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COMMENTARY

Silver tsunamis, gray ceilings, and 'the problem of older adults'

Commentary on "Combatting ageism through virtual embodiment? Using explicit and implicit measures" by Ayalon *et al.*

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Despite that numerous studies have shown aging can be a time of personal growth and enrichment, later life is still seen as a time of decline, something to be avoided at all costs – *don't get old, get Botox*, according to popular culture. Indeed, "we are aged by culture" (Gullett, 2004; pp.12), whereby societally, aging is seen as something to be cured, not celebrated. From an early age, we are bombarded with negative media representations of what it means to be 'old', including that with advancing age comes inevitable declines in attractiveness, mental competence, and increases in conservatism, intolerance, and ill-health (Vickers, 2007).

The stereotype that older people are dissatisfied with life is a prevailing myth, since research shows us that older people are more satisfied with their lives than younger people, and their younger selves (Baltes and Carstensen, 1996). Negative stereotypes about aging processes have serious consequences for later life health and wellbeing (Levy *et al.*, 2020).

More than a half century after Butler (1969) first labeled negative attitudes, stereotypes, prejudice, and discrimination directed toward older people 'ageism', societally, negative attitudes toward older people remain prevalent and ageism is no less pervasive (Ayalon, 2020). Ageism can be found in institutions and sections of society, between and even within individuals. According to a recent study, globally, one in two people are found to be ageist against older people (Officer *et al.*, 2020). Therefore, the question remains, 'can we ever truly eradicate ageism?'

Two primary forms of ageist attitudes toward older people are identified in research: hostile ageism and benevolent ageism. Hostile ageist beliefs are more explicit in nature, including attitudes such as, older people are cold, burdensome, and selfish (Cary *et al.*, 2017). Conversely, benevolent ageism involves more paternalistic views of older people such as, they are incompetent, weak, frail and in need of care or protection (Cary *et al.*, 2017). These types of ageist beliefs have been magnified during the COVID-19 pandemic (Bergman *et al.*, 2020).

If a society is measured by how well it cares for its older citizens (WHO, 2019), the COVID-19 pandemic has exposed global societies' failures, inequities and injustices, and provided fertile ground for deep-seated ageist attitudes toward older people to flourish. The COVID-19 crisis exposed pervasive societal ageism in the devaluation and ghettoizing of older people, imposing indefinite self-isolation on older people, irrespective of health status. Media and policy discourses reimagined the COVID-19 crisis as 'an older adult problem'. What we may learn from the 'problem of older adults' narrative, i.e. sacrificing older lives for the sake of economy and greater good (Ayalon, 2020) in the age of the COVID-19 pandemic, is that ageism may have reached epidemic proportions.

Such expressions of hostile ageism, that we should learn to live with the virus, regardless of the lives lost, have become common place during the pandemic. Both mainstream and social media have played pivotal roles in the dissemination of ageist discourses. Two prevailing narratives of older adults are: (i) that older adults are vulnerable and weak and (ii) that older adults present a burden to society (Cohn-Schwartz and Ayalon, 2020). If the COVID-19 crisis has taught us anything new about ageism, it is that we still have a lot to learn.

Media discourses about ageism and COVID-19 deliberately leveraged age and disability to create sensationalist headlines, referring to older people as a threat to economy and other's freedom. Alarmingly, an Australian broadsheet published an article titled "Lives matter but at what cost?", it continued, "Is a person who has lived into their late 70s, 80s or 90s owed the same priority to preserve life as a person in their 20s or 30s who typically has more than 50 years still to live?" Further, Kehoe (2020)

discussed the economic and social costs associated with COVID-19 and implied that older adults were burdensome to the Australian economy and society.

Discrimination based on age, may be directed at younger as well as older adults, older people may be ageist toward younger people. The harmful stereotypes held by one generation about another depicted in media headlines serve to pit younger and older against each other. For example, researchers examined the depictions of older people in 84 Facebook groups set up by young adults (group creators and members all aged <29 years) (Levy *et al.*, 2014). Overwhelmingly these groups encouraged negative stereotypes of older people with group members advocating for banning older people from such daily activities of living as driving and shopping (Levy *et al.*, 2014). Efforts to raise awareness of, and reduce ageist stereotyping and attitudes have largely targeted improving such ageist stereotypes learned in younger adulthood.

The idea of old age is fluid, it not only differs between individuals, but also within an individual. What one considers 'old' in their 20s, will likely differ by their 50s. Yet, we learn from stereotype embodiment theory (Levy, 2009), that if a young adult holds negative views of older age as being a time of inevitable loss and decline, they may not simply grow out of these views. That is, after a lifetime of internalizing negative stereotypes about aging, older people may be deeply ageist toward themselves. Further, studies find that negative self-perceptions of aging tend to be stable over time, adversely affecting health outcomes of older persons, such as noncompliance with prescribed medications (Levy *et al.*, 2020).

Discrimination based on age has been identified in a range of settings, including healthcare and employment. For example, a recent health economics modeling study (Levy *et al.*, 2020) found that discrimination based on age increased healthcare costs in the United States by $63 billion annually. Modelling showed that 17.04 million cases of the eight most expensive health conditions, e.g. cardiovascular disease, mental disorders, chronic respiratory disease etc., could be attributed to ageism (Levy *et al.*, 2020). Negative stereotypes about aging limit the quality of medical treatment that older patients receive, while negative self-perceptions of aging reduce the likelihood that older adults will seek treatment when needed or engage in preventative health behaviors.

A gray ceiling has been identified in employment settings, whereby older workers are denied equal opportunity and treatment (Kossen and Pedersen, 2008). Discrimination based on negative stereotypes that depict older adults as less physically and cognitively able and less motivated to learn than younger adults, can result in reduced opportunities for older people (Kossen and Pedersen, 2008), and deny society the enormous benefits economically and socially of a highly productive and skilled workforce.

Despite decades of research about ageism, and several interventions that have been developed, we still have much to learn about its structures, and how to address its causes to reduce its impact. Efforts to uncover anti-aging sentiments and improve ageist attitudes have included perspective taking approaches. Earlier studies attempted perspective taking by asking participants to merely imagine themselves as older adults. Simulation software, a widely used experimental technique, allows for a more realistic perspective taking experience. The study by Ayalon and colleagues in this issue of *International Psychogeriatrics*, takes a novel approach to understanding and improving attitudes towards older adults using virtual embodiment. Participants ($N = 80$), aged 18–35 years, were randomized to either a younger or older avatar condition, both self- and other-directed ageism was evaluated with measures that tapped implicit and explicit ageism. Findings showed a significant reduction in participants' implicit age biases following exposure to the older avatar, however these significant effects disappeared once multiple comparisons were accounted for. Strengths of this study include the randomization of participants to conditions, where prior research has mostly employed cross-sectional methods. Further, the inclusion of both implicit and explicit measures of ageism addressed the limitations of previous research that has explored virtual embodiment with a single outcome measure (Burnes, *et al.*, 2019) and disparities between unconscious and conscious ageist beliefs (Meissner, *et al.*, 2019).

The virtual embodiment procedure instructed participants to look in the mirror to view themselves as an older or younger avatar, to look closely at his/her face, move different body parts, and move different objects around the room (Ayalon *et al.*, 2022). The avatar's sex was congruent with that of the participant. While the avatar's appearance, which obviously differed according to age condition, was such that the older avatar may have appeared less physically attractive, as noted by authors, this difference reflected typical attitudes toward older people's attractiveness, according to prior research. The authors justly recommend that attractiveness measures may be an important inclusion in further virtual embodiment studies.

Virtual reality as an experimental paradigm and clinical application has become more sophisticated in the past decade. This emerging field might also benefit from advances in 3D technology where creating more photo-realistic human characteristics could mean that participants would see their 'older selves' reflected at them. In the meantime, the

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emotional intensity of the virtual experience of being either the perpetrator or victim of ageism might be manipulated in further studies.

Recent reviews in this journal highlight the use of technology and its applications to mental health interventions among older people. The first, Neal *et al.* (2020) summarise the evidence (to 2018) for the use of computer-based and electronic technologies to enhance meaningful engagement of adults with dementia living in residential aged care. Two broad types of engagement were identified, (i) direct engagement with the device or program, and (ii) technology engagement supported by staff, carers, or residents' family member(s). Technology-based interventions, such as multi-media technologies to aid reminiscence, and robotic pets, promoted meaningful engagement through having something meaningful to do or to care for. The review highlighted the importance of considering individual preference and person-centered principles when designing such interventions for persons living with dementia in residential care. Next, the review by Skurla *et al.* (2022) summarizes current evidence (to 2020) on virtual reality technology to enhance care as a screening and training tool for cognitive impairment in older adults. The review identified, from data from 55 studies, that virtual reality technology has become more sophisticated over the past decade and with advances in technology, virtual reality offers scalable and effective intervention for testing, training, and screening of older adults. These prior studies demonstrate that technological innovations have potential to enhance research and practice for the benefit of older people. Leveraging virtual reality technology may lead to substantial progress in combating ageism.

Our perspectives of aging processes and older people changes according to our own life stage or phase, however the phenomenon of ageism is a longstanding societal issue that impacts all. It is likely that at some point in our lives we will have experienced ageism, either as victim or perpetrator. With an ever-growing proportion of older people across global populations, it is vital that we develop enhanced measurements and novel interventions to improve negative stereotypes and attitudes toward older people for the benefit of the current cohort of younger adults who will in years to come encompass, in ageism lexicon, 'the silver tsunami'.

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