Ageism among Israeli students: structure and demographic influences

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ABSTRACT

Background: Research concerning negative attitudes toward the elderly among samples of North American respondents has uncovered two distinct yet comparable three-factor structures: (1) avoidance, antilocution and separation; and (2) discrimination, stereotypes and affective attitudes. In addition, previous research has demonstrated that men and younger people have more negative attitudes toward the elderly than do women and older people. The aim of this study is to examine the extent to which these findings can be generalized to individuals from a different culture.

Method: The Fraboni Scale of Ageism (FSA) was administered to 491 Israeli participants aged 20–50 years.

Results: Exploratory factor analysis with varimax rotation uncovered a three-factor structure, similar to previous investigations. In contrast to the literature, however, no simple group (gender, age) differences were found for ageism. However, discriminant function analysis revealed a more complex relationship between age, gender and ageism. Older males, in contrast to older females, demonstrated a tendency to perceptions of the elderly that associated avoidance of the elderly with negative stereotypes whereas older females, in contrast to younger females, held perceptions that associated avoidance of the elderly with a negative perception of the elderly person's contribution to society.

Conclusions: Despite cultural differences between Israel and North America, the similarity of findings provides support for the generalizability of the structure of attitudes toward the elderly as measured by the FSA to various cultures. In addition, the combined effect of age and gender on differential forms of ageism is complex and should be examined in future research.

Key words: stereotypes, elderly, ageism, discrimination, culture, attitudes

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Introduction

Ageism, or prejudicial attitudes and discriminatory practices toward older adults (Butler, 1980), has been found to be widespread around the world, especially in Western countries (McConatha et al., 2003). Seventy-two percent of American elders and 68% of Canadian elders have reported experiences of personal and institutional discrimination (Palmore, 2004). Discriminating behavior toward the elderly is based on negative attitudes (Arnhoff et al., 1964). Thus, the measurement of attitudes toward the elderly is regarded as a valid measure for ageism (Rupp et al., 2005). Although several measures for attitudes toward the elderly have been developed – for example, the Attitudes Toward Old People Scale (Kogan, 1961) and the Aging Semantic Differential (Rosencranz and McNevin, 1969), only the Fraboni et al. (1990) Scale of Ageism (FSA) enables the measurement of ageism as a multidimensional construct (Rupp et al., 2005). For example, on the basis of responses from a Canadian sample, Fraboni et al. (1990) uncovered a three-factor structure for ageism – antilocution, avoidance and discrimination. Rupp et al. (2005), using the FSA with American respondents, have uncovered a similar factor structure for ageism, but identified the factors in a slightly different manner – namely, stereotypes, separation and affective attitudes.

Several demographic variables have been found to be associated with attitudes toward the elderly in Western countries. For example, Kogan and Shelton (1962) used a questionnaire containing 20 items referring to “old people” based on an experimental “sentence completion form”. This questionnaire was administered to an American sample of women and men, ranging in age from 49 to 92 years. They found that younger participants had more negative beliefs about older people than older participants, and that significant age differences regarding specific items were related to the gender of the participants. Similar gender and age differences in ageism were found by Fraboni et al. (1990): Canadian women demonstrated a lower level of ageism than did Canadian men. In two separate studies involving American students, Kalaver (2001) and Rupp et al. (2005) found that males displayed more ageist attitudes than did females and that younger students (in their twenties) displayed more ageist attitudes than did older students (in their thirties and forties). It seems that, regardless of the measurement tool, males and younger people in Western countries display more ageist attitudes towards the elderly than do women and older people.

Ageism is inextricably linked to cultural influences (Cuddy et al., 2005). The North American culture (Wang and Mallinkrodt, 2006) generally values individualism and emphasizes the rights of an individual to act free of the constraints of others, and to concentrate on his or her individual self-interest and self-expression. In contrast, Eastern cultures, such as the Chinese (Markus and Kitayama, 1991), Arabic (Boggatz and Dassen, 2005), and Israeli cultures (Oyserman et al., 2002) hold more collectivistic values. These cultures place a strong emphasis on interdependence and connectedness among individuals, and especially on the natural bonds of affection between all members of the family, on meeting one’s social obligation, and on a willingness to sacrifice personal goals for the needs of their social goals.
Although protecting the rights of the individual is an important social value in the individualistic American culture, individuals in this culture appear to adhere to a more youth-orientated society and hold negative beliefs regarding the elderly and the aging process (Barak et al., 2001). In contrast, the collectivist traditional cultures hold values which support and honor the elderly (Boggatz and Dassen, 2005). Therefore, it is not clear if findings cited above concerning the structure of ageism and the relationship between gender, age and ageism are generalizable to individuals from non-North American cultures or even from different North American subcultures (Kite et al., 2005).

Few studies have examined these cross-cultural aspects. In the context of Western societies, McConatha et al. (2003) concentrated on differences between fears about the elderly and aging among young Americans and young Germans (e.g. German participants tended to view aging much more negatively, but considered themselves to be “old” at a much older age). Oberg and Tornstam (2003) studied attitudes toward “embodied old age” (i.e. attitudes toward physical appearance and attractiveness in elderly people) among 1,250 Swedes aged 20–85 years, and found contradictory findings to those of previous studies in other Western countries (i.e. younger age was related with positive, not negative attitudes toward embodied old age, and no evidence was found for gendered ageism, which predicts considerably more negative attitudes toward old women). Cuddy et al. (2005) examined the prevalence of the conceptualization of elders as warm but incompetent using a cross-cultural sample of college students in six countries including Israel, and found this stereotyped view to be held quite universally, even in the most collectivist cultural samples (i.e. Hong Kong, Japan and South Korea) without differences between collectivist and individualistic cultures. Other cross-cultural investigations found even more negative attitudes toward older people in collectivist societies, both in the Far East (e.g. China, Japan, Thailand; see Cuddy et al., 2005) and in the Middle East (e.g. Turkey; see McConatha et al., 2004). Yun and Lachman (2006) compared attitudes regarding anxiety about aging between Americans and South Koreans and found that Koreans portrayed higher overall levels of anxiety about aging and a greater fear of old people compared with Americans. Therefore, although it is reasonable to expect less ageism in collectivist cultures than in individualistic cultures, this trend is not clear cut.

No study has yet used the FSA to study ageism among students in traditional Eastern societies. Thus, the present investigation was carried out in Israel, which is an immigration state for Jews from all over the world and which has absorbed many Jews of Middle Eastern and North African origin (Okun, 1996). Israel is considered to be a more collectivist country than the U.S.A. (Oyserman et al., 2002). Although several studies found stereotypical attitudes toward the elderly to be held even in collectivist societies (McConatha et al., 2004; Cuddy et al., 2005; Yun and Lachman, 2006), the contention that as a more collectivist society, Israel would hold less ageist attitudes than normally found in Western individualistic cultures is reasonable. Therefore, we hypothesized that the structure of ageism among Israeli students would not resemble the three-factor structure of ageism found among undergraduate North American students, and that the influence of gender and age on ageism would not be replicated.
Method

Participants and procedure
A convenience sample of 491 participants residing in Israel was used in this study. The research participants were recruited from a number of university campuses in Israel. The sample was 54.6% female, with an average age of 27.9 ± 7.3 years, range: 17.5–45.5 years. Student research assistants approached potential participants and requested them to participate in a survey dealing with various social opinions. Those participants who agreed were provided with the research instrument and filled out the questionnaire in the presence of the research assistant. Completed questionnaires were then placed together with other completed questionnaires in order to insure anonymity. The ethical review committee of Bar Ilan University at Ramat Gan approved the study protocol.

Measures

FRABONI SCALE OF AGEISM (FSA)
This scale was developed by Fraboni et al. (1990) in order to assess ageism in a multidimensional manner. The 29 FSA items were chosen to represent three levels of prejudice according to Allport's conceptualization: antilocution (e.g. "Many old people just live in the past"), avoidance (e.g. "It is best that old people live where they won’t bother anyone"), and discrimination (e.g. "Old people should find friends their own age"). Past research (Fraboni et al., 1990) has shown that the FSA has adequate reliability (Cronbach α coefficient = 0.86). In the present investigation 22 items were used; the remaining seven items were not included due to incompatibility with Israeli society. For example, item 24 ("There should be special clubs set aside within sports facilities so that old people can compete at their own level") was not included since sports clubs are not very common in Israel and most respondents would have difficulty relating to such an item.

DEMOGRAPHICS
Participants were asked to report their gender and their age.

Results
In order to examine the structure of attitudes toward the elderly among the research sample, principal component factor analysis with varimax orthogonal rotation was carried out on the responses of the participants to the FSA items after recoding all reverse items. Six factors with an eigenvalue greater than or equal to one were extracted. In order to decide which factors to retain, interpretability and number of items loading highly per factor were examined. Accordingly, the first three factors were retained. Thereafter, the analysis was repeated and the number of factors to be extracted was constrained to three. These three factors explained 43% of the variance. The results of this analysis are presented in Table 1. For comparison purposes, item-factor associations from...
Table 1. Item loadings for principal component factor analysis (N = 491): a comparison with item-factor associations from previous research

<table>
<thead>
<tr>
<th>ITEM</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>FRABONI ET AL.</th>
<th>RUPP ET AL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. It is best that old people live where they won't bother anyone</td>
<td>0.76</td>
<td>0.19</td>
<td>-0.03</td>
<td>Discrimination</td>
<td>Separation</td>
</tr>
<tr>
<td>11. I sometimes avoid eye contact with old people when I see them</td>
<td>0.71</td>
<td>0.16</td>
<td>0.06</td>
<td>Avoid</td>
<td>Separation</td>
</tr>
<tr>
<td>12. I don't like it when old people try to make conversation with me</td>
<td>0.71</td>
<td>0.23</td>
<td>0.11</td>
<td>Avoid</td>
<td>Separation</td>
</tr>
<tr>
<td>25. Old people deserve the same rights and freedom as do other members of our society</td>
<td>0.62</td>
<td>0.33</td>
<td>-0.20</td>
<td>Discrimination</td>
<td>Excluded</td>
</tr>
<tr>
<td>14. Feeling depressed when around old people is probably a common feeling</td>
<td>0.60</td>
<td>0.05</td>
<td>0.24</td>
<td>Avoid</td>
<td>Separation</td>
</tr>
<tr>
<td>29. Old people do not need much money to meet their needs</td>
<td>0.55</td>
<td>-0.10</td>
<td>0.09</td>
<td>Antilocution</td>
<td>Excluded</td>
</tr>
<tr>
<td>23. I personally would not want to spend much time with an old person</td>
<td>0.54</td>
<td>0.26</td>
<td>0.16</td>
<td>Avoid</td>
<td>Affective att.</td>
</tr>
<tr>
<td>15. Old people should find friends their own age</td>
<td>0.53</td>
<td>0.10</td>
<td>0.27</td>
<td>Avoid</td>
<td>Separation</td>
</tr>
<tr>
<td>10. Teenage suicide is more tragic than suicide among the old</td>
<td>0.40</td>
<td>-0.01</td>
<td>0.18</td>
<td>Antilocution</td>
<td>Stereotype</td>
</tr>
<tr>
<td>22. Most old people are interesting, individualistic people</td>
<td>0.05</td>
<td>0.73</td>
<td>0.11</td>
<td>Discrimination</td>
<td>Affective att.</td>
</tr>
<tr>
<td>19. The company of most old people is quite enjoyable</td>
<td>0.09</td>
<td>0.71</td>
<td>0.12</td>
<td>Discrimination</td>
<td>Affective att.</td>
</tr>
<tr>
<td>21. Old people should be encouraged to speak out politically</td>
<td>0.21</td>
<td>0.66</td>
<td>0.03</td>
<td>Discrimination</td>
<td>Affective att.</td>
</tr>
<tr>
<td>13. Complex and interesting conversation cannot be expected from most old people</td>
<td>0.25</td>
<td>0.58</td>
<td>0.00</td>
<td>Antilocution</td>
<td>Separation</td>
</tr>
<tr>
<td>27. Old people can be very creative</td>
<td>0.49</td>
<td>0.53</td>
<td>-0.10</td>
<td>Avoid</td>
<td>Excluded</td>
</tr>
<tr>
<td>16. Old people should feel welcome at the social gatherings of young people</td>
<td>0.30</td>
<td>0.50</td>
<td>-0.07</td>
<td>Avoid</td>
<td>Separation</td>
</tr>
<tr>
<td>4. Most old people should not be trusted to take care of infants</td>
<td>-0.07</td>
<td>0.49</td>
<td>0.02</td>
<td>Antilocution</td>
<td>Stereotype</td>
</tr>
</tbody>
</table>
Table 1. Continued

<table>
<thead>
<tr>
<th>ITEM</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>FRABONI ET AL.</th>
<th>RUPP ET AL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Many old people just live in the past</td>
<td>0.11</td>
<td>0.01</td>
<td>0.72</td>
<td>Antilocution</td>
</tr>
<tr>
<td>2.</td>
<td>Many old people are not interested in making new friends, preferring instead the circle of friends they have had for years</td>
<td>0.04</td>
<td>-0.04</td>
<td>0.70</td>
<td>Antilocution</td>
</tr>
<tr>
<td>7.</td>
<td>Most old people can be irritating because they tell the same stories over and over again</td>
<td>0.26</td>
<td>0.08</td>
<td>0.62</td>
<td>Antilocution</td>
</tr>
<tr>
<td>1.</td>
<td>Many old people are stingy and hoard their money and possessions</td>
<td>0.24</td>
<td>0.15</td>
<td>0.61</td>
<td>Antilocution</td>
</tr>
<tr>
<td>5.</td>
<td>Many old people are happiest when they are with people their own age</td>
<td>0.12</td>
<td>-0.25</td>
<td>0.49</td>
<td>Antilocution</td>
</tr>
<tr>
<td>8.</td>
<td>Old people complain more than other people do</td>
<td>-0.09</td>
<td>0.17</td>
<td>0.37</td>
<td>Antilocution</td>
</tr>
<tr>
<td>% Variance Explained</td>
<td>18.2</td>
<td>13.7</td>
<td>11.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figures in bold are significant.  
Affective att. = affective attitude

previous research (Fraboni et al., 1990, Rupp et al., 2005) are also included in Table 1.

As can be seen from Table 1, almost all items loaded cleanly with a high loading on one factor (≥ 0.36) and low loadings on the other two factors (< 0.30). The contents of the items associated with the first factor represent the tendency to avoid contact with elderly people in a direct manner (e.g. Item 11, “I sometimes avoid eye contact with old people when I see them”) or in an indirect manner (e.g. Item 18, “It is best that old people live where they won’t bother anyone”). This factor was very similar to the avoidance factor identified by Fraboni et al. (1990) and to the separation factor identified by Rupp et al. (2005) and was labeled AVOIDANCE. Factor II seems to represent a negative opinion concerning the expected contributions of elderly people to society (e.g. Item 13, “Complex and interesting conversation cannot be expected from most old people”). This factor was similar to the discrimination factor identified by Fraboni et al. (1990) and to the affective attitude by Rupp et al. (2005) and was labeled CONTRIBUTION. Factor III was essentially identical to the antilocution factor of Fraboni et al. (1990) and to the stereotype factor of Rupp et al. (2005) and represents a variety of negative attitudes toward the elderly (e.g. Item 3 “Many old people just live in the past”) and was labeled STEREOTYPE. In summary, the
structure of attitudes toward the elderly uncovered here was very similar to that found in past research performed on different populations.

On the basis of the factor analysis, three ageism scales – avoidance (8 items; Cronbach's α reliability coefficient = 0.79), contribution (5 items; Cronbach’s α = 0.69), and stereotype (6 items; Cronbach’s α = 0.67) were created by averaging responses over relevant items after reversing items with a positive orientation towards aging, resulting in scores ranging from 1 (more positive attitudes) to 6 (more negative attitudes). In calculating these scales, three items that did not load cleanly on one factor were omitted. The avoidance scale (M = 2.60; SD = 0.95) was significantly correlated with both the stereotype scale (M = 3.46; SD = 0.85) and with the contribution scale (M = 2.88; SD = 0.87), (r = 0.34 and r = 0.35, respectively, p < 0.01). Finally, the contribution scale was significantly correlated with the stereotype scale (r = 0.12, p < 0.05). The intercorrelations between the three scales of ageism uncovered here (0.12-0.35) were lower in comparison to those reported in previous research (e.g. Rupp et al., 2005; 0.65–0.73) indicating a larger degree of independence between the scales of ageism.

In order to examine the relationship between gender, age and ageism, the research participants were first divided into four demographic groups: young men (under 30 years) (31.1%), young women (44.2%), middle-aged men (30+ years) (14.3%), and middle-aged women (10.4%). Univariate analysis of variance revealed only sporadic group differences on the ageism scales (males were found to be slightly higher than females on the stereotype scale, 3.6 vs. 3.3; older respondents were slightly higher than younger respondents on the contribution scale, 3.1 vs. 2.8). Therefore, it was decided to use a multivariate approach in order to analyze the possibility of a more complex relationship between age, gender and measures of ageism.

In order to determine if the three dimensions of attitudes to aging uncovered here distinguished between these four demographic groups, we used discriminant function analysis. This is a multivariate technique that identifies the combination or combinations of variables that best separate groups. For that purpose, the three aging attitude scores were submitted to discriminant function analysis. This resulted in two statistically significant discriminant functions (Function 1: $\chi^2 = 20.6$, Wilk's $\lambda = 0.96$, df = 9, p < 0.02; Function 2: $\chi^2 = 11.0$, Wilk's $\lambda = 0.98$, df = 4, p < 0.03). This indicates that two different particular combinations of aging attitude scores were able to differentiate between the four age/gender groups. For the total usable sample, 33.8% were classified correctly after assigning equal a priori probabilities to groups (Tabachnick and Fidell, 1996). The total structure coefficients and group centroids for these functions, together with group means and standard deviations, are presented in Table 2.

The total structure matrix coefficients reported in Table 2 are the pooled within-groups correlations between the discriminating variables and standardized canonical discriminant functions (Klecka, 1980). Standardized canonical discriminant coefficients are the discriminant variable weights used for calculating discriminant function scores and therefore distribute simultaneous shared discrimination information between the variables. The matrix coefficients
Table 2. Group means and standard deviations for measures of attitudes towards aging, total structure coefficients and group centroids

<table>
<thead>
<tr>
<th></th>
<th>Young Males (N=153)</th>
<th>Young Females (N=217)</th>
<th>Middle-Aged Males (N=70)</th>
<th>Middle-Aged Females (N=51)</th>
<th>Structure Matrix Coefficients for Function 1</th>
<th>Structure Matrix Coefficients for Function 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stereotype</td>
<td>3.56 0.55</td>
<td>3.41 0.81</td>
<td>3.57 0.89</td>
<td>3.22 0.90</td>
<td>0.79</td>
<td>-0.37</td>
</tr>
<tr>
<td>Contribution</td>
<td>2.90 0.86</td>
<td>2.79 0.83</td>
<td>3.00 0.88</td>
<td>3.10 0.98</td>
<td>0.23</td>
<td>0.83</td>
</tr>
<tr>
<td>Avoidance</td>
<td>2.75 0.91</td>
<td>2.46 0.93</td>
<td>2.64 1.05</td>
<td>2.62 0.91</td>
<td>0.84</td>
<td>0.41</td>
</tr>
<tr>
<td>Group centroids</td>
<td>0.17 0.12</td>
<td>0.10 0.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group centroids</td>
<td>0.00 0.10</td>
<td>0.05 0.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
in Table 2 indicate that the first function that discriminates between the four groups consists of a negative stereotypical perception of the elderly (structure matrix coefficient = 0.79) coupled with a tendency to avoid the elderly (structure matrix coefficient = 0.84). A high score on this function appears to represent a negatively stereotypical perception of the elderly together with a tendency of behavioral avoidance and discrimination against the elderly. A low score on this function represents a less stereotypical perception toward the elderly with no behavioral anchored tendencies to avoid or discriminate against the elderly. Examination of the group centroids, which are group means on this function, show that the male participants, and in particular the younger ones, have higher scores on this function, i.e. a more negative attitude in comparison with the female participants, in particular the older ones, who demonstrated a more positive attitude toward the elderly.

The second function that discriminates between the four groups consists of a negative perception of the elderly person’s possible contributions to society (structure matrix coefficient = 0.83) coupled with a tendency to avoid the elderly (structure matrix coefficient = 0.41). A high score on this function appears to represent a negatively oriented perception of the possible contributions of the elderly together with a milder tendency of behavioral avoidance and discrimination against the elderly. A low score on this function represents a more positive perception of elderly people’s contributions with no behavioral anchored tendencies to avoid or discriminate against the elderly. Examination of the group centroids shows that the older female participants have higher scores on this function, i.e. a more negative attitude in comparison to all other groups, in particular the younger females who demonstrated a more positive attitude toward the elderly.

Discussion

The goal of the present study was to determine if findings regarding the structure of ageism and the influences of age and gender on ageist attitudes based on individualistic North American populations are generalizable to individuals of different, more collectivistic cultures such as that of Israel. In general, the results reported here provide support for the generalizability of the three-factor structure of ageism that has been found in previous studies but not for the age and gender differences.

Regarding the structure of ageism, the three factors uncovered here were named avoidance, contribution and stereotypes. The avoidance factor, similar to the avoidance factor identified by Fraboni et al. (1990) and to the separation factor identified by Rupp et al. (2005), reflects an inclination to avoid direct contact with the elderly. The contribution factor, similar to the discrimination factor identified by Fraboni et al. (1990) and to the affective attitude reported by Rupp et al. (2005), represents a negative view regarding the contributions of elderly people to society. The stereotypes factor, essentially identical to the antilocution factor of Fraboni et al. (1990) and to the stereotype factor of Rupp et al. (2005), depicts a variety of negative stereotypical opinions about the elderly.
The similarity revealed between the structure of ageism toward the elderly found in Israeli society and in other Western societies is congruent with findings reflecting the pan-cultural character of ageism (McConatha et al., 2004; Cuddy et al., 2005; Yun and Lachman, 2006). Branco and Williamson (1982) explained the pan-cultural character of ageism as resulting from a number of changes in modern societies: (1) progress in medical treatment which increases the size of the older population; (2) technological developments which create new forms of jobs that put older people out of work; (3) a lack of rootedness of young people that causes them to lose ties with their older relatives; and (4) growing reliance on internet-based knowledge rather than the wisdom and experience of elders. These changes have taken place in all modern countries, so that despite collectivistic tendencies in some societies, similarities in the structure of ageism are to be expected.

The second aim of this study is to examine age and gender differences that were found in previous studies using the Fraboni questionnaire (Fraboni et al., 1990; Rupp et al., 2005) on a sample of Israeli respondents. Past studies have demonstrated a stronger tendency toward ageism among men in comparison to women and among younger adults in comparison with older adults. In the current study, discriminant function analysis uncovered two statistically significant functions that distinguished between the four age/gender groups in the study (i.e. young males, middle-age males, young females, middle-age females). Both functions were characterized by avoidance of the elderly. However, whereas the first function associates this tendency with a negative stereotypical view of the elderly, the second function suggests that the tendency to avoid the elderly is related to a negative view of their contribution to society. The avoidance-negative stereotypical perspective was especially held by the male participants and in particular by the older males. In contrast, the female participants, in particular the older females, were not characterized by this perspective of ageism. The avoidance-contribution perspective of ageism was especially held by the older female participants in comparison with all the other groups, in particular in comparison with the younger females. It may be that middle-aged women tend to avoid contact with elderly people because of their view that old people are not sufficiently capable of contributing to society, and are therefore doomed to be less needed (e.g. they cannot be trusted to take care of infants, to hold a complex or interesting conversation, to be creative, or to get along with younger people). The heightened sensitivity of middle-aged women to what they consider to be an inability of elders to take their place in society may be activated by the changes that occur in their responsibilities at this time in their lives. This phase in their adult life cycle occurs when the grown-up children leave the house and is commonly referred to as the “empty nest” (Harkins, 1978). Borland (1982) argued that women in particular devote a large number of years to parenting, and during their middle-age are left with a major void in their daily lives, and may feel less needed. They therefore become more critical toward those who may make their own negative self-perceptions more salient, that is toward the elders whom they perceive as useless and not connected to the social fabric. Thus, they dissociate themselves from this threat and direct their criticism toward external
agents. Young men and women do not yet have to face these changes, whereas middle-aged men are described as less reactive to these life events (Borland, 1982).

Young and middle-aged women were found to hold fewer stereotypical perceptions toward the elderly (e.g. less agreement with items that criticized the elders for being irritating and complaining) than men. This may be explained by the fact that men and women are socialized into different caregiving roles in their families. Daughters have a higher level of responsibility in caring for their old parents and have more direct contact with them, whereas sons provide care at a “distance” and function as primary caregivers only when there are no daughters available (Neal et al., 1997). The findings of McConatha et al. (2004) that women in the U.S.A. and Turkey receive lower scores of fear from old people in comparison to men can provide some additional support for this explanation.

The current study was based on a convenience sample. This method, while being widely used in the area of questionnaire attitude research, does of course limit the generalizability of the study to non-student populations. It is therefore recommended that future studies in this area should use alternative sampling methods (e.g. stratified sampling) in order to allow for the generalizability of the findings. Future studies should take into account demographic variables such as a variety of age levels and education levels. In addition, the current study was based on a sample of individuals living in Israel. Future studies should examine whether the complex relationship between age, gender and ageism found here is unique to Israeli culture, is influenced by particular cultural variables (e.g. individualism-collectivism) or if this relationship is generalizable to other cultures.

“May you live to one hundred and twenty” is a traditional Jewish blessing for birthdays. A better understanding of the structure of ageism in various cultures may help to enhance the quality of life of older people.

Conflict of interest
None.

Description of authors' roles
E. Bodner designed the study, formulated the research questions, collected the data, and wrote most of the paper. A. Lazar analyzed the data and assisted with writing the paper (particularly the results and the method sections).

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