She maintains: “I want to follow my own head, how I think it should be. So I stick with that and I want to do it myself.”

5. Conclusions

This paper addressed mobility as a part of developing age-friendly cities. As Kaiser (2009) noted a decade ago, the local environment becomes increasingly relevant for the performance of daily living as people experience increasing losses and deficits when ageing. Although urban areas seem suited to a self-determined way of life due to the high density of services and facilities (Föbker & Grotz, 2006), the question arises “what type of neighbourhood corresponds best to the needs of elderly people?” (p. 100). The World Health Organisation (WHO) and Organisation for Economic Co-operation and Development (OECD) have provided much input to this question by identifying urban planning aspects that help create neighbourhoods that ‘fit’.

In this paper, we introduced the case of a Dutch neighbourhood that is organised in a way that addresses at least some of the WHO's recommendations. Human embodiment is often ignored as a part of mobility (see also Schwanen et al., 2012), and our study addressed this by discussing how everyday mobility is ‘done’ and experienced by older adults. In doing so, we drew attention primarily to the scale levels of the body and navigating the neighbourhood. We highlighted the relationality of experienced mobility based on how older adults assessed their daily perception of fitness and the various aspects that comprised the route to be taken, i.e. social, physical and affective. Our findings resonate with Schwanen et al.' (2012) claim that “both independence and mobility are fabricated out of myriad relations with and dependencies on bodies, technologies, infrastructures, social networks and other forms of materiality (as well as social conditions)” (p.1320). Such combinations are significant in what and how mobility becomes, but equally in how older adults self-identify as ‘old’ or ‘disabled’. Following Moser (2006) and Schillmeier (2008), our paper shows that neither of these are static categories. The quotes by our participants confirm that the same spaces can become disabling and make a person feel old at one time but enabled, independent and ‘not old’ at another. Indeed, as Schwanen et al. (2012) further noted “dis/ability and in/dependence are continually made and re-made in the continuous flows of encounters and situations in everyday life” (p.1315). In our study, older adults attempted to remain in charge of this by adaptation and compensation strategies, including redefinition of attitudes and needs (see also Baltes & Baltes, 1990). The examples given of using the walker illustrated the adaptive strategies as well as redefinition of needs of by our participants. Hence, our findings confirm the importance of adaptation and compensation, until well in later life and with that, they

resonate with SOC theory. Our findings even pinpoint the idea that selection, optimisation and compensation may continue well into the fourth age, which contrasts findings by Baltes and Smith (2003) who found that adaptive strategies may be subject to decline in the fourth age. Such active negotiation as part of everyday mobility allows older adults to maintain, Siren and Hakamies-Blomqvist (2009, p.9) pointed out, “self in the aging process and [avoid] becoming categorized as old by some external criteria, that is, in a definition process where the individual herself or himself only has a limited means of taking part”.

Although it remains important to develop an infrastructure that supports multiple modes of mobility, our case supports interventions into the physical aspects of a neighbourhood (i.e. reduce environmental press) to enhance walkability. As noted above, the often short, but regular movements in urban neighbourhoods by older adults can easily be ignored in the context of urban planning, but they contribute to a sense of attachment and wellbeing by older adults (see also Wiles & Allen, 2010). Indeed, as previous studies have argued, walking promotes healthy ageing and will aid older adults ageing-in-place by reducing demand on healthcare services. In developing interventions, it is crucial that urban planners take into consideration human embodiment in determining ‘age-friendliness’. As Wunderlich (2008) argued “we need to understand and explore walking as a design method in its own right that can inform the theory and practice of place-design” (p. 138). This entails attention to destinations (i.e. mobility as travelling from A to B) as well as regarding *from A to B* as meaningful, lived space in itself. This requires attending to aspects such as creating resting places located along residents' routes, which facilitate neighbourhood interactions such as those described in this paper.

In terms of urban planning, there is clearly a message with regard to providing accessible, clearly structured and predictable urban environments that allow older adults to make daily use of their neighbourhood on their own terms, and thus develop and maintain a sense of insideness, independence and autonomy.

outines by older adults in a Dutch urban neighbourhood.

Acknowledgements

We would like to thank Annelies Vermüe for collecting the data for this study and our participants for generously sharing their stories with us. Furthermore, we would like to thank three anonymous referees for their useful feedback on an earlier version of the paper.

Louise Meijering would like to acknowledge the support received from the European Research Council (ERC) under the European Union's Horizon 2020 Research and Innovation Programme (Grant Agreement No. 802202).

References

- Aird, R. L., & Buys, L. (2015). Active ageing: Exploration into self-ratings of “being active”, out-of-home physical activity, and participation among older Australian adults living in four different settings. *Journal of Ageing Research* 501823. <https://doi.org/10.1155/2015/501823>.
- Alsnih, R., & Hensher, D. A. (2003). The mobility and accessibility expectations of seniors in an aging population. *Transportation Research Part A*, 37, 903–916.
- Andrews, G. J., Hall, E., Evans, B., & Colls, R. (2012). Moving beyond walkability: On the potential of health geography. *Social Science & Medicine*, 75, 1925–1932.
- Antoninetti, M., & Garrett, M. (2012). Body capital and the geography of aging. *Area*, 44, 364–370.
- Baltes, P. B., & Baltes, M. M. (1990). Psychological perspectives on successful aging: The model of selective optimization with compensation. In P. B. Baltes, & M. M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences* (pp. 1–34). Cambridge: Cambridge University Press.
- Baltes, P. B., & Smith, J. (2003). New frontiers in the future of aging: From successful aging of the young old to the dilemmas of the fourth age. *Gerontology*, 49, 123–135.
- Banister, D., & Bowling, A. (2004). Quality of life for the elderly: The transport dimension. *Transport Policy*, 11, 105–115.
- Buliung, R. N., & Kanaroglou, P. S. (2006). A GIS toolkit for exploring geographies of household activity/travel behavior. *Journal of Transport Geography*, 14(1), 35–51. <https://doi.org/10.1016/j.jtrangeo.2004.10.008>.
- Burnett, P., & Lucas, S. (2010). Talking, walking, riding and driving: The mobilities of older adults. *Journal of Transport Geography*, 18(5), 596–602.

- Chan, D. V., Helfrich, C. A., Hursh, N. C., Rogers, E. S., & Gopal, S. (2014). Measuring community integration using geographic information systems (GIS) and participatory mapping for people who were once homeless. *Health & Place*, 27, 92–101. <https://doi.org/10.1016/j.healthplace.2013.12.011>.
- Duff, C. (2010). On the role of affect and practice in the production of place. *Environment and Planning D: Society and Space*, 28, 881–895.
- van Eck, D., & Pijpers, R. (2017). Encounters in place ballet: A phenomenological perspective on older people's walking routines in an urban park. *Area*, 49, 166–173.
- Föbker, S., & Grotz, R. (2006). Everyday mobility of elderly people in different urban settings: The example of the City of Bonn, Germany. *Urban Studies*, 43(1), 99–118.
- Gardner, P. J. (2011). Natural neighborhood networks — Important social networks in the lives of older adults aging in place. *Journal of Aging Studies*, 25, 263–271.
- Gardner, P. (2014). The role of social engagement and identity in community mobility among older adults aging in place. *Disability & Rehabilitation*, 36, 1249–1257.
- Gemeente Groningen (2007). *Samen zorgen voor morgen. Welzijn, wonen en zorg in uw wijk Groningen*.
- Goins, R. T., Jones, J., Schure, M., Rosenberg, D. E., Phelan, E. A., Dodson, S., & Jones, D. L. (2015). Older adults' perceptions of mobility: A metasynthesis of qualitative studies. *The Gerontologist*, 55, 929–942. <https://doi.org/10.1093/geront/gnu014>.
- Harper, S., & Laws, G. (1995). Rethinking the geography of ageing. *Progress in Human Geography*, 19, 199–221.
- Hirsch, J. A., Winters, M., Clarke, P., & McKay, H. (2014). Generating GPS activity spaces that shed light upon the mobility habits of older adults: A descriptive analysis. *International Journal of Health Geographics*, 13, 1–14.
- Holland, C., Kellaheer, L., Peace, S., Scharf, T., Breeze, E., Gow, J., & Gilhooly, M. (2005). Getting out and about. In A. Walker (Ed.). *Understanding quality of life in old age* (pp. 49–63). Maidenhead: Open University Press.
- Jansen, E., Pijpers, R. A. H., & de Kam, G. R. W. (2018). Expanding capabilities in Integrated Service Areas (ISAs) as communities of care: A study of Dutch older adults' narratives on the life they have reason to value. *Journal of Human Development and Capabilities*, 19(2), 232–248. <https://doi.org/10.1080/19452829.2017.1411895>.
- Joffe, H., & Yardley, L. (2003). Content and thematic analysis. In D. F. Marks, & L. Yardley (Eds.). *Research methods for clinical and health psychology* (pp. 56–68). London: Sage.
- Jones, P., & Evans, J. (2012). Rescue geography: Place making, affect and regeneration. *Urban Studies*, 49, 2315–2330.
- Kaiser, H. J. (2009). Mobility in old age: Beyond the transportation perspective. *Journal of Applied Gerontology*, 28, 411.
- de Kam, G., Damoiseaux, D., Dorland, L., Pijpers, R., van Biene, M., Jansen, E., & Slaets, J. (2012). *Kwetsbaar en zelfstandig Een onderzoek naar de effecten van woonservicegebieden voor ouderen*. Report. Radboud Universiteit Nijmegen, Hogeschool van Arnhem en Nijmegen, Universitair Medisch Centrum Groningen & Institute for Management Research Creating Knowledge for Society Nijmegen.
- Kwan, M., & Schwanen, T. (2016). Geographies of mobility. *Annals of the American Association of Geographers*, 106(2), 1–14. <https://doi.org/10.1080/24694452.2015.1123067>.
- Lager, D. (2015). *Perspectives on ageing in place: Older adults' experiences of everyday life in urban neighbourhoods*. Groningen: University of Groningen.
- Lager, D.R., Hoven, B. van and Huigen, P.P.P. (forthcoming) Neighbourhood walks as place-making in later life. *Social and Cultural Geography*
- Lager, D., & Hoven, B. van (2019). Exploring the Experienced Impact of Studentification on Ageing-in-Place. *Urban Planning*, 4(2), <https://doi.org/10.17645/up.v4i2.1947> Pages X–X.
- Leda, H., & Muraki, H. (1999). Can improved mobility raise the elderly's sense of fulfillment? *Japan Railway & Transport Review*, 20, 14–21.
- Lee, J., & Ingold, T. (2006). Fieldwork on foot: Perceiving, routing, socializing. In P. Collins, & S. Coleman (Eds.). *Locating the field: Space, place and context in anthropology* (pp. 67–85). Oxford: Berg Publishers.
- van der Meer, M., Droogleever Fortuijn, J., & Thissen, F. (2008). Vulnerability and environmental stress of older adults in deprived neighbourhoods in the Netherlands. *Tijdschrift voor Economische en Sociale Geografie*, 99(1), 53–64.
- Meijering, L., Hoven, B., & Yousefzadeh, S. (2019). "I think I'm better at it myself": the capability approach and being independent in later life. *Research on Ageing and Social Policy*, 7(1), 229–258. <https://doi.org/10.4471/rasp.2019.3678>.
- Middleton, J. (2009). 'Stepping in time': walking, time, and space in the city. *Environment and Planning A*, 41, 1943–1961.
- Milligan, C., Bingley, A., & Gattrell, A. (2005). 'Healing and feeling': The place of emotions in later life. In J. Davidson, L. Bondi, & M. Smith (Eds.). *Emotional geographies* (pp. 49–62). Aldershot: Ashgate.
- Minichiello, V., Browne, J., & Kendig, H. (2000). Perceptions and consequences of ageism: Views of older people. *Ageing & Society*, 20, 253–278.
- Monitor Leefbaarheid en Veiligheid (2012). *OS Groningen*.
- Moser, I. (2006). Disability and the promises of technology: Technology, subjectivity and embodiment within an order of the normal. *Information, Communication and Society*, 9, 373–395.
- Nordbakke, S., & Schwanen, T. (2014). Well-being and mobility: A theoretical framework and literature review focusing on older people. *Mobilities*, 9(1), 104–129.
- Nussbaum, M. C. (2003). *Capabilities as fundamental entitlements: Sen and social justice*. *Feminist economics*. Vol. 9(2–3), OECD Publishing Paris33–59. OECD (2015) Ageing in cities <https://doi.org/10.1787/9789264231160-en>.
- OECD (2015). *Ageing in Cities. Policy Highlights*. Paris: OECD Publishing.
- Phillips, J., Walford, N., Hockey, A., Foreman, N., & Lewis, M. (2013). Older people and outdoor environments: Pedestrian anxieties and barriers in the use of familiar and unfamiliar spaces. *Geoforum*, 47, 113–124.
- Phoenix, C., & Bell, S. L. (2019). Beyond "Move More": Feeling the rhythms of physical activity in mid and later-life. *Social Science & Medicine*, 231, 47–54.
- Pink, S. (2008). An urban tour: The sensory sociality of ethnographic place-making. *Ethnography*, 9, 175–196.
- Risser, R., Haindl, G., & Stahl, A. (2010). Barriers to senior citizens' outdoor mobility in Europe. *European Journal of Ageing*, 7(2), 69–80.
- Rowles, G. D. (1978). *Prisoners of space? Exploring the geographical experience of older people*. Colorado, CO: Westview Press.
- Rowles, G. D. (1983). Place and personal identity in old age: Observations from Appalachia. *Journal of Environmental Psychology*, 3, 299–313. [https://doi.org/10.1016/S0272-4944\(83\)80033-4](https://doi.org/10.1016/S0272-4944(83)80033-4).
- Schillmeier, M. (2008). Time-spaces of in/dependence and dis/ability. *Time & Society*, 17(2–3), 215–231.
- Schwanen, T., Banister, D., & Bowling, A. (2012). Independence and mobility in later life. *Geoforum*, 43, 1313–1322. <https://doi.org/10.1016/j.geoforum.2012.04.001>.
- Sen, A. (1999). *Development as freedom*. Oxford: Oxford University Press.
- Sheller, M., & Urry, J. (2006). The new mobilities paradigm. *Environment and Planning A*, 38, 207–226.
- Siren, A. K., & Hakamies-Blomqvist, L. (2009). Mobility and well-being in old age. *Topics in Geriatric Rehabilitation*, 25(1), 3–11.
- Smith, A. (2009). *Ageing in urban Neighborhoods: Place attachment and social exclusion*. Bristol: Policy Press.
- Voss, C., Sims-Gould, J., Ashe, M. C., McKay, H. A., Pugh, C., & Winters, M. (2016). Public transit use and physical activity in community-dwelling older adults: Combining GPS and accelerometer to assess transportation-related physical activity. *Journal of Transport and Health*, 3(2), 191–199. <https://doi.org/10.1016/j.jth.2016.02.011>.
- Waitt, G., Gill, N., & Head, L. (2009). Walking practice and suburban nature-talk. *Social & Cultural Geography*, 10, 41–60.
- Webber, S. C., Porter, M. M., & Menec, V. H. (2010). Mobility in older adults: A comprehensive framework. *The Gerontologist*, 50(4), 443–450. <https://doi.org/10.1093/geront/gnq013>.
- WHO (2007). *Global age-friendly cities: A guide*. (Geneva, Switzerland).
- Wiles, J. L., & Allen, R. E. S. (2010). Embodied ageing in place: What does it mean to grow old? In V. Chouinard, E. Hall, & R. Wilton (Eds.). *Towards enabling geographies: "disabled" bodies and minds in society and space* (pp. 217–235). Farnham: Ashgate.
- Winters, M., Voss, C., Ashe, M. C., Gutteridge, K., McKay, H., & Sims-Gould, J. (2015). Where do they go and how do they get there? Older adults' travel behaviour in a highly walkable environment. *Social Science and Medicine*, 133, 304–312. <https://doi.org/10.1016/j.socscimed.2014.07.006>.
- Wunderlich, F. M. (2008). Walking and rhythmicity: Sensing urban space. *Journal of Urban Design*, 13, 125–139.
- Ziegler, F., & Schwanen, T. (2011). 'I like to go out to be energized by different people': An exploratory analysis of mobility and well-being in later life. *Ageing and Society*, 31(5), 758–781.