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Journal of Applied Gerontology 2009 28: 411 originally published online 11 February 2009
DOI: 10.1177/0733464808329121

The online version of this article can be found at:
http://jag.sagepub.com/content/28/4/411
Mobility in Old Age
Beyond the Transportation Perspective

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For the elderly mobility is a constitutive and essential element of their quality of life. Due to their aging population modern societies intend to intervene and enhance the mobility of the elderly on the basis of research findings. Indeed, numerous research projects pointed out existing barriers to mobility in old age: personal barriers (e.g., achievement deficits, diseases or handicaps), and environmental barriers (e.g., physical obstacles, technical complications). Simply overcoming these barriers does not guarantee mobility without problems and an increase of the quality of life. Beyond a “transportation perspective” of mobility more emphasis is needed with respect to emotional, motivational and social aspects of being mobile. In doing so, decision makers as well as scientists will be confronted with unexpected and non-obvious societal tasks and peculiar demands on social sciences like gerontological psychology, sociology, political science and even education.

Keywords: mobility; transportation; gerontology; old age

All modern western societies are said to be mobile societies, where mobile is mostly understood as motorized. At the same time, these mobile societies are growing older. If this demographic change is interpreted as a societal problem, it seems to be a problem of mobility, too. As a mobility problem, the demographic change is analyzed mainly with respect to the safety of a realization of mobility we usually call traffic. The widespread image of older people today is of a mobile group: They realize their mobility as pedestrians, as users of public transportation systems, but mostly as automobile drivers. A high level of mobility of the older population is generally appraised as an essential contribution to their independent and autonomous life and one of the most powerful ways to reduce the burden an increasing number of people in old age could produce for society. We tend to suggest with this view that those who are not able to move

Manuscript accepted: October 31, 2008.
around cannot live without support by others. Isolated from the societal institutions and social possibilities, care for older populations becomes difficult and expensive. Therefore, a high level of safe and unimpaired mobility of older people seems to have become an important goal of urban planning in societies preparing themselves for the demographic changes that are expected. I would like us to take a look at the relevance of this topic for our societies and how traffic science and applied gerontology have tended to think about and research the subject—and how we might begin to rethink the subject.

**Research Matters**

It is not easy to determine whether traffic science or applied gerontology has influenced research on this topic more in the past 15 years. Although traffic science has discovered the older road user as a relevant field of research, applied gerontology has extended the field’s interest to the role of older drivers (and train and bus users). Regardless, we now find a broad scene of empirical research on mobility in old age, in America as well as in Europe, and that research is shaped by prominent themes. Without a doubt, the safety perspective is the most prominent theme, and a good deal of research is concentrated on the hazards older pedestrians and motorists have to bear (Hakamies-Blomqvist, 1993; Limbourg & Reiter, 2002; Oxley, Corben, Fildes, O’Hare, & Rothengatter, 2004). Motorized traffic participation of the older population is another theme, and in this context the performance of the older driver with respect to sensory losses, reaction time decrease, and deficits in concentration has been analyzed carefully and differentially (e.g., Owsley et al., 1998). Yet another common theme in mobility research is the transactional view of competence of seniors. According to the “environmental docility hypothesis” (Lawton, 1985, 1987, 1999), which has been mostly applied to housing, person and environment are seen as related to each other reciprocally. If there are increasing losses and deficits in the process of aging, the characteristics of the environment become more relevant for the performance of activities of daily living; and vice versa, if the environment is more age and competency relevant, losses and deficits become less important (Lawton, 1987, p. 37). Working in these thematic areas, architects, urban planners, and engineers now make contributions to attempts to solve problems of mobility in old age.

Dumbaugh (2008) wrote a convincing overview of this mainstream research and the attempts to overcome mobility barriers, mainly from the viewpoint of urban planning. Though Dumbaugh focused those means and...
strategies for enhancing older people’s mobility as part of “community design,” he also suggested psychological factors as barriers beyond “substantial” ones. Referring to barriers to walking, he pointed out that “social and cultural factors also appear to influence an older adult’s likelihood of viewing walking as a viable means of travel” (p. 20).

I take this statement to mean that we need to strengthen the social psychological, sociological, and sociocultural approaches in gerontological mobility research. Dumbaugh was right: Factors that could be expressed in terms of social psychology, sociology, and sociocultural sciences seem to be relevant for the realization of mobility in old age, but we need evidence.

To explain my position, I believe it is useful to refer to the meaning of mobility as a term in gerontology, in other sciences, and in colloquial language. In modern gerontology and traffic sciences, an emphasis is placed on mobility as spatial movement, with the aim of transporting persons and goods to a certain destination. In my view, this perspective is too functional and too narrow. A little excursion to etymology shows the Latin word mobilitas means mobility and motility, but also agility and intelligence. Of course, the word mobility has referred to tasks of military logistics, but in military language troops were denoted mobile especially if they were fit for service. In this semantic meaning, the application of the word mobility transcended the physical process of spatial movement. From its beginning, the term mobility has been used in psychological, social, and even allegoric ways. Taking this into account, we might conclude that the word mobility denotes not just the behavioral reality of motility and transportation. Beyond the “substantial” sphere of traffic studies, mobility refers to a potential of the person that may be realized under certain psychological, social, and emotional or affective conditions. To analyze this potential (that we can understand as a prerequisite of the “substantial” mobility), we need an adequate theoretical approach and orientation toward empirical research.

A Theoretical Framework

Within the traffic sciences, we often have to face behavioral stimulus response conceptions. Moving around in the streets, more or less safely and naturally, is a matter of motility, of correct and fast reaction, of adequate perception of things and processes, of learned habits. Michon (1985) developed a model, however, that transcends theories of respondent behavior. To understand what people are doing within traffic participation, we have to distinguish among three different levels of behavior, Michon suggested.
Mobility behavior depends on strategic decisions and tactical decisions. Strategic decisions refer to mobility goals, such as the choice of day, of time, of traffic situations, and so on. The tactical level is about short-time decisions such as the choice of speed or distance while driving. On a third level, people operate behaviorally by reacting to environmental conditions. Such a framework, I note, is influenced by action theories, that is, theories that reflect human behavior as goal directed, principally accessible to consciousness, and guided by arguments.

The threefold view of mobility behavior is considered in recent gerontological research on the mobility of older people. Decisions on the strategic and the tactical levels, for example, are supposed to be the reason for the remarkably low accident risk of motorists of age 65 or older (in Europe), even when differences of mileage driven per year are considered (Hakamies-Blomqvist, Raitanen, & O’Neill, 2002). These decisions may compensate for deficits and losses on the operational level (Engeln & Schlag, 2008, p. 267).

Kaiser and Myllymaeki-Neuhoff (1995) used this framework and extended it, calling mobility and traffic participation of older people a complex social action. The primary purpose of the extension is that strategic and tactical decisions are made in context, on the basis of attitudes and personal traits within sociocultural and biographical experiences. The authors described five different aspects with which the reconstruction of older people’s traffic participation—as a complex social action—may be undertaken. These aspects provide hints for the realization of mobility research beyond the transportation perspective: (a) motivational, the needs and motives of older people; (b) emotional, an aging person’s possible shift to a higher degree of anxiousness and feelings of insecurity; (c) biographical, development of the aging person characterized by changes as well as continuity and stability; (d) social, the adaptation process, forced by aging, that demands the taking of new roles; and (e) learning, adaptation through gaining new knowledge as required by the perpetually changing physical and social environment.

These aspects of theorizing and conceptualizing older traffic participants as both rational and emotional acting persons might be the initial points for framing an intervention-oriented, gerontological mobility research—one that shifts beyond “technological” approaches and the one-sided interpretation of mobility as a matter of transportation, its (physical) conditions, and legal rules. In the European Union, some multinational research projects have initiated attempts to go in this direction (Groenvall, Ståhl, & Berntman, 2002).
Research Horizons

Using the theoretical context suggested by Kaiser and Myllymaeki-Neuhoff (1995), I propose three research orientations that are necessary to further research on outdoor mobility of older people.

Emotional and Motivational Problems

Psychological processes are central to mobility. We should examine subjective prerequisites of mobility by analyzing particular intentions, fears, and needs of older people. On behalf of “successful aging,” rational mobility choices, goals, and modes should overcome emotional behavior. In other words, if aging people are able to control negative emotions and free themselves from emotional impulse, they can demonstrate wisdom or expertise in critical moments of life (Kaiser, 1994). In particular, older motorists must be competent in estimating their physical and psychomotor abilities realistically—against the negative feelings a disadvantageous outcome of the appraisal would produce. But indeed, as Schlag (2008) noticed, we have only a little knowledge about the personality of those older motorists who are not able to act in this manner in comparison to those who are. But without empirical findings of that kind, we will not be able to conceptualize societal services for the older driver in the form of “mobility counseling.” Can we afford not to offer such services in the future that will strengthen a sense of responsibility and self-criticism in older drivers—mind-sets that are cognitive prerequisites of self-control and risk-reducing mobility management?

Social Problems

Results of the SIZE project (“Life Quality of Senior Citizens in Relation to Mobility Conditions”; Groenvall et al., 2006) showed that concerns about social problems of mobility were ranked highest by seniors (but not by consulted experts). Those social problems included, for instance, deficits in reliability of people or a decline in interpersonal trust. Contemplating the situation from the position of the older people’s emotions and needs, the social environment of older people should be characterized by humanity,
reliability, thoughtfulness, and interpersonal trust. Moreover, negative attitudes about older persons should be combated in a mobility context. Further research on interpersonal trust in aging societies appears to be the challenge of the present because we seem to be on the way to a world of persistent change instead of familiarity, to distrust instead of trust, to ageism instead of respect for the aged, to a forced personal responsibility instead of social support and solidarity. Regarding these shifts, I cannot see relevant differences between the situation in European countries and that in the United States.

**Learning**

Barriers to mobility are typically associated with the physical status of the older population. But there is no reason to believe that reduced cognitive and psychomotor skills cannot be countered by training and learning. Knowledge, memory, reaction time, concentration, and vigilance can be positively influenced in the frame of adequate learning and training conditions. Traffic safety approaches should be based (and can be based) in part on research findings about the ability of the aging person to learn even in the face of decreasing abilities (see Poschadel & Sommer, 2007). But my hypothesis is this: The opportunity for older people (especially motorists) to learn traffic safety approaches (i.e., specific training) depends on the societal image of the aged. Any sort of public “ageism,” suggesting that older people are not longer able to learn, particularly not able to improve age-sensible psychomotor functions, will define such opportunities as “useless” and a waste of time and money. In effect, this way of thinking will create a waste of talents.

**Conclusion**

The larger point of my comments is this: There are important challenges beyond the transportation perspective on mobility, and these are not always obvious or self-evident. Issues such as social solidarity, social support, social images of aging, personality, interpersonal trust, reflexivity, and development of knowledge and learning are among them. These issues are significant among those that determine the fate of mobility in aging societies, and they should direct us to research and interventions on the behalf of those societies. Of course, the reduction of physical barriers and the improvement of ecological conditions make outdoor mobility of older people possible or at least “smoother,” but not in any case more comfortable in
an emotional and social sense. If mobility should really be a contribution to a high life quality, its social and emotional quality has to be enhanced. Taking these aspects into account, mobility research as a field of applied gerontology might profit from the interdisciplinary organization of gerontology. Why should sociologists, social psychologists, specialists of adult education or even psychotherapists be excluded from this important field of gerontological research with its promising future?

Note

1. For a review of international research about driving in old age, see Kaiser and Oswald (2000).

References


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