

Chapter #2

THE ROLE OF PERSONALITY, CONTACT, MODERNIZATION, AND TERROR MANAGEMENT IN AGEISM

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ABSTRACT

Several theories have been postulated as to why ageism towards older adults occurs, such as contact theory (i.e., the quantity and quality of contact with older adults), terror management theory (i.e., aging anxiety and fear of mortality), and modernization theory (i.e., a belief that the skills of older adults are obsolete). These multiple theories were examined by collecting online survey data from 291 undergraduate students. Hierarchical multiple linear regression analyses were conducted predicting ageist attitudes. The overall model was statistically significant and accounted for 63% of the variance. Both age and gender were found to be significant predictors; younger adults and men had higher scores on ageism. In addition, participants who reported lower quality of contact with grandparents during childhood, and lower scores on their current quality of contact with older adults were more likely to endorse ageist attitudes. Of the five personality factors, lower scores on Agreeableness were a significant predictor. Finally, anxiety towards ageing (measuring terror management theory) and perceiving older adults as a burden (measuring modernization theory) predicted ageism. According to these findings, all ageism theories had an impact on ageist attitudes, but modernization theory contributed the most unique variance to the model.

Keywords: ageism, terror management, modernization theory, contact theory, personality.

1. INTRODUCTION

Currently, the world is experiencing a rapidly ageing population (United Nations, 2019; World Health Organization, 2021). Between 2020 and 2050, the global population of people aged 60 and older is projected to approximately double from 1 billion people to 2.1 billion (World Health Organization, 2021). As population ageing continues, researchers have focused on understanding ageism. Butler (1969) defined ageism as a prejudicial bias by one age group towards another age group. Ageism can be present in different forms, such as discrimination, avoidance of older adults, and antilocution (i.e., spoken abuse such as statements of dislike, hostility, and opposition; Fraboni, Saltstone, & Hughes, 1990). Recently, a survey of 83,034 individuals in 57 countries found that one in every two people had moderate or high ageist attitudes, suggesting that ageism is a prevalent global concern (Officer, Thiyagarajan, Schneiders, Nash, & De La Fuente-Nunez, 2020). Several theories have been postulated as to why ageism occurs, such as contact theory (i.e., the quantity/quality of contact with older adults), terror management theory (i.e., anxiety and fear of mortality), and modernization theory (i.e., skills of older adults are seen as obsolete). Each of these theories will be examined in the current study.

2. BACKGROUND

According to the literature, contact theory suggests that contact with older adults is negatively associated with ageist attitudes and emphasizes the importance of intergenerational contact (Boswell, 2012; Chonody, Webb, Ranzijn, & Bryan, 2014). This theory stems from the contact hypothesis (Allport, Clark, & Pettigrew, 1954) and suggests that attitudes towards outgroup members can be improved by increasing contact with members of that group. Therefore, increasing intergenerational contact is suggested to improve ageist attitudes. However, other researchers have suggested that the quality of intergenerational contact may be a more important predictor of ageist attitudes compared to the frequency of intergenerational contact (Schwartz & Simmons, 2001).

Terror management theory suggests that ageist attitudes arise when individuals have greater anxiety towards ageing (Allan, Johnson, & Emerson, 2014; Boswell, 2012) and fear of death (Chonody et al., 2014; Galton, Hammond, & Stinchcombe, 2020). Becker (1997) highlighted that humans have the awareness that death is inevitable and manage their anxieties associated with death and dying by investing in a cultural worldview, preserving self-esteem, and pushing the thoughts and anxieties about death to the back of their mind. Since older adults are associated with greater susceptibility of disease and death, they can serve as reminders of death and can contribute to death anxieties (Martens, Greenberg, Schimel, & Landau, 2004). Therefore, individuals may psychologically distance themselves from older adults and adopt ageist attitudes to relieve their death anxieties. In addition, older adults can serve as reminders of the ageing process itself without being directly associated with the meaning of death (Lasher & Faulkender, 1993). Therefore, individuals with ageing anxiety may also adopt ageist attitudes.

Modernization theory suggests that older adults can be viewed as unimportant and of lower status in modernized societies (Yoon, Witvorapong, & Pothisiri, 2017). Therefore, individuals who view older adults as obsolete and as a burden are more likely to engage in ageist attitudes compared to individuals who do not (Huang, 2013; Yoon et al., 2017).

Other research on ageist attitudes has focused on demographic, personality, and individual characteristics. For example, gender differences are noted in ageism research; cisgender men score higher on ageist attitudes than cisgender women (Boswell, 2012; Chonody et al., 2014; Galton et al., 2020). In addition, researchers have shown that ageist attitudes are most negative and prevalent among younger adults, including college and undergraduate students (Gellis, Sherman, & Lawrance, 2003; Kimuna, Knox, & Zusman, 2005). In terms of personality, some researchers have found agreeableness and openness are significant predictors of less ageist attitudes (Allan et al., 2014; Galton et al., 2020), whereas other researchers have found that extraversion (Galton et al., 2020) and conscientiousness (Allan et al., 2014) are significant predictors of less ageist attitudes. In addition, significant negative correlations have been found between dispositional gratitude and ageist attitudes, and between gratitude and ageing anxiety (Allan et al., 2014). Given the global prevalence of ageism and the rapidly ageing population, it is important to identify predictors of age-related attitudes so that it may be possible to reduce ageism through intervention and education.

The current study aimed to examine ageist attitudes among undergraduate students towards older adults. Previous research in this area has selectively tested theories of ageism among undergraduate and college students (i.e., contact theory, terror management theory, and modernization theory). However, these studies have failed to examine the multiple different theories of ageism in one model. The current study investigated three proposed theories of ageism, along with the influence of personality factors and gratitude, to facilitate a comprehensive understanding of the predictors of ageism towards older adults among undergraduate university students.

3. METHOD

3.1. Participants

A convenience sample from undergraduate psychology classes at a Canadian east coast university was recruited via in-class announcements. A total of 291 participants completed the online survey, which was administered using Qualtrics, an online survey platform. The sample consisted of 214 women (73.5%), and 68 men (23.4%). The remaining 3.1% of participants identified as non-binary, transgender female, other, or chose not to disclose this information. Ages ranged from 18 to 48.58 years ($M = 21.90$; $SD = 6.09$). The majority of the sample reported being born in Canada (88.3%), whereas 11.7% of participants reported being born in another country. In addition, 70.8% of participants reported being born in a city, and the remaining participants reported being born in the countryside.

3.2. Measures

Demographic Questionnaire. Demographic variables (such as age, gender, religiosity) were measured using a self-developed questionnaire.

Contact. Participants were asked to indicate their past and present frequency of contact with grandparents and non-related older adults on a scale from 0 (*never*) to 8 (*everyday*). They then rated the quality of their interactions on a scale from 1 (*not good at all*) to 10 (*excellent*). For example, if participants indicated that they currently had grandparents, they were asked, “Currently, how often do you interact with your grandparents?” and “Currently, how would you rate the quality of interaction between you and your grandparents?” Similar questions were asked about their past relationships with grandparents, and these questions were repeated for non-related older adults.

Big-Five Inventory-2 (BFI-2; Soto & John, 2017). Personality factors were measured using the BFI-2. The BFI-2 includes 60 items in total and uses a 5-point Likert scale ranging from 1 (*disagree strongly*) to 5 (*strongly agree*). The BFI-2 demonstrated good reliability for the five personality factors, including Extraversion ($\alpha = .87$), Agreeableness ($\alpha = .75$), Open Mindedness ($\alpha = .81$), Conscientiousness ($\alpha = .85$) and Negative Emotionality ($\alpha = .89$).

Gratitude Questionnaire-6 (GQ-6; McCullough, Emmons, & Tsang, 2002). Gratitude was measured using the GQ-6. This measure contains 6 items that are scored using a 7-point Likert scale ranging from 1 (*disagree strongly*) to 7 (*strongly agree*). The GQ-6 demonstrated good reliability ($\alpha = .80$).

Terror Management. The Collett-Lester Fear of Death Scale Version 3.0 (Lester & Abdel-Khalek, 2003) and the Anxiety About Aging Scale (AAS; Lasher & Faulkender, 1993) were used to measure terror management theory. The Collett-Lester Fear of Death Scale Version 3.0 contains 28 items and was modified to be scored using a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*very*). This scale demonstrated excellent reliability ($\alpha = .95$).

In turn, the AAS contains 20 items which are scored using a 5-point Likert scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*). Several items on the AAS were reverse coded to indicate that higher scores meant more anxiety. This coding was a modification from the AAS scale (Lasher & Faulkender, 1993) because higher scores indicated lower anxiety on the original measure. Also, one other item was reverse coded because it appeared to us to be necessary for the direction of the scale and it improved the total reliability of the scale from .78 to .83.

Modernization Theory. The Survey of Knowledge and Attitudes on Elderly Issues (NSO, 2011 as cited in Yoon et al., 2017) was used to measure modernization theory. Items on this measure were gathered in accordance with Yoon and colleagues' (2017) research. This measure consists of 18 items, including 9 positively phrased statements and 9 negatively phrased statements about older adults. Positively phrased items were reverse coded to indicate that higher scores mean more modernization (i.e., the belief that the skills of older adults are outdated or obsolete). One item was re-written from "Older people belong in temples" to "Older people belong in institutions" to accommodate for cultural relevance. The overall scale demonstrated good reliability ($\alpha = .80$).

The Fraboni Scale of Ageism (FSA; Fraboni et al., 1990) was used to measure ageist attitudes. The FSA contains 29 items divided into 3 subscales: Antilocution (i.e., verbal expressions of dislike, hostility, and opposition), Discrimination, and Avoidance. The scale was originally scored using a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*); The current study retained the original 4-point Likert scale. Some items are reverse coded and higher scores indicate more ageist attitudes. The current study also reverse-coded one other item as it seemed appropriate for the direction of the scale and improved total reliability from .89 to .91. The overall FSA demonstrated excellent reliability ($\alpha = .91$), and the subscales were also acceptable (Antilocution $\alpha = .80$; Discrimination $\alpha = .72$; Avoidance $\alpha = .83$).

3.3. Procedure

Students were directed to the online survey platform if they wished to participate in the study. Before completing the survey, participants were given detailed information about the study (e.g., purpose and procedure), their rights (e.g., voluntary participation and confidentiality), their incentive (e.g., receive a half bonus mark in an eligible psychology class of their choosing), and were then asked to provide informed consent. Following informed consent, participants completed the demographic and contact measures, followed by the remaining measures in random order. The survey took about 20 minutes to complete and was anonymous.

4. RESULTS

Data were examined for outliers. One outlier was identified and was re-coded in keeping with Field (2018). A series of hierarchical multiple linear regression analyses was conducted predicting overall ageist attitudes, and each of the ageism subscales of Antilocution, Avoidance, and Discrimination. On the first step age and gender (men and women only as there were too few members in other gender groups) were added to control for their effects. On the second step religiosity, quantity and quality of interactions with grandparents and with older adults in both the present and the past were added. On the third step, personality factors including Extraversion, Agreeableness, Open Mindedness, Conscientiousness, and Negative Emotionality were added. On the fourth step, gratitude, fear of death, ageing anxiety, and modernization scores were added. Tolerance and variance inflation factors were within acceptable limits for all regression analyses.

Overall Ageism. The first regression analysis was conducted with the above variables predicting overall ageist attitudes. The model was statistically significant ($F_{(20,210)} = 17.94$, $p \leq .001$) and accounted for 63% of the variance.

The first step was statistically significant ($R^2 = .12$; $F_{(2, 228)} = 15.77$, $p \leq .001$). Both age and gender were significant predictors of ageism. Younger adults were found to have higher overall ageism scores compared to older adults ($\beta = -.20$, $sr^2 = 0.04$). In addition, men had higher ageism scores compared to women ($\beta = .28$, $sr^2 = 0.08$).

The second step was statistically significant ($\Delta R^2 = .17$, $F_{change(9, 219)} = 5.69$, $p \leq .001$). The significant predictors at this step were quality of contact with grandparents during childhood ($\beta = -.25$, $sr^2 = 0.03$) and current quality of contact with older adults ($\beta = -.18$, $sr^2 = 0.02$). Therefore, participants who reported lower quality of contact with grandparents during childhood and participants who reported lower current quality of contact with older adults scored higher on ageist attitudes.

On the third step, personality factors were added and made a statistically significant contribution to the model ($\Delta R^2 = .10$, $F_{change(5, 214)} = 6.81$, $p \leq .001$). The significant predictor at this step was the personality factor Agreeableness ($\beta = -.280$, $sr^2 = 0.05$). Participants who scored lower on Agreeableness scored higher on ageist attitudes.

The final step of the model was statistically significant ($\Delta R^2 = .25$, $F_{change(4, 210)} = 34.87$, $p \leq .001$). Significant predictors at this step were anxiety about ageing ($\beta = .29$, $sr^2 = 0.04$) and modernization ($\beta = .48$, $sr^2 = 0.14$). Therefore, participants who scored higher on anxiety about ageing and participants who scored higher on modernization scored higher on ageist attitudes.

The adjusted R^2 of .596 suggests that approximately 60% of the variance in ageism is attributed to being younger, cisgender male, having lower quality of contact with grandparents during childhood, having lower current quality of contact with older adults, lower Agreeableness, higher anxiety about ageing, and higher degree of modernization.

Antilocution Ageism. Antilocution refers to spoken abuse that is rooted in misconceptions, misinformation, and/or myths about older adults (Fraboni et al., 1990). When Antilocution ageism was used as the dependent measure, the overall model was statistically significant ($F_{(20,210)} = 9.85$, $p \leq .001$) and accounted for 48% of the variance. Each step of the model was statistically significant, but for brevity, only significant β and sr^2 will be reported here. Significant predictors of Antilocution ageism were age and gender. Younger adults were found to have higher Antilocution ageism scores compared to older adults ($\beta = -.16$, $sr^2 = 0.03$). In addition, men had higher Antilocution scores compared to women ($\beta = .23$, $sr^2 = 0.05$). Quality of contact with grandparents during childhood ($\beta = -.31$, $sr^2 = 0.04$) was also a significant predictor. Participants who reported lower quality of contact with grandparents during childhood scored higher on Antilocution ageist attitudes. The personality factor Agreeableness was also a significant predictor ($\beta = -.23$, $sr^2 = 0.04$). Participants who scored lower on Agreeableness scored higher on Antilocution ageist attitudes. Finally, both anxiety about ageing ($\beta = .21$, $sr^2 = 0.02$) and modernization ($\beta = .42$, $sr^2 = 0.10$) were significant predictors. Participants who scored higher on anxiety about ageing and participants who scored higher on modernization scored higher on Antilocution ageist attitudes.

The adjusted R^2 of .44 suggests that approximately 44% of the variance in Antilocution ageism is attributed to being younger, cisgender male, having lower quality of contact with grandparents during childhood, having lower scores on Agreeableness, and higher anxiety about ageing, and modernization scores.

Avoidance Ageism. Avoidance represents behaviours or preferences that indicate withdrawal from social contact with older adults (Fraboni et al., 1990). When Avoidance ageism was used as the dependent measure, the overall model was statistically significant ($F_{(20,210)} = 12.79$, $p \leq .001$) and accounted for 55% of the variance. Again, each step of the model was statistically significant, but for brevity, only significant β and sr^2 will be

reported here. Significant predictors of Avoidance ageism were age and gender. Younger adults were found to have higher Avoidance ageism scores compared to older adults ($\beta = -.21, sr^2 = 0.04$). In addition, men had higher Avoidance scores compared to women ($\beta = .22, sr^2 = 0.05$). Quality of contact with grandparents during childhood ($\beta = -.19, sr^2 = 0.02$) was also a significant predictor. Participants who reported lower quality of contact with grandparents during childhood scored higher on Avoidance ageist attitudes. The personality factor Agreeableness was also a significant predictor ($\beta = -.24, sr^2 = 0.04$). Participants who scored lower on Agreeableness scored higher on avoidance ageist attitudes. Finally, both anxiety about ageing ($\beta = .32, sr^2 = 0.05$) and modernization ($\beta = .40, sr^2 = 0.09$) were significant predictors. Participants who scored higher on anxiety about ageing and participants who scored higher on modernization scored higher on avoidance ageist attitudes.

The adjusted R^2 of .51 suggests that approximately 51% of the variance in avoidance ageism is attributed to being younger, cisgender male, having lower quality of contact with grandparents during childhood, having lower scores on Agreeableness, and higher anxiety about ageing, and modernization scores.

Discrimination Ageism. Discrimination ageism signifies a more extreme and active prejudice including political rights, segregation, and intervention into the activities of older adults (Fraboni et al., 1990). When discrimination ageism was used as the dependent measure, the overall model was statistically significant ($F_{(20,210)} = 10.26, p \leq .001$) and accounted for 49% of the variance. Again, each step of the model was statistically significant, but for brevity, only significant β and sr^2 will be reported here. Significant predictors of Discrimination ageism were age and gender. Younger adults were found to have higher Discrimination ageism scores compared to younger adults ($\beta = -.17, sr^2 = 0.03$). In addition, men had higher Discrimination scores compared to women ($\beta = .32, sr^2 = 0.10$). Current quality of contact with older adults ($\beta = -.24, sr^2 = 0.03$) was also a significant predictor. Participants who reported presently having lower quality of contact with older adults were more likely to score higher on Discrimination ageist attitudes. The personality factor Agreeableness was also a significant predictor ($\beta = -.28, sr^2 = 0.06$). Participants who scored lower on Agreeableness scored higher on Discrimination ageist attitudes. Finally, both anxiety about ageing ($\beta = .22, sr^2 = 0.02$) and modernization ($\beta = .46, sr^2 = 0.13$) were significant predictors. Participants who scored higher on anxiety about ageing and participants who scored higher on modernization scored higher on discrimination ageist attitudes.

The adjusted R^2 of .45 suggests that approximately 45% of the variance in discrimination ageism is attributed to being younger, cisgender male, currently having lower quality of contact with older adults, having lower scores on Agreeableness, and higher anxiety about ageing, and modernization scores.

5. DISCUSSION

The current study investigated multiple predictors of ageism. The influence of demographic characteristics, personality factors, and gratitude were explored in relation to ageist attitudes. In addition, the current study examined multiple theories of ageism (i.e., contact theory, terror management theory, and modernization theory) in one model.

Researchers have found that demographic characteristics are significantly associated with ageist attitudes. For instance, individuals who are younger in age (Gellis et al., 2003; Kimuna et al., 2005) and who identify as cisgender men (Boswell, 2012; Chonody et al., 2014; Galton et al., 2020) are more likely to display ageist attitudes. In accordance with the

literature, the current study found a significant negative correlation between age and ageist attitudes, and cisgender men scored higher on ageist attitudes compared to cisgender women. These results suggest that interventions targeting younger adults would be important to minimize ageist attitudes. In addition, interventions targeting ageist attitudes should consider the role of gender differences when addressing ageism.

Researchers have also found that personality factors and individual characteristics have been associated with ageist attitudes (Allan et al., 2014; Galton et al., 2020). The current study found that lower scores on agreeableness were a significant predictor of ageist attitudes, which is in accordance with the literature. In addition, previous researchers have found that lower scores on gratitude are a significant predictor of ageist attitudes (Allan et al., 2014). On the contrary, gratitude did not predict ageist attitudes in the current study. Future studies should continue to investigate the influence of interpersonal characteristics in relation to ageist attitudes as this may be an important area for intervention.

According to contact theory, intergenerational contact is negatively associated with ageist attitudes (Boswell, 2012; Chonody et al., 2014). The results of the current study support contact theory; however, our results emphasize the importance of the quality of intergenerational interactions as opposed to the frequency of contact. Some researchers have found that perceived quality of intergenerational contact, instead of frequency of intergenerational contact, is a stronger predictor of ageist attitudes (Drury, Hutchison, & Abrams, 2016). Although frequency of contact is highlighted as an important component of contact theory, the current study found no significant predictors of ageist attitudes among frequency of interactions with grandparents or older adults in childhood or currently in adulthood. What appears to be an important factor is the quality of interactions one has with grandparents and older adults. According to our results, lower quality of interactions with grandparents during childhood and with older adults during adulthood were significant predictors of ageist attitudes. These results highlight that having meaningful intergenerational interactions could be important factors to minimize ageist attitudes.

Terror management theory suggests that ageing anxiety (Allan et al., 2014; Boswell, 2012) and fear of death (Chonody et al., 2014; Galton et al., 2020) are positively associated with ageist attitudes. The results of the current study partially support terror management theory. Although no significant results were found between fear of death and ageist attitudes, ageing anxiety was found to be a significant predictor of ageist attitudes. These findings suggest that individuals who have higher anxiety about the ageing process are more likely to display ageist attitudes. These findings are in accordance with current research on terror management theory and ageing anxiety; individuals tend to distance themselves from reminders of mortality that provoke anxiety, such as older adults (Allan et al., 2014). These findings suggest that strategies to minimize ageing anxiety would be important interventions to minimize ageist attitudes.

Modernization theory (i.e., perceiving older adults as outdated, irrelevant, and as a burden) contributed the most unique variance to ageist attitudes in the present study. However, current research surrounding modernization theory and ageist attitudes is relatively understudied using empirical approaches and appears to be complex. For instance, Yoon and colleagues (2017) found that living in a modernized area was associated with both positive and negative perceptions towards the elderly. In turn, Yoon and colleagues' (2017) postulate that living in a capitalistic environment may cause adults to become more opinionated towards the elderly in both directions. With the ageing population and the shift towards modernized societies, modernization theory should be further investigated in relation to ageist attitudes.

6. FUTURE RESEARCH DIRECTIONS

The current study included several limitations, such as an uneven distribution of age and gender. A convenience sample of undergraduate university students was used, and the study was conducted online. These limitations impact the generalizability of the results. Future research should continue to investigate the various ageism theories with a more balanced gender distribution, wider age range, and adults with varying educational backgrounds. Moreover, future studies should employ one-on-one semi-structured interviews and/or focus groups. In addition, the current study found that the personality factor Agreeableness was a significant predictor of ageist attitudes; however, other researchers have found that Conscientiousness (Allan et al., 2014), Extraversion (Galton et al., 2020), and Openness (Allan et al., 2014; Galton et al., 2020) also predict ageist attitudes. Future research should continue to investigate the influence of personality factors and facets on ageist attitudes.

7. CONCLUSION

In conclusion, the current study supports that ageism is a multidimensional construct. Modernization theory contributed the most unique variance to ageist attitudes compared to other theories tested in the model. However, demographic factors (i.e., age and gender), contact theory (i.e., quality of intergenerational contact), terror management theory (i.e., aging anxiety), and Agreeableness were also identified as important significant predictors of ageist attitudes. Overall, this research adds to the growing body of literature that accounts for why ageist attitudes may exist and highlights various avenues for intervention. For instance, results of the current study may be useful for designing undergraduate curricula to better educate students and future employees to combat ageism. Ageing courses may introduce intergenerational contact, such as through volunteer work or field placements for course credit; integrating extended contact theory into educational courses would be recommended (Lytle & Levy, 2019; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). Extended contact theory states that knowing an in-group member has a close relationship with an out-group member could lead to more positive intergroup attitudes without necessitating in-person contact with out-group members. Therefore, educational programs integrating extended contact theory could potentially serve to minimize ageist attitudes (Drury et al., 2016). In addition, intervention strategies surrounding ageing anxiety would also be beneficial to minimize ageist attitudes. Finally, future research should continue to investigate and test the effects of modernization theory, as well as contact theory and terror management theory, on ageist attitudes.

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