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Do Benevolent and Hostile Expressions of Ageism Really Differ? The Underlying Role of Social Attitudes, Personality, Values, Emotions, and Beliefs

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Abstract

Are individual differences sustaining benevolent and hostile ageism similar or different? Across two studies (*Ns* = 254 and 292), we investigated key individual differences hypothesized to sustain benevolent ageism and hostile expressions of ageism, i.e., hostile ageism and intergenerational tension (consumption, succession, identity): social attitudes, personality, values, emotions, belief flexibility, religiosity, and intergenerational contact. Both benevolent and hostile expressions of ageism denoted typical prejudicial dispositions: high authoritarianism and social dominance, low self-transcendent values, lower belief flexibility, and lower education. Additionally, hostile expressions of ageism reflected indifference and depreciation: lower compassion, agreeableness, and contact with older persons, and highly valuing self-enhancement (power, achievement). Benevolent ageism represented an ambivalent mixture of pity/ compassion, collectivism (tradition, religiosity), and fear (security, death anxiety). Mediational analyses indicated that religiosity's link with conservatism (authoritarianism) can lead to ageism, but religiosity's link with compassion explains religious people's tendency to show benevolent, not hostile ageism.

Keywords: ageism, prejudice, intergroup relations, personality, religion, values, emotions

Do Benevolent and Hostile Expressions of Ageism Really Differ? The Underlying Role of Social Attitudes, Personality, Values, Emotions, and Beliefs

Prejudicial attitudes and behaviors toward older people are increasingly investigated in psychological research (Nelson, 2017) and become an issue of increasing concern given the aging of the world population and ageism's detrimental effects on numerous domains of life (Bae & Choi, 2023). However, from a personality perspective, compared to other prejudices well-studied in psychological research such as racism, ethnoreligious prejudice, sexism, and sexual prejudice, research on the psychological characteristics and predictors of ageism, its different forms, in particular hostile and benevolent ageism, and ageism's possible specificities with respect to other prejudices, has been *thinner* in size. It is also *fragmented*, by focusing each time on few psychological characteristics (see Marques et al., 2020, for a narrative review), or *restricted*, by leaving out key potential predictors. In our knowledge, no study has systematically integrated into the same investigation all key individual differences presumably related to and predicting ageism and its hostile and benevolent forms.

The present work has thus the following aims. First, it investigates and compares psychological characteristics or predictors of expressions of the two major forms of ageism, i.e., the blatant expressions of *hostile* ageism and the subtler expressions of *benevolent* ageism. It mainly focuses on hostile and benevolent ageism (see Cary et al., 2017) but also includes the recent construct of *intergenerational tension*, which identifies three sources of such tension, i.e., succession, consumption, and identity, the two former ones reflecting hostile ageism (North & Fiske, 2017). Second, this investigation integrates a series of psychological characteristics encompassing social attitudes, personality, values, emotions, and beliefs—in addition to personal variables, i.e., intergenerational contact and socio-demographics. Several of these characteristics, such as social attitudes, personality, and values, are typical of prejudice in general whereas

others, such as specific emotions, may be specific to ageism. Finally, the present work includes, as a relevant psychological predictor of ageism, again for the first time in our knowledge, a key belief system, i.e., religiosity, whose role on other forms of prejudice has been widely investigated (Etengoff & Lefevor, 2021; Rowatt & Al-Kire, 2021), but surprisingly not on ageism. We detail below our rationale and develop the corresponding research questions and hypotheses.

Note that the focus of the present work is on ageism in its common acceptance, i.e., the prejudice of young and middle-aged adults toward older adults. Thus, it does not extend to other forms of ageism such as youngism, i.e., older adults' prejudice toward young people (Francioli & North, 2021) or internalized ageism, i.e., older adults' negative perceptions of their age status (Gendron et al., 2024).

Hostile and Benevolent Expressions of Ageism

Ageism can take a blatant, *hostile*, form of depreciation, discrimination, and overt hostility toward older adults. This implies holding negative ageist stereotypes, considering older adults as low in *both* competence and warmth, treating them in overtly negative ways, and causing them active (e.g., verbal abuse) or passive (e.g., neglect) harm (Cary et al., 2017). Alternatively, ageism may be subtler and ambivalent. *Benevolent* ageism may appear as a well-intentioned compassionate attitude by treating older people differently to adjust ourselves to their presumed weaknesses. However, it reflects condescendence and paternalism, based on mixed stereotypes considering older adults as being noncompetent *but* warm (Cuddy et al., 2009). It implies overaccommodation, i.e., showing unwanted help as if older adults deserve assistance regardless of their need, and can be harmful by leading to some social exclusion (Cary et al., 2017).

Other expressions recently investigated deepen our understanding of ageism. North and Fiske (2017) studied three sources of intergenerational tensions and conflict. Older adults are expected to (1) facilitate active *succession* of enviable resources (e.g., ceding wealth and jobs), (2) minimize passive *consumption* of shared assets (e.g., health care and highway space), and (3) avoid symbolic, youth-oriented *identity* activities (e.g., music and clothing). Consequently, older persons are envied and criticized if they do not do so, especially in contexts where younger adults need to strive for jobs and resources. Succession and consumption reflect hostile more than benevolent ageism, whereas identity seems more ambivalent (Lytle & Apriceno, 2023).

Personality and Other Individual Differences Behind Ageism and its Forms

Are psychological characteristics of ageism similar or different with respect to other forms of prejudice? On the one hand, ageist attitudes are related to other prejudices such as racism, sexism, homophobia, or ableism (Aosved & Long, 2006; Gendron et al., 2023). On the other hand, conceptually, ageism presents two distinct features compared to other prejudices. First, ageism refers to an outgroup, i.e., older adults, which younger adults will one day belong to, whereas other forms of prejudice involve groups with dimensions mostly stable across life: gender, race/ethnicity, religion, or majority vs. minority status (Greenberg et al., 2017). Second, compared to prejudices that involve groups of unequal status, the high- vs. low-status group distinction on ageism is ambiguous. Older people may be perceived as disposing of less sexual attractiveness, reproductive power, and physical force (low status), but also of more material resources and life experience (high status) than younger adults. Egalitarian advocacy indeed predicts lower sexism and racism, but higher ageism (Martin & North, 2022).

Are benevolent and hostile expressions of ageism similar or different in terms of their personality and other individual characteristics? On the one hand, conceptually, both benevolent ageism and hostile ageism constitute prejudicial attitudes, and empirically, the two are

interrelated (Cary et al., 2017; Lytle & Apriceno, 2023). Thus, to some degree, one should expect similarities between the two in terms of their personality and other individual characteristics. On the other hand, benevolent ageism is more socially accepted than hostile one (Chasteen et al., 2021; Horhota et al., 2019) and thus is more prevalent (Cherry et al., 2016; Døssing & Crăciun, 2022) and predominant across societies (Cuddy et al., 2009; Fiske, 2017). Thus, benevolent ageism may differ from hostile ageism, due to its compassionate, "protective of the weak", component. The key difference between hostile and benevolent ageism should thus be the absence vs. presence of compassion-like dispositions, beyond the typical prejudicial ones.

Note also that the distinction between benevolent and hostile ageism was found to parallel the distinction between benevolent and hostile sexism (Chu & G Grühn, 2018; Chonody, 2016). Nevertheless, we argue that, beyond some commonalities (both imply a feeling of superiority), benevolent ageism may differ from benevolent sexism. Benevolent sexism denotes paternalistic prejudice against women who are not inferior from men on cognitive competences and other psychological qualities. However, benevolent ageism concerns older adults: several of them may at some point show physical and cognitive weaknesses, and some of them may experience other psychological changes affecting emotional stability, self-esteem, or sense of autonomy. This adds a theoretical plus-value in the present work, since, in people's mind, benevolent ageism may be perceived as a (the) desirable, non-prejudicial attitude toward older people, unlike benevolent sexism which is progressively seen in modern societies as clearly prejudicial.

This work focuses on individual differences behind various expressions of ageism—comparisons with other forms of prejudice will indirectly be inferred in the Discussion. It specifically investigated *social attitudes* (authoritarianism, social dominance), *personality* (big five traits), *values* (as in Schwartz's model), *emotions* (death anxiety, disgust, compassion, pity), *beliefs* (belief flexibility, religiosity), and *personal variables* (intergenerational contact,

education, age, and gender). Many of the above constructs (social attitudes, personality, values) are typical dispositions of prejudice, whereas others, such as death anxiety, death-related disgust, and compassion/pity, may be specific to ageism. Several of the above constructs have been investigated, across studies, in relation to ageism in general. However, systematic research on the role of these constructs distinctly on benevolent and hostile ageist expressions is rather missing, and even less if it is within the same study. Finally, taken as a whole, these constructs, beyond being relevant for studying individual differences underlying prejudice in general and individual differences sustaining ageism in particular, cover the main aspects of the entire spectrum of personality differences broadly speaking. These include personality traits—exerting their role across thinking, feeling, and behaving—as well as cognitive-ideological, emotional, moral, and social aspects. No major dimension of personality differences seems to have been left out.

Social Attitudes, Personality, and Values

Typical predictors of other than ageism forms of prejudice are the social attitudes of *right-wing authoritarianism* (conformity to the ingroup's norms) and *social dominance orientation* (superiority of the ingroup), as well as the personality dispositions for *low openness to experience* (discomfort with new and alternative ideas and experiences) and *low agreeableness*, i.e., low concern for others (Sibley & Duckitt, 2008). Prejudice against outgroups is also motivated by values denoting (1) self-protective *conservation* (security, conformity, tradition) *instead of openness to change* (stimulation, self-direction) welcoming new knowledge, and (2) self-interested *self-enhancement* (power) *instead of self-transcendence* (universalism) implying equality, acceptance of all others, and care for the world (Sagiv et al., 2017). In sum, outgroups are perceived as threatening our personal and social order and status quo and/or our material or symbolic resources. Prejudicial people see distant others as very different, inferior or competitive, and treat them with low consideration for their autonomy, rights, and dignity.

We expected these social attitudes, personality traits, and values to also be related to ageism, especially its hostile expressions. Prejudicial younger and middle-aged adults would perceive older adults as different, uninteresting, inferior, threatening, or competitive, and would treat them with indifference and low consideration. One could counter-argue that traditionalism and respect of authority, included in authoritarianism and the conservation values, could lead to respecting and honoring older people, diminishing thus ageism. However, respect of authority seems to sustain (benevolent) ageism by reinforcing social stereotypes on the traditional, distant roles of old persons perceived as wise and generous but physically and cognitively disadvantaged (Chu & Grühn, 2018), and, collectivist societies do not exhibit lower, but if anything, higher, ageism by promoting this ambivalent image of older people (North & Fiske, 2015).

To our knowledge, no study has examined authoritarianism's role on ageism. Other studies confirmed the role of social dominance (Aosved et al., 2009; Boudjemad & Gana, 2009; Sutter et al., 2022) and low agreeableness and openness to experience (Allan et al., 2014; Galton et al., 2022) on ageism. Self-transcendence values were found to negatively relate to blatant and subtle forms of ageism (Stanciu, 2022), and, inversely, power, but also stimulation, was found to positively relate to ageist attitudes (Fong & Wang, 2023).

Emotions

Ageism is theorized and found to be built on specific emotions: compassion/pity, fear of death, and disgust. For reasons we detail below, we expected (1) *compassion/pity* to relate to and predict lower hostile but higher benevolent expressions of ageism, and (2) *fear of death* and (3) *disgust* to relate to and predict higher ageism across its forms.

First, evidence shows that unambiguous prosocial emotions like empathy or gratitude are related to lower blatant global ageism (Allan et al., 2014; Boudjemad & Gana, 2009; Li et al., 2023). When distinguishing between hostile and benevolent forms of ageism, the pattern is more

complex. Though not focused on prosocial emotions per se but on prosocial behavioral intentions, studies showed that hostile ageism, consumption, and identity predict *fewer* intentions to help older adults, whereas benevolent ageism predicts *greater* helping intentions (Apriceno et al., 2021; Lytle & Apriceno, 2023). Research based on the Stereotype Content Model has clarified that the key emotion behind our ambivalent stereotypes toward groups perceived with condescendence as warm but incompetent (older, women, people with disabilities) is pity (Cuddy et al., 2009). Prosocial behaviors toward older adults were thus found to increase as a function of benevolent ageism (Ma et al., 2024).

Second, evidence favors the idea that old age and possibly associated physical and cognitive limitations activate mortality salience: they signal to middle-aged and younger adults that we are all mortal. Ageism may thus constitute a defense mechanism of avoidance of death-activating stimuli, which translates into physical and psychological distance from older adults or a self-esteem enhancing feeling of superiority by downplaying older persons (Greenberg et al., 2017). Subsequently, fear of death/dying and related fear of aging and disability are positively associated with ageism (e.g., Bergman et al., 2018; Galton et al., 2022).

Finally, sensitivity to disgust, i.e., the emotional reaction of revulsion to something potentially contagious or distasteful, can also explain ageism. We expected this to be the case especially with two disgust facets, i.e., fear of contamination from pathogens, to reduce the probability of infection, and disgust in relation to the death (e.g., avoiding corpses), to accentuate the distinction between humaneness and animality. Initial evidence suggests a positive association between sensitivity to disgust and ageism (Nicol et al., 2021). Furthermore, whereas ambivalent ageism is elicited by pity, two of the three sources of intergenerational conflict, i.e., consumption and identity, are hypothesized to elicit, respectively, disgust or anger (threat to

ingroup resources, property, and reciprocity relations) and fear of contamination, if identity borders are violated (North & Fiske, 2017).

Beliefs

Social attitudes, personality, values, and emotions may not be sufficient to fully explain ageism. Specific beliefs and belief flexibility may add to our understanding of ageism. In this subsection, we examine belief flexibility (assessed as existential quest) and religiosity.

Belief Flexibility. Belief flexibility, i.e., the readiness to consider alternative to our own beliefs and worldviews, is needed to capture the ambivalent paternalistic nature of benevolent ageism and the problematic nature of hostile ageism given that we will all become old one day. We focused here on the construct of existential quest, i.e., the flexibility in one's own existential beliefs and worldviews by questioning, valuing doubt on, and being open to change them (Van Pachterbeke et al., 2012). Existential questers are not self-centered. They show readiness for perspective taking, flexibility regarding ingroup essentialist identities, and low dogmatism; and subsequently, high intellectual humility, empathy, and altruism and low conformism to ingroup's norms (authoritarianism) and ethnoreligious prejudice (Saroglou, 2024, for review).

We thus expected younger and middle-aged adults who are high in existential quest to show lower ageist attitudes (both forms) given their readiness to relativize their own norms, ideas, and identities and thus possibly the ones of their age ingroup. Indirect evidence comes from two studies showing that ageist attitudes are higher among younger adults who need epistemic closure, i.e., answers instead of leaving the questions open (Sun et al., 2016), or hold essentialist beliefs about cognitive aging—consider that cognitive decline is an inevitable outcome of aging (Hiu & Rabinovich, 2021).

Religion. Religiosity typically implies prejudice toward moral outgroups (e.g., sexual minorities), ideological opponents (atheists), and women, and often prejudice toward ethnic and

religious outgroups (Etengoff & Lefevor, 2021; Rowatt & Al-Kire, 2021). The religion-prejudice link is partly explained by sociomoral conservatism (right-wing authoritarianism) and low flexibility, i.e., high need for closure or low existential quest (Saroglou et al., 2022). Given research also confirming a positive role of religion on (ingroup) prosociality (Saroglou, 2013), this situation is known as the "religious paradox": religion implies both prejudice—toward outgroups, and prosociality—toward ingroups. Therefore, the question arises: Does religiosity predict higher or lower ageism? Are both forms of ageism concerned?

We suspect religiosity to entertain complex relationships with ageism because of religiosity's tendency to sustain both care and prejudicial conservatism. On the one hand, religiosity is associated with sociomoral conservatism and conformity to ingroup's norms (right-wing authoritarianism, values of conservation), lower existential quest, and lower endorsement of openness to change values (Saroglou et al., 2020, 2004). For these reasons, religiosity should be associated with ageist prejudicial attitudes. On the other hand, across cultures, religious ideals and norms include honoring of, and care for, old parents, ancestors, and older persons in general (Bodner, 2017), and valorization of intergenerational relationships (King, 2010). Furthermore, religiosity implies compassion and care for those in need—if they are not members of a "threatening" outgroup (Sabato & Kogut, 2018; Saroglou, 2013). It is also unrelated to explicit hostile and self-centered attitudes and values such as social dominance (de Regt, 2013) and self-expansion values (power; Saroglou et al., 2004).

We thus expected, at first glance, religiosity, through conservatism and conformity to the ingroup's norms, as well as low flexibility, to facilitate ageism, i.e., younger adults' perception and treatment of older adults as being different, belonging to a group distant from their own, and thus as not strictly equal. However, through compassion, pity, and intergenerational contact,

religiosity should facilitate benevolent ageism, i.e., younger adults' paternalistic respect and care for older adults, and not encourage blatant, non-compassionate, hostile ageism.

Personal Variables

Intergenerational contact, especially its quality (Burnes et al., 2019), and higher education level (Burnes et al., 2019; Nunes et al., 2018; but see Stypinska & Turek, 2017), tend to diminish ageist stereotypes, attitudes, and behaviors. Furthermore, ageist attitudes are often found to be higher in younger adults (Bae & Choi, 2023; Marques et al., 2020) and in men (Marques et al., 2020), with women, seemingly endorse positive ageist stereotypes more than men (Cherry et al., 2016). Therefore, we measured frequency and quality of intergenerational contact and controlled in the analyses for the effects of education, age, and gender.

Overview of Studies

We investigated the above questions through two studies with independent data collections from the same general population, i.e., younger and middle-aged adults in Belgium. Some variables were uniquely investigated in Study 1 or in Study 2, but most of the key variables were measured in both studies, Study 2's aim being mainly to replicate and solidify the findings of Study 1. This allowed us, in a next step, to merge the data from the two studies and carry out (1) regression analyses of benevolent ageism and hostile ageism on the relevant predictors to identify their unique role beyond possible interrelations between them, and (2) mediational analyses to investigate the hypothesized two pathways from religiosity to benevolent and hostile ageism through compassion and authoritarianism.

Study 1

Method

Procedure and Participants

Participants were recruited through social media (convenience sample) and completed the survey online. Following a prior power analysis with G* Power (with α =.05; 1-β =.80), the necessary sample size to detect lower to medium effects in regression models with 10 predictors was at least N = 242. After the exclusion of participants who filled in less than 70% of the protocol, filled it in an unrealistic low time, or were older than 60 years, the total sample was composed of 254 adults, aged from 18 to 60 (M = 29.43, SD = 11.21). Almost all (96.5%) participants lived in the study's country/region (Belgium) and the few remaining ones in France, Luxembourg, and Canada. They were mostly women (217), had mostly attended higher education (66.5%), and were students (49.2%) or professionally active (44.1%), with few ones being unemployed (5.1%) or retired (1.6%). They reported being Catholic or (other) Christian (32.1%), atheist (31.1%), agnostic (18.5%), Muslim (11%), Buddhist (1.6%) or "other" (3.5%). The study has received approval from the Ethics Committee of the authors' Research Institute. Participants provided their informed consent online before starting the survey. The study was not pre-registered. All data, analysis code, and the research protocol (for both Studies 1 and 2) are available at https://osf.io/u9mhk/?view_only=3fab1552e86043d3bbf82b300c595c0a.

Measures

Except if specified otherwise, across measures, 7-point Likert scales were adopted.

Ageism. We administered the *Ambivalent Ageism Scale* (Cary et al., 2017) measuring *benevolent ageism* and *hostile ageism* (nine and four items). Sample items are: "It is good to speak slowly to old people because it may take them a while to understand things that are said to them" (benevolent) and "Old people are too easily offended" (hostile). Respective reliabilities in our data were satisfactory, αs = .83 and .67.

We also administered the *Intergenerational-Tension Ageism Scale* (North & Fiske, 2013). This scale assesses prescriptive beliefs concerning three kinds of potential intergenerational tensions between younger and older adults regarding (1) passive, shared-resource *consumption*, (2) active, envied resource *succession*, and (3) symbolic *identity* avoidance. These constructs were measured by, respectively, seven, eight, and five items (respective αs = .71, .81, and .81). We did not retain one Consumption item referring specifically to a US association. Sample items are: "Doctors spend too much time treating sick older people" (consumption), "Most older people don't know when to make way for younger people" (succession), and "Older people typically shouldn't go to places where younger people hang out" (identity).

Social Attitudes, Personality, and Values. Participants were administered Funke's (2005) *Authoritarianism Scale* (11 items) capturing the three aspects of the construct—conventionalism, submission, and aggression, and the brief new *Social Dominance Orientation 7 Scale* (Ho et al., 2015) measuring individual differences in the preference for group-based hierarchy and dominance (four items) and inequality (four items). Sample items are "The real keys to the 'good life' are obedience, discipline, and virtue" (authoritarianism) and "Some groups of people are simply inferior to other groups" (social dominance), Respective αs = .76 and .80.

We also measured the *big five personality traits*, i.e., extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (*Ten Item Personality Inventory;* Gosling et al., 2003). The *ten values* as in Schwartz's model (power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, security) were measured through the 21-item Portrait Values Questionnaire (6-point scales) developed for the European Social Survey (Bilsky et al., 2010; Cieciuch et al., 2018). Though these two measures are largely used worldwide, each of the five traits and the ten values is measured only by two

items. Reliabilities (Spearman-Brown; see Eisinga et al., 2013) were respectively (see above for the order of variables) as follows: .68, .10, .42, .63, .34 (personality traits), .53, .74., 71, .66, .33, .36, .58, .17, .48, and .48 (values). Therefore, results with agreeableness and tradition should be considered with caution.

Emotions. We assessed *death anxiety*, *compassion*, and *pity toward old persons*. For compassion we used the 5-item *Compassion subscale* of the *Dispositional Positive Emotions scales* (Shiota et al., 2006; $\alpha = .81$). Death anxiety was measured through the 20-item *Death Anxiety Inventory* (Tomás-Sábado & Gómez-Benito, 2005; 6-point Likert scale)—to avoid repetition, two items were not retained. An exploratory factor analysis with varimax rotation indicated, after asking for the extraction of two factors, two dimensions: a main factor of general anxiety about one's own death (14 items) and a factor referring to fear/disgust of corpses and cemeteries (four items), with 48% of the total variance being explained (see also Tomás-Sábado & Gómez-Benito, 2005). We thus computed two distinct scores, one for *death anxiety-dying* and the other for *death anxiety-disgust*, by averaging the scores on the respective by factor items (αs = .90. and .73). Finally, we assessed *pity toward old persons* through one question: "To what extent do the old-aged people make you feel pity"?

Beliefs. To measure belief flexibility, we administered the *Existential Quest Scale* (Van Pachterbeke et al., 2011), which assesses individual differences on the flexibility in one's own existential beliefs and worldviews by questioning, valuing doubt on, and being open to change them (seven items—we did not include two additional items referring to attitudes about religion). A sample item is: "In my opinion, doubt is important in existential questions" (α=.74). *Religiosity* was measured through a widely used index composed of three items: importance of God, importance of religion in one's own life, frequency of prayer (Saroglou et al., 2020; $\alpha = .95$). (We

also used a one-item index of spirituality which turned out to be unrelated to the variables of interest and we will thus not report below results for the economy of the presentation).

Contact with Older Persons. Participants' intergenerational contact with older people was assessed by adapting to older people seven items from the *General Intergroup Contact Quantity and Contact Quality Scale* (Islam & Hewstone, 1993) that refer to outgroups in general. Two questions measured *frequency of contact*: "In general, do you engage in informal conservations with old-aged people?" and "Do you meet regularly old-aged people at their homes?" (answers ranging from 1-*not at all* to 5-*very often*). Five other questions assessed the *quality of contact*: "To what extent do you experience the contact with old-aged people as (1) equal vs. not, (2) voluntary vs. involuntary, (3) superficial vs. intimate, (4) pleasant vs. not, and (5) cooperative vs. competitive?" (7-pount Likert scales). Cronbach's alphas were .69 (frequency) and .81 (quality). We also asked participants questions related to their relationships with their grandparents but did not retain these questions in the analyses because of insufficient reliability.

Results

Means and standard deviations for all variables are presented in Table 1. Correlational results are presented in Table 2.

Forms of Ageism

An exploratory, principal component analysis, with oblimin rotation and asking for extraction of two factors, confirmed the distinctiveness between benevolent and hostile ageism items (total variance explained = 48%; only one benevolent ageism item had a slightly higher loading to the hostile factor). A similar analysis on the items of the Intergenerational Tension Scale, by asking for the extraction of three factors, confirmed the correspondence between items and respective facets (total variance explained = 49%; only one succession item had similar loadings to the three factors).

Participants scored low, i.e., under the median, on all five ageism indicators: benevolent and hostile ageism, consumption, succession, and identity (Table 1). They reported less hostile than benevolent ageism, $F(1,253) = 24.39$, $p < .001$. These two forms of ageism were interrelated, yet distinct (Table 2). All three kinds of intergenerational tension were positively related to both forms of ageism, but, for consumption and succession, the correlations were stronger with hostile compared to benevolent ageism (Table 2), respective *zs* = 4.65 and 3.71, *ps* < .001. Consumption and succession were importantly interrelated, $r = .52$, whereas identity was moderately related to the other two, *rs* = .36, all *ps* < .001. Succession was a greater source of intergenerational conflict compared to consumption, $F(1,253) = 180.61$, $p < .001$, and identity was weaker compared to consumption, $F(1,253) = 109.53$, $p < .001$ (Table 1, for the means).

Correlates of Ageism

As detailed in Table 2, all five indicators of ageism were positively related to pity toward older adults and negatively related to quality of intergenerational contact, gender (being woman), and the values of universalism and benevolence. In addition, hostile ageism and the three kinds of intergenerational tension were related to lower education. Except for succession, all indicators of ageism were positively related to authoritarianism and social dominance; and both forms of ageism, as well as identity, were negatively related to existential quest.

Other correlations seemed more specific. We distinguish two series of results. First, lower compassion and highly valuing power were related to hostile ageism, consumption, and succession—the latter two were also related to highly valuing achievement. Consumption was, in addition, related to lower frequency of contact; hostile ageism and succession were higher among younger participants; and hostile ageism was related to lower agreeableness, whereas succession was related to lower extraversion and conscientiousness and higher neuroticism. Second, benevolent ageism was positively associated with anxiety about dying, fear/disgust of the dead,

highly valuing security, and, together with identity, the only indicator of ageism to reflect high conformity, religiosity. Variables denoting higher vs. lower autonomy (conformity, openness to experience, openness to change values) did not show a significant association with any indicator of ageism. Finally, repeating the above analyses as in Table 2, but controlling for age and gender, provided, with very few exceptions, similar results.

Discussion

Study 1 indicated both similarity and distinctiveness, in terms of mean levels, interrelations, and correlates, between benevolent and hostile ageism, and between the three sources of intergenerational conflict. The latter three were related to both forms of ageism, but consumption and succession seemed more strongly denoting hostile ageism (see also Lytle & Apriceno, 2023). Participants were low on ageism, with benevolent ageism being slightly more present (see also Cherry et al., 2016; Døssing & Crăciun, 2022).

Most of the hypothesized links were confirmed for ageism in general or for certain ageist attitudes. First, higher ageism across all or almost all (four out of five) expressions was related to social attitudes denoting conservatism, conformity, and inequality (authoritarianism, social dominance), uniformed and inflexible ideas (lower education and existential quest), masculinity (being a man), low motivation for self-transcendence (low universalism and benevolence), feeling pity toward old persons, and negatively valanced intergenerational contact.

Second, blatant, hostile ageist attitudes (hostile ageism, succession, and consumption) were uniquely characteristic of self-interest-oriented, low prosocial people highly valuing power, being low in agreeableness, and feeling low compassion. Succession, the strongest source of intergenerational conflict, did not seem to reflect the typical socio-cognitive prejudicial attitudes (authoritarianism, social dominance, low existential quest), but alone, compared to the other ageist attitudes, reflected low positive personality in general (low extraversion and

conscientiousness and high neuroticism), younger age, and valuing personal success. Finally, being religious and feeling emotions of fear (fear of dying, disgust of death, and valuing security) seemed to lead to benevolent, but not hostile, ageism.

Study 2

Given the exploratory nature of Study 1, Study 2 aimed to replicate and solidify the main findings of Study 1 on benevolent and hostile ageism. It also introduced death- and pathogen-related disgust sensitivity as an additional psychological characteristic of ageism and measured the emotion of pity in broader terms (see Introduction for the rationale regarding these constructs).

Method

Procedure and Participants

Participants were recruited through social media (convenience sample) and completed the survey online. After the exclusion of participants who filled in less than 70% of the protocol, were older than 60 years, or answered incorrectly to an attention check question, the final sample was composed of 292 adults, aged from 18 to 60 (M = 31.51, SD = 13.04). Most participants (77.4%) lived in the study's country (Belgium) with the remaining ones living in France (21%), and five people in other countries. Women and men were respectively 207 and 81—four participants reported "other". Participants provided their informed consent online before starting the survey.

Measures

Benevolent and *hostile ageism*, *authoritarianism, social dominance orientation, existential quest, compassion, religiosity*, and *intergenerational contact frequency* and *quality* were measured as in Study 1 (respective αs in Study 2 = .78, 76, .81, .85, .71, .84, .and 93).

Schwartz's *values* were also measured (7-point Likert scales). Four items were added to the contact quality measure, assessing the experience, in the contact, of "positive vs. negative feeling", "friendship vs. hostility", "trust vs. distrust", and "respect vs. disrespect" ($\alpha = .89$). (We also measured ageist stereotypes but did not include the analyses in the manuscript to respect its length limits).

For *death anxiety*, we used four items from the Tomás-Sábado and Gómez-Benito's (2005) Inventory (Study 1) belonging to the main factor of anxiety about one's own death ($\alpha = .86$). We measured *pity as a general emotion* toward people in need and not as specifically addressed to older persons (Study 1) through three items: (1) "Homeless people, (2) Jobless people, and (3) Young people who fail at the University make me feel pity" ($\alpha = .70$). We assessed *death-related disgust*, which refers to corpses, and *pathogen disgust*, aiming to disease avoidance, through the respective subscales of the *5-Factor Disgust Scale* (Eickmeier et al., 2019)—respectively, five and six items, αs = .81 and .82. Examples are: "Touching a skull" (death-related disgust) and "Standing close to a person who has body odor" (pathogen disgust).

Results

Means and standard deviations for all variables are presented in Table 1. Results of correlational analyses are presented in Table 3.

Forms of Ageism

An exploratory factor analysis, with oblimin rotation and request for extraction of two factors, confirmed the distinctiveness between benevolent and hostile ageism items (total variance explained = 46%). Participants scored low, i.e., under the median, on both benevolent and hostile ageism and reported more benevolent ageism than hostile ageism, $F(1,291) = 148.09$, $p < .001$ (Table 1). The two forms of ageism were interrelated, yet distinct (Table 3).

Correlates of Ageism

As detailed in Table 3, both benevolent and hostile ageism were related to authoritarianism and social dominance, valuing conformity, weakly valuing universalism and self-direction, and finally low education. Benevolent ageism was additionally related to religiosity and valuing tradition and conformity. Hostile ageism was additionally related to low compassion and benevolence, low frequency and quality of intergenerational contact, younger age, and highly valuing self-enhancement values (power and achievement), but weakly valuing hedonism. These results mostly persisted when controlling for age and gender.

Discussion

Study 2 fully replicated Study 1, regarding benevolent and hostile ageism, in terms of mean levels, interrelation, and predominance of the former form. It also well replicated: (1) the role of authoritarianism (extended here also to the value of conformity), social dominance, low universalism (extended here to low self-direction), and lower education on both forms of ageism; (2) the role of religiosity (extended here to the value of tradition) and the value of security on uniquely benevolent ageism; and (3) the role of power and lower compassion (extended here to low benevolence) on uniquely hostile ageism. Furthermore, in line with the hypotheses, disgust related to death, low hedonism, and younger age were characteristic of hostile ageism. Nevertheless, unlike in Study 1, no significant associations were found between ageist expressions and existential quest, (general) pity, fear of dying, disgust of pathogens, and gender, but we avoid proposing here speculative interpretations on these null findings.

Additional Analyses on the Merged Data

Given that Study 2 mostly replicated Study 1, we merged in a next step the data from the two studies to examine additional questions in a larger sample (total $N = 542$). These included first the detection, in multiple regressions, of distinct and unique predictors of each of the two

forms of ageism, controlling for the possible overlap between ageism's correlates and for the role of sociodemographic variables. Second, we investigated whether religiosity's diverging characteristics, i.e., authoritarianism and compassion, explain, in mediation models, religiosity's null relationship with hostile ageism and positive one with benevolent ageism. Finally, given that the total sample was composed by 423 women and 119 men (four participants reporting "other"), we exploratorily examined whether ageism's correlates were present to both men and women, what was indeed true in most cases (see Supplementary Material Table S3).

We included for the analyses the following variables common in Studies 1 and 2: benevolent and hostile ageism, authoritarianism, social dominance, existential quest, compassion, quality (same five items in the two studies) and frequency of intergeneration contact, death anxiety (dying), disgust related to death, religiosity, and values. For death anxiety (dying), disgust related to death, and the ten values, Study's 2 scores were adapted from a 7-point scale to a 6-point scale to match with the scores in Study 1. For death anxiety/disgust, we integrated into one variable, *death anxiety about dying*, the scores for this factor in Study 1 and Study 2, and into a second variable, *disgust related to death,* the scores of anxiety about/disgust of the dead (Study 1) and disgust related to death (Study 2). To avoid multicollinearity's possible undesirable effects in the regressions, we also computed four global scores reflecting the four poles of the ten values, by averaging each time the respective values. These included values of (1) *self-transcendence* (universalism, benevolence; $\alpha = .55$), (2) *conservation* (tradition, conformity, security; $\alpha = .58$), (3) *self-enhancement* (power, achievement; $\alpha = .73$), and (4) *openness to change* (self-direction, stimulation, hedonism; $\alpha = .68$).

Results

Regressions of Benevolent and Hostile Ageism on Significant Correlates

Table 4 details correlations of benevolent and hostile ageism for the merged data. Both forms of ageism were related to high authoritarianism and social dominance, low existential quest, valuing weakly benevolence and universalism, as well as lower education and being a man. Other correlations were more specific to the form of ageism. Benevolent ageists tended to be religious, value security, and report sensitivity to disgust of the death/dead. Hostile ageists tend to be younger, lower in compassion, have infrequent and low-quality contact with aged people, highly value conformity and weakly value openness to change values, and highly value self-enhancement values, i.e., power and achievement.

Several significant correlates were interrelated with each other (see Supplementary Material Table S4). To better identify unique predictors of benevolent ageism and hostile ageism beyond the interrelations between the predictors, we computed two hierarchical multiple regressions, one for each type of ageism. In each of them, we included as predictors in Step 1 the significant psychological correlates, and added, in Step 2, age, gender, and education level. To avoid undesirable effects of multicollinearity, for the regression of benevolent ageism, we included as predictor the global score of self-transcendence values. For the regression of hostile ageism, where both self-transcendence and self-enhancement values seemed to play a role, we included as predictor a more global construct, i.e., the axis of self-enhancement vs. self-transcendence values ($\alpha = .60$). This was computed as the aggregate of self-enhancement values and the inverted score of self-transcendence values. We did not include frequency and quality of intergenerational contact because, even this would have increased the explained variance, these variables cannot be considered as distal predictors—they are conceptually too proximal to the outcomes.

As detailed in Table 5, *benevolent ageism* was a function, uniquely and additively, of high authoritarianism, 95%CIs as in Step 1 [0.16/0.37], social dominance [0.03/0.21], security [0.04/0.23], and disgust related to death [significantly in Step 2: 0.02/0.15], as well as high compassion [0.07/0.27] and religiosity [0.00/0.09], but also weakly valuing self-transcendence values [-0.51/-0.13]. All these effects persisted in Step 2 (marginally significantly for religiosity) beyond the role of gender (being male) [0.26/0.66] and low education [-0.34/0.00]. *Hostile ageism* was also a function of authoritarianism, 95%CIs as in Step 1 [0.01/0.23], social dominance [0.00/0.23], disgust related to death [0.00/0.14], and self-expansion over self-transcendence values [0.20/0.53]. All these effects persisted (marginally significantly for social dominance) in Step 2, beyond the role of being male [0.07/0.50] and low education [-0.50/-0.13].

Mediations of the Religiosity-Ageism Links

As seen above, religiosity was related to benevolent ageism but unrelated to hostile ageism. Furthermore, it was associated with high authoritarianism (Supplementary Material Table S4), which predicted increased benevolent and hostile ageism. However, religiosity was also associated with compassion, which was related to and/or predicted increased benevolent ageism but decreased hostile ageism. We thus investigated the role of the above two variables on, at least partly, explaining religiosity's effect on increased benevolent ageism and null effect on hostile ageism.

We tested two mediational models, with religiosity leading to benevolent (first model: Figure 1 top) and hostile (second model: Figure 1 bottom) ageism through authoritarianism and compassion. We used a multiple/parallel mediation model estimated by the SPSS PROCESS macro (Hayes, 2013). The indirect effects of religiosity on ageism via authoritarianism and compassion were estimated using a bootstrapping approach ($N = 5000$). Using the Monte Carlo power analysis for indirect effects (Schoemann et al., 2017) and estimating medium effect size

associations of authoritarianism with both religiosity and ageism and small effect size associations of compassion with both religiosity and ageism (the direct association between religiosity and ageism being also of small effect size), the minimum necessary sample size for the mediation analyses was 460. The results of the mediation analysis are presented in Table 6 and include the bootstrapped estimates and 95% bias corrected confidence intervals (CI) for the total, direct, and indirect effects of religiosity on ageism. Age, gender, and education level were included as covariates.

As detailed in Figure 1 (top), religiosity was positively associated with authoritarianism and compassion. In turn, authoritarianism and compassion were significantly associated with increased benevolent ageism. The total and indirect effect of religiosity on increased benevolent ageism were significant and the direct effect was not significant (Table 6), what implies full mediation (Baron & Kenny, 1986). In addition, as detailed in Figure 1 (bottom), authoritarianism was again a significant predictor of increased hostile ageism, but compassion this time had an opposite effect, i.e., predicted decreased hostile ageism. The total, direct, and indirect effects of religiosity on hostile ageism were not significant (Table 6).

Discussion

These analyses extended Studies 1 and 2 in two ways. First, the regression analyses solidified the importance and specificity of psychological characteristics in predicting ageism beyond some overlap between ageism's correlates and the role of age (nonsignificant), gender (being a man), and lower education. Authoritarianism, social dominance, death-related disgust, and privileging self-enhancement over self-transcendence values uniquely and additively predicted ageism across its two forms. In addition, compassion, security, and religiosity uniquely predicted benevolent ageism. Existential quest lost its unique predictive power, possibly because of some overlap with other predictors (see Table 5). Note that the use of structural equation

modeling in future research could provide additional information (e.g., latent variables, causal inferences). Second, the mediational analyses showed the hypothesized specifics of religiosity: the combination of compassion with traditionalism-conformity (authoritarianism) makes religious people prone to express benevolent, compassionate ageism, and prevents them from being hostile, non-compassionate, ageists.

General Discussion

Across two studies and further analyses on the combined larger data, consistent and meaningful evidence was found suggesting that younger and middle-aged adults' prejudicial attitudes toward older adults is a complex phenomenon involving a large number and various kinds of individual differences: social attitudes, personality, values, emotions, beliefs, and personal variables. These individual differences were investigated with respect to various aspects/forms of ageism, organized under two categories: *blatant ageism*, i.e., hostile ageism, but also succession and consumption as two sources of intergenerational conflict, and *subtle ageism*, i.e., benevolent ageism and identity as a source of intergenerational conflict.

Furthermore, the regression analyses suggested that social attitudes, emotions, values, beliefs, education, and gender are all uniquely and additively contributing to explain individual differences on ageism. The uniqueness of these effects suggests that ageism should be conceived as an outcome of socio-cognitive, emotional, moral, and ideological dispositions. No single explanation of ageism and unique theoretical perspective seems thus sufficient. Such valuable perspectives, but insufficient if taken alone, are, for instance, the ones considering ageism as a reactive attitude against fear of death (Greenberg et al., 2017), as one among other forms of prejudice (Aosved et al., 2009), or as a prejudice belonging to a broader, pity-based, category of attitudes toward groups perceived as weak (Cuddy et al., 2009).

Understanding Ageism and Its Forms

Ageism Across Forms and Specifics of Hostile Ageism

Across the studies and beyond some inconsistencies in the significance of an effect, converging evidence was provided on ageism in general, and on blatant/hostile and subtle/benevolent forms of ageism in particular. A*geism in general*, across its forms, and like other forms of prejudice, reflects (1) social attitudes denoting sociomoral conservatism, ingroup conformity, and group superiority (authoritarianism, social dominance), (2) knowledge limitations and belief inflexibility (low education and low existential quest), (3) low adherence to tolerance-oriented self-transcendent values, in particular universalism, and (4) experience of low intergroup (intergenerational) contact quality. Furthermore, compared to other types of prejudice, it appeared that ageism is specifically based on (5) the condescending emotion of pity toward the old persons and (6) the emotion of fear/disgust related to death (people and places). All the above hold beyond some role of gender, (7) ageism being higher among men.

Furthermore, *hostile, not benevolent* expressions of ageism are characteristic of younger and middle-aged adults showing some (8) meanness, i.e., are low in agreeableness and do not frequently experience compassion, and (9) have self-interested motives in life as translated into values of self-enhancement, mainly power, but also achievement. These two values seemed to also sustain two sources of intergenerational conflict: active succession of enviable resources and passive consumption of shared assets.

Specifics of Benevolent Expressions of Ageism and the Role of Religiosity

Benevolent, not hostile, expressions of ageism were more present among younger and middle-aged adults who tend to be (10) fearful about dying and/or about their security, (11) attached to tradition, (12) higher in religiosity, and (13) frequently experiencing compassion. Taken together, these findings suggest that people with a traditional, collectivistic perception of older adults as people in need, to honor and care for, a perception emphasized in various religious

traditions, tend to demonstrate benevolent ageism. This form of ambivalent ageism seems to be emotionally aroused by compassionate dispositions and/or by fear of dying. Thus, paternalistic care of older adults may constitute a reciprocity strategy to cope with fear of one's own aging and death: several cultures prone the idea that the way individuals treat own parents predicts the way they will be treated once in old age.

Regarding religiosity in particular, the mediational analyses showed that, though authoritarianism can make religious people prone for ageism, compassion leads them toward benevolent ageism and prevents them from becoming hostile ageists. These results extend past research. For instance, religious priming activates benevolent, but not necessarily hostile, sexism (Haggard et al., 2018). Religious people tend to be politically orientated toward the right-wing but prosocial values prevent them from voting for extreme right-wing parties (Arzheimer & Carter, 2009) and insist to help a person in need even if this person refuses (Batson et al., 1993), a phenomenon of overaccommodation typical of benevolent ageism.

Interestingly, religiosity and valuing tradition were also positively correlated with identity, which emphasizes cantonment of older adults in their own space and place in society, but not with the two other sources of intergenerational tension, i.e., consumption and succession, which reflected hostile ageism. In fact, religion emphasizes distinctiveness within a vertical, hierarchical, sociomoral positioning between different categories of beings (Brandt & Renya, 2011). Such hierarchy may also apply to age groups, subtly leading to marginalization of older adults perceived as very different and of unequal status.

Limitations, Generalizability Issues, and Further Questions

Some variables were measured with few items; the effect size may have been different, possibly stronger, if more extended measures and of higher reliability were used. Men were underrepresented in Studies 1 and 2; nevertheless, no major gender differences were identified. A

trivial, for cross-sectional correlational data, limitation is non-causality in the found associations. However, if we conceive ageism as a social attitude regarding a very specific domain, most variables included in the regressions can be considered as more basic psychological dispositions and thus as legitimate predictors. Furthermore, social desirability may be related to reporting low ageism, especially hostile one, with benevolent ageism being more socially acceptable (Cherry et al., 2016; Døssing & Crăciun, 2022). Therefore, and given that the means of ageism measures were under the median in the present work, future research should investigate whether the findings of the present work equally or more strongly apply when more implicit and behavioral measures of ageism are adopted.

The studies were carried out in a country with its own history and mix of individualistic and collectivistic, family-oriented, values. In principle, Belgium being a typical Western secularized country of Catholic tradition, the results may generalize more broadly. Nevertheless, some effects may be different in societies that are more individualistic or more collectivistic than Belgium. Non-monotheistic religions differ from monotheistic ones on age-related beliefs and values; some cross-cultural differences on ageism are documented (Bodner, 2017).

A question worthy of investigation is how to distinguish between benevolent ageism and authentic prosocial caring of older adults who are in need. Avoiding overaccommodation (insisting on helping even if the target affirms no need) typical of benevolent ageism is precious but may not be easy to implement: possible real, even if stereotypical, physical and cognitive weaknesses of (several) older people may raise doubt on the accuracy of their affirmations. Furthermore, distinguishing between altruistic, empathy-based, other-oriented prosocial behavior, here toward older people, and self-centered motives of this prosocial behavior because of reputation concerns, fear of own aging/dying, or reciprocity calculus (“I care for them now, somebody will care one day for me”), is not easy to implement in practice and has not been easy

to delimitate in psychological research. In the present work, both condescending pity and authentic compassion were positively associated with benevolent ageism.

Finally, men's paternalism in benevolent sexism can be easily conceived as fully prejudicial and disrespectful since there exist no notable gender differences in cognitive abilities and personality and other psychological characteristics. This is, however, not the case for several old adults who may face real difficulties in physical, cognitive, and other psychological abilities and skills. Much theorization and research may be helpful to better operationalize and investigate the differences between benevolent ageism and authentic, fully respectful care for older people.

Conclusion

This work confirms that, from a personality and individual differences perspective, ageism should be treated as a partly distinct type of prejudice. Like for other forms of prejudice based on ethnicity/race, religion, gender, sexual orientation (mostly stable across life between-group differences), ageism, be it in its blatant or subtle forms, is higher among younger adults characterized by traditionalism/ingroup conformity, ideology favoring group hierarchy, self-enhancement at the detriment of others, and, to some extent, lower education. However, ageism specifically, as implying attitudes toward an outgroup to which one day younger adults will belong, approaching thus the perspective of their own death, is, in addition, characteristic of people feeling death-related anxiety and disgust—ageism seems to serve as an avoidance defense attitude. Nevertheless, among the above ageists, those with high compassion, including religious individuals, avoid blatant forms and express their age-related prejudice in a benevolent way. A key implication of these findings is that benevolent ageism clearly constitutes prejudice and that, logically, truly respectful and caring interactions of younger adults with older people presuppose compassionate non-prejudicial dispositions. This seems of importance for communities and settings involving such interactions.

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Table 1

Descriptive Statistics of Ageism Variables and their Hypothesized Correlates

		Study 1		Study 2	
	Variables	*M*	*SD*	*M*	*SD*
Ageism	Benevolent	2.83	1.11	3.34	0.89
	Hostile	2.46	1.10	2.56	1.05
Intergener. tension	Consumption	2.27	0.97		
	Succession	3.14	1.14		
	Identity	1.56	0.92		
Hypoth. correlates	RW authoritarianism	3.14	0.91	3.23	0.89
	Social dominance	2.22	1.00	2.49	1.03
	Existential quest	5.24	1.02	5.42	0.75
	Compassion	5.86	0.94	5.89	0.81
	Pity tow. old adults	3.79	1.75		
	Pity (general)			4.22	1.18
	Death anxiety	2.73	1.13	3.22	1.62
	Disgust: death	3.09	1.31	3.29	1.43
	Disgust: pathogen			4.77	1.13
	Intergen. contact: frequency	3.15	1.17	2.85	0.98
	Intergen. contact: quality	5.24	1.18	5.20	0.90
	Religiosity	2.61	2.13	2.21	1.68
	Personality				
	Extraversion	3.79	1.51		
	Agreeableness	5.41	0.94		
	Conscientiousness	5.42	1.10		
	Neuroticism	4.15	1.53		
	Openness to experience	4.99	1.22		
	Values				
	Universalism	0.77	0.70	0.81	0.55
	Benevolence	1.15	0.71	0.96	0.53
	Tradition	-0.31	1.08	-0.50	0.93
	Conformity	-0.78	1.04	-0.80	0.93
	Security	-0.02	1.01	0.25	0.74
	Power	-1.26	1.05	-1.38	0.93
	Achievement	-0.39	1.12	-0.58	1.01
	Hedonism	0.54	0.92	0.59	0.63
	Stimulation	-0.60	1.09	-0.39	0.89
	Self-Direction	0.52	0.89	0.63	0.59

Note. *Ns* = 254 (Study 1) and 292 (Study 2).

Table 2

Coefficients of Correlations Between Ageism Measures and the Other Variables (Study 1)

	Ageism		Intergenerational tension		
Hypothesized correlates	Benevolent	Hostile	Consumption	Succession	Identity
Benevolent ageism	—	—	.35***	.32***	.35***
Hostile ageism	.45***	—	.59***	.52***	.39***
Right-w. authoritarianism	.41***	.24***	.20***	-.03	.23***
Social dominance	.26***	.31***	.34***	.09	.26***
Existential quest	-.22***	-.21***	-.12	.02	-.18**
Compassion	.05	-.18**	-.19**	-.20***	-.07
Pity (tow. old adults)	.38***	.18**	.14*	.15*	.17**
Death anxiety: dying	.12*	.02	.02	.04	.10
Death anxiety: disgust	.13*	.03	-.03	.02	.11
Intergenerational contact					
Frequency	.03	-.02	-.13*	-.04	-.02
Quality	-.15*	-.18**	-.17*	-.18**	-.15*
Religiosity	.27*	.12	.03	.06	.16*
Personality traits					
Extraversion	.02	-.04	.06	-.17**	-.06
Agreeableness	.07	-.16**	-.08	-.08	-.05
Conscientiousness	.05	-.03	-.05	-.16**	-.03
Neuroticism	-.05	.00	-.11	.16**	-.09
Openn. to experience	.06	.03	.08	.06	.02
Values					
Universalism	-.25***	-.33***	-.29***	-.15*	-.21***
Benevolence	-.20***	-.22***	-.24***	-.26***	-.19**
Tradition	.04	.09	-.01	.02	.14*
Conformity	.04	.11	.06	.04	-.01
Security	.18***	-.00	-.01	.01	.00
Power	.12	.23***	.21***	.15*	.09
Achievement	.00	.09	.15*	.25***	.08
Hedonism	.03	-.06	.00	.00	.04
Stimulation	.01	-.01	.07	-.07	.03
Self-Direction	-.03	.01	-.05	-.12	-.03
Age	.11	.04	.03	-.29***	.05
Gender (women)	-.27***	-.25***	-.31***	-.14*	-.19**
Education	-.10	-.15*	-.14*	-.27**	-.15*

Note. $N = 254$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3

Coefficients of Correlations Between Ageism Measures and the Other Variables (Study 2)

	Ageism	
Hypothesized correlates	Benevolent	Hostile
Hostile ageism	.38***	—
Right-w. authoritarianism	.32***	.14*
Social dominance	.18**	.17**
Existential quest	-.11	-.04
Compassion	-.03	-.19***
Pity (general)	.08	.00
Death anxiety	.02	.02
Disgust: death	.10	.14*
Disgust: pathogen	.06	.04
Intergenerational contact		
Frequency	.04	-.16**
Quality	-.01	-.37***
Religiosity	.14*	.02
Values		
Universalism	-.20***	-.20***
Benevolence	-.05	-.15**
Tradition	.16**	-.10
Conformity	.14*	.13*
Security	.18*	.09
Power	.05	.23***
Achievement	-.08	.18**
Hedonism	-.06	-.16**
Stimulation	-.05	-.07
Self-Direction	-.14*	-.13*
Age	-.04	-.20***
Gender (women)	-.09	-.08
Education	-.16**	-.18***

Note. $N = 292$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4

Correlates of Ageism on the Merged Data from Studies 1 and 2

	Ageism	
Hypothesized correlates	Benevolent	Hostile
Hostile ageism	.41***	—
Right-w. authoritarianism	.37***	.19***
Social dominance	.24***	.24***
Existential quest	-.14**	-.13**
Compassion	.02	-.19***
Death anxiety: dying	.08	.02
Disgust: death	.10*	.08
Intergenerational contact		
Frequency	.00	-.09*
Quality	-.08	-.28***
Religiosity	.18***	.07
Values		
Universalism	-.21***	-.27***
Benevolence	-.17***	-.19***
Tradition	.07	-.01
Conformity	.08	.12**
Security	.21***	.05
Power	.07	.23***
Achievement	-.05	.13**
Hedonism	.00	-.10*
Stimulation	.01	-.03
Self-Direction	-.05	-.04
Group of values		
Self-transcendence	-.24****	-.30***
Conservation	.18***	.08
Self-enhancement	.01	.22***
Openness to change	-.02	-.09*
Age	.05	-.09*
Gender (women)	-.20***	-.16***
Education	-.12**	-.16***

Note. $N = 542$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5

Hierarchical Multiple Regressions of Benevolent and Hostile Ageism on the Merged Data from Studies 1 and 2

	Benevolent ageism		Hostile ageism	
Predictors	Step 1	Step 2	Step 1	Step 2
Right-w. authoritarianism	.23***	.22***	.10*	.10*
Social dominance	.12*	.10*	.10*	.09+
Existential quest	-.02	-.03	-.04	-.07
Compassion	.14***	.16***	-.07	-.05
Disgust: Death	.08+	.10*	.08*	.09*
Security	.12**	.14***	—	—
Self-transcendence values	-.15***	-.13***	—	—
Self-enhancement vs. self-transcendence values axis	—	—	.20***	.18***
Religiosity	.08*	.07+	—	—
Age		-.04		-.08+
Gender (women)		-.18***		-.11**
Education		-.07+		-.14**

Note. $N = 542$. R^2 for the regression models of benevolent (Steps 1 and 2) and hostile ageism (Steps 1 and 2) were respectively .20, .24, .12, and .16.

* $p < .05$. ** $p < .01$. *** $p < .001$. + $p < .10$.

Table 6

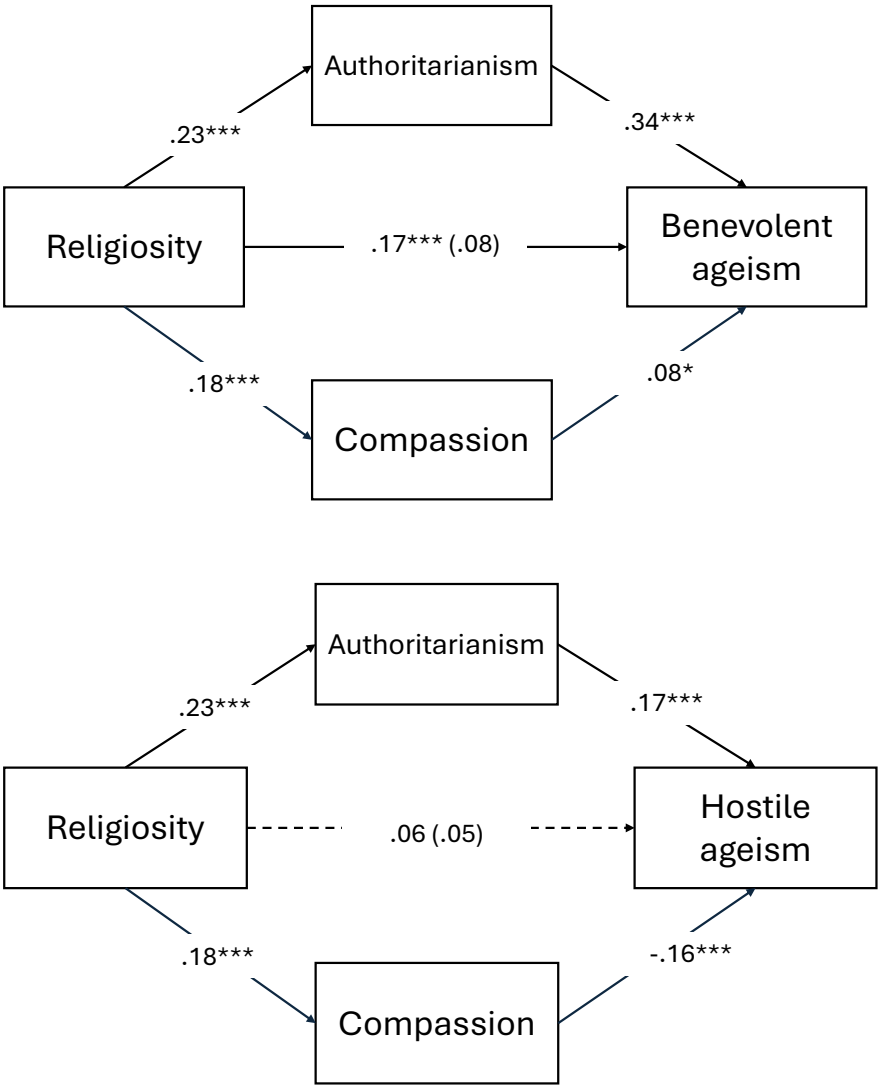
Mediation of the Religiosity-Ageism Links by Authoritarianism and Compassion (Merged Data from Studies 1 and 2)

	Bootstrap estimate	SE	95% BC CI lower limit	95% BC CI upper limit
	Benevolent ageism			
Total effect	.09	.022	.0469	.1350
Direct effect	.04	.022	-.0029	.0851
Indirect effect: authoritarianism	.04	.010	.0246	.0624
Indirect effect: compassion	.01	.004	.0001	.0172
Total indirect effect	.05	.011	.0296	.0738
	Hostile ageism			
Total effect	.03	.024	-.0125	.0808
Direct effect	.03	.024	-.0193	.0765
Indirect effect: authoritarianism	.02	.008	.0082	.0381
Indirect effect: compassion	-.02	.006	-.0287	-.0065
Total indirect effect	.01	.010	-.0139	.0260

Note: Based on 5000 bootstrap samples; SE = standard error; BC CI = bias-corrected confidence intervals.

Figure 1

Multiple Mediation Model of the Association Between Religiosity and Benevolent (Top) and Hostile (Bottom) Ageism by Authoritarianism and Compassion (Merged Data from Studies 1 and 2)



Note. $N = 542$. The numbers correspond to the standardized regression coefficients. The standardized regression coefficient between religiosity and ageism, controlling for the mediators, is presented in parentheses.

* $p < .05$. ** $p < .01$. *** $p < .001$.