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Age is not just a number: Developing an integrative conceptual framework on age

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ABSTRACT

Age is omnipresent in our lives and a fundamental element in the organisation of human societies. Age relations, like other power relations, generate social inequality. As a reflection of its importance, age is frequently used in empirical studies in the field of sociology and other social sciences. However, the social theorisation of age is inchoate and dispersed, compromising empirical research on this topic. This article critically analyses relevant conceptual work on age carried out so far in social sciences, proposes a conceptual framework inspired by sociological theory that integrates and expands this work, and provides a set of propositions on age. This framework provides a multilevel perspective on age, mapping the sociocultural structures in which age is embedded and exerts its influence, as well as the dynamics that are established between them, allowing for an analysis of the relationship between age-based structures and age-related practices. Furthermore, this more comprehensive framework includes relevant constructs that have rarely been considered. It is expected that this article will encourage more conceptually informed use of age in empirical research.

Introduction

Although we all relate to age in our personal lives, the importance of age in the functioning of societies remains less clear for most people. However, its importance is enormous: for example, in most societies, there is a minimum age for voting, working, retirement, driving motor vehicles, consuming alcoholic beverages, military service, and so on. In addition, age is present in daily social interactions, as the way we act towards other persons depends, in part, on the perception we have of their ages. To emphasize the all-pervasiveness of age, Bytheway (2011, p. 216) reminds us that "we are *all* growing older *all* the time," yet most of us falsely dichotomise age ("young" or "old") and do not identify ageing as a process that begins a birth (see also Beard, 2017).

As a reflection of this, human age is widely used in social scientific research (especially in the field of sociology), mainly as a sociodemographic characterisation or as a control variable (Barrett, 2022; Johfre & Saperstein, 2023). However, in most cases, age is selected routinely and somewhat thoughtlessly and assigned a secondary role in the analytical strategy (Barrett, 2022; Bytheway, 2011; Calasanti & Slevin, 2006).

However, despite its social relevance and recurrent use in social research, several scholars (e.g. Barrett, 2022; Bradley, 2016; Johfre & Saperstein, 2023; Laz, 1998; Pickard, 2016) consider age one of the least explicated concepts in the field of social sciences, typically featuring as "an add-on to mainstream sociology's key theories" (Pickard, 2016, p. 18). In addition, the mobilisation of the intersectionality perspective remains uncommon and unclear in studies on ageing (Calasanti, 2019), and age is not always included in the list of intersectional variables, with preference given to the trilogy of gender, socioeconomic status/class and race/ethnicity (Thorne, 2004).

From our point of view, the problem is not so much in the absence of works that in some way theorise/conceptualise age (see, for example, Bytheway, 2011; Laz, 1998; Pickard, 2016; Riley, Johnson, & Foner, 1972; Settersten Jr., 2003; Uhlenberg & Dannefer, 2007), but above all in the insufficient systematisation and cumulative integration of these works. This explains why the theorisation/conceptualisation of age has not yet reached the state of maturity that we find, for example, in relation to gender, social class and race/ethnicity. In this sense, we can speak of under-theorisation/conceptualisation of age. This under-theorisation/conceptualisation of age is reflected, for example, in the absence of an entry for "age" in most sociology and social gerontology dictionaries (e.g., *A Dictionary of Sociology*; *The SAGE Dictionary of Sociology*; *The Blackwell Encyclopedia of Sociology*; *Key Concepts in Social*

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Gerontology).

At the level of empirical research, the under-theorisation/conceptualisation of age leads, in most cases, to the failure to provide a clear definition/operationalisation of it. Most empirical studies use age routinely as a synonym for number of years of life (chronological age) (Bytheway, 2011; Johfre & Saperstein, 2023), implicitly serving as a "rough indicator of biological, psychological, and social statuses" (Settersten Jr., 20033, p. 20). As Barrett states, "[the] common practice of giving consideration to age only as a control variable reveals little about the effect of age itself, which can index diverse constructs—developmental stage, physiological functioning, cohort membership, nearness to death, and risk of ageism, among others" (2022, p. 216). Many empirical social scientific works use age in one way or another, ranging from seemingly unthinking collections of ages or age brackets that are appended to research participant pseudonyms in some qualitative research, to deploying age as an independent variable in quantitative research. Yet, when asked about the significance of age, researchers are often not able to explain why "Maria, age 87", for example, is labelled thus in an interview-based study. Should we understand 87 years only in its chronological dimension? If so, what is the relevance? If not, what are we referring to? One sign of the thoughtful use of a label is that the conceptualisation behind it is clear.

In the face of this, Barrett (2022) and Johfre and Saperstein (2023) recently proposed sociologically inspired conceptual frameworks on age aiming to be as comprehensive as possible. Although the two frameworks advance the systematisation and articulation of several "conceptual bricks" about age, therefore being of undeniable usefulness, we believe the integration of these conceptual bricks can be taken further and the introduction of new ones is warranted.

The conceptual frameworks proposed by Barrett (2022) and Johfre and Saperstein (2023) serve as the main starting point of this article, as these were based on extensive literature reviews and intended to be comprehensive. To the best of our knowledge, we consider that these are, in fact, the most comprehensive conceptual frameworks of age in the social sciences domain. With this starting point, we aim to develop a more integrative conceptual framework on age, and a set of propositions derived from it, based not only on the work of Barrett (2022) and Johfre and Saperstein (2023), but also on other relevant literature on age and the mobilisation of general sociological theory. Ultimately, this article seeks to contribute to conceptual clarity among all who use age as a concept, a category, or a variable in their research.

Conceptualisation of age across the entire life course cannot be undertaken within the scope of a single article. Therefore, in this article, we focus on adulthood, with an emphasis on older ages.

Conceptual frameworks on age: strengths and limitations

Barrett's framework

Barrett (2022) proposes a conceptual framework on age that integrates relevant literature from the fields of life course sociology, age studies, age relations and gerontology. This elevates age as a key axis of social inequality and is structured around three dimensions: "age as institution," "age as performance," and "age as identity." Age as institution is defined as a set of interrelated age positions (age-based categories) supported by age ideology (e.g., the successful ageing discourse) and age norms (e.g., the best age to do certain things). "Age as performance" refers to age as something that is accomplished in everyday life (doing age), while "age as identity" refers to subjective age (the age we feel most of the time). Barrett emphasises that these three dimensions contribute to the reproduction of age inequality.

Barrett's framework draws attention to age as a source of social inequality and provides a set of useful constructs for studying the role of age at the societal and individual levels. At the societal level, this framework makes clear that "age as institution" means that age is ingrained in societal structures (see also Bytheway, 2011; Dannefer, Uhlenberg, Foner, & Abeles, 2005; Riley, 1987; Riley et al., 1972; Settersten & Angel, 2011; Settersten & Mayer, 1997). First, age is used as a criterion to access and participate in several social domains. For example, age is a criterion for entering and relinquishing social roles (e.g., the role of the president of a country, serving in the military), acquiring rights (e.g., the right to vote) and accessing services (e.g., public education). Social roles are "unequally rewarded with wealth, power, and prestige," therefore being one of the sources of social inequality (Foner, 2011, p. 640).

Second, norms based on age are another component of "age as an institution" (e.g., the appropriate age to carry out certain activities, to play certain social roles, etc.). For example, studying is not a normative activity when individuals are in their 40s and 50s (Isopahkala-Bouret, 2013). According to Barrett (2022), age norms are shaped by age ideologies (see also Pickard, 2016); that is, beliefs, views, and narratives/discourses about age and ageing, such as the notion of "aging as decline" (Gullette, 1997) and the successful ageing discourse (Barrett, 2022).

Third, "age as institution" is manifest in the widespread practice of using age to categorise people (e.g., the young and the old) (see also Turner, 2016). In this regard, Settersten and Mayer (1997, p. 235) stress that "age is one of the most primary social and cultural categories." The age category in which we are located matters, as it shapes the way we see ourselves and the social opportunities we have. But age categories matter above all because, according to Barrett (2022), the system of age categories establishes a social hierarchy, benefiting certain age groups at the expense of others, thus fostering age-based inequality (see also Arber & Ginn, 1995; Settersten & Mayer, 1997).

Lastly, Barrett (2022) also incorporates the idea that age stratifies the life course (see also Settersten Jr., 2003). In this respect, Kohli (1986) argues that chronological age is used to segment (institutionalise) the life course into three periods: the period of preparation for work (education), the period of work activity, and the period of retirement. Kohli (2007) suggests that this "tripartition of the life course" continues to exist, while other scholars argue that we are witnessing a deinstitutionalisation of the life course (e.g., Guillemard, 2010).

Let's take an example of how Barrett's conceptualisation of "age as institution", "age as performance," and "age as identity" could be deployed to make sense of social phenomena. Because many social policies are strongly rooted in age, we are witnessing growing disjunctures between age-based policies (institutions) and the evolving significance of age due to population ageing and changes in the life course (pertaining to the practices and identities of people of different ages). The most obvious example of this is the (institution of) retirement age, originally pinned close to the average male life expectancy and now increasingly removed from it due to extensions in lifespans. The *institution* of retirement/pension remains relatively fixed or is cautiously reformed while the practices (*'performance'*) and *identities* evolve as, for example, some older persons work longer and maintain their employment-focused identities (while others resist this).

In addition to drawing attention to the macro dimension of age (age at the societal level), Barrett (2022) also underlines the performative nature of age (age as performance), a theme that has been explored by Laz (1998, 2003), inspired by West and Zimmerman (1987). Laz's (1998, p. 85) construct of "age-as-accomplished" emphasises that "We all perform or enact age" (Laz, 1998, p. 86). The expression "act your age" (Laz, 1998) denotes the social nature of age accomplishment, as it urges individuals to align their actions in accordance with age norms and expectations. It is also important to stress the possibility of "undoing age," in the sense of practices that resist the relevance of age and dominant discourses about it (Ben Dori & Kemp, 2020; Höppner, Wanka, & Endter, 2022).

Barrett's framework also makes one last important contribution: it links age to time by emphasising the contribution of the life course perspective. As Bytheway (2011, p. 6) put it, "age is about time." The ageing that humans experience since they are born is the most obvious evidence that age is linked to time (see ontogenetic/biographical time in

Settersten Jr., 2003). But if individuals have the privilege of growing older (see Beard, 2017), they move through different societal and familial generations (children's generation, parents' generation, grandparents' generation), presenting an opportunity for understanding ageing as a progression through generational time (Settersten Jr., 2003). Moreover, there are social norms/expectations regarding the appropriate/expected time to carry out these and other transitions, which refer to the notion of social clocks (Neugarten & Neugarten, 1986) or social time (Neugarten & Datan, 1973). This resonates with the construct of "timing," which is relevant in the life course perspective (Kok, 2007; Settersten Jr., 2003). According to this perspective, the impact and meaning of individual experiences (e.g., transitions and events) depend on their timing, which, in a certain society and a given socio-historical context, can be considered in time or out of time.

Finally, individuals' lives unfold in certain historical times and contexts, which present them with a series of opportunities and constraints (Settersten Jr., 2003). Historical time is related to the notion of a birth cohort, a cluster of individuals born during the same period of time. The "principle of cohort differences in aging" stipulates that people in different birth cohorts age in different ways, because society changes (Riley, 1987). In this sense, individual time or individual change (ageing) is interconnected with societal time or societal change: people in successive cohorts "grow up, grow old, die, and are replaced by other people" (p. 2), and people of different ages are exposed to socio-historical contexts that change over time.

Despite the undeniable contribution of Barrett's framework, in our view, it can be taken further by developing a multilevel perspective. It is true that many readers can deduce at which levels the different constructs are located, namely that "age as institution" is a macro construct and that "age as performance" and "age as identity" relate to the micro level. While Barrett does not explicitly place the dimensions of her framework at different levels (only once does she use the terms macro and micro), nor does she explore intra- and inter-level relations, a multilevel perspective on age has been proposed by other scholars (e.g., Riley, 1987; Uhlenberg & Dannefer, 2007), which emphasises the interconnectedness of the micro, *meso*, and macro levels. This interconnectedness enables age to operate and be constituted through interwoven processes (Riley, 1987; Uhlenberg & Dannefer, 2007). However, only a few of these processes and levels at which they might manifest have been identified. For example, the multilevel perspective adopted by Riley (1987) in the conceptualisation of an "age stratification system" focused mainly on structural strains between levels, such as "structural lag." In turn, Uhlenberg and Dannefer (2007) applied a multilevel perspective to study age segregation, but nuance in these processes can be further conceptualised and the meso level should be integrated.

The co-existence of different constructions of age at multiple levels means that age becomes a contested terrain, with debates and discourses that sometimes are in conflict or otherwise problematic. Often, this happens through the (additional but related) construct of generations. For example, people of a certain age/generation might be labelled 'boomers' or 'the lucky generation' as they were the 'right age' at the 'right time' (e.g., purchasing houses when prices were lower relative to incomes). In this way, age is co-opted and harnessed into political debates that assign blame to certain age categories for what are, arguably, policy failures or socioeconomic inequalities in access to housing. Pitting generations against one another threatens intergenerational relations and solidarity that sociologists deem vital.

A multilevel perspective also engages how age-related practices (e.g., age as performance) reproduce and are reproduced by age-related institutions/structures (e.g., age positions, age ideology and age norms). Barrett's framework can be expanded to account for these processes, which refer to the general issue of the structure-action relation that has been the target of sociological theorisation for a long time. In this regard, Marshall and Clarke (2010) observe that the links between social structure and action have not been sufficiently conceptualised by the sociology of ageing and social gerontology.

Barrett's (2022) framework could also benefit from addressing age and ageism in a more differentiated way by clarifying the differences between these two concepts. In our view, the dynamics related to age, that is, the different ways in which age plays a role in society, go beyond ageism. Ageism does not explain all age-related phenomena, just as racism does not explain all racial phenomena (Bonilla-Silva, 1997). According to Rennes (2019, p. 7), we can say that ageism exists only if the lack of access to a certain "social good (material or symbolic)" takes place without considering the "abilities and interests" of those targeted. According to this definition, the prohibition of alcohol and tobacco consumption by individuals under 18 years of age may not be considered ageist because their bodies are less able to deal with the harm of these substances, and it is in minors' interest to protect their health. Rennes (2019) also suggests that the manifestations and consequences of ageism depend on whether ageist practices and attitudes are based on chronological age, social age (being considered "too old" or "too young" to carry out certain activities and assume certain social roles), or biological age.

Barrett's framework also defines age identity as synonymous with subjective age, whereas other scholars frame subjective age as just one of the dimensions of age identity. Settersten and Mayer (1997, p. 241) suggest that subjective age refers to "how old a person feels, into which age group he or she categorizes him or herself, or how old one would like to be, regardless of one's actual age." Kaufman and Elder (2002, p. 171) extend this definition, proposing five dimensions of age identity: subjective age (the age felt most of the time); others' view of one's age; desired age ("if you could be any age you wanted to be right now, what age would that be?"); desired longevity ("to what age do you hope to live to, at the very least?"); and perceived old age ("at what age does the average man or woman become old?"). However, most of the studies focus on how old a person feels, using a single question such as, "Many people feel older or younger than they actually are. What age do you feel most of the time?" (Schafer & Shippee, 2010, p. 93). Age identity resonates with the metaphor of "the mask of age" introduced by Featherstone and Hepworth (1989), which accounts for the tension between the age one feels and the age that one appears to be. This is also resonant with Kaufman's (1994) "ageless self". Age identity is shaped by life experiences (Riley, Foner, & Waring, 1988), interaction with others (Coupland & Coupland, 1994) and life events (Hendricks, 2010), and also deeply expressed and preserved through narratives (Holstein & Gubrium, 1999) and the body and its actions (Kontos, Miller, & Kontos, 2017; Tulle, 2015).

Lastly, Barrett's framework does not address the concept of age segregation, which is the focus of a relevant portion of the literature on age and ageism. Uhlenberg and Dannefer (2007, p. 56) define age segregation, at the structural level, as the process of using "age as an eligibility criterion for participation in social activities". They argue that the use of age criteria to enter and exit institutional domains such as education, work, and retirement are the clearest examples of age segregation. At the micro level, age segregation is found "when there is an absence of social interaction between people of diverse ages" (Uhlenberg & Dannefer, 2007, p. 56). Confinement to age-homogeneous social networks "limits opportunities for lasting cross-age ties, blocks possibilities for transcending us/them thinking linked to age and impedes perspective-taking and mindfulness" (Hagestad & Uhlenberg, 2005, p. 357). According to these scholars, age integration is the opposite of age segregation.

Johfre and Saperstein's framework

The second conceptual framework was developed by Johfre and Saperstein (2023), also based on an extensive review of relevant literature. The first central argument made by these scholars is that age is a social construction, as it is "neither a universal nor socially neutral metric" (Johfre & Saperstein, 2023, p. 341). They state that

"chronological age is not a natural characteristic" (p. 342) and that "the division of the lifespan into meaningful age categories is not static" (p. 342). The social constructionist view of age emerged in the 1970s and early 1980s (Gilleard, 2025) and has since been deployed by countless scholars (e.g., Estes, 1979; Holstein & Gubrium, 2007; Laz, 1998; Settersten Jr., 2003; Settersten & Mayer, 1997). Age can be counted and measured in different ways (chronologically, biologically, etc.), but it also has socially constructed meanings, as seen when an 80-year-old person can consider herself young or when the government can tell a perfectly capable 70-year-old person who is willing to work that they do not fit the classification for working age anymore. The portrayal of ageing as a "problem" exemplifies how advancing age and old age are socially constructed - a process with significant consequences for those labelled as old (Estes, 1979). Some of the knowledge generated in the field of gerontology feeds into this negative construction of ageing and old age (Katz, 1996). The second central argument made by Johfre and Saperstein (2023) is that age forms a system of inequality which crosses multiple levels of social reality (individual, interactional, organisational, and cultural). At the individual level, they suggest that age is best conceptualised and operationalised through several dimensions, some of them commonly referred to in the literature (chronological, physical, and psychological), and others less prevalent (generation, life stage, responsibility, experience, and cultural consumption). These scholars propose several indicators to measure each dimension of age. The multidimensionality of age at the individual level, long emphasised in ageing scholarship (e.g., Birren & Cunningham, 1985; Neugarten & Hagestad, 1976; Riley, 1993), draws attention to the fact that age is more than the number of years of life. It is important to add that there is not necessarily a synchrony between the different dimensions of age. A person may be chronologically 50 years old, yet their biological age may be either younger or older, or a person may be viewed as old from a chronological point of view but young from a psychological point of view.

Johfre and Saperstein's framework reinforces the importance of age as a source of social inequality and lists a diverse set of age dimensions (and respective indicators) at the individual level, which are useful to guide empirical research. They sought to overcome the absence of an explicit multilevel perspective on age found in Barrett's framework by proposing different levels of analysis. One way to build on their work would be to avoid separating the individual and the interactional, since from our point of view both fall within the micro level, and to include at the macro level not only the cultural components but also social components and institutions such as the economy, education, health, etc. (see Riley, 1987; Turner, 2016; Turner & Roberts, 2023; Uhlenberg & Dannefer, 2007). We also call for distributing "processes" across the different levels of analysis, so that age relations are not limited to the interactional (micro) level and ageism relegated to the cultural (macro) level. The conceptualisation of Johfre and Saperstein (2023) can be built upon to develop a more multilevel perspective of age by not centring the individual level and instead addressing the issue of the structure-action relation, and explicitly articulating the concepts of age, ageism, and age segregation.

In sum, both frameworks make important contributions to the recognition that age is a source of social inequality, placing it on par with other structures that generate inequality, such as gender, social class, and ethnicity/race. In this regard, they both suggest that age inequality derives from power relations between age groups (age relations). In addition, they also contribute to the recognition that age is both an individual property and a component of societal structures. Furthermore, they also call our attention to the need to recognise that age is socially constructed (especially Johfre and Saperstein's framework) and linked to time. Furthermore, they provide several useful constructs/concepts for the empirical study of age.

Despite these strengths, both frameworks can be expanded upon in meaningful ways. Firstly, explicating a solid multilevel perspective (macro, *meso*, micro) is necessary to examine age (and the diversity of concepts associated with it) in the various sociocultural structures at each level and to explore intra- and inter-level dynamics. Using an organicist analogy, these frameworks identify the "organs of the human body" but do not clarify their location in different "parts of the body." While prior scholarship has proposed a multilevel perspective (e.g., Riley, 1987; Uhlenberg & Dannefer, 2007), the relationships between and within each level can be further conceptualised.

Secondly, a structure-action perspective is needed to analyse linkages between age-related structures and age-related practices. Neglecting this interrelatedness is particularly limiting because it impairs a broad understanding of how the organisation and functioning of society are shaped by age across the micro, *meso*, and macro levels and how age on one level relates to age on the other levels. This limitation is identified by others (e.g. Marshall & Clarke, 2010) in relation to literature in the areas of sociology of ageing and social gerontology more broadly.

There are also relevant concepts that can be incorporated to strengthen the conceptualisation (e.g., age segregation/integration, age dispositions), as well as clarification of concepts and the relationships between them (age and ageism, age identity). By expanding the conceptualisation and operationalisation of age, we hope to bolster the heuristic capacity of empirical research on this topic.

Contribution of general sociological theory to the conceptualisation of age

Sociological theory has much to offer in building upon Barrett's (2022) and Johfre and Saperstein's (2023) frameworks. The theoretical works of Turner (Turner, 2016; Turner & Roberts, 2023) regarding the sociocultural formations at each level of social reality and the dynamics between them and Mouzelis (2008) regarding the actor-structure relation, we argue, make important contributions to the conceptualisation of age.

Turner (2016) argues that any human society is formed by social structures and cultural structures (see also Mouzelis, 2008). He clarifies that the division into these two major structures is merely analytical, given that they mutually constitute each other. According to Turner (Turner, 2016; Turner & Roberts, 2023), social structures are associated with cultural structures at the macro, meso and micro levels of reality. Social structures are comprised of a set of institutional domains and stratification systems, among other elements (Turner, 2016; Turner & Roberts, 2023), while cultural structures entail "systems of symbols generating common meanings that humans share and use to regulate and organise behaviours of individuals and subpopulations in societal and, at times, inter-societal formations" (Turner & Roberts, 2023, p. 11). Turner (2016) identifies several social and cultural structures at each level of reality (e.g., institutional domains, stratification system, social norms, etc.), and these are linked through a process that he calls "embedding" (p. 125): structures at the micro level are embedded in structures at the meso level, and these are embedded in structures at the macro level. Embedding also implies dynamics within each level of reality between social and cultural structures. According to Turner (Turner, 2016; Turner & Roberts, 2023), although social and cultural structures at the macro and meso levels have an undeniable weight in structuring social actions and interactions at the micro level, in certain circumstances, the latter may change the structures above them. Turner's frameworks provide an "architecture" of human societies, enabling the arrangement of various age-related concepts/constructs in a sociologically informed way.

Another strand of sociological theorising that can be mobilised to conceptualise age is the one which focuses on the relation between structure and social action, especially the theoretical work by Mouzelis (2008). This scholar proposes a holistic framework of the structure-action relation, rejecting the "conflationist holism" present in some previous proposals (such as Giddens' structuration theory). In his conceptualisation, structure and action are analytically distinct concepts that account for different types of causality: "Structural causality entails

limitations and enablements which can be activated by actors involved in some specific game or social system. Actors' causality on the other hand entails activation of a subject's agentic powers" (p. 226).

Mouzelis (2008) shares Bourdieu's argument that dispositions (habitus in Bourdieu's language) consist of the mechanism through which structures relate to actions. Dispositions are "a set of generative schemata of bodily movements, cognition, emotion and evaluation which, in a more or less taken-for-granted manner, contribute to the production of social practices" (Mouzelis, 2008, p. 230). These dispositions are shaped by social and cultural structures through their internalisation via socialisation, and, in turn, they shape these structures through social actions/practices in daily life. Dispositions may be conscious or not. In this order of ideas, it is possible to talk of a specific type of dispositions - age dispositions - understood as a set of internalised ways of thinking, feeling, and acting related to age (e.g., wearing darker clothes in older ages). We advocate that age dispositions, rarely used in empirical research on age and ageing, become part of the conceptual repertoire of research in these fields.

Developing an integrative conceptual framework on age

The integrative conceptual framework on age proposed here (Fig. 1) builds on Barrett's (2022) and Johfre and Saperstein's (2023) frameworks, as well as the contributions of the sociological theorisation by Turner (Turner, 2016; Turner & Roberts, 2023) and Mouzelis (2008). Our framework is inspired by Turner's (2016) conceptualisation.

At the macro level, the institutional domains include economy, education, and health, among others. Each one has its age roles, age criteria, and age integration/segregation, as well as its own age culture (system of age-related symbols), which is made up of age ideologies, meta-ideologies, and age norms. Age roles, age criteria, and age integration/segregation are also, in part, cultural (once again, the division between social and cultural aspects is merely analytical).

Age roles signal the responsibilities and tasks assigned to different age groups. For example, in each institutional domain, there is an age division of labour (Turner, 2016). However, in some domains, such division may be more pronounced than in others (e.g., in the domain of

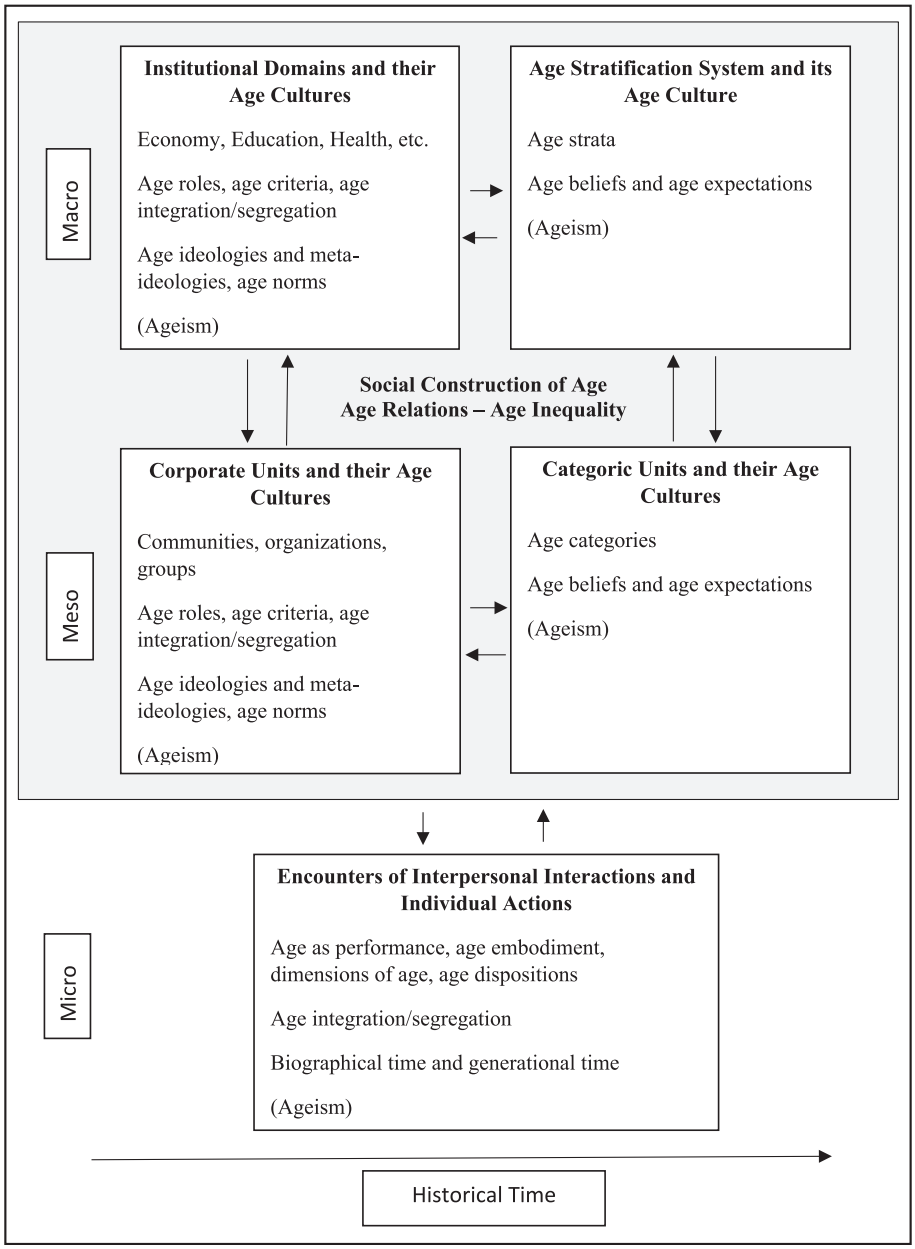

Fig. 1. Integrative conceptual framework on age.

economy, most societies attribute the role of a paid worker to start at adulthood and continue until retirement age). In turn, the construct of age criteria accounts for situations in which age (predominantly chronological age, although the remaining dimensions of age can also be mobilised) is used to access social goods (material and symbolic), including social positions, rights, services, etc. (e.g., establishing an age limit for accessing certain treatments in the health system). Age criteria are related to age segregation, as age (e.g., chronological age) can be used to access institutional domains and the resources that circulate within them, and to participate in social activities (e.g., establishing a minimum age to access the labour market).

With respect to the cultural components, Gullette (2004, pp. 6–7) defines age ideology as "a system that socializes us into certain beliefs and ways of speaking about what it means to be "human" while suppressing alternatives (…)". The "decline ideology" is, accordingly, one example of an age ideology, characterised by the idea of a deterioration in physical and mental capabilities as people age. It can be said that the ideology of decline is a meta-ideology, given that it is transversal to all institutional domains, unlike the ideology of successful ageing, which is rooted in the biomedical domain. In turn, age norms refer to how different age groups should be and act. This includes the idea that there are "right ages" to do certain activities and play certain social roles (social clocks or social time).

Age roles, age criteria, age integration/segregation, ideologies and meta-ideologies, and age norms can be based on ageism. This means that ageism is a possibility and not an intrinsic characteristic of each institutional domain and its age culture, as not all asymmetric distribution of social goods based on age is necessarily ageist (although, in most cases, it will tend to be). That is why ageism appears in parentheses. Ageism can be understood as "judging an individual or a group as too old or too young to access a particular social good (material or symbolic) without taking into consideration their abilities and interests" (Rennes, 2019, p. 7).

At the *meso* level, the corporate units - understood as varying sets of groups, organisations, and communities revealing a division of labour to pursue goals (Turner, 2016) - have their age roles, age criteria, and age integration/segregation. They also have their age cultures, including age ideologies and meta-ideologies, and age norms (think, for example, of a hospital or a school). These social and cultural structures are, to a large extent, a reproduction of the social and cultural structures at the macro level and can also be ageist (implicitly and/or explicitly).

Looking now at the age stratification system (located at the macro level), this refers "to a societal structure of socially recognized divisions based on age - that is, age strata" (Foner & Kertzer, 1978, p. 1084). Therefore, it is constituted by age strata, which are groups of people with similar ages (Riley et al., 1972). The age culture of the age stratification system includes age beliefs and age expectations. Age beliefs are views about the characteristics of members of each age stratum, which can be generally positive or negative or contain positive and negative elements (e.g., the belief that younger adults are dynamic and irresponsible). In turn, age expectations consist of predictions of the expected behaviour of members of each age stratum, which have as a reference point certain patterns of behaviour (e.g., the expectation that middle-aged adults will be professionally active). This means that age expectations are related to age norms. Finally, the age stratification system may also have ageist elements (e.g., the belief that older adults, unlike young people, are technologically behind). For instance, the way dementia is represented in the social imaginary (as total loss of identity, uselessness, etc.) is an example of ageism, which contributes to our difficulty in imagining ourselves as older people in the future (Beard, 2016).

The categoric units, that is, the categories of people defined by certain traits or characteristics (Turner, 2016), are the continuity of the stratification system at the *meso* level. These are made up of several categories, including age categories (e.g., child, teenager, young adult, adult, older adult, centenarian), with associated age beliefs and age expectations. These beliefs and expectations are largely a reproduction of age beliefs and expectations of the age stratification system at the macro level. At the *meso* level of categoric units, age beliefs and age expectations can also have ageist elements.

Finally, at the micro level, there are interpersonal interactions and individual actions, and this is where age embodiment and the performance of age take place. Body management practices, such as exercising and adopting certain diets to maintain a youthful look or pass as younger, are examples of forms of age performance and embodiment. The model of successful ageing, with its emphasis on low probability of disease and disease-related disability, high physical and cognitive functioning, and active engagement with life (Rowe & Kahn, 1998) may in some ways contribute to the promotion of these practices.

At the micro level, age segregation/integration is found in the social interactions between persons of different ages. This level also includes the different dimensions of age (chronological, biological/physical, psychological, social, etc.), age dispositions, ageism, as well as biographical time and generational time. It is important to add that age dispositions are mobilised in the performance of age. Age dispositions connect the micro, *meso* and macro levels, thus augmenting Barrett's (2022) and Johfre and Saperstein's frameworks with a structure-action perspective.

Encounters and individual action are embedded in corporate units and categorical units, and these are embedded in institutional domains and the age stratification system, respectively. The dynamics between different levels (inter-level dynamics) can occur from top to bottom (from the macro to the micro level) or from the bottom to the top (from the micro to the macro level), although Turner argues that they occur mainly from the top to the bottom (Turner, 2016). Dynamics are also established between institutional domains and the age stratification system: the institutional domains generate an unequal distribution of valued social goods that indirectly, create the age stratification system, and this system generates an unequal distribution of opportunities to access and benefit from what institutional domains have to offer (Turner, 2016). For example, on one hand, the institutional domain of education can distribute the social good of "learning" unequally among different age groups, blocking older adults' access to the national competition for higher education places (age segregation). On the other hand, the age stratification system can limit older adults' opportunities to access other forms of education (e.g. specific courses for adults), due to the ageist belief that they are "incapable of learning" (Dannefer & Feldman, 2017, p. 23). These dynamics at the macro level can be reproduced at the meso level.

Practically all the phenomena encapsulated in the previously analysed concepts are socially constructed, given that their meanings change over time and space. This means that age roles, age norms, age beliefs, and other age-related concepts are social constructs (Barnes, Johfre, & Munsch, 2024) and that the social construction of age, ageing, and old age is present in social and cultural structures at different levels of reality (hence the social construction of age being placed at the centre of the framework). Nevertheless, we agree with Gilleard (2025) that age and other concepts associated with it should not be reduced to mere social constructions. The "facticity" of age, that is, "the reality of the corporeal" (p. 10), must not be denied, regardless of how "social forces get under the skin" (Ferraro & Shippee, 2009, p. 339); in other words, the social and biological are co-constructive. Placing the construction of age at macro and meso levels should not mean that this process occurs only at these levels but rather that social constructions are consolidated at these levels, although they are reproduced and eventually modified at the micro level of social interaction.

The dynamics that are established between the social and cultural structures at the macro and meso levels are the foundations of age relations and, therefore, of age inequality (McMullin, 2000) (that is why age relations and age inequality are placed at the centre of the framework). Additional clarifications on age relations are necessary. Calasanti was one of the first scholars to clarify the concept of age relations

(Calasanti, 2003; Calasanti & Slevin, 2006), emphasising its importance for understanding ageing, old age, and age inequality (Calasanti, 2020). Calasanti and Slevin (2006, p. 5) identify three dimensions of age relations: age as a principle of social organisation, the unequal distribution of power and identity among different age groups, and the intersection of age relations with other social relations (e.g., gender relations). In turn, according to Connidis (2014, p. 293), "age relations refer to how different age groups or cohorts are treated in society in terms of expectations, responsibilities, privileges, and resources". In this vein, she also argues that age relations are embedded in several institutional domains, for example, education, work, and family. Several empirical studies have shown that age relations are supported by categorisations based on age, often chronological age (e.g. McMullin & Marshall, 2001; Österholm, Olaison, & Larsson, 2024). One of the aspects on which there is consensus regarding age relations is that they form a "system of inequality" (Calasanti, 2020; Calasanti & Slevin, 2006; Johfre & Saperstein, 2023; Pickard, 2016), because "different age groups not only gain identities but also power in relation to one another" (Calasanti, 2007, p. 336). Therefore, "age relations are…ones of privilege and oppression, i.e., unearned advantage and disadvantage that accrue to age category membership, in which systemic inequalities in distributions of authority, status and money influence life chances" (p. 336). Pickard (2016, p. 3) also stresses that age relations generate and legitimise not only material inequalities but also other kinds of inequalities. In this vein, age inequality consists of the unequal distribution of social goods (material and symbolic) between age groups/strata. Inequalities based on age develop during the life course through processes of cumulative advantage and disadvantage (Dannefer, 2022), also referred to as cumulative inequality (Ferraro & Shippee, 2009).

To conclude the outline of the conceptual framework, we emphasize that institutional domains, age stratification systems, corporate units, categoric units, encounters, and individual actions, as well as the social construction of age, age relations, and age inequality, change over historical time. Historical time is an important element of the conceptual framework because, as Riley (1987) and Dannefer (2022) argue, individual time (or individual change) is interconnected with societal time (or societal change).

Taking a few steps further, we propose the formulation of four general propositions that arise from our framework: (1) age is a multilevel system of social inequality; (2) age is a social construct; (3) age is an embodied experience; (4) age is linked to time. We believe that these propositions are a complement to the conceptual framework and can be useful as general guidelines in the use of age in empirical studies in the field of social sciences. For example, a study of poverty can be anchored in all these propositions in a way that enables interrogation of the phenomenon as something that is systemic, socially constructed, embodied, and changing over time. If the study involves interviews, we can return to the earlier example of "Maria, age 87". Instead of expecting this chronological age to serve as a taken-for-granted signifier of something, we suggest that it should be linked, for example, to systemic factors (e.g., age of eligibility to certain forms of public assistance, earlier experiences of her cohort) and micro-level factors (e.g., how poverty is experienced among the oldest-old). Such use of age signals its purposeful, explicit and dynamic deployment in the research, instead of age featuring as a category imputed with meanings that remain cryptic.

The framework proposed here is integrative, drawing from a diverse range of theoretical traditions, so it can incorporate the key issues of power, conflict, and change, distancing it from a strictly functionalist framework. These elements are woven into the framework through insights from critical gerontology (e.g., Calasanti, 2020; Estes, 1979; Katz, 1996) and social constructivism (e.g., Holstein & Gubrium, 2007; Laz, 1998; Settersten Jr., 2003).

Our framework could be criticised for not including an intersectional perspective. Admittedly, we do not discuss the intersection of age with other axes of social inequality, because the priority was to conceptualise age as comprehensively as possible. Nevertheless, we agree with the proposal of other scholars (e.g., Calasanti, 2003; Calasanti, 2019; Pickard, 2016; Tunçer, 2024) to mobilise an intersectional perspective in the empirical study of age. Such an undertaking can be achieved through the combination of this framework with other axes of inequality.

Conclusions

This integrative conceptual framework on age expands Barrett's (2022) and Johfre and Saperstein's (2023) frameworks in three ways. First, in addition to offering a mapping of the sociocultural structures where age is forged and exerts its influence on the way societies function and individuals live their lives, the framework makes it possible to obtain a dynamic perspective on how those structures are interrelated horizontally and vertically. Second, it promotes analysis of the interconnections between age-related structures and age-related practices. Third, it integrates a larger number of relevant concepts/constructs, therefore being more comprehensive, and clarifies other concepts and the articulation between them.

We propose that one of the most meaningful ways to improve scholarship in ageing is for researchers who use age to articulate their approach to age and how they are conceptualizing ageing and to be explicit about the role of age in their results and conclusions. This means that simply specifying the age of research subjects or participants is not satisfactory if the implicit, imputed, or established significances of age are not spelt out. Similarly, if age features as a variable, a theme, or a category in outlining the findings, the role and significance of age should be explained (rather than implied or assumed). This is necessary to obtain a more integrated view of how age features in the functioning of societies.

It is hoped that this article stimulates theoretical and empirical social science on age, bringing us closer to the volume and maturity of work that has already been done around gender, race/ethnicity, and social class. An essential aspect of this is the analysis of the distinctive characteristics of age relations as systems of inequality.

CRediT authorship contribution statement

José de São José: Writing – review & editing, Writing – original draft, Visualization, Conceptualization. **Virpi Timonen:** Writing – review & editing, Writing – original draft, Visualization, Conceptualization.

Declaration of competing interest

The authors declare none.

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Data availability

No data was used for the research described in the article.

References

Arber, S., & Ginn, J. (1995). Connecting gender and ageing. A new beginning. In S. Arber, & J. Ginn (Eds.), *Connecting gender and ageing. A sociological approach* (pp. 173–178). Open University Press.

Barnes, L., Johfre, S., & Munsch, C. L. (2024). Galvanizing the "missing revolution": Processes and meanings of the child/adult binary in the social construction of age. *American Journal of Sociology, 130*(1). https://doi.org/10.1086/730457

Barrett, A. E. (2022). Centering age inequality: Developing a sociology-of-age framework. *Annual Review of Sociology, 48*(1), 213–232. https://doi.org/10.1146/annurev-soc-083121-043741

Beard, R. L. (2016). *Living with Alzheimer's: Managing memory loss, identity, and illness*. New York: NYU Press.

Beard, R. L. (2017). Dementia and the privilege of growing old. *Dementia, 16*(6), 685–688. https://doi.org/10.1177/1471301217709661

Ben Dori, S., & Kemp, A. (2020). Undoing age, redefining gender, and negotiating time: Embodied experiences of midlife women in endurance sports. *Time & Society, 29*(4), 1104–1127. https://doi.org/10.1177/0961463X20948987

Birren, J. E., & Cunningham, W. R. (1985). Research on the psychology of aging: Principles, concepts and theory. In J. E. Birren, & K. W. Schaie (Eds.), *Handbook of the psychology of aging* (2nd ed., pp. 3–34). Van Nostrand Reinhold Co.

Bonilla-Silva, E. (1997). Rethinking racism: Toward a structural interpretation. *American Sociological Review, 62*(3), 465–480. https://doi.org/10.2307/2657316

Bradley, H. (2016). *Fractured identities. Changing patterns of inequality*. Cambridge: Polity Press.

Bytheway, B. (2011). *Unmasking age. The significance of age for social research*. Bristol: Policy Press.

Calasanti, T. (2003). Theorizing age relations. In S. Biggs, A. Lowenstein, & J. Hendricks (Eds.), *The need for theory: Critical approaches for social gerontology for the 21st century* (pp. 199–218). Baywood.

Calasanti, T. (2007). Bodacious berry, potency wood and the aging monster: Gender and age relations in anti-aging ads. *Social Forces, 86*(1), 335–355. https://doi.org/10.1353/sof.2007.0091

Calasanti, T. (2019). On the intersections of age, gender and sexualities in research on ageing. In A. King, K. Almack, & R. L. Jones (Eds.), *intersections of ageing, gender and sexualities: Multidisciplinary international perspectives* (online ed., pp. 13–29). Policy Press Scholarship Online. https://doi.org/10.1332/policypress/9781447333029.003.0002 accessed 28 May 2024.

Calasanti, T. (2020). Brown slime, the silver tsunami, and apocalyptic demography: The importance of ageism and age relations. *Social Currents, 7*(3), 195–211. https://doi.org/10.1177/2329496520912736

Calasanti, T. M., & Slevin, K. F. (2006). Introduction: Age matters. In T. M. Calasanti, & K. F. Slevin (Eds.), *Age matters: Realigning feminist thinking* (pp. 1–18). Routledge.

Connidis, I. A. (2014). Age relations and family ties over the life course: spanning the macro–micro divide. *Research in Human Development, 11*(4), 291–308. https://doi.org/10.1080/15427609.2014.967050

Coupland, J., & Coupland, N. (1994). "Old age doesn't come alone": Discursive representations of health-in-aging in geriatric medicine. *The International Journal of Aging and Human Development, 39*(1), 81–93. https://doi.org/10.2190/2GM4-U3X6-QL19-G9YU

Dannefer, D. (2022). *Age and the reach of sociological imagination. Power, ideology and the life course*. London: Routledge.

Dannefer, D., & Feldman, K. (2017). Age integration, age segregation, and generation X: Life-Couse perspectives. *Generations - Journal of the American Society on Aging, 41*(3), 20–26.

Dannefer, D., Uhlenberg, P., Foner, A., & Abeles, R. P. (2005). On the shoulders of a Giant: The legacy of Matilda white Riley for gerontology. *The Journals of Gerontology: Series B, 60*(6), S296–S304. https://doi.org/10.1093/geronb/60.6.S296

Estes, C. L. (1979). *The aging Enterprise*. San Francisco: Jossey-Bass.

Featherstone, M., & Hepworth, M. (1989). Ageing and old age: Reflections on the postmodern life course. In B. Bytheway, T. Keil, P. Allatt, & A. Bryman (Eds.), *Becoming and being old: Sociological approaches to later life* (pp. 143–159). London: Sage.

Ferraro, K. F., & Shippee, T. P. (2009). Aging and cumulative inequality: How does inequality get under the skin? *The Gerontologist, 49*(3), 333–343. https://doi.org/10.1093/geront/gnp034

Foner, A. (2011). Looking Back: My half century as a sociologist of aging and society. In R. A. Settersten, Jr., & J. L. Angel (Eds.), *Handbook of sociology of aging* (pp. 639–643). New York: Springer.

Foner, A., & Kertzer, D. (1978). Transitions over the life course: Lessons from age-set societies. *American Journal of Sociology, 83*(5). https://doi.org/10.1086/226675

Gilleard, C. (2025). Revisiting the social construction of old age. *Ageing and Society, 45*(3), 500–513. https://doi.org/10.1017/S0144686X23000570

Guillemard, A.-M. (2010). *Les défis du vieillissement. Âge, emploi, retraite. Perspectives internationales*. Armand Colin.

Gullette, M. M. (1997). *Declining to decline: Cultural combat and the politics of the midlife*. University Press of Virginia.

Gullette, M. M. (2004). *Aged by culture*. The University of Chicago Press.

Hagestad, G. O., & Uhlenberg, P. (2005). The social separation of old and young: A root of ageism. *Journal of Social Issues, 61*(2). https://doi.org/10.1111/j.1540-4560.2005.00409.x

Hendricks, J. (2010). Age, self, and identity in the global century. In D. Dannefer, & C. Phillipson (Eds.), *The Sage handbook of social gerontology* (pp. 251–264). London: SAGE Publications.

Holstein, J. A., & Gubrium, J. F. (1999). *The self we live by: Narrative identity in a postmodern world*. Oxford: Oxford University Press.

Holstein, J. A., & Gubrium, J. F. (2007). Constructionist perspectives on the life course. *Sociology Compass, 1*(1), 335–352. https://doi.org/10.1111/j.1751-9020.2007.00004.x

Höppner, G., Wanka, A., & Endter, C. (2022). Linking ages – Un/doing age and family in the Covid-19 pandemic. *Journal of Family Research, 34*(1), 563–581. https://doi.org/10.20377/jfr-727

Isopahkala-Bouret, U. (2013). Exploring the meaning of age for professional women who acquire master's degrees in their late 40s and 50s. *Educational Gerontology, 39*(5), 285–297. https://doi.org/10.1080/03601277.2012.700819

Johfre, S., & Saperstein, A. (2023). The social construction of age: Concepts and measurement. *Annual Review of Sociology, 49*(1), 339–358. https://doi.org/10.1146/annurev-soc-031021-121020

Katz, S. (1996). *Disciplining old age: The formation of Gerontological knowledge*. University of Virginia Press.

Kaufman, G., & Elder, G. H. (2002). Revisiting age identity. *Journal of Aging Studies, 16*(2), 169–176. https://doi.org/10.1016/S0890-4065(02)00042-7

Kaufman, S. R. (1994). *The ageless self: Sources of meaning in late life*. University of Wisconsin Press.

Kohli, M. (1986). The world we forgot: A historical review of the life course. In V. W. Marshall (Ed.), *Later life: The social psychology of ageing* (pp. 271–303). Sage.

Kohli, M. (2007). The institutionalization of the life course: Looking Back to look ahead. *Research in Human Development, 4*(3–4), 253–271. https://doi.org/10.1080/15427600701663122

Kok, J. (2007). Principles and prospects of the life course paradigm. *Annales de Demographie Historique, 113*(1), 203–230. https://doi.org/10.3917/adh.113.0203

Kontos, P., Miller, K. L., & Kontos, A. P. (2017). Relational citizenship: Supporting embodied selfhood and relationality in dementia care. *Sociology of Health & Illness, 39*(2), 182–198. https://doi.org/10.1111/1467-9566.12453

Laz, C. (1998). Act your age. *Sociological Forum, 13*(1), 85–113. https://doi.org/https://www.jstor.org/stable/684926.

Laz, C. (2003). Age embodied. *Journal of Aging Studies, 17*(4), 503–519. https://doi.org/10.1016/S0890-4065(03)00066-5

Marshall, V. W., & Clarke, P. J. (2010). Agency and social structure in aging and life-course research. In D. Dannefer, & C. Phillipson (Eds.), *The Sage handbook of social gerontology* (pp. 294–305). London: SAGE Publications.

McMullin, J. A. (2000). Diversity and the state of sociological aging theory. *The Gerontologist, 40*(5), 517–530.

McMullin, J. A., & Marshall, V. W. (2001). Ageism, age relations, and garment industry work in Montreal. *The Gerontologist, 41*(1), 111–122.

Mouzelis, N. P. (2008). In N. P. Mouzelis (Ed.), *Modern and postmodern social theorizing*. Cambridge University Press.

Neugarten, B. L., & Datan, N. (1973). Sociological perspectives on the life cycle. In I. P. B. Baltes, & K. W. Schaie (Eds.), *Life-span Developmental Psychology* (pp. 53–69). Elsevier. https://doi.org/10.1016/B978-0-12-077150-9.50009-5.

Neugarten, B. L., & Hagestad, G. O. (1976). Age and the life course. In R. Binstock, & E. Shanas (Eds.), *Handbook of aging and the social sciences* (pp. 35–55). Van Nostrand Reinhold.

Neugarten, B. L., & Neugarten, D. A. (1986). Age in the aging society. *Daedalus, 115*(1), 31–49.

Österholm, J., Olaison, A., & Larsson, A. T. (2024). Age-appropriate elder care recipients? Care manager's categorisation practices in intraprofessional case conferences. *Journal of Aging Studies, 69*, Article 101234. https://doi.org/10.1016/j.jaging.2024.101234

Pickard, S. (2016). In S. Pickard (Ed.), *Age studies. A sociological examination of how we age and are aged through the life course*. SAGE.

Rennes, J. (2019). Déplier la catégorie d'âge. *Revue Française de Sociologie, 60*(2), 257–284. https://doi.org/10.3917/rfs.602.0257

Riley, M. W. (1987). On the significance of age in sociology. *American Sociological Review, 52*(1), 1–14. https://doi.org/10.2307/2095388

Riley, M. W. (1993). Aging in the twenty-first century. *Sociological Practice, 11*(1), 40–52. http://digitalcommons.wayne.edu/socprac/vol11/iss1/6.

Riley, M. W., Foner, A., & Waring, J. (1988). Sociology of age. In N. J. Smelser (Ed.), *Rout of sociology* (pp. 243–290). Sage.

Riley, M. W., Johnson, M., & Foner, A. (1972). Aging and society. In *Volume three: A sociology of age stratification*. Russell Sage: Foundation.

Rowe, J. W., & Kahn, R. L. (1998). *Successful Aging*. New York: Pantheon Books.

Schafer, M. H., & Shippee, T. P. (2010). Age identity, gender, and perceptions of decline: Does feeling older lead to pessimistic dispositions about cognitive aging? *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 65B*(1), 91–96. https://doi.org/10.1093/geronb/gbp046

Settersten, R. A., Jr., & Settersten, R. A., Jr. (2003). Invitation to the life course: The promise. In *Invitation to the life course. Toward new understandings of later life* (pp. 1–14). Baywood Publishing Company.

Settersten, R. A., & Angel, J. L. (2011). Trends in the sociology of aging: Thirty year observations. In R. A. Settersten, Jr., & J. L. Angel (Eds.), *Handbook of sociology of aging* (pp. 3–13). New York: Springer.

Settersten, R. A., & Mayer, K. U. (1997). The measurement of age, age structuring, and the life course. *Annual Review of Sociology, 23*(1), 233–261. https://doi.org/10.1146/annurev.soc.23.1.233

Thorne, B. (2004). Theorizing age and other differences [editorial]. *Childhood: A Global Journal of Child Research, 11*(4), 403–408. https://doi.org/10.1177/0907568204047103

Tulle, E. (2015). Theorising embodiment and ageing. In J. Twigg, & W. Martin (Eds.), *Routledge handbook of cultural gerontology* (pp. 125–132). New York: Routledge.

Tunçer, M. (2024). An intersectional life course approach to explore the narratives of ageing migrant women. *Journal of Aging Studies, 71*. https://doi.org/10.1016/j.jaging.2024.101267

Turner, J. H. (2016). The macro and Meso basis of the Micro social order. In S. Abrutyn (Ed.), *Handbook of sociology and social research* (pp. 123–148). Springer. https://doi.org/10.1007/978-3-319-32250-6_7.

Turner, J. H., & Roberts, A. J. (2023). Fundamental properties of societies. In J. H. Turner, & A. J. Roberts (Eds.), *Inter-societal dynamics* (pp. 1–25). Springer International Publishing. https://doi.org/10.1007/978-3-031-12448-8.

Uhlenberg, P., & Dannefer, D. (2007). Age stratification. In J. E. Birren (Ed.), *Encyclopedia of gerontology* (pp. 49–57). Elsevier. https://doi.org/10.1016/B0-12-370870-2/00008-1.

West, C., & Zimmerman, D. H. (1987). Doing Gender. *Gender and Society, 1*(2), 125–151. https://www.jstor.org/stable/189945.