Americans Report Less Favorable Sentiments toward Young Adults than toward Any Other Age Group

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SUMMARY

Study goal. To provide an estimate of Americans' general sentiments toward different age groups.

Methods. An online sample representative of the U.S. adult population (N = 967) shared their sentiments toward people in their 20s, 30s, 40s, and so on, up to people in their 90s using feeling thermometers. They also completed a demographic questionnaire, a measure of social dominance orientation (SDO) and two open-ended essays about their feelings toward younger and older adults.

Findings

1. The representative sample harbored the least positive attitudes toward the young and the most positive ones toward older adults (see Figure 1a).
2. This attitudinal pattern was highly consistent across participants: A third of participants rated people in their 20s lower than any other age group; in contrast, less than 3.0% rated people in their 60s, 70s, 80s or 90s the lowest (Figure 1c).
3. This attitudinal pattern held across a wide range of participant demographics (see Figure 2).
4. People high on SDO—who tend to hold more racist, sexist, homophobic, Islamophobic, and ableist beliefs than the rest of the population—showed even more contempt for the young—but not for the old (see Figure 3).
5. The valence of the stereotype contents emerging from respondents' open-ended essays corroborated these attitudinal findings: 66.1% of the attributes associated with older adults were positive, close to twice more than the positive attributes associated with young adults (see Table 3).

BACKGROUND

As societies worldwide grapple with an unprecedented aging of the population, social scientists have taken a keen interest in ageism: the stereotyping of—and prejudice and discrimination against—people on the basis of their age. Demographic attributes influence the way individuals and groups are perceived, which in turn, shapes their life experiences (Fiske, 1998; Dovidio et al., 2010). In this regard, research on ageism has shown that negative views of older adults have detrimental effects on their social lives, economic prospects, subjective wellbeing, and the quality of care they receive (Francioli

& North, 2021a; Kornadt & Rothermund, 2011; Kotter-Grühn & Hess, 2012; Lyons et al., 2018; North & Fiske, 2012, 2013; Ramírez & Palacios-Espinosa, 2016). As societies strive to adapt to a rapidly changing age landscape, academic work on ageism shapes policies, organizational practices, and medical staff's patient engagement to reduce negative biases toward the older fringe of the population.

Despite a boom in ageism research however, academics have focused primarily on age biases targeting older adults—the proportionally growing segment of the population. In contrast, much less work has examined perceptions of younger adults (i.e., people below 18-35) and their impact on the outcomes of younger generations (Bratt et al., 2018; Francioli & North, 2021b). Yet, recent work suggests that younger adults do experience ageism. In multiple exploratory studies, young adults have reported being the target of condescension, stereotyping, and prejudice (Bratt et al., 2018; Chasteen et al., 2021; Duncan & Loretto, 2004). In addition, a growing body of work has shown that aging societies might entertain particularly negative views of the young (Bratt et al., 2018; Bratt et al., 2020; Francioli & North, 2021b; Francioli et al., *in progress*; Protzko & Schooler, 2019; Farkas et al., 1997).

Unfortunately, empirical studies assessing ageism toward all age groups are sparse. Research in the field often examines how older targets are viewed by younger participants (e.g., children, undergraduates, young professionals, medical personnel in training), but seldom how older adults see younger generations. Studies that do include older participants largely focus on participants' own views of aging, and how these self-perceptions impact their own health and well-being. As a result, it is unclear how society's sentiments—and potential ageism—toward the young compare with those toward the older segment of the population. The present pre-registered survey aims to address this gap by assessing Americans' general sentiments toward all adult age groups in a single study-design, using a sample representative of the U.S. adult population.

STUDY OVERVIEW

Focusing on the United States, we surveyed a large sample representative of the U.S. adult population to gauge American sentiments toward younger, middle-aged, and older adults. To capture impressions reflective of the population as a whole and maximize the ecological validity of our findings, we recruited a sample representative of the U.S. adult population with regards to age, gender, and race, but also political ideology. Political ideology is known to correlate with age-based attitudes (Francioli & North, 2021b) and represents a source of bias on most crowdsourcing platforms, where liberal participants are overrepresented (Clifford et al., 2015; Levay et al., 2016). We asked participants to share how they felt toward people in their 20s, 30s, 40s, and so on, up to people in their 90s, in an effort to compare sentiments toward all adult age cohorts in a single study and present a more comprehensive picture of ageism throughout the lifespan.

We surveyed explicit attitudes as our primary outcome measure. Explicit attitudes are widely used across many disciplines of social sciences (e.g., Hereck, 2002; Inbar et al., 2012; Sides & Gross, 2013; Lelkes, 2016; Wilcox et al., 1989; see also American National Election Study), including age-based research (Burnes et al., 2019; Kite et al., 2005; Francioli & North, 2021b). According to multiple meta-analyses and reviews, they also constitute a valid predictor of prejudicial beliefs and discriminatory

behaviors (Talaska et al. 2008). To capture explicit attitudes, we opted for feeling thermometers, a proven method that facilitates comparisons across target groups (Axt, 2017; see also American National Election Study). However, what feeling thermometers provide in convenience, they lose in depth and nuance. To address this limitation, we also asked participants to share their sentiments toward younger and older adults in two short essays. We used these open-ended questions to develop a complementary measure of attitudes and examine the stereotype content of younger and older adults.

We also measured participants' social dominance orientation (SDO) to assess whether attitudinal differences between target groups were reflective of a form of prejudicial bias toward the lower-rated group(s). SDO captures people's disposition to tolerate, justify, and even promote social hierarchies and inequalities (Ho et al., 2015; Pratto et al., 1994). A large body of work has shown that SDO represents a powerful predictor of prejudices, including racism, sexism, homophobia, classism, Islamophobia, and ableism (e.g., e.g., Bobbio et al., 2010; Bizer et al., 2012; Christopher & Wojda, 2008; Duckitt & Sibley, 2006; Guimond et al., 2013; Levin et al., 2012; Phelan & Basow 2007; Sibley et al., 2007; Sidanus et al., 1994; Whitley Jr, 1999). We compared how the age sentiments of participants with higher prejudicial dispositions (i.e., high SDO) fared relative to those of people with lower dispositions (i.e., low SDO).

To guarantee both the transparency and impartiality of our approach, we preregistered the sample size, study design, variables, and analytical plan, but did not formulate any hypotheses.[1]

METHODS

Participants. Per our preregistration form, we aimed to recruit a sample of 1,000 participants representative of the adult U.S. population with regards to age, gender, race, and political ideology. The sample was recruited via the crowdsourcing platform Prolific. Respondents were paid $0.67, for a median completion time of 4.6 minutes. By the end of our preregistered recruiting period, a few slots reserved for conservative minorities were left unfilled, leaving us with a total of 984 complete responses. Seventeen responses were excluded because of a failed attention check or duplicate IP address. Despite a slightly lower quota of conservative racial minorities, our final sample (N = 967 participants) closely matched the U.S. adult population on our selected criteria: 510 women (52.7%); 300 non- White respondents (31.0%); Age: M_{age} = 45.6, SD_{age} = 16.5, min_{age} = 18, max_{age} = 85; political view: 346 conservatives or extremely conservatives (35.8%), 247 moderates (25.5%), and 374 liberals or extremely liberals (38.7%).

Procedure. Participants self-reported their explicit attitudes toward people in their 20s, 30s, 40s, and so on, up to people in their 90s using a series of feeling thermometers with endpoints 0 = *Extremely*

[1] The preregistration form for the thermometer tasks is available here. The preregistration for the open-ended questions is available here. The preregistration for the complementary study examining SDO & attitudes toward ethnic groups is available here. Only a subset of the analyses described in the preregistrations are available in this preliminary report. Minor alterations to our initial analytical plans were made to maximize the statistical accuracy of our analyses (e.g., *target age groups* was entered as an ordinal rather than continuous predictor as initially preregistered, to stay as close as possible to the actual data and minimize the use of estimates). These minor changes to our initial analytical plan do not materially alter the findings nor conclusions presented in this report.

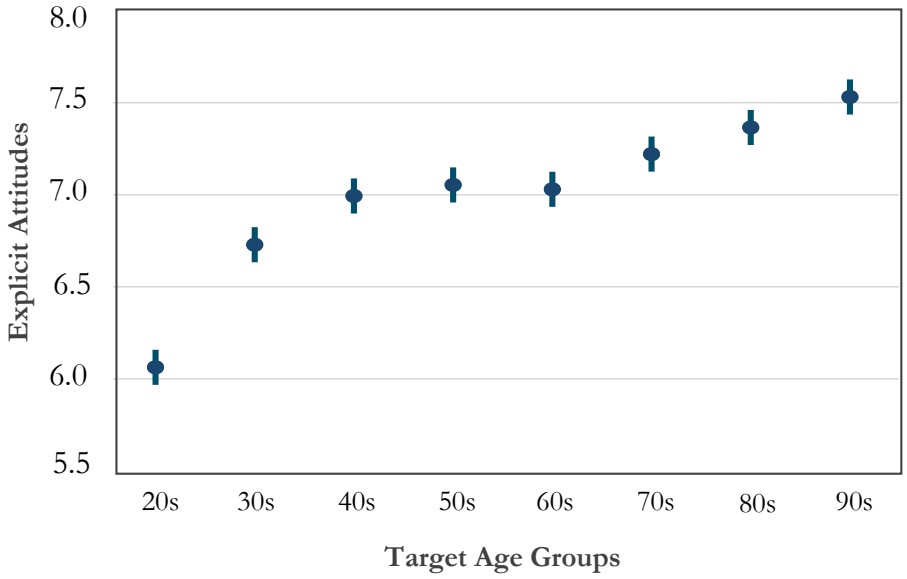
Negative Feelings and 10 = *Extremely Positive Feelings*. The order of the target age groups was counterbalanced to reduce risks of anchoring effect. Participants also completed two essay questions. The first encouraged participants to share how they perceive—and feel toward—people in their 20s and 30s, the second, how they perceive—and feel toward—people in their 80s and 90s. Participants then completed the short version of SDO_7 on a 7-point scale with endpoints 1 = *Strongly Oppose* and 7 = *Strongly Favor* (Ho et al., 2015; 8 items: e.g., "Some groups of people are simply inferior to other groups", "We should work to give all groups an equal chance to succeed", reverse coded; $\alpha = .90$). A brief demographic questionnaire concluded the study. The data was collected between December 15, 2021, and January 15, 2022. The study was launched under the IRB-FY2018-1358, approved by NYU Institutional Review Board, Office of Research Compliance.

RESULTS

Our representative sample overwhelmingly harbored the least favorable attitudes toward the young and the most favorable attitudes toward the old (see Figure 1a-c). We ran a repeated measure ANOVA with attitudes as the outcome variable and target cohort age as the repeated independent measure, $F(7, 6{,}762) = 85.88$, $p < .0001$. We followed up with a series of Bonferroni-

Figure 1a

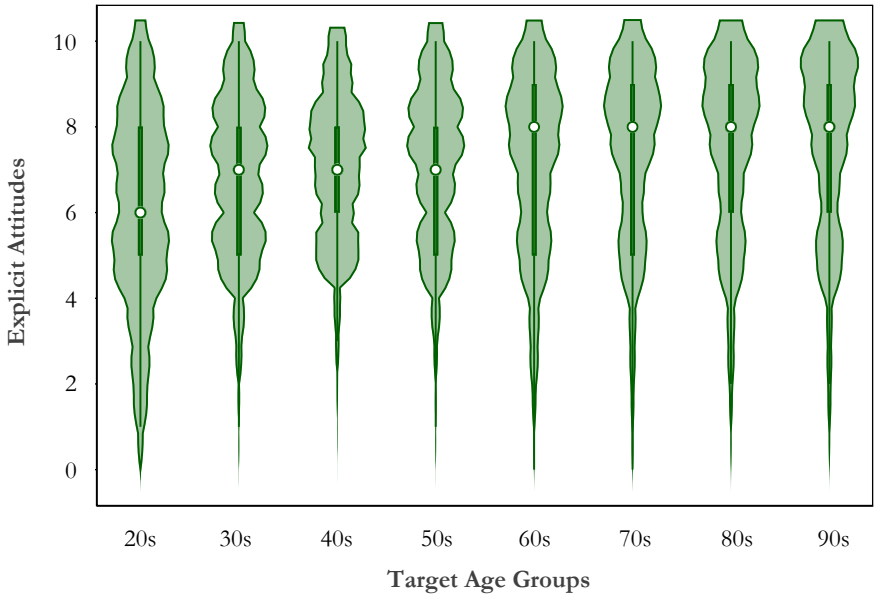
Mean Plot of Explicit Attitudes toward Different Age Groups for a Sample Representative of the U.S. Adult Population



Note. Explicit attitudes toward age groups follow an upward trend with a plateau between 40 and 60. People in their 20s tend to experience the least favorable attitudes, people in their 90s, the most favorable. Full scale of the outcome measure: 0 = *Extremely Negative* to 10 = *Extremely Positive*. Error bars represent 95% confidence intervals.

Figure 1b

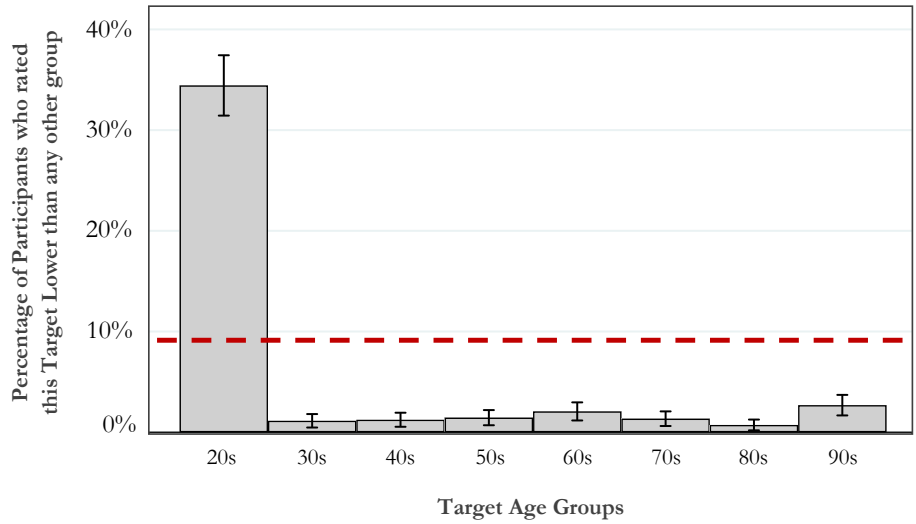
Violin Graphs of Explicit Attitudes toward Different Age Groups for a Sample representative of the U.S. Adult Population



Note. Attitudes were the least consensual and the median the lowest for people in their 20s (i.e., *Mdn* = 6, versus 7 for people in their 30s-50s, and 8 for people in their 60s and above).

Figure 1c

Percentage of Participants who Rated a Given Target Age Group Lower than Any Other



Note. More than a third (34.4%) of participants rated people in their 20s lower than any other target age group, close to four times the probability that such an event occurs by chance, $t(966) = 16.8$, $p < .0001$. In contrast, less than 3.0% rated any other group the lowest, way below chance, $ps < .0001$. Error bars represent 95% confidence intervals. The red dotted line indicates the likelihood that the event occurs by chance (8.7%).

adjusted pairwise comparisons (ps * 7). Respondents harbored the least favorable attitudes toward people in their 20s (M = 6.06, SD = 2.36), below those toward people in their 30s (M = 6.73, SD = 1.97), $p < .0001$. Attitudes toward people in their 30s were lower than those toward people in their 40s (M = 6.99, SD = 1.80), $p = .0008$. Attitudes towards people in their 40s, 50s (M = 7.05, SD = 1.96), and 60s (M = 7.03, SD = 2.21), were not significantly different from one another, ps = 1.000. Attitudes toward people in their 60s were lower than those toward people in their 70s (M = 7.22, SD = 2.27), $p = .0378$. Attitudes toward people in their 70s were not significantly lower than those toward people in their 80s (M = 7.37, SD = 2.22), $p = .2467$, and those toward people in their 80s, not significantly lower than those toward people in their 90s (M = 7.53, SD = 2.25), $p = .1128$. Despite the last two non-significant comparisons, we generally note an upward trend at the far end of the target age spectrum, with people in their 60s rated lower than those in their 80s, $p < .0001$, and those in their 70s rated lower than those in their 90s, $p < .0001$ (Bonferroni-adjustment ps * 28).

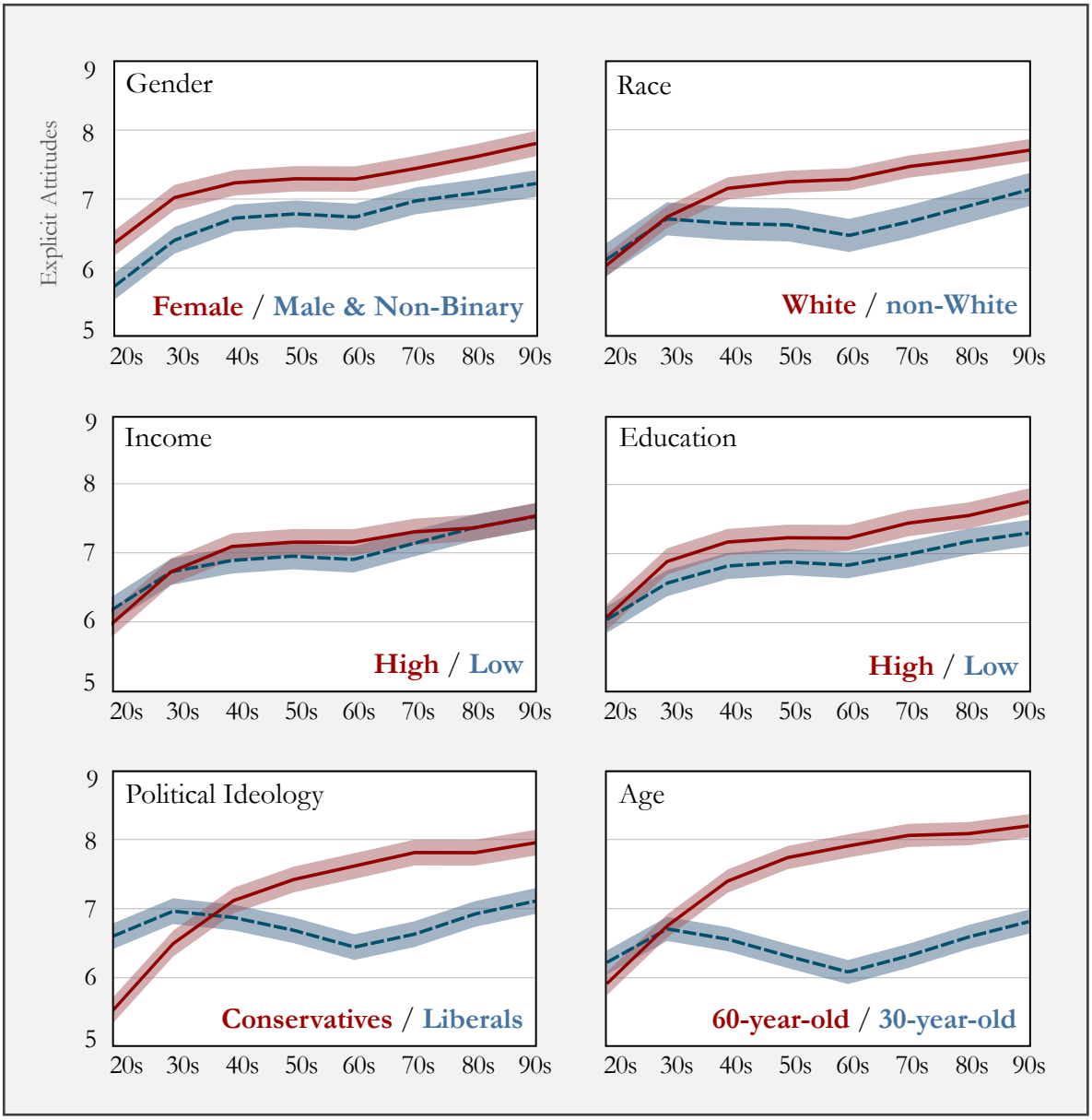
Overall, we observe an upward trend with a plateau between 40 and 60, so that people in their 20s experience the least favorable attitudes and those in their 90s, the most favorable ones (see Figure 1). From an effect size perspective, this trend is not negligible: The highest rated group (i.e., people in their 90s) enjoyed (7.53 - 6.06) / 6.06 = 24.3% more favorable attitudes than the lowest rated group (i.e., people in their 20s). Furthermore, we also note a great deal of consistency among participants: Of the 967 respondents, 333 (34.4%) rated people in their 20s the lowest of all target age groups; in contrast, less than 3.0% rated people in their 60s, 70s, 80s, or 90s the lowest (see Figure 1c). Taken together, these results suggest that Americans overwhelmingly harbor the least favorable explicit attitudes toward younger adults and most favorable ones toward older adults.

This preference for older over younger adults held across a wide range of participant demographics (see Figure 2). We ran a series of multi-level models to test whether participant demographics moderated the general attitudinal pattern reported above. Feeling thermometers served as our outcome measure. Observations were nested within participant. Target cohorts' age was entered as an ordinal predictor. Participant demographics were interacted with target cohorts' age. Each demographic variable was examined in a separate model. We entered categorical demographic variables as dummy predictors (i.e., gender: 1 = *female participant*, 0 = *male or non-binary participants*; race: 1 = *white participants*, 0 = *non-white participants*). We standardized those that are non-categorical (i.e., yearly income, highest level of education, participant age, political view) and entered them as continuous predictors. Wald tests were computed to assess the significance of each moderation and followed up with simple effect analyses.

Gender did not moderate attitudinal preferences, $\chi^2(7) = 2.30$, $p = .9411$. Female participants showed more positive attitudes toward all target age groups in general, but just like their male and non-binary counterparts, they exhibited a preference for older over younger adults (see Figure 2). Level of education and income did not greatly moderate attitudinal preferences either, respectively, $\chi^2(7) = 12.84$, $p = .0762$, and $\chi^2(7) = 17.58$, $p = .0140$. On the other hand, race did, $\chi^2(7) = 73.10$, $p < .0001$. White participants showed a stronger preference for older adults than did their non-White counterparts. Of note, however, comparisons of simple effects for non-White participants showed

Figure 2

Mean Plots of Explicit Attitudes toward Different Age Groups for a Sample representative of the U.S. Adult Population, as a function of Participant Demographic Characteristics



Note. Gender, level of income, and level of education do not greatly moderate the general pattern of age attitudes. White, conservatives and older participants show an even stronger attitudinal preference for older—over younger—adults. Conversely, racial and ethnic minorities, liberals, and younger participants tend to express more even attitudinal responses across target age groups, but still show modestly more favorable attitudes toward the "very old" than toward the youngest target age group. Full scale of the outcome measure: 0 = *Extremely Negative* to 10 = *Extremely Positive*. Mean plots for categorical moderators based on actual means. Mean plots for continuous moderators based on estimated simple effects. High/low income = +/- 1 *SD* away from the mean, where *M* = $89.6k, and *SD* = $62.4k. High/low education = +/- 1 *SD* away from the mean, where *M* = 12.2 years of education, and *SD* = 1.8. Political Ideology: Conservatives = 1 *SD* above the mean, and Liberals = 1 *SD* below the mean, where *M* = 3.0 (out of 5.0), and *SD* = 1.2. Age: 60-year-old = 0.94 *SD* above the mean, and 30-year-old = 0.87 *SD* below the mean, where *M* = 45.6 and *SD* = 16.5. Shaded areas represent 95% CI.

that the latter still evaluated people in their 60s (M = 6.47, SD = 2.29) and 90s (M = 7.14, SD = 2.42) more positively than those in their 20s (M = 6.12, SD = 2.37), respectively, p = .0259, and p < .0001 (Bonferroni adjustment: ps * 6). Similarly, conservative-leaning participants showed a stronger preference for older adults than did their liberal counterparts, $\chi^2(7) = 534.91$, p < .0001. Comparisons of estimated simple effects for liberals (i.e., political ideology = -1 SD) revealed that the latter would tend to evaluate people in their 20s (M = 6.60, SE = 0.10) similarly to those in their 60s (M = 6.44, SE = 0.10), p = .5754, and lower than those in their 90s (M = 7.11, SE = 0.10), p < .0001 (Bonferroni adjustment: ps * 6).

Predictably, participant age also moderated this general attitudinal pattern, $\chi^2(7) = 624.15$, p < .0001, albeit not in quite the way classic intergroup conflict theories would predict. Older participants showed a marked ingroup-outgroup bias. For instance, estimates of simple effects reveal that 60-year-old participant tended to rate people in their 20s (M = 5.92, SE = 0.09) significantly lower than those in their 60s (M = 7.91, SE = 0.09), p < .0001, and 90s (M = 8.20, SE = 0.09), p < .0001 (Bonferroni adjustment: ps * 6). In contrast, young adults did not seem to exhibit such a bias. For instance, 30-year-old participants tended to rate people in their 20s (M = 6.22, SE = 0.09) similarly to those in their 60s (M = 6.08, SE = 0.09), p = .7420, but lower than those in their 90s (M = 6.81, SE = 0.09), p < .0001 (Bonferroni adjustment: ps * 6).

To summarize: Men, women, white people, racial minorities, people of higher social class, people of lower social class, conservatives, liberals, older adults, and even younger adults all expressed an explicit preference for older—particularly for the "very old"—over younger adults.

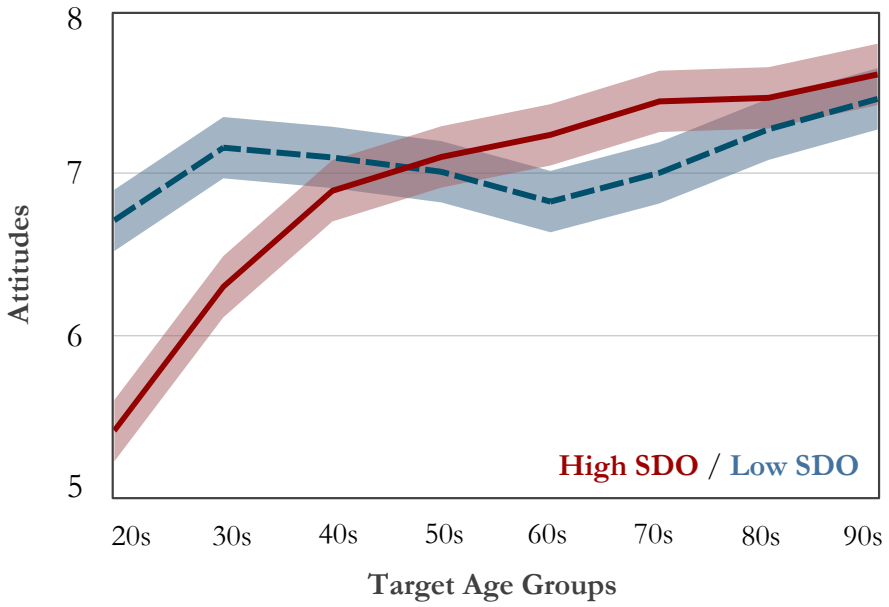
Consistent with the notion that less favorable attitudes toward the young reflect a form of prejudice, people high on SDO showed even more dislike for the young—but not for the old (see Figure 3). SDO moderated attitudes toward our different age cohorts, $\chi^2(7) = 301.84$, p < .0001. Based on estimated simple effects, a participant high on SDO (i.e., 1 SD above the mean) would evaluate people in their 20s (M = 5.42, SE = 0.10) much less favorably than would a participant low on SDO (i.e., 1 SD below the mean; M = 7.24, SE = 0.10), p < .0001 (Bonferroni adjustment: ps * 6). In contrast, a participant high on SDO would rate people in their 60s (M = 7.24, SE = 0.10) more favorably than would a participant low on SDO (M = 6.82, SE = 0.10), p < .0001, and people in their 90s (M = 7.61, SE = 0.10) similarly to a participant low on SDO (M = 7.46, SE = 0.10), p = .8075.

Correlational analyses also help interpret the magnitude of the prejudice targeting younger adults. We used semi-partial Spearman correlations to examine the relationship between SDO and attitudes toward each target age group, net of participant attitudes toward age groups *in general*.[2] Consistent with the analyses above, SDO correlated negatively with attitudes toward younger adults (e.g., r = -.29, p < .0001, for "people in their 20s") but positively with attitudes toward older adults, particularly the

[2] Past work has shown that variations in feeling thermometer responses across individuals are due not only to differences in affect toward the group, but also to differences in individual disposition to rate all groups relatively positively or negatively (Wilcox et al., 1989). Semi-partial Spearman correlations allowed us to control for part of the covariance between SDO and feeling thermometers explained by differences in baseline responses to feeling thermometers. To do so, we regressed attitudes toward *each* age group on a composite measure averaging attitudes toward *all* age groups and used the residuals as our updated measures of attitudes.

Figure 3

Mean Plot of Explicit Attitudes toward Different Age Groups for a Sample representative of the U.S. Adult Population, as a function of Participant SDO



Note. Consistent with the notion that higher attitudes toward older—relative to younger—adults do not reflect a benign social preference, but rather, a real prejudice toward the young, people with a strong proclivity for prejudice (i.e., people high on SDO) tend to view younger adults less positively than those with no such proclivity (i.e., people low on SDO). Of noteworthy mention, people high on SDO also exhibited more *positive* attitudes toward older adults than did people low on SDO, particularly toward the "young old" (i.e., people in their 60s and 70s). Full scale of the outcome measure: 0 = *Extremely Negative* to 10 = *Extremely Positive*. Mean based on estimated simple effects. High/Low SDO = +/- 1 *SD* away from the mean, where $M = 2.66$, and $SD = 1.38$. Shaded areas represent 95% confidence intervals.

"young old" (e.g., $r = .25$, $p < .0001$, for "people in their 60s"; see Table 1). To get a sense of the magnitude of these effects, we compared them with correlations between SDO and attitudes toward racial groups in the United States. To do so, we ran a separate survey with 198 Prolific participants representative of the U.S. adult population, in which we asked participants to complete the same SDO measure and report their attitudes toward Asian, Black, Latino, and White populations using feeling thermometers similar to those employed in our original age attitude survey.[3] Comparing the results of these two studies, we find that the relationship between SDO and attitudes toward people in their 20s, $r = -.29$, most closely matches that between SDO and attitudes toward Black people, $r = -.25$, while

[3] Semi-partial Spearman correlations were used as well. Attitudes toward *each* ethnic group was net of participant attitudes toward races *in general*. Based on G*Power 3.1 (Faul et a., 2009), given our sample size, an $\alpha = .05$, and a power of .80, we were sufficiently equipped to capture a critical $r = [-.141, .141]$ and $|\rho| = .199$.

the relationship between SDO and attitudes toward people in their 60s, $r = .25$, most closely matches that between SDO and attitudes toward White people, $r = .22$ (see Table 1).

To summarize, consistent with the notion that higher attitudes toward older—relative to younger—adults do not reflect just a benign preference but rather a real prejudice toward the young, people with a strong proclivity for prejudice (i.e., people high on SDO) tend to view younger adults less positively than those with no such proclivity (i.e., people low on SDO). Both the direction and magnitude of this SDO moderation were akin to those observed for SDO and attitudes toward Black people in the United States. In contrast, people high on SDO exhibited more *positive* attitudes toward older adults, particularly toward the "young old" (i.e., people in their 60s and 70s) than did people low on SDO. Both the direction and magnitude of this SDO moderation were akin to those observed for SDO and attitudes toward White people (i.e., preference for the dominant racial group).

Table 1

Relationship between SDO and Attitudes toward Age Groups, and SDO and Attitudes toward Racial Groups

Age Groups			Ethnicity & Race		
Target Group	*Partial Spearman Correlation*	*Sig.*	*Target Group*	*Partial Spearman Correlation*	*Sig.*
20s	-.29	$p < .0001$	Asian	.06	$p = .4394$
30s	-.23	$p < .0001$	Black	-.25	$p = .0005$
40s	-.03	$p = .3908$	Latino	-.08	$p = .2703$
50s	.13	$p = .0001$	White	.22	$p = .0017$
60s	.25	$p < .0001$			
70s	.25	$p < .0001$			
80s	.15	$p < .0001$			
90s	.11	$p = .0007$			

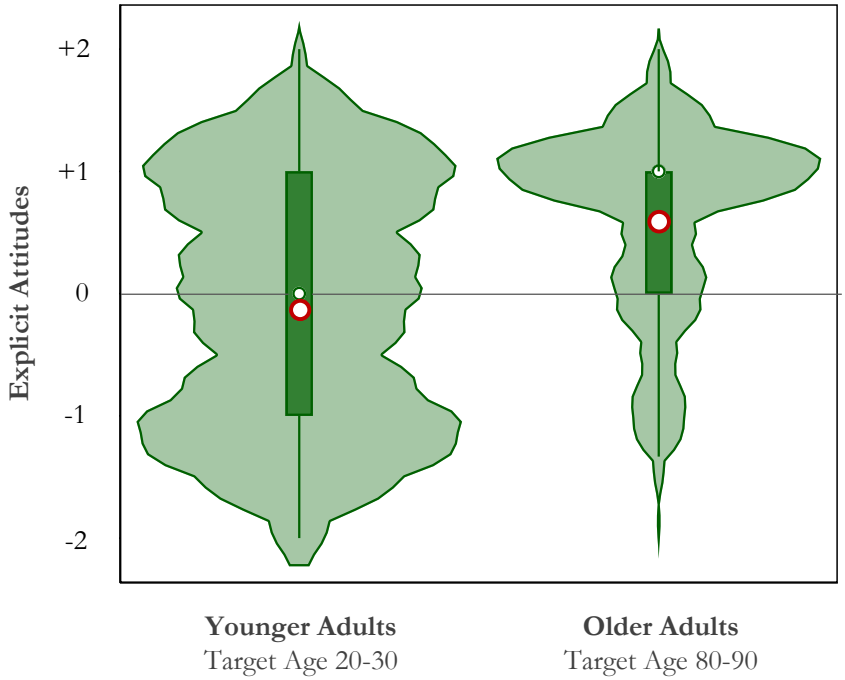
Note. Table of semi-partial Spearman correlations. The relationship between SDO and attitudes toward the young was akin to that of SDO with attitudes toward Black people, and the relationship between SDO and attitudes toward the "young old" akin to that between SDO and attitudes toward White people. Attitudes toward each age group are net of participant's attitude toward age groups *in general* (i.e., average attitudes toward people in their 20s-90s). Similarly, attitudes toward each ethnic/racial group are net of participant attitudes toward race *in general* (i.e., average attitudes toward Asian, Black, Latino, and White). Semi-partial correlations with target age groups are based on the same sample reported so far ($N = 967$). Semi-partial correlations with race are based on a separate study ($N = 198$). Per preregistration plan, SDO scores above or below 2.5 *SD* away from the mean were excluded.

The sentiments conveyed by participants in their open-ended responses corroborated the attitudinal pattern captured with feeling thermometers (see Figure 4). Except for three participants who did not complete the open-ended responses, participants each completed two essays: one about their sentiments toward and perceptions of people in their 20s and 30s (i.e., younger adults; n = 965), and one about their sentiments toward and perceptions of people in their 80s and 90s (i.e., older adults; n = 964). Table 2 provides a sample of essays displaying favorable and unfavorable opinions of each target.

Three research assistants independently coded each essay to assess the overall valance of participant's opinion of younger and older adults using a 5-point scale with endpoints -2 = *Extremely negative feelings*, and +2 = *Extremely positive feelings*. We ran a two-way random effects intraclass correlation to assess the inter-rater repeatability, ICC = .92, $CI_{95\%}$ [.911, .924]. The ratings of the three raters were averaged to obtain a measure of explicit attitudes toward younger and older adults. The attitudinal ratings obtained from essays about younger adults correlated strongly with the feeling

Figure 4

Violin Graphs of Attitudes toward Younger and Older Adults, based on Open-ended Responses of a Sample representative of the U.S. Adult Population



Note. Attitudes toward younger adults (i.e., people in their 20s and 30s) were mixed but trending negatively. In contrast, attitudes toward older adults (i.e., people in their 80s and 90s) were consensual and positive. Small green dots represent median attitudinal scores for each target age group. Larger red dots represent the means. On the Y-axis, values above 0 indicate Positive (+1) and Extremely Positive overall attitudes (+2), and values below 0 indicate Negative (-1) and Extremely Negative overall attitudes (-2).

Table 2

Sample of Favorable and Unfavorable Essays about Younger and Older Adults

Target	Valence	Essay
People in their 20s and 30s	**Favorable Opinion**	These are the most vibrant, creative, intelligent, and capable people in the world. They are shaping our future.
		people in their 20s and 30s are open-minded, accepting of others, they are forward-thinking, and not judgemental of others. they are easier to talk to, easier to relate to, and they are breaking many molds wh it comes to prejudices in society. they actively work to make the world a better place.
		I'm very proud of the younger generation. They are getting more involved in issues that are really import and they are leaving the older generations in the dust. I LOVE the younger generation! I am 68 and personally the world will be a better place when my generation dies off.
	Unfavorable Opinion	They are lazy, ignorant, impatient, lack social and interpersonal skills, rude and inconsiderate. They have been babied and pampered so much that the slightest thing offends them. They need to get off their tush and get a job and contribute, and stop complaining so much.
		Spoiled, brainwashed, destructive, ungrateful, Violent ,brainwashed into thinking Marxism is a good thin Uneducated, entitled, massively destructive generation.
		While they're not as bad as the indoctrinated and brain-washed kids and teenagers, young adults are soft and naive. They are also very, very rude to not only their elders, but everyone. They lack manners and ar incredibly superficial and selfish.
People in their 80s and 90s	**Favorable Opinion**	I have so much respect for people in their 80s and 90s. They have lived their lives according to the old ways, the traditional ways. I love to hear stories about their lives. They have worked hard all of their live and they have so much wisdom and love to share with anyone who will take the time to listen.
		I feel that this generation knows the true meaning of loyalty, respect, commitment and hard work. I've se the way that they generally behave, with regards to all kinds of issues (socially and politically), and they ju seem more grounded and humble, compared to those in their twenties and even those in their thirties.
		They are wise, concerned about others, kind, understanding and supportive
	Unfavorable Opinion	Hoarders of wealth that are actively harming the younger generations with their outdated political views. They are holding the future hostage and are basically nihilistic since they are not going to see the negative consequences of their actions due to death being close. They have no care to the world they leave behind for they will be dead.
		I view people in their 80s and 90s as super old and as if they are slowing down a lot. I also expect them t be slowing other people down and just relaxing all the time because of how old they are.
		This generation decided collectively that selfishness was the way forward. The economy, homelessness, th environment, and others are problems that they created to further their own interests, and dumped the problems on younger generations as they retired

thermometer for "People in their 20s", $r = .61$, $p < .0001$, and moderately with those for "People in their 30s", $r = .44$, $p < .0001$. The attitudinal ratings obtained from essays about older adults correlated strongly with the feeling thermometers of "People in their 80s", $r = .64$, $p < .0001$, and "People in their 90s", $r = .66$, $p < .0001$.

Consistent with the findings reported via feeling thermometers, the content of essays about young adults was significantly less positive ($M = -0.11$ $SD = 1.02$) than that of essays about older adults ($M = 0.57$, $SD = 0.83$), $t(964) = 14.89$, $p < .0001$ (see Figure 4). In fact, the valence of essays about the

young scored below the midpoint, $t(965) = 3.27$, $p = .0011$, and that of essays about older adults, significantly above, $t(964) = 21.34$, $p < .0001$. Finally, also corroborating the thermometer findings, social dominance orientation correlated negatively with the valence of essays about the young, $r = -.32$, $p < .0001$, and positively with the valence of essays about older adults, $r = .09$, $p = .0081$.

The valence of the stereotype content of older adults is primarily positive, and that of younger adults, primarily negative (see Table 3). Four other research assistants extracted all the attributes that respondents associated with younger and older adults in their essays (N = 3,761 non-unique attributes; e.g., adventurous, arrogant, driven, experienced, grumpy, helpless, inspiring, reckless, stuck up, wise). They then independently coded each attribute as positive, neutral, or negative (Fleiss's $\kappa = .77$, $p < .0001$).[4] Close to two-thirds of the attributes associated with older adults were positive (66.1%), and only one quarter were negative (26.1%). In contrast, only one third of those associated with younger adults were positive (35.2%), and more than half were negative (57.5%; see Table 3).

Seven of the ten attributes most frequently associated with younger adults were negative and tended to depict the target group as lacking in warmth and communality (e.g., entitled, disrespectful, immature, self-centered, selfish; see Table 4). In contrast, eight of the eleven attributes most frequently

Table 3

Breakdown of Attributes associated with Younger and Older Adults in Participant Essays, as a function of Attributes' Valence

	N	Negative	Neutral	Positive
Younger Adults	2,005	57.5%	7.3%	35.2%
Older Adults	1,756	26.1%	7.9%	66.1%

Note. Frequency of negative, neutral, and positive attributes, expressed as a percentage of all attributes associated with the target group. Close to two third of the attributes associated with older adults were positive and only a quarter were negative. In contrast, only a third of those associated with younger adults were positive, and more than half were negative. Overall, the stereotype content of older adults was much more positive than that of younger adults. The analysis is based on items extracted and independently rated by research assistants. Non-unique attributes are included (e.g., an attribute mentioned twice was counted twice).

[4] Research assistants were blind to the conditions when coding the attributes. That is, they did not know whether the item was used to describe younger adults, older adults, or both. Coding was completed independently. Disagreements among rater were resolved ulteriorly using the majority rating (e.g., if two raters coded an item as negative and one coded it as neutral, the item was coded as negative). In rare cases where all raters disagreed (i.e., one rater coded the item as positive, one coded it as neutral, and one coded it as negative), the first author used his own judgment.

Table 4

Attributes Most Frequently associated with Younger and Older Adults

Younger Adults				Older Adults			
Rank	**Attribute**	**Valence**	**Freq.**	**Rank**	**Attribute**	**Valence**	**Freq.**
1	entitled	—	89	1	wise	+	156
2	lazy	—	54	2	experienced	+	115
3	positive	+	43	3	respectable	+	113
4	hard-working	+	38	4	hard-working	+	74
5	disrespectful	—	37	5	knowledgeable	+	53
6	immature	—	36	6	positive	+	31
7	self-centered	—	32	7	conservative	/	24
7	young	+	32	7	sweet	+	24
9	selfish	—	29	9	old	/	23
10	know-it-all	—	27	10	set in their ways	—	21
				10	kind	+	21

Note. Seven of the ten attributes most frequently associated with younger adults were negative and tended to depict them as lacking in warmth and communality (e.g., entitled, disrespectful, immature, self-centered, selfish). In contrast, eight of the eleven attributes most frequently associated with older adults were positive and tended to describe them as both warm (i.e., positive, sweet, kind) and competent (i.e., wise, experienced, hard-working, knowledgeable). Valence independently rated by four research assistants: — refers to Negative Attribute, / refers to Neutral Attribute, and + refers to Positive Attribute.

associated with older adults were positive. Of note, four of them described older adults as competent (i.e., wise, experienced, hard-working, knowledgeable) and none described them as incompetent. The first items depicting older adults as lacking in either competence or agency came in 17th and 22nd position in the frequency ranking (i.e., "vulnerable" and "slow," respectively). These results contrast somewhat with findings in the stereotyping literature suggesting that older adults are perceived as incompetent (Cuddy & Fiske, 2002; Cuddy et al., 2005; Fiske et al., 2007).

Taken together, these results suggest that the valence of the stereotype content of older adults is primarily positive and that of younger adults is primarily negative, corroborating the broad attitudinal pattern described by the feeling thermometers.

DISCUSSION

As populations around the world are aging, the age landscape of modern societies is rapidly changing. In exploring the implications of this major demographic transformation, social scientists have largely focused on the experience and wellbeing of the older segment of the population—the proportionally growing one. In particular, ageism researchers have examined how age perceptions

shape the everyday life and long-term outcome of older adults, with the tacit assumption that ageism risk likely increases throughout the lifespan, such that older adults experience it the most. Contrasting with this view, a large preregistered, exploratory survey polling a sample representative of the U.S. adult population shows that Americans overwhelmingly harbor the least favorable sentiments toward the young and the most favorable sentiments toward the old. The sample reported less positive explicit attitudes toward the young than toward any other age groups in the thermometer task, wrote less positive essays about younger than about older adults, and attributed more undesirable than desirable features to younger adults but more desirable than undesirable features to older adults.

This pattern held across a wide range of participant demographics and was exacerbated by social dominance orientation. That is, people high in SDO—who generally harbor more negative feelings toward targets of prejudice than does the rest of the population—exhibited an even bigger attitudinal gap between younger and older target age groups. The association between SDO and anti-young sentiments was even comparable to that between SDO and anti-black sentiments; in contrast, the association between SDO and sentiments toward older adults was comparable to that of white favoritism. Of note, the broad attitudinal patterns reported above are highly consistent with those obtained by Francioli and North using similar thermometer paradigms in the past (e.g., Francioli & North, 2021b, Study 2). Taken together, this robust pattern provides a sense of the magnitude of *youngism* (i.e., age-bias targeting younger adults).

Why do people feel so negatively toward the young? Although the present research did not aim to explore the mechanisms underlying social biases against a specific age group, the strength of the anti-young ageism captured in our study begs the question of why people might feel so negatively toward the young. After all, young adults epitomize one of the most celebrated attributes of human existence: youthfulness. Youthfulness is universally associated with beauty, physical fit, and mental acuity, and often synonym of a relative social freedom to have fun and explore one's social environment and identity (e.g., Cattell, 1963; Craik & Salthouse, 2011; Cross & Cross, 1971; Crook et al., 1986; Franzoi & Koehler, 1998; Horn, 1982; Horn & Cattell, 1967; Zelazo et al., 2004). In contrast, older age and the process of aging is often associated with illness, mental and physical decline, mortality, and social isolation (Nelson, 2004; North & Fiske, 2012). It is no surprise, therefore, that people around the world want to see themselves as younger than they actually are (Barak & Stern, 1986; Chopik et al., 2018; Goldsmith & Heiens, 1992; Montepare & Lachman, 1989; Öberg & Tornstam, 2001; Ota et al., 2000; Uotinen, 1998; Westerhof et al., 2003) and expand a lot of efforts, time, and money to look young (American Society of Plastic Surgeons, 2020). In such a light, it may seem counterintuitive that people be so biased against the young.

Recent work, however, helps shed light on the nature of the stigma targeting younger adults. Contrary to ageism targeting older adults, which tends to focus on the fear and discomfort with the process of aging, recent evidence suggests that ageism targeting the young manifests itself as a form of generational scolding (Francioli & North, 2021b, Protzko & Schooler, 2019). That is, people claim to like the young *in general*, but to dislike *today*'s young in particular (Francioli & North 2021b), what some have labelled the "kids these days" effect (Protzko & Schooler, 2019). This negative generational bias is reflected in the stereotype content of young adults. Francioli and North (2021b) found that people tend to associate the positive attributes of youthfulness (e.g., bright, hip, driven) to both past

and present generations of young adults, but see the negative attributes (e.g., spoiled, entitled, disrespectful, naïve, politically radical) as unique to contemporary generations of young. Taken together, this early evidence suggests that people seem to see today's young as unpromising, troublesome, and undeserving, relative to previous generations at the same age.

It is worth noting that this generational disparagement is likely not new. Although academic evidence to support this assertion is still limited, plethora of anecdotes throughout history helps bolster the claim that older generations have always scolded younger generations, judging them as more disrespectful, shallow, and entitled than previous generations at the same age (Ruggeri, 2017; Seder, 2013; Standage, 2006). An example best illustrates this point. Back in Ancient Greece, the poet Hesiod (800 BC) is quoted as having said: "*I see no hope for the future of our people if they are dependent on the frivolous youth of today* […]. *When I was a boy, we were taught to be discrete and respectful of elders, but the present youth are exceedingly wise and impatient of restraint*." Contrary to Hesiod's grim predictions about the future of his people, the Greek empire flourished economically, politically, and culturally in subsequent decades—and centuries. So much so that, 400 years later, it birthed one of the greatest philosophers of all times: Socrates. By then, we might expect people to have learned its lesson regarding the imprudence of disparaging younger generations… but judging by Socrates—reported—sayings, it seems we did not: "*The children now love luxury; they have bad manners, contempt for authority; they show disrespect for elders and love chatter in place of exercise.* […]. *They contradict their parents, gobble up dainties at the table, cross their legs, and tyrannize their teachers*."

Similarly, today, the older cohorts who depicts the young (i.e., Millennials and GenZ) as entitled, politically radical, and disrespectful of authority are often part of the very same generation that, in the 1970s, was depicted in much the same way for protesting the Vietnam war and promoting social change via the New Left (Richardson, 2012). It seems, therefore, that *youngism* has been around for a long time, and that each generation is first victim of youngism, before becoming the perpetrators few decades later. Future work may seek to offer academic support for the contention that youngism has always existed. Recent large longitudinal text analyses have helped understand how ageism targeting older adults has evolved over time (Ng & Chow, 2021, Ng & Indran, 2022; Ng et al., 2015); a similar effort focusing on biases targeting the young may help test whether the disparagement of younger generations has always existed, and whether it has immutably revolved around critic of entitlement, naivety, and disobedience.

Finally, young adults also tend to epitomize social, cultural, political, and technological change (Gilleard, 2004; Mannheim, 1928/1952; Pilcher, 1994; Ryder, 1965; Schuman & Scott, 1989) and often seem to become the targets of the societal fears and frustrations this change engenders. For instance, in the late 18th century, religious intellectuals feared that the advent of novels and plays would steer young adults away from faith and tilt their moral compass (Ruggeri, 2017). In the 19th century, the popularization of chess was seen as a threat to youth's physical development (Seder, 2013). At the turn of the 20th century, the bike was believed to weaken young people's mind (Jarry, 2020). Modern days have witnessed similar concerns about the young and their habits: TV in the 80s, video games in the 90s, the internet in the 2000s, social media in the 2010s… It seems, therefore, that younger adults personify change, and become the recipients of the animosity that these changes spawn. Consistent with this assertion, a series of studies exploring the nature of intergenerational conflicts shows that

older adults tend to see younger generations as a symbolic threat, beholders of values and worldviews both different from theirs and dangerous for the future of society (Francioli et al., *in progress*). Future work may be particularly valuable to dive into these historical patterns and identify underlying mechanisms of youngism via fear of societal and technological change.

Why does youngism matter? Arguably, the primary criterion to determine whether youngism is deserving of more public and academic attention is whether it has real world consequences. Because the present work measures stereotyping and attitudes but not discriminations, its results provide limited direct information as to whether young adults do suffer the consequences of the negative bias they are subject to. That said, prior work allows for informed conjectures. First, young adults have reported being the target of discriminations (Bratt et al., 2018; Chasteen et al., 2021; Duncan & Loretto, 2004). Second, historically, stereotyping and prejudice measured the way we have in our study have been shown to predict discriminations (Krauss, 1995; Talaska et al. 2008). For instance, in the context of youngism specifically, Francioli and North (2021) have found that endorsement of stereotypes about the young predicted people's willingness to fund a charity aiming at alleviating student debt. Third, people high on SDO are particularly prone to behaving discriminatorily toward the groups they dislike (Ktelly et al., 2011). It is therefore reasonable to surmise that the unfavorable attitudes people high on SDO exhibited toward the young in our study would translate behaviorally as well. Finally,

It is also worth noting that age-based anti-discrimination laws and reporting tools focus almost exclusively on discrimination targeting older adults. For instance, although the U.S. Equal Employment Opportunity Commission has the competence to track and handle age discrimination complaints at the workplace, it does so under the Age Discrimination in Employment Act (ADEA), which protects job applicants and employees aged 40 years and older but not younger workers. As a result, workplace discriminations against younger workers likely go unnoticed. Additional work by both academics and public authorities is needed, therefore, to determine the degree of discrimination targeting younger adults.

One additional question is not *whether*, but *how* discrimination against the young might manifest itself. To answer this question, it is worth examining the current and future life conditions of today's young. Saddled by two of the worst economic crises of the century, lower income, rising costs of housing and education, and the projected insolvency of publicly funded programs accompanying older age, today's young face the largest intergenerational wealth gap in modern history (Censky, 2011; Rappeport & Sanger-Katz, 2021). A longstanding pillar of the American dream, homeownership is becoming less accessible to today's young Americans than it was to prior generations (Hoffower & Kiersz, 2021; Ingraham, 2020). Beyond their unprecedented economic struggles, today's younger generations will also be the first to bear the steep ecological consequences of years of unrestrained consumption and economic booms that have largely benefited their predecessors (IPCC, 2022).

In a context where the young face both stringent economic and ecological predicaments, their ability to address these major issues is limited. Demographically, young adults are progressively becoming a numerical minority as the proportion of older adults keeps increasing—there will be twice more Americans aged 65 and above by 2040 than there were in 2000 (Administration for Community Living, 2021). Politically, they have seen their influence in the democratic process decline as the

number of older—more conservative—voters keep growing and the average age of elected officials keeps rising (e.g., US Congressmen and Senators averaged 60 this year; Library of Congress, 2022). This lower power in the voting booth and age-disconnect with elected officials likely make their political interests less well represented. Finally, most societies compel people to show respect, admiration, and deference for their elders (Berger et al., 1972; Elder, 1975). This seniority-based status distinction may help normalize condescension toward the young, a common sign of paternalistic authority that leads people to further denigrate the voice, concerns, and opinions of disadvantaged groups (Eckes, 2002; Glick & Fiske, 2001).

Addressing the colossal challenges faced by today's young requires the support of older generations, who possess both the economic and political power necessary to take actions. In this context, the view that society—and older generations in particular—has of the young will shape younger generations' future. Negative sentiments toward the young may reduce older generations' willingness to address the grim economic and ecological prospects of today's young. Therefore, although youngism has likely always existed, the rapid aging of the population and the impending ecological cliff faced by today's young makes the present a particularly crucial time to acknowledge, understand, and address anti-young biases.

LIMITATIONS & OPPORTUNITIES FOR FUTURE RESEARCH

The paradigm employed in this study advances our understanding of ageism by providing a sense of American sentiments toward each age group in a single study design. The use of a representative sample increases the ecological validity of the findings. The essay questions help capture participants' unconstrained opinions of younger and older adults and allowed us to corroborate the findings of the more general thermometer measures, adding convergent validity to our findings. Finally, the preregistration of the methods, measures, and analytical plans increases the transparency of our methods, and the exploratory nature of the study reduced the likelihood of researcher-driven confirmation bias. These methodological strides helped improve the validity of our findings. That said, we also acknowledge several limitations that provide opportunities for future research.

First, our exploratory survey focused exclusively on U.S. participants. Since age attitudes are known to vary across cultures (North & Fiske, 2013; Weiss & Zhang, 2020), future work should investigate whether, how, and why specific cultural features moderate the attitudinal preference for older over younger adults identified in the present research.

Second, our study focuses on broad, decontextualized perceptions of age groups. Studying broad perceptions is commonplace across a wide range of disciplines in social sciences. It has also proven useful in advancing understanding of societal opinions as well as predicting policy support, collective beliefs, and individual-level discrimination (e.g., Cuddy et al., 2002; Hereck, 2002; Kalkan et al., 2009; Leckles, 2016; Ofosu et al., 2020; Reny & Baretto, 2022; Sawyer & Gampa, 2018; Sides & Gross, 2013; Tessler, 2012; see also Talaska et al. 2008), including in the ageism literature (Burnes et al., 2019; Kite et al., 2005; Francioli & North, 2021b; North & Fiske, 2015). That said, social evaluations are often shaped by the context in which the target group or individual is evaluated (Kornadt et al., 2013; Schwarz, 2007). For instance, although Americans do seem to feel positively toward "people in their

80s" in general, they may feel very differently toward "workers in their 80s" or "healthcare patients in their 80s." Future work should further explore how contexts shape the attitudinal patterns observed in this study. Relatedly, perceptions of individual targets differ from those of group targets and often result from complex socio-cognitive processes that account for the multiple social categories the individual target belongs to (e.g., age, gender, race; Purdie-Vaughns & Eibach, 2008). For instance, prior research has shown that older women may be perceived differently from older men (Duncan & Loretto, 2004; Francioli & North, 2021b; Kite et al., 2005; Kornadt et al., 2013; Laditka et al., 2004; Martin et al., 2019; Narayan, 2008). Future work may expand upon the current findings to examine how age-based perceptions interact with gender, race, and social class perceptions, and how they may moderate the general pattern of age-based attitudes identified in this study.

Third, this study does not account for potential social desirability effects. Prior work has shown that survey respondents tend to under-report negative sentiments toward targets of prejudice, out of self-presentation concerns (Krumpal, 2013; Krysan, 1998). The particularly positive sentiments toward older adults captured in our survey might reflect in part a tendency of participants to respond to sensitive questions in a socially desirable way. With the rapid aging of the population and the advent of large interest groups advocating for the older fringe of the population, "old" ageism has gained a lot of public attention in recent years (AARP, 2010; Charlesworth, & Banaji, 2019; Nelson, 2016; Officer & de la Fuente-Núñez, 2018). It is legally sanctioned and likely less socially condoned than youngism. It is also ubiquitous and socially tolerated, as illustrated by the flourish of news articles and popular books castigating today's young (e.g., "The Dumbest Generation", Bauerlein, 2008; "What's Wrong with Millennials?", Brown, 2013; and or "Generation Me" Twenge, 2014; see also Bratt et al., 2020; Francioli & North, 2021b; Protzko & Schooler, 2019; and Westman, 1991). Therefore, participants may have felt more comfortable sharing their contempt for the young than they did their contempt for older adults. Although self-administered methods tend to significantly reduce risks of social desirability (Krumpal, 2013; Tourangeau & Yan, 2007) and although recent evidence casts doubt on the influence of social desirability on the accuracy of group attitudes reporting altogether (Axt, 2017), researchers may want to explore whether and how social desirability might shape people's willingness to truthfully report their feelings toward younger versus older adults.

Finally, our investigation focused on explicit stereotyping and prejudice. A couple of limitations derive from this methodological choice. First, analyses of large samples of participants who completed the age Implicit Association Test has shown that implicit and explicit age attitudes follow different patterns (Charlesworth & Banaji, 2019; Chopik & Giasson, 2017; Nosek et al., 2002). People tend to exhibit an implicit preference for the young, an effect even more pronounced for older participants. To build a more comprehensive picture of ageism throughout the lifespan, future work should attempt to clarify both empirically and theoretically the nature and unique consequences of implicit and explicit age attitudes, considering not only "old" ageism, but also youngism. Second, future work should examine whether and how explicit preferences for older adults shape real-world outcomes for the young. Francioli and North (2021) found that endorsement of negative stereotypes about the young reduced both intentions to support a political candidate openly acknowledging younger generations' economic struggles (behavioral intentions; Study 4) and likelihood to fund a student-debt relief program (actual behavior; Study 5). However, more work is needed to understand to what extent

negative views of the young influence aging societies' willingness to address problems faced by younger generations (e.g., youth unemployment, rising housing costs, curbed opportunities at wealth accumulation, future insolvency of social welfare, climate change, diminishing influence over the democratic process, etc.)? More than ever before, youngism constitutes a promising field of academic inquiry.

CONCLUSION

Since its inception more than 60 years ago, ageism research has focused almost exclusively on the age-stigma plaguing the older segment of the population. Stressing the urgent need to advance our understanding of ageism targeting the young, our findings show that Americans harbor the most unfavorable sentiments toward younger—not older—adults, a bias that follows attitudinal patterns akin to those of other forms of prejudice (e.g., racism). In a rapidly aging world where young adults are numerically, economically, and politically disadvantaged relative to their older counterparts, studying how youngism shapes the outcomes and life prospects of younger generations is a matter of intergenerational equity.

ADDITIONAL INFO

Disclaimers. These results are based on preliminary analyses. This study has not yet been subject to the rigor of an academic peer-reviewed publication process. The anonymized dataset, codebooks, and Stata code used for these analyses will be made available to researchers once the study is published in a peer-reviewed journal. Note that this study is part of a broader research endeavor in which we also examine lay and academic participants' accuracy at estimating the findings described in this report.

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