Millennials versus Boomers:

Asymmetric Patterns of Realistic and Symbolic Threats Drive Intergenerational Tensions

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**Open Practices Statement:** Experiment 1 was not formally preregistered; the preregistration for Experiment 2 and 3 can be accessed, respectively, here and here. De-identified data for all experiments along with their codebooks and data analysis scripts are posted here. The materials used in these studies is available in the SOM-U.

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Abstract

Conflict between younger and older generations appears frequently in public discourse. However, some have argued that these tensions are just media-generated controversy. Focusing on Millennials and Baby Boomers, we build on intergroup threat theory to explore the strength and nature of intergenerational tensions in three online studies: an exploratory survey, a preregistered correlational study, and a preregistered intervention ($N = 1,714$). We find that: (i) Millennials and Baby Boomers do express more animosity toward one another than toward other generations (Studies 1-3); (ii) whereas hostility toward Baby Boomers derives primarily from Millennials’ economic distress (realistic threat), Baby Boomers’ hostility toward Millennials reflects fears of shifting worldviews (symbolic threat; Studies 2-3); (iii) highlighting the artificiality of generational labels reduces perceived threats and indirectly elicits more favorable outgroup attitudes (Study 3). These findings suggest that intergenerational tensions are real, rooted in asymmetrical concerns over symbolic versus realistic resources, and responsive to intervention.

Keywords: age, generation, ageism, intergroup threat theory, Baby Boomers, Millennials
**Statement of Relevance**

Comparisons and criticisms between Millennials and Baby Boomers are prevalent in the news and social media. Across three studies, we find evidence that these tensions are not just a media fantasy: Millennials and Baby Boomers do express more animosity toward one another than toward other generations. However, this mutual acrimony is grounded in distinct concerns: Millennials feel that Baby Boomers threaten their access to economic security; Baby Boomers are most concerned about perceived incompatibilities in the norms and values of the two generations. An intervention highlighting the arbitrary nature of generational boundaries helped alleviate these concerns. These findings suggest that generational labels might heighten tensions between younger and older adults in an aging world and that challenging the legitimacy of these labels can attenuate this conflict.
Generations have become a popular topic of conversation in American public discourse. Unfortunately, not all portrayals are flattering, particularly between Millennials and Baby Boomers, the two largest U.S. adult generations.\(^1\) On the one hand, Millennials (born between 1981 and 1996; Pew Research, 2019) have been depicted by their elders as lazy, entitled, disrespectful, and responsible for the perceived decay of American life, from its most foundational features (e.g., work ethics, marriage, face-to-face interactions) to its most trivial ones (e.g., wine corks, golf, napkins; Paul, 2017). On the other hand, Baby Boomers (born between 1946 and 1964), once cast as champions of social progress, have also come under fire, portrayed by younger critics as greedy, complacent, wasteful, and seen as taking advantage of economic, environmental, and political resources at the expense of other generations (e.g., Lopez, 2016; Romano, 2019).

Some have argued that these portrayals are overblown by the media, that generational labels are arbitrary, and that the strength of intra-family ties across generations thwarts the risk of deeply rooted conflicts (e.g., Binstock, 2010; Williamson et al., 2003; Hoolashan & McKee, 2019; Rudolph et al., 2020). In contrast, others have claimed that intergenerational tensions are intensifying. Growing research has documented both younger generations’ disparagement of their elders (Nelson, 2005; North & Fiske, 2012), and elders’ scolding of today’s young (Bratt et al., 2020; Chasteen et al., 2021; Francioli & North, 2021; Protzko & Schooler, 2019). Public rifts

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\(^1\) Generation X (born 1965-1980) is numerically smaller and discussed less (half as much as Baby Boomers and a quarter as much as Millennials; Google Trends, 2021). The Silent Generation (1928-1945) is even smaller and talked about even less. Discussion about Generation Z (1997-undefined) is growing but they are still emerging as a social category, with most members still in childhood.
between Millennials and Baby Boomers, therefore, might reflect tangible divides between young and old. Furthermore, generational labels, which segment the adult population into neatly defined categories, might also foster an us-versus-them mentality that heightens existing frictions (Diehl, 1990; Tajfel, 1970).

We explore whether tensions between Baby Boomers and Millennials are genuine, and if so, what drives them. Building on intergroup threat theory (ITT; Stephan & Stephan, 2000; Stephan et al., 2016), we argue that these tensions are real and rooted in asymmetrical intergenerational concerns. Our findings advance our understanding of intergroup relations by challenging existing assumptions in the ITT literature about how threats drive intergroup attitudes among dominant and non-dominant groups. We also contribute to scholarship on intergenerational relations by revealing the nature of the conflict between Millennials and Baby Boomers. Furthermore, we show how questioning the legitimacy of generational labels can ameliorate this conflict.

Threats Between Generations

ITT argues that intergroup tensions result from both perceived concerns over the ingroup’s power, status, resources, and well-being (i.e., realistic threats), and fears for the ingroup’s culture, values, worldview, and way of life (i.e., symbolic threats; Stephan et al., 2016). Although outgroups generally elicit a mix of both realistic and symbolic threat, prior research suggests that the relative societal standing of the ingroup shapes this mixture. Realistic threat tends to drive the animosity of dominant groups toward non-dominant ones, and symbolic threat that of non-dominant groups toward dominant ones (e.g., Morrison et al., 2009; Riek et al., 2006; Rios et al., 2018; Stephan et al., 2016).

Given Baby Boomers’ higher economic, financial, and political standing
Foundation, 2018; Lewis, 2019), one might expect this trend to hold for generations as well, with realistic threat driving Baby Boomers’ hostility toward Millennials, and symbolic threat driving Millennials’ hostility toward Baby Boomers. In support of this prediction, many Baby Boomers have expressed the desire to remain in the workforce longer and may see Millennials—viewed by employers as cheaper and more adaptable—as standing in their way (i.e., realistic threat; Loretto & White, 2006; Kulik et al., 2016). Conversely, prior research shows that young people often frown upon older adults who adopt elements of youth culture (e.g., going into night clubs, using social media; North & Fiske, 2013). Symbolic threat, therefore, might help explain Millennials’ resentment of Baby Boomers.

However, we propose that generational conflicts follow the opposite pattern. Further ahead economically and further along in life, many Baby Boomers likely do not see Millennials as a credible threat to their material resources. Baby Boomers may be more concerned with the cultural heritage they leave behind. Older generations often expect younger ones to respect, honor, and preserve their way of life (Cruz-Saco, 2010), a desire potentially amplified as one’s generation approaches an unavoidable numerical decline (Danbold & Huo, 2015; 2021). In a context where Millennials have long been depicted as challenging the norms and values of previous generations (Paul, 2017), we predict that symbolic concerns constitute the primary driver of Baby Boomers’ hostility toward Millennials.

In contrast, comforted in the belief that, as older generations decline, so does their cultural hegemony, Millennials may be confident that Boomers do not represent a serious threat to their habits and lifestyle. However, Millennials may be more concerned by their own immediate economic situation. Many societies, Americans among others, adhere to the expectation that older cohorts pass down their material resources and make ways for younger
generations (North & Fiske, 2013). However, as Baby Boomers live longer, delay retirement, and retain powerful roles in society, Millennials may worry that Baby Boomers’ hold over economic and political resources threatens their opportunity to accumulate wealth, resources, and power. These concerns may be exacerbated by economic setbacks that have saddled many Millennials with vast debts and rising expenses (Van Dam, 2020). Therefore, we predict that realistic threat constitutes the primary driver of Millennials’ hostility toward Baby Boomers.

Reducing Tensions by Delegitimizing Generational Labels

Identifying how intergroup threats shape intergenerational tensions prompts the question of how they can be reduced. Rather than telling Millennials and Baby Boomers that their intergroup anxieties are unfounded—which they would likely reject—we test an intervention challenging the legitimacy of generational identities. Research shows that weakening the extent to which one’s ingroup is clearly defined can reduce willingness to express outgroup bias (Abelson et al., 1998; Effron & Knowles, 2015). By loosening participants’ generational thinking, which revolves around neatly defined group boundaries, and stressing instead the universality of the experience of aging, from young to late adulthood, we aimed to reduce outgroup threats and the negative attitudes that follow.

Research Overview

We test our predictions across three studies. First, we examine Baby Boomers’ and Millennials’ attitudes toward different generations to determine whether the popular “Boomer-versus-Millennial” narrative reflects real-world tensions (Study 1-3). Second, to better define the nature of these tensions, we test whether realistic concerns drive Millennials’ perceptions of Baby Boomers and symbolic concerns Baby Boomers’ perceptions of Millennials (Study 2-3).
Third, we test whether challenging the legitimacy of intergenerational narratives help alleviate these concerns (Study 3).

**STUDY 1**

In Study 1, we asked Baby Boomers and Millennials how they felt toward each of the four largest U.S. adult generations, and the extent to which each outgroup generation posed a threat to their ingroup. We expected participants to report more animosity and concern toward one another’s generation than toward others.

**Methods**

**Participants.** We collected 425 complete U.S.-based responses from Amazon Mechanical Turk. Given the exploratory nature of this study, we had no a priori expectations about effect sizes and did not conduct a priori power analyses. Eligible respondents were born between either 1981-1996 (i.e., Millennials) or 1946-1964 (i.e., Baby Boomers). We excluded 21 respondents based on duplicate IP addresses. Our final sample included 299 Millennials (Age: $M = 30.4$, $SD = 4.09$; 142 women; 88 non-White minorities) and 108 Baby Boomers (Age: $M = 60.0$, $SD = 4.94$; 69 women; 9 minorities), for a total of 407 participants. Hence, the study comprises a-Millennial-Baby Boomer ratio of roughly 3:1, mirroring the broader mTurk pool.\(^2\)

**Procedure & Measures.** Participants completed our primary DVs, followed by a brief demographic questionnaire and debriefing.\(^3\)

**Attitudes toward each generation.** Participants shared their feelings toward the four largest U.S. adult generations (i.e., Millennials, Gen-Xers, Baby Boomers, and Silent Generation) using feeling thermometers with endpoints 0 = “you feel extremely cold/unfavorable

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\(^2\) In a more exploratory way, we collected data also from Generation X participants (analyses available in SOM-R).

\(^3\) As part of a more exploratory process, a few additional measures were included in these three studies. These variables are presented in the SOM-U and available in the shared data files.
toward that group,” and 10 = “you feel extremely warm/favorable toward that group.” As stated at the outset, we did not include the younger Generation Z as a target group because, abiding by the heuristic that generations span roughly 15-18 years, an overwhelming majority of its members are currently still in their childhood—as young as 6 years-old.

**General threat.** Participants reported the extent to which each outgroup cohort (e.g., Gen-Xers, Baby Boomers and Silents for Millennials) represented a threat to the interest of their generation using a 100-point scale with endpoints 0 = *Not at All* and 100 = *Extremely*. At this stage, no distinction between realistic or symbolic threat was specified; the measure captured a global sense of threat.

**Results**

Descriptive statistics and correlation matrix in Table 1.

### Table 1

*Study 1 Descriptive Statistics and Correlations between Attitudes and Threat, by Participant and Target Generation*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Target</th>
<th>Attitudes</th>
<th>Threat</th>
<th>Attitudes/Threat correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M  SD</td>
<td>M  SD</td>
<td>r    p</td>
</tr>
<tr>
<td>Millennials</td>
<td>Millennials</td>
<td>6.88 2.67</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>Gen-Xers</td>
<td>6.57 2.44</td>
<td>38.7 29.8</td>
<td>-.02 .750</td>
</tr>
<tr>
<td></td>
<td>Baby Boomers</td>
<td>5.61 2.92</td>
<td>45.5 32.2</td>
<td>-.30 &lt; .001</td>
</tr>
<tr>
<td></td>
<td>Silent Generation</td>
<td>6.35 2.83</td>
<td>33.7 31.4</td>
<td>-.20 &lt; .001</td>
</tr>
<tr>
<td>Baby Boomers</td>
<td>Millennials</td>
<td>5.27 2.80</td>
<td>41.9 36.5</td>
<td>-.47 &lt; .001</td>
</tr>
<tr>
<td></td>
<td>Gen-Xers</td>
<td>6.57 2.23</td>
<td>33.1 29.1</td>
<td>-.20 .040</td>
</tr>
<tr>
<td></td>
<td>Baby Boomers</td>
<td>7.74 2.12</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>Silent Generation</td>
<td>7.72 2.45</td>
<td>16.4 24.6</td>
<td>-.30 .002</td>
</tr>
</tbody>
</table>
**Attitudes toward each generation.** We conducted a mixed two-way ANOVA on attitudes with participant generation and target generation as predictors and followed up on a significant two-way interaction, $F(3, 1,215) = 41.85, p < .001$, with pairwise comparisons (see Figure 1a). Millennials rated Baby Boomers the least favorably ($M = 5.61, SD = 2.92$), below ingroup members ($M = 6.88, SD = 2.67$), $p < .001$, $d = 0.33$, Gen-Xers ($M = 6.57, SD = 2.44$), $p < .001$, $d = 0.37$, and Silents ($M = 6.35, SD = 2.83$), $p < .001$, $d = 0.27$. Conversely, Baby Boomers reported the least favorable attitudes toward Millennials ($M = 5.26, SD = 2.80$), below Gen-Xers ($M = 6.57, SD = 2.23$), $p < .001$, $d = 0.45$, ingroup members ($M = 7.74, SD = 2.11$), $p < .001$, $d = 0.72$, and Silents ($M = 7.72, SD = 2.45$), $p < .001$, $d = 0.64$.

**General threat.** To examine the extent to which each cohort perceived other generations as a threat we ran two separate one-way repeated ANOVAs (i.e., one for each participant generation) followed by pairwise comparisons (see Figure 1b). Results paralleled those of attitudes. Millennials perceived Baby Boomers ($M = 45.47$ out of 100, $SD = 32.18$) as the most threatening to their generation’s interests, above Gen-Xers ($M = 38.71, SD = 29.75$), $p < .001$, $d = 0.15$, and Silents ($M = 33.66, SD = 31.42$), $p < .001$, $d = 0.25$; $F(2, 596) = 25.16$. Conversely, Baby Boomers perceived Millennials as the biggest threat ($M = 41.94, SD = 36.43$), above Gen-Xers ($M = 33.06, SD = 29.15$), $p = .008$, $d = 0.19$, and Silents ($M = 16.37, SD = 24.61$), $p < .001$, $d = 0.65$; $F(2, 214) = 30.71, p < .001$.

**General threat predicts attitudes.** Consistent with hypotheses, intergroup threat negatively predicted attitudes for both Millennials rating Baby Boomers ($r = -.30, p < .001$) and Baby Boomers rating Millennials ($r = -.47, p < .001$). The strength of this relationship supports the prediction that intergroup threat may be a driver of attitudes toward the outgroup.
MILLENNIALS VS. BOOMERS

Figure 1a & 1b

*Millennials and Baby Boomers’ Attitudes toward and Perceived Threats from the Four US Adult Generations.*

![Table 2

*Millennials and Baby Boomers’ Attitudes toward the Four U.S. Adult Generations, Study 1-3.*](image)

<table>
<thead>
<tr>
<th>Participant Generation</th>
<th>Target Generation</th>
<th>Study 1 M (SD)</th>
<th>Study 2 M (SD)</th>
<th>Study 3 M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millennials</td>
<td>Millennials</td>
<td>6.9 (2.7)</td>
<td>6.9 (2.5)</td>
<td>6.7 (2.6)</td>
</tr>
<tr>
<td></td>
<td>Generation-X</td>
<td>6.6 (2.4)</td>
<td>6.3 (2.2)</td>
<td>6.2 (2.2)</td>
</tr>
<tr>
<td></td>
<td>Baby Boomers</td>
<td>5.6 (2.9)</td>
<td>5.3 (2.8)</td>
<td>5.0 (2.9)</td>
</tr>
<tr>
<td></td>
<td>Silent Generation</td>
<td>6.4 (2.8)</td>
<td>6.4 (2.6)</td>
<td>6.3 (2.8)</td>
</tr>
<tr>
<td>Baby Boomers</td>
<td>Millennials</td>
<td>5.3 (2.8)</td>
<td>6.4 (2.8)</td>
<td>6.3 (2.5)</td>
</tr>
<tr>
<td></td>
<td>Generation-X</td>
<td>6.6 (2.2)</td>
<td>7.3 (2.1)</td>
<td>7.1 (2.1)</td>
</tr>
<tr>
<td></td>
<td>Baby Boomers</td>
<td>7.7 (2.1)</td>
<td>8.0 (2.2)</td>
<td>8.0 (2.1)</td>
</tr>
<tr>
<td></td>
<td>Silent Generation</td>
<td>7.7 (2.5)</td>
<td>8.4 (1.9)</td>
<td>8.1 (2.2)</td>
</tr>
</tbody>
</table>

*Note.* Gray rows indicate the outgroup of interest (i.e., Millennials for Baby Boomer participants, and Baby Boomers for Millennial participants). In all studies, Millennials felt significantly less favorably toward Baby Boomers than toward any other generation, and vice versa for Baby Boomers toward Millennials (all *p* < .001).
Replication. We also collected feeling thermometers for these four generations in Study 2 and 3, and replicated the attitudinal patterns described above (see Table 2; details in SOM-R). In all studies, Millennials felt significantly less favorably toward Baby boomers than toward any other generation, and vice versa for Baby Boomers toward Millennials (all \( p < .001 \); see Table 2).

STUDY 2

In Study 1, Millennials and Baby Boomers reported more negative attitudes and higher levels of threat toward one another than toward other generations. In Study 2, preregistered (link here), we examined whether realistic and symbolic threats differentially predicted Millennials’ and Baby Boomers’ hostility toward one another across a more varied set of measures.

Methods

Participants. As per our preregistration, we sought to collect a sample equivalent in size to that of Study 1, but with a more equitable ratio of Millennial to Baby Boomer participants. We collected 401 complete responses. After excluding duplicates, our sample was made of 184 Millennials (Age: \( M = 31.08, SD = 4.62 \); 92 women; 54 minorities) and 200 Baby Boomers (Age: \( M = 64.11, SD = 5.29 \); 122 women; 20 minorities).

Procedure. After a brief demographic questionnaire, participants completed a feeling thermometer about each generation. Participants were then told that they would be randomly assigned to an in-depth survey about one of the three outgroup generations, but all Millennial participants actually evaluated Baby Boomers, and Baby Boomer participants, Millennials. We used this minor deception to mask the fact that our study focused on the Millennial-vs-Boomer tension specifically, thereby reducing risks of demand characteristics. A debrief concluded the study.
**Measures.** Full scale measures available in the SOM-U.

**Realistic and Symbolic Threats.** Six realistic threat items (e.g., “[Baby Boomers / Millennials] get more from this country than they contribute.” α = .93) and six symbolic threat items (e.g., “[Baby Boomers/Millennials] have a different moral code than [Millennials/Baby Boomers].” α = .88) were created specifically for this study and measured on a 7-point scale with endpoints 1 = *Strongly Disagree,* and 7 = *Strongly Agree.*

**Outgroup Stereotypes.** Participants shared the extent to which they thought that eight stereotypes applied to outgroup members using a 7-point scale with endpoints 1 = *Not at All* and 7 = *A Great Deal* (e.g., burdensome, selfless (r), rude, respectful (r); α = .88). The items were selected for their high level of overlap between Baby Boomer and Millennial stereotypes (Cuddy & Fiske, 2002; Francioli & North, 2021).

**Outgroup Attitudes.** Attitudes toward the outgroup was captured in two different ways. We used feeling thermometers similar to those of Study 1, and five items adapted from Danbold & Huo, 2021 (e.g., “I have a positive attitudes toward [Millennials/Baby Boomers]”), measured on a 7-point scale with endpoints 1 = *Strongly Disagree* and 7 = *Strongly Agree* (α = .91).

**Policy Support.** A series of six pro-young-adults policy items (e.g., “There should be full forgiveness of student debt”; “The AARP [American Association of Retired Persons] should do more to educate older adults about the values of younger generations”) and six pro-older-adults policy items (e.g., “More tax revenue should be reallocated to today’s seniors”; “Social media should be regulated to ensure that the voice of older adults can still be heard”) were created specifically for this study and utilized a 7-point scale with endpoints 1 = *Strongly Disagree* and 7 = *Strongly Agree.* The six pro-older-adults items were reverse-coded and combined with the six pro-young items to form a single policy measure. To ease interpretation and simplify our
analyses, we also reverse-coded the measure for Baby Boomers, so our final measure reflected participant endorsement of pro-ingroup policies for both Boomers and Millennials ($\alpha = .69$).\(^4\)

**Results**

Per our preregistered analytical plan, we ran separate multiple regressions for each DV (stereotyping, feeling thermometer, outgroup attitude scale, and pro-ingroup policies) with the following predictors: participant generation (binary: Baby Boomer = 0; Millennial = 1), realistic threat (continuous, standardized), symbolic threat (continuous, standardized), the interaction between generation and realistic threat, and the interaction between generation and symbolic threat. Per our preregistration form, eight participants were excluded because their score on either threat measure was +/-2.5 SD away from the mean—analyses including outliers did not affect overall findings. To ease interpretation and comparisons across dependent variables, we reverse-coded the thermometers and the attitude scale, such that higher scores represented more negative attitudes toward the outgroup. See Table 3 for detailed descriptive statistics and correlation matrix.

Regression outputs in Table 4. Interaction patterns in Figure 2. As predicted, across outcome variables, realistic threat was a stronger predictor than symbolic threat for Millennial participants, and vice versa for Baby Boomers.

**Replication.** We collected some of these same measures in Study 3, and tried to replicate the above findings for the attitudinal scale and thermometer (see details in SOM-R). Again, in the sample of Study 3—twice larger and better representative of the US political landscape—realistic threat was a stronger predictor of unfavorable attitudes toward the outgroup for

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\(^4\) Subsamples’ alphas were higher than the combined one: Millennial participants $\alpha = .74$; Baby Boomer participants: $\alpha = .74$. 
Millennial participants (thermometer: $B = 0.83, p < .001, \text{CI}_{95\%} [0.39, 1.28], \eta^2_p = .015$; scale: $B = 0.72, p < .001, \text{CI}_{95\%} [0.52, 0.91], \eta^2_p = .056$), and symbolic threat for Baby Boomer participants (thermometer: $B = -0.44, p = .021, \text{CI}_{95\%} [-0.07, -0.82], \eta^2_p = .006$; scale: $B = -0.30, p < .001, \text{CI}_{95\%} [-0.46, -0.13], \eta^2_p = .014$).

Table 3

*Study 2 Descriptive Statistics and Correlation Matrix*

<table>
<thead>
<tr>
<th>Participants</th>
<th>Measure</th>
<th>$M$</th>
<th>$SD$</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millennials</td>
<td>(1) Realistic Threat</td>
<td>4.26</td>
<td>1.61</td>
<td>.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) Symbolic Threat</td>
<td>4.82</td>
<td>1.04</td>
<td>.80</td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) Stereotyping</td>
<td>3.75</td>
<td>1.15</td>
<td>.84</td>
<td>.66</td>
<td>.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4) Attitude (thermo)</td>
<td>5.32</td>
<td>2.82</td>
<td></td>
<td>-.47</td>
<td>-.33</td>
<td>-.61</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(5) Attitude (scale)</td>
<td>4.49</td>
<td>1.51</td>
<td>.92</td>
<td>-.61</td>
<td>-.43</td>
<td>-.84</td>
<td>.69</td>
</tr>
<tr>
<td></td>
<td>(6) Policies</td>
<td>4.28</td>
<td>0.88</td>
<td>.75</td>
<td>.53</td>
<td>.32</td>
<td>.63</td>
<td>-.58</td>
</tr>
<tr>
<td>Baby Boomers</td>
<td>(1) Realistic Threat</td>
<td>2.98</td>
<td>1.37</td>
<td>.91</td>
<td></td>
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<tr>
<td></td>
<td>(2) Symbolic Threat</td>
<td>4.40</td>
<td>1.31</td>
<td>.89</td>
<td>.65</td>
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<tr>
<td></td>
<td>(3) Stereotyping</td>
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<td>1.09</td>
<td>.88</td>
<td>.54</td>
<td>.71</td>
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<td></td>
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<tr>
<td></td>
<td>(4) Attitude (thermo)</td>
<td>6.37</td>
<td>2.83</td>
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<td>-.44</td>
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<tr>
<td></td>
<td>(5) Attitude (scale)</td>
<td>4.87</td>
<td>1.23</td>
<td>.89</td>
<td>-.55</td>
<td>-.66</td>
<td>-.77</td>
<td>.77</td>
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<tr>
<td></td>
<td>(6) Policies</td>
<td>4.46</td>
<td>0.86</td>
<td>.74</td>
<td>.54</td>
<td>.56</td>
<td>.51</td>
<td>-.41</td>
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</table>

*Note.* All correlations significant at $p < .001$. 
Table 4

Study 2 Outgroup Stereotyping, Outgroup Attitudes, and Pro-ingroup Policy Support as a Function of Participant Generation, and Realistic and Symbolic Threats

<table>
<thead>
<tr>
<th>Outgroup Stereotypes</th>
<th>Attitudes (thermo, rev.)</th>
<th>Attitudes (scale, rev.)</th>
<th>Pro-ingroup Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$p$</td>
<td>CL$_{95%}$</td>
</tr>
<tr>
<td>Millennials</td>
<td>-0.84</td>
<td>&lt;.001</td>
<td>[-1.02, -0.66]</td>
</tr>
<tr>
<td>Realistic Threat</td>
<td>0.18</td>
<td>.054</td>
<td>[-0.00, 0.36]</td>
</tr>
<tr>
<td>Millennials * Realistic Threat</td>
<td>0.50</td>
<td>&lt;.001</td>
<td>[ 0.27, 0.72]</td>
</tr>
<tr>
<td>Symbolic Threat</td>
<td>0.68</td>
<td>&lt;.001</td>
<td>[ 0.53, 0.83]</td>
</tr>
<tr>
<td>Millennials * Symbolic Threat</td>
<td>-0.43</td>
<td>&lt;.001</td>
<td>[-0.65, -0.20]</td>
</tr>
<tr>
<td>Constant</td>
<td>4.24</td>
<td>&lt;.001</td>
<td></td>
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<tr>
<td>$R^2$</td>
<td>.502</td>
<td>&lt;.001</td>
<td>[ 0.43, 0.55]</td>
</tr>
</tbody>
</table>

Note. Millennials is a binary variable (0 = Baby Boomers, 1 = Millennials).
Figure 2

Relationship between threats and outgroup-relevant outcomes split by participant generation.

Note. Steeper slopes for realistic threat among Millennials and symbolic threat among Boomers reveal a threat asymmetry. Value of realistic threat at $+1.5\ SD = 6.03$, and at $-1.5\ SD = 1.17$; value of symbolic threat at $+1.5\ SD = 6.41$, and at $-1.5\ SD = 2.80$. 
STUDY 3

In Study 2, Millennials and Baby Boomers exhibited negative biases toward one another across a wide range of measures. Furthermore, as predicted, realistic threat predicted Millennials’ bias toward Baby Boomers better than did symbolic threat, and vice versa for Baby Boomers’ bias toward Millennials. In Study 3, (preregistered here), we examined whether we could alleviate these tensions. We developed an informational intervention stressing the idea that generations do not constitute a legitimate basis for social categorization and emphasizing the notion that today’s older adults are yesterday’s young, and today’s young, tomorrow’s old. We expected such an intervention to reduce generational threat and prejudice. Furthermore, since our intervention targeted the legitimacy of generational identity in general, rather than anything specific about either generation, we expected the material to be effective for both Millennial and Baby Boomer participants.

Methods

Participants. Per our preregistration, we aimed to recruit 1,200 participants from the US pool of the crowdsourcing platform Prolific. We also set strict screening criteria to build a more representative sample of participants. Unfortunately, our use of Prolific for prior relevant studies limited the pool of respondents for this study, and data collection for Baby Boomers dropped off sharply before we met our target. After 11 days of data collection—and seven of low activity—we determined that we would be unlikely to ever reach our target, and thus opted to stop the data collection.

After excluding participants with failed attention checks and duplicate IP addresses, our final sample included 557 Millennials (Age: $M = 31.7, SD = 4.4$; 278 women; 57.6% minorities; political view: extremely liberal, 11.5%; liberal, 32.1%; moderate, 23.9%; conservative, 26.8%;
extremely conservative, 5.7%) and 366 Baby Boomers (Age: $M = 63.4, SD = 4.8$; 213 women; 10.4% minorities; political view: extremely liberal, 10.7%; liberal, 34.4%; moderate, 16.9%; conservative, 29.5%; extremely conservative, 8.5%). Sensitivity analysis revealed that given our sample size, $\alpha = .05$, and Power $= .80$, we were equipped to detect a main effect of $\eta^2 = .008$.

**Procedure & Measures.** Participants were introduced to our manipulation under the guise of a pre-study survey assessing social scientists’ effectiveness at conveying academic findings to a lay audience. Participants first read one of two mock newspaper interviews, which served as the control and the intervention condition. To aid the credibility of our cover story, participants also answered three reading comprehension questions.

Both excerpts featured a purported interview with a social psychology professor at a top U.S.-based university. The intervention condition focused on generational identities, whereas the control condition emphasized regional ones (i.e., East Coasters and West Coasters). Each version included three questions from the interviewer, accompanied by the interviewee’s responses. Although the exact language of the two versions differed, the content matched in length and paralleled each other, albeit transposed to different contexts (i.e., temporal differences for the intervention and geographical differences for the control condition; see Figure 3). A pilot study ($N = 79$) pretested the material and confirmed the clarity, believability, and low reactance of both conditions (see SOM-R).

After completing the manipulation materials, participants were thanked and redirected to what was described as the “real” study they had been recruited for. The study started with a basic demographic questionnaire, followed by attitude thermometer items for each generation. Once again, participants were told that they would be randomly assigned to one of the three outgroup generation conditions, but Baby Boomers evaluated Millennials, and Millennials evaluated Baby
Boomers. They did so by completing the outgroup attitude scale ($\alpha = .93$), realistic threat measure ($\alpha = .95$), and symbolic threat measure ($\alpha = .88$) used in Study 2.

Participants also completed a quick essay in which they were invited to explain what they thought the purpose of the study was, in their own words. This essay was independently coded by two research assistants to identify participants who correctly guessed that the reading comprehension was an intervention meant to influence their attitudinal responses, $\kappa = .84$, $p < .001$ (98.8% agreement, versus 92.6% expected agreement; disagreements settled by the first author). These essays were used to examine the effects of demand characteristics. A short debrief concluded the study.

**Figure 3**

*Material of Study 3. Control condition on the left and intervention on the right.*

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**Can you tell us a bit more about how people think of East and West Coast people, and why your research suggests that these are misconceptions?**

Media, marketers, and politicians often contrast people from the East Coast with people from the West Coast, as if they had different personality, habits, tastes, values... but there is no scientific evidence to support these claims. These geographic groups are artificial: Who are East Coast people? Those who live in coastal cities, like Boston, Miami, and New York City? Those who live in a coastal state, like Massachusetts, Florida, and New York? And what about someone who grew up in Los Angeles but has been working in Washington DC for 5 years? Is he a West or East Coast person? These labels don't make much sense and shouldn't be taken too seriously.

But surely, we can see some differences: Many San Franciscans are into healthy food; New Yorkers often seem in a rush... are these all illusions?

These are mainly situational differences, not value or personality differences. San Franciscans are into healthy food because of the weather: It is hotter; people wear lighter clothes; they go to the beach more often... their body is more exposed to others’ judgment, so they are more weight conscious and careful about what they eat. Move a New Yorker to San Francisco, and she will quickly behave like a “true” San Franciscan. As for New Yorkers being in a rush: Move a San Franciscan to New York City, with a busy job, crowded transportation, and a city that never sleeps, and she will quickly adopt what you identify as a “New Yorker” behavior. This is a reflection of the situation people are in, not personality or values.

So, what advice do you give to West Coast people when they think about East Coast people, and vice versa?

People should keep in mind that Americans move from one state to the next all the time. San Franciscans ought to remember that they would behave very much like New Yorkers if they were to move to New York, and New Yorkers like San Franciscans, if they were to move to San Francisco—which, one day, they might.

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**Can you tell us a bit more about how people think of generations today, and why your research suggests these are misconceptions?**

In recent years, generational labels like Millennials, GenXers, or Baby Boomers have gained a lot of popularity among journalists, pollsters, managers, and politicians. Each generation supposedly spans 20 years and has unique personality traits, habits, values... but there is no scientific evidence to support these claims. These generational groups are artificial: The idea that you are a GenXer if you are born in 1960 and a Millennial if you are born a year later—with a different personality or set of values... these labels don’t make much sense and shouldn’t be taken too seriously.

But surely, we can see differences between Boomers and Millennials, from technology habits and political endorsement, to wealth and spending habits. Is this all an illusion?

A lot of these are just life stage differences. Young people have always been more liberal than the rest of the population, and older adults more conservative. This was already the case in the 60s, when then young Boomers were labeled by their elders as naive and radical for protesting the Vietnam War or adopting a “hippie” lifestyle. Today, the same Boomers dismiss Millennials as naive and radical for supporting left-leaning candidates. It’s an age thing, not a generation thing. As for the gap in wealth between generations, most Boomers are either workers at the peak of their career or recent retirees: It stands to reason that they are richer than Millennials, who are more junior in their career. Wealth, power, and influence grow throughout one’s life.

So, what advice do you give to people when they think about other generations?

People should keep in mind that we all age. We all move from one life stage to the next. Boomers ought to remember that today’s Millennials are very similar to them when they were young—just 40 years later. Conversely, Millennials ought to remember that they too will age, change, and become the Boomers of tomorrow.
Results

See Table 5 for descriptive statistics and correlation matrix.

Table 5

Descriptive Statistics and Correlation Matrix, Study 3

<table>
<thead>
<tr>
<th>Participants</th>
<th>Measure</th>
<th>M</th>
<th>SD</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millennials</td>
<td>(1) Realistic Threat</td>
<td>3.99</td>
<td>1.70</td>
<td>.95</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) Symbolic Threat</td>
<td>4.66</td>
<td>1.06</td>
<td>.81</td>
<td>.43</td>
</tr>
<tr>
<td></td>
<td>(3) Outgroup Attitudes</td>
<td>4.56</td>
<td>1.46</td>
<td>.93</td>
<td>-.71</td>
</tr>
<tr>
<td>Baby Boomers</td>
<td>(1) Realistic Threat</td>
<td>2.58</td>
<td>1.23</td>
<td>.92</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) Symbolic Threat</td>
<td>4.13</td>
<td>1.30</td>
<td>.89</td>
<td>.53</td>
</tr>
<tr>
<td></td>
<td>(3) Outgroup Attitudes</td>
<td>5.29</td>
<td>1.13</td>
<td>.88</td>
<td>-.40</td>
</tr>
</tbody>
</table>

Note. Correlations all significant at $p < .001$.

As stated in our preregistered analytical plan, we excluded 31 participants who scored $+/-2.5$ $SD$ away from the mean on one of our key variables.\(^5\) Per our analytical plan, we examined both the direct and indirect effects of our intervention on attitudes toward the outgroup generation to test its effectiveness. A regression analysis suggests that the total effect of the intervention increased positive outgroup attitudes, $B = 0.20, p = .030, CI_{95\%} [0.02, 0.38]$, $\eta^2 = .005$.

Next, we used `sureg` and `nlcom` commands in Stata 15.1 (StataCorp, 2021) to perform a multiple mediated model looking at the indirect effect of participant condition on attitudes toward the outgroup via both realistic and symbolic threat. The intervention significantly alleviated perceived realistic threat, $B = -0.37, p = .001, CI_{95\%} [-0.59, -0.15]$, $\eta^2 = .012$, and

---

\(^5\) Analyses including these participants changed the effect of the intervention on intergroup attitudes from significant ($p = .030$) to trending ($p = .142$). However, it did not substantially alter the effects on realistic and symbolic threat, nor did it affect the findings of the mediational analyses.
symbolic threat, $B = -0.32, p < .001, \text{CI}_95\% [-0.48, -0.17]$, $\eta^2 = .019$. Consistent with our preregistered predictions and our theorizing that the positive effect of the intervention would be mediated by realistic and symbolic threat, both indirect paths were significant: realistic threat, $B = 0.17, p = .001, \text{CI}_95\% [0.07; 0.28]$, and symbolic threat, $B = 0.07, p < .001, \text{CI}_95\% [0.03, 0.11]$ (see Figure 4).

**Figure 4**

*Mediational Process, Study 3*

**Indirect Path:** *Realistic Threat:* $B = 0.172, SE = 0.05, p = .001, \text{CI}_95\% [0.078, 0.267]$

*Symbolic Threat:* $B = 0.073, SE = 0.02, p < .001, \text{CI}_95\% [0.033, 0.114]$

**Post-hoc Analyses.** We did not find evidence of a moderation by participant generation (i.e., Millennials vs Baby Boomers). For instance, a two-way ANOVA with the intervention and participant generation (Baby Boomer = 0, Millennial = 1) as predictors revealed no significant interactions for outgroup attitudes, $F(1, 888) = 0.08, p = .778, \eta^2 = .0001$, realistic threat, $F(1,
888) = 0.11, \( p = 0.736 \), \( \eta_p^2 = 0.0001 \), or symbolic threat, \( F(1, 888) = 1.55, \ p = 0.214, \ \eta_p^2 = 0.002 \). In addition, demand characteristics did not seem to drive the effect of our intervention: Only 40 participants (4.3%) correctly identified our manipulation in their essay; excluding them only strengthened the effect of our intervention on outgroup attitudes, \( B = 0.23, \ p = 0.014, \ CI_{95\%} [0.05, 0.42], \ \eta^2 = 0.007 \).

**General Discussion**

Across an exploratory survey, a preregistered correlational study, and a preregistered experiment, we find consistent evidence that tensions between Millennials and Baby Boomers are more than superficial banter. Members of both generations expressed more hostile attitudes toward one another than toward other generations (Studies 1-3) and these negative attitudes were rooted in perceived threat (Studies 1-3). Millennials’ hostility toward Baby Boomers reflected mainly realistic concerns, and Baby Boomers’ toward Millennials symbolic ones (Studies 2-3). Finally, an intervention challenging the legitimacy of generational categories alleviated perceived threat and hostile outgroup sentiments (Study 3).

This research contributes to the literature on intergenerational relations in two important ways. First, we highlight how realistic and symbolic threats differentially drive animosity toward the young and the old. To Baby Boomers, Millennials threaten their values and the cultural heritage they leave behind; to Millennials, Baby Boomers threaten their ability to accumulate power and resources. This latter result adds nuance to established findings about negative stereotypes against older people. Rather than viewing their elders as doddering and dependent (a stereotype that may be more commonly held for members of the—older—Silent Generation; Cuddy & Fiske, 2002), Millennials see Baby Boomers as domineering and withholding. Similarly, the strength of Baby Boomers’ scorn toward Millennials underscores the need for
more research on anti-young ageism.

Second, we show that popular generations are a meaningful form of social identity for Americans, accompanied by both ingroup liking and outgroup derogation. In this regard, a simple intervention challenging the legitimacy of popular generational labels was sufficient to reduce perceived threats between younger and older adults (Study 3). This suggests that encouraging people to stop viewing the world through a generational lens might attenuate these significant societal tensions.

Finally, our findings also advance our understanding of intergroup threat. The asymmetrical threat pattern observed between Millennials and Baby Boomers contrast with prior findings from the ITT literature (e.g., Riek et al., 2006) according to which dominant groups—in this context, Baby Boomers—should harbor more realistic concerns and non-dominant ones—here, Millennial—more symbolic ones. By documenting the reverse pattern, we hope that researchers consider the specific features of intergenerational conflicts (e.g., expectations of exchanging material and cultural resources between generations over the lifecycle) and see whether this effect is unique to generations or applicable to other overlooked intergroup contexts.

Notwithstanding the value of these findings, this work also has several limitations that should be addressed by future research. As noted at the outset, we only focus on two of the four—and soon to be five—adult generations in the United States. Whether, in a couple decades, conflicts between Generation Z and Generation X come to mirror those between Millennials and Baby Boomers can tell us much about the cyclical nature of intergenerational tensions. Another limitation of our work is that our intervention combined arguments about the illegitimacy of generational identities with commentaries about the transient nature of age. Because these arguments are not mutually exclusive, there is not an urgent practical need to parse them out, but
it would be worth examining whether there generate distinct mechanisms. Finally, our work adopts an exclusively U.S.-centric focus. Generational dynamics vary across countries, so we encourage researchers to explore the international implications of this work and the role that culture, political climate, and economic environment might play in moderating these effects. Nevertheless, intergenerational tensions represent a timely social problem worthy of additional attention, and the current paper is among the first to elucidate the uniqueness of Boomer-Millennial frictions.
References


StataCorp. 2021. *Stata Statistical Software: Release 17*. College Station, TX: StataCorp LLC.


