The “Old-Age Scale”: theoretical contributions from environmental gerontology

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Abstract:

Older adults were one of the groups framed as most 'at risk' during the COVID-19 pandemic. Hence, they were most affected by measures like social distancing that reduced or even completely restricted the use and occupation of the territory by seniors. This led many to social isolation, decreasing their chances to participate, enjoy, belong, and ultimately, exercise their right to the city. As restrictions are reducing and people are resuming social interactions outside virtual spaces, it is pertinent to recognize the importance of the built environment in old age and how the exchange between persons and environments can influence the well-being, autonomy, health, and even identity of ageing individuals. To this end, the studies and theories developed in environmental gerontology, a subfield within gerontology dedicated to investigating the relations between seniors and the environment in terms of social, physical, and psychological aspects, can be of great value to comprehending how older adults perceive, use, appropriate, and connect with spaces. That is, understanding the person-environment relationship from another perspective or scale: the scale of older people. Therefore, we seek to introduce in this paper three key theoretical frameworks and concepts of environmental gerontology. Aiming to contribute to expanding the knowledge about a growing population in many places, and a subject (still) little discussed within architecture and urbanism, we expect that being acquainted with these theories can nurture new research and

practices in architecture, urban design, and urban planning that consider the old-age scale, promoting friendly environments for all.

INTRODUCTION.

Over half of the world's population is ageing in urban environments. By 2050, 16% of the population worldwide will be 65 years or older (United Nations [UN], 2022). Thus, population ageing should be included and discussed in the urban agenda. The place of residency becomes of great importance as people age. The many years lived in the same place allows people to develop a sense of attachment and belonging to a certain space. Data could show that familiar and stable environments and one's home (Kuske et al., 2021) are especially important for more vulnerable groups, such as people living with dementia. The "home" is much more than a physical building that provides shelter. "Addressing the meaning of home focuses attention on the relationship between the objective socio-physical setting and subjective evaluations, goals, values, emotions and observable or potential behaviors that people pursue" (Oswald & Wahl, 2005, p.22). This means that the living environment understood as a social-physical-psychological construction can provide positive outcomes in later life such as fostering opportunities for social contact, exercising, shopping, and being productive (Brorsson, 2021).

The COVID-19 pandemic has brought attention to the older population and their living environments, as they were the most affected in many places, especially by imposed measures that reduced or completely restricted the use of the city by older adults, resulting in a rise in ageism (prejudices, discrimination, and stereotypes based on age). Buffel et al. (2021) argued that older people have faced a "double lockdown" due to self-isolating at home coupled with the loss of services, support, infrastructure, resources, and social connections, ultimately affecting their health, well-being, and quality of life. For those living in deprived areas, the pandemic was even worse, with poor housing conditions (ibidem), and difficulties to access food, medication, and clean water, leading to increasing inequalities.

Since the 1960s a subfield in gerontology has been dedicated to the "description, explanation, modification or optimization" (Wahl & Weisman, 2003, p. 616) of the relationship between an old person and the environment, known as *environmental gerontology* (EG). EG investigates a wide variety of topics that range from the microscale, or the immediate surrounding (e.g. housing for seniors, home modification), to the macroscale, more distal from daily life, like policy-making and city planning. Nevertheless, research and practice in EG are very restricted to the gerontological field, finding it difficult to expand its influence in areas like architecture, urban design, and urban planning.

Hence, theories of environmental gerontology can contribute to a better understanding of the scale of an older person, or how he/she relates to their immediate surroundings in terms of perception, behaviors, experiences, spatial appropriation, use of spaces, bonding, and meaning, among others. We present here theories and frameworks that are suitable for architects, urban designers, and urban planners to have a first glimpse of how the relationship between the aging person and his/her environment unfolds, and from there on (re)consider the scale of older persons, seeing seniors as citizens entitled to experience cities as any other (Hammond & Saunders, 2021).

Methods.

A scoping review conducted by Nascimento (2019) sought to present an overview of the main social and physical aspects involving the older person-environment (p-e) relationship in urban environments and the theories and concepts of the studies they were grounded on. The search was conducted between 2017 and 2018 and analyzed 35 studies. The author noticed the papers examined were mostly unsuccessful in presenting theoretical frameworks, as only five mentioned any theories or concepts. Furthermore, the contribution from architects, urban designers, and urban planners was also scarce.

Theories of environmental gerontology.

The theories hereby presented are among the most commonly mentioned in the specialized literature (for an overview of other theories see Oswald & Wahl, 2019; Wahl & Weisman, 2003). First, we start with a behavioral and functional approach, the press-competence model (Lawton & Nahemow, 1973); then we present a more experiential perspective from Rowles's (1983) insideness theory. Finally, we discuss a model that combines both perspectives adding a temporal frame (Chaudhury & Oswald, 2019). Together, they represent both classical and modern approaches, expressing different perspectives that provide a complementary understanding of the scale of older adults in the environment, and can provide insights into spatial design and planning.

The press-competence model

Undoubtedly, the press-competence model by Lawton and Nahemow (1973) can be considered a seminal theory in EG. The model shows possible effects of environmental press, i.e. the demands of the environment, social, physical, or interpersonal, in relation to the interacting aging individual, depending on their competence, i.e. cognitive, psychological, physical, and functional abilities, and biological health. Striving for a balance between press-competence can result in adaptive behavior, such as actively adapting to the environment or the level of competence to fulfill one's needs and live comfortably, e.g. using technologies to

assist with daily tasks, ensuring accessibility to spaces, or engaging in meaningful activities, etc., called “environmental proactivity” (Lawton, 1989). On the contrary, if the transaction is unbalanced, it can lead to negative affect, generating stronger pressure from the environment, especially in individuals with lower levels of competence, also known as “environmental docility” (Lawton & Nahemow, 1973).

Insideness theory

In contrast to the previous behavioral model, Rowles (1983) developed the “insideness” theory to explore attachment to place in later life introducing a perspective that considers the meaning and experiences of people in places. The sense of “insideness” involves three dimensions: physical, social, and autobiographical. Living in the same space for years leads to the feeling of familiarity, which enables the older person to create idiosyncratic rhythms and routines and exercise a certain sense of control, what he called physical insideness. As people build social relationships over time they experience a sense of belonging, social integration, and status within their community. In other words, the perception of “know others and be known” translates into social insideness. Finally, autobiographical insideness is composed of a myriad of “incident places” one remembers and inhabits, becoming part of one’s identity.

Person-environment exchange frameworks

Integrating the behavioral and experiential dimensions into a processual perspective, the person-environment exchange frameworks (Chaudhury & Oswald, 2019; Wahl et al., 2012) describe processes of agency as “goal-directed behaviors related to the environment, such as environment-related cognition and perceived control over the […] environment. They include reactive and proactive aspects of using, compensating, adapting, retrofitting, creating, and sustaining places” (Wahl et al., 2012, p. 309). The p-e exchange processes of belonging refer to “nongoal-oriented cognitive and emotional aspects as well as the behavioral and physical aspects of bonding” (ibidem, pp. 308, 309) towards one’s environment. These processes are not only influenced by the characteristics of the individual but by the characteristics of the environment as well. Physical characteristics, neighbourhood quality, and place attachment are positively related to life satisfaction (Oswald et al., 2011).

Implications for Architecture and Urban Design.

Being outside of the domestic space is important for the well-being and quality of life of older people, including those living with dementia (Duggan et al., 2008). Agency and belonging can also buffer adverse effects of reduced health on well-being (Oswald & Konopik, 2015). However, older adults, in particular people with cognitive impairment, seem to have a higher risk of spending less time outside, less time walking and visiting fewer places (Wettstein et al., 2015). How far person-environment

processes also describe the experience of people living with dementia is currently analysed in a scoping review as described in a protocol by Niedoba (2022). Hence, the use of public spaces, particularly after the COVID-19 pandemic, should be considered even more important as they yield an opportunity to engage meaningfully in activities and social interactions, providing a sense of stability in a world of constant change. That is why we argue that the old age scale should be considered when it comes to designing and planning urban spaces.

Transferring and including components that bring a sense of insideness, familiarity, and belonging when a change is in order is a way to preserve older people's identity (Rowles, 1983). Another possibility is to co-produce solutions with seniors, including people living with dementia, where they act as experts on their existence, appreciating their potential and allowing them to actively shape, adapt, create places, and exercise their agency (Hammond & Saunders, 2021; Rowles, 1983). In this case, urban professionals are not deprived of their role, but rather assume a position as the ones responsible for identifying "contexts and situations where their knowledge might be productively applied" (Hammond & Saunders, 2021, p. 26), using their creativity, know-how, and experience to put ideas into practice.

CONCLUSION

Getting familiarized with the theoretical frameworks and how older adults relate to their environments is the first step toward building bridges between EG, urban studies, and related areas. Acknowledging different inequalities, privileges, contexts, and conditions that affect seniors living experiences (Hammond & Saunders, 2021) might help to reduce barriers that lead to exclusion, promote a better understanding of later life, diminish ageism, and increase resources to participate in old age (Oswald et al., 2021). Therefore, it should be of high priority to (re)gain the older adult scale in the city.

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