

<https://doi.org/10.1038/s44271-024-00154-w>

# White Americans who perceive themselves to be “last place” in the racial status hierarchy are most drawn to alt-right extremism

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Economic inequality and alt-right extremism have reached historic highs in the U.S. We propose that high economic inequality may uphold stereotypes that white people are wealthy which may lead some white Americans to feel in the precarious position of falling behind their racial group’s high status. For white Americans who also feel that they are being passed in status by People of Color, such perceptions may make ideologies that aim to benefit white people particularly appealing. Across two studies (Pilot:  $N = 465$ ; Study 1:  $N = 1,449$ ), using representative quota sampling of non-Hispanic, white Americans, we combine a measure of subjective status with latent profile analysis to identify white Americans who feel they are in “Last Place” (i.e., falling behind most white, Black, Asian, and Latinx Americans). Controlling for objective status, white Americans in this “Last Place” profile were most likely to support alt-right ideology, politicians, and events.

In the U.S., economic inequality—or the unequal distribution of financial resources across society—has reached historically high levels. In 1983, upper-income families had 3.4 times more wealth than middle-income families and 28 times more wealth than lower-income families. Yet, in 2016, these ratios have dramatically increased: upper-income families now have 7.4 times more wealth than middle-income families and 75 times more wealth than lower-income families<sup>1</sup>. Concurrent with rising inequality is rising political polarization<sup>2</sup>, and data suggest that rising economic inequality may further exacerbate political polarization<sup>3</sup>.

Economic inequality is also racialized such that more wealth is concentrated among white people than Black people. From 1983 to 2016, the median white family went from having approximately 8 times more wealth than the median Black family to 13 times more wealth<sup>4</sup>. Somewhat ironically, these wealth inequalities that benefit white people on average seem to lead many white people to feel as if they are falling behind the perceived high status of their racial group<sup>5,6</sup>. While prior work has linked these feelings of despondency among white Americans to poor health outcomes<sup>5,6</sup>, we propose that these subjective experiences of low status may also be associated with the rise of right-wing extremism<sup>7,8</sup>.

## Rising economic inequality and race/class stereotypes

Racial wealth inequality—inequality that has disproportionately benefited white Americans—is rooted in slavery and compounded by failed Reconstruction, Jim Crow laws, and persistent structural and inter-personal discrimination. Unrelenting racial wealth inequality in the United States has shaped racialized wealth stereotypes. White Americans associate white people with being wealthy and Black Americans with being poor<sup>9,10</sup>. Recent work has extended these findings to investigate race/class assumptions beyond Black and white Americans<sup>11</sup>. This work, using General Social Survey data, finds a perceived racial economic hierarchy similar to Group Positional Theory: e.g.<sup>12</sup> white Americans are perceived to be wealthiest followed by Asian Americans, then Hispanic/Latinx Americans, and finally Black Americans. Together, these findings suggest that white Americans, on average, *are—and are stereotyped to be*—“better off” than racially minoritized Americans.

Despite the fact that white Americans, on average, are objectively doing better economically than racially minoritized individuals<sup>13</sup>, white Americans tend to underestimate the racial wealth gap between white and Black Americans<sup>14</sup>. Likewise, white Americans increasingly report feeling that they are being “left behind”<sup>15,16</sup> and are less optimistic about their economic

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future than Black Americans<sup>15</sup>. For these reasons, some have proposed that white people who feel disempowered may have played a role in the controversial election and presidency of Donald Trump—a candidate who seemed to prioritize connecting with anti-elite white Americans who otherwise felt ignored (e.g., “draining the swamp”<sup>17</sup>). These trends have led many to wonder: why are some white people feeling disempowered, and when might this feeling lead to support for right-wing political extremism?

### Race/class stereotypes may produce threatening social comparisons

We propose that one reason white people may feel disempowered is because high economic inequality makes race/class stereotypes salient<sup>18</sup>—stereotypes which are likely to be more extreme as inequality rises. Because white Americans, on average, stereotypically assume that white people are wealthy<sup>9,10</sup>, and because white Americans tend to compare their own SES to the perceived high status of their racial group<sup>5,6</sup>, conditions of high inequality mean that white Americans are making extreme upward comparisons, leaving them feeling as if they are “falling behind” most white people<sup>5,6</sup>.

In addition to within-group comparisons, white Americans also make *between*-group status comparisons. As a result, white Americans’ feelings of falling behind may be further compounded by status comparisons with people from other racial/ethnic groups. On average, racially/ethnically minoritized groups (e.g., Asian, Black, and Latinx Americans) are stereotyped as poorer than most white Americans<sup>9–11</sup>. However, in the current political climate, some white Americans may feel like their individual position in the economic hierarchy is challenged both by feeling they are “worse off” than other white people (i.e., feelings of exclusion) and that other racial/ethnic groups may be passing them as a result of perceived racial progress<sup>14</sup>, and/or recent social movements pushing for racial equality (e.g., #BlackLivesMatter). This perception of precarious positionality within and between groups may activate fears of being in last place (i.e., *last place aversion*<sup>19</sup>) and may stoke a general sense of victimization that others have argued can lead to hierarchy-enhancing efforts<sup>20,21</sup>. Further, precarious positionality between groups may give rise to feelings of social exclusion, intergroup prejudice, and political radicalization e.g.<sup>12,22,23</sup>. Therefore, for some white Americans, we expect that within- and between-racial group comparisons may produce a feeling that the current system is not working for them, and that they need a radical candidate who promises to uplift white people who have been left behind the success of their racial group<sup>24,25</sup>. Because white Americans without a college degree are more likely to feel threatened in the current economic climate<sup>15,26</sup>, we anticipate that white Americans who do not have a college degree may be particularly likely to fit this profile<sup>5,6</sup>.

### Overview of present research

We investigated our research questions using two large representative quota-samples of non-Hispanic white Americans, a measure of perceived racial hierarchy, and statistical techniques that allowed us to measure latent profiles and test the association of those profiles with different belief systems. First, we introduce a measure which simultaneously quantifies: (1) the racial economic hierarchy, and (2) one’s perceived position in this hierarchy. This measure provides substantial nuance in understanding exactly how people think of the racial economic hierarchy and exactly where they think they stand as an individual within this hierarchy. Next, using Latent Profile Analysis (LPA), we explored the possibility of a “Last Place” subjective status profile which would capture white Americans who feel they are both far behind other white people and close to being passed, or already passed by, People of Color. Critically, we hypothesized that a “Last Place” psychological profile among white Americans would predict endorsement of right-wing extremism.

### Methods

Because the Pilot Study generally replicates the methods of Study 1, we describe both here. Both studies received approval from Colgate University’s Institutional Review Board (ID: ER-F22-40) and were pre-registered on [aspredicted.org](https://aspredicted.org): [https://aspredicted.org/LXP\\_L98](https://aspredicted.org/LXP_L98). The key

hypothesis tested in this manuscript is a simplified version of the one in our pre-registration as it drops potential moderation of our effects by degree of white racial identification to focus on overall effects of subjective status latent profile membership. However, the (not statistically significant) moderation analysis by white identification appears in Supplementary Table 6 for the interested reader. Likewise, because of our interest in psychological processes that result from being a white person in the cultural context of the United States, we also omitted participants who indicated they were born outside of the United States ( $N = 14$  for Pilot Study 1 and  $N = 41$  for Study 1). We decided on this exclusion criterion before analyzing our Pilot Study data; however, this exclusion criterion is not overtly stated in our project pre-registration due to an oversight. Our pre-registration was created as a part of our Russell Sage Foundation grant and included all grant studies, which included Study 2. Neither Study 2 nor Pilot Study 2 have been run at the time of submitting this manuscript.

### Statistical power and participants

**Pilot study.** Our main goal with the Pilot Study was to pilot our within- and between-group subjective status measure, and additionally test whether our predicted “Last Place” profile emerged, before moving onto our bigger and more expensive sample. Conventional standards for statistical power for LPA<sup>27</sup> suggest that we would need approximately 500 participants to detect the correct number of latent profiles. We sampled 500 non-Hispanic white Americans without a college degree with representative quotas on region, age, and gender via the recruitment platform Lucid Panels. We focused on those without a college degree because we anticipated our “Last Place” profile would be most likely to emerge among this demographic<sup>28</sup>. Participants received financial compensation in an amount determined by Lucid Panels.

Our recruitment platform for the Pilot oversampled slightly to obtain our representative quotas resulting in  $N = 521$  respondents. Because of our interest in processes that occur within the context of the sociopolitical climate of the United States, we omitted 11 participants who reported they were not born in the United States, as well as 3 participants who did not respond to this item ( $N = 14$ ). We also handled missing data on our status measure via listwise deletion ( $N = 42$ ) given that our subjective status profiles of interest hinged on the relative placement of all racial groups. Our final sample consisted of 465 non-Hispanic white Americans who were on average 46.66 years of age ( $SD = 18.34$ ; 236 women; 225 men; 4 non-binary). Our sample had a median education of “high-school degree or equivalent,” a median income of 20,000–39,999 USD, and the following political affiliations: 35.1% Republican, 34.2% Independent, 26% Democrat, & 4.7% Other.

**Study 1.** Unique to this study, we intended to analyze the relationship between our identified profiles and variables assessing right-wing extremism. Thus, for Study 1, we used  $G^*Power$ <sup>29</sup> to conduct an *a priori* power analysis for linear bivariate regression assuming a medium/small effect ( $b = 0.30$ ) and 80% power. This analysis revealed that we would need  $N = 967$  participants. To account for attrition (up to 30% of participants fail attention checks<sup>30</sup>), we recruited  $N = 1500$  non-Hispanic, white Americans using CloudResearch’s “Managed Research” platform. Participants received financial compensation in an amount determined by CloudResearch. We oversampled white Americans without a college degree because we anticipated our “Last Place” profile would be most likely to emerge among this demographic. For  $N = 1000$  of our sample we used census-based quota sampling to get a sample representative of white Americans in the U.S. on education. For the remaining  $N = 500$ , we recruited those “without a college degree” with conditional weights to obtain representation on the subcategories within this demographic (i.e., “no high school degree”; “high school degree or equivalent” and “some college, no degree”). Finally, we also obtained representation on geographic region, gender, and age (again using U.S. census-based quota sampling). Toward the end of sampling, we had to open up some of our quotas to obtain some of the harder-to-reach demographics; this led our

sample to be skewed slightly older than the U.S. population of white Americans and with slightly greater representation of the Midwest and Northeast. Together these sampling strategies were intended to increase the generalizability of our results to non-Hispanic, white Americans residing in the United States.

Our recruitment platform for Study 1 (i.e., CloudResearch) oversampled slightly to obtain our representative quotas resulting in  $N = 1516$  respondents. As in the Pilot Study, we omitted participants who reported they were not born in the United States, as well as one participant who did not respond to this item ( $N = 41$ ). Likewise, we again handled missing data on our status measure via listwise deletion ( $N = 26$ ). Our final sample consisted of 1449 non-Hispanic white Americans who were on average 50.47 years of age ( $SD = 17.19$ ; 732 women; 701 men; 16 non-binary), had a median education of “some college, no degree or associate’s degree,” a median income of 40,000–50,999 USD, and the following political affiliations: 34.6% Republican, 32% Independent, 28% Democrat, and 5.4% Other.

### Procedure

For the Pilot Study and Study 1, the procedure was identical. After providing informed consent, participants first completed a variety of demographic items relevant to our quota-based sampling. If participants did not identify as non-Hispanic and white they learned that they were not eligible for the study. Likewise, if they were completing the survey on a cell phone, due to the incompatibility of our status measure on cell phones, they were told they were not eligible for the study. These items were then followed by an attention check. If participants failed the check, they learned they were not eligible to continue with the study.

**Within-group and between-group subjective status and race/class identification variables.** Next, to begin the main content of our study, participants first responded to our newly developed measure of their perceived position within the racial economic hierarchy as well as the perceived position of a variety of racial groups (see Supplementary Fig. 1 for a visual of this new measure).

Next, participants completed 7 items assessing their racial identity solidarity (e.g., “I feel a bond with white Americans”); their perception of their social class (e.g., lower class, middle class, etc.) followed by 7 items assessing their social class identity solidarity [e.g., “I feel a strong sense of belonging to people in the (participant’s self-reported) class”]; items adapted from Leach and colleagues<sup>31</sup> and from Sellers and colleagues<sup>32</sup> and their self-other overlap with their racial and social class groups<sup>33</sup>.

### Dependent variables

Support for right-wing events, groups, and social movements. Next, participants reported their feelings toward 11 salient right-wing societal events in the United States (e.g., January 6th storming of U.S. capital), social groups (e.g., January 6th; the Proud Boys; the Oath Keepers; etc.), and social movements (e.g., #AllLivesMatter) on 7-point scales (1 = *extremely negative* to 7 = *extremely positive*;  $M = 3.04$ ,  $SD = 1.56$ ; Cronbach’s  $\alpha = 0.95$ ). Participants also indicated their feelings toward 8 extreme left-wing societal events (e.g., 2020 protests for racial equity), social groups (e.g., Antifa), and social movements (e.g., #BlackLivesMatter; Defund the Police) on the same scale ( $M = 3.56$ ,  $SD = 1.40$ ; Cronbach’s  $\alpha = 0.89$ ) to make our hypotheses less salient. For each item, participants could also indicate that they had never heard of the stated event, group, or social movement; in this case, their response was recorded as N/A and did not contribute to the scale average.

Support for a right-wing political candidate. Next, participants indicated their support (1 = *strongly oppose* to 7 = *strongly support*) for two political candidates who were not named, but whose policy positions were described (see Supplementary Fig. 2). Candidate #1 was modeled to have views that align with U.S.-based right-wing politicians (e.g., DeSantis, Trump, etc.;  $M = 4.13$ ,  $SD = 2.22$ ). Candidate #2 was modeled to have views that align

with left-wing politicians (e.g., Alexandria Ocasio-Cortez;  $M = 3.25$ ,  $SD = 2.06$ ).

**Alt-right extremism.** The next set of items assessed general support for extreme right-wing ideology via 17 face-valid items that we developed to assess the following subcategories of alt-right extremism: perceptions of anti-white bias (e.g., “White people are generally under attack in the United States”), anti-government beliefs (e.g., “The government threatens my personal rights”), *violent* anti-government beliefs (e.g., “When the government isn’t working, violence is sometimes the answer”), and anti-immigrant beliefs (e.g., “Immigrants are contaminating the U.S. way of life”). Each item was measured on a 7-point response scale (1 = *strongly disagree* to 7 = *strongly agree*;  $M = 3.75$ ,  $SD = 1.45$ ; Cronbach’s  $\alpha = 0.93$ ).

**Alt-right extremism (Kamenowski et al.<sup>34</sup>).** Finally, we also measured alt-right extremism by adapting 5 items from a right-wing extremism scale used in prior work<sup>34</sup> (e.g., “America should belong to Americans who have lived here for many generations”; 1 = *strongly disagree* to 7 = *strongly agree*;  $M = 3.19$ ,  $SD = 1.47$ ; Cronbach’s  $\alpha = 0.86$ ).

**Other exploratory measures.** We also included a variety of exploratory measures. These measures included social dominance orientation (SDO<sup>35</sup>), right-wing authoritarianism<sup>36,37</sup>, internal and external motivations to respond without prejudice<sup>38</sup>, social belonging to race and class groups<sup>39</sup>, race/class/American social identity awareness, social identity complexity<sup>40</sup>, feelings of being left behind by the U.S. government, and the degree to which one feels respected in their job (if they reported having a job). Finally, we measured demographics such as age, income, education, country of origin, degree of social conservatism ( $M = 4.09$ ,  $SD = 1.82$ ), and degree of economic conservatism ( $M = 4.35$ ,  $SD = 1.80$ ). The latter two conservatism items were assessed on 1 = *strongly liberal* to 7 = *strongly conservative* scales.

### Results

First, we report the results of our LPA to identify psychological status profiles using participants’ responses to our status measure. We hypothesized that one of these profiles would be a “Last Place” profile in which non-Hispanic, white participants feel they are both behind the status of “most white people” and also close to being passed by, or already passed by, People of Color. We report the Pilot Study and Study 1 together because we used the same LPA approach for both.

Next, for Study 1 only, we used participants’ profile membership to predict support for right-wing political extremism. We hypothesized that the “Last Place” profile would be associated with the highest support for extreme right-wing events/policies, candidates, and ideology.

### LPA analyses

**Identifying within- and between-group subjective status profiles.** To identify within and between-group subjective status profiles, we conducted an LPA using Mplus 8.10 with Mixture Add-On<sup>41</sup>. Given our theory, the profile indicators of interest were participants’ subjective status scores associated with their placement of the self, white people, Black people, Hispanic people, and Asian people on our status measure. We used model defaults from Mplus (see Supplementary Table 1); this included fixing covariances among indicator variables to be 0 within profiles given that participants’ placement of the different racial groups tended to yield only small to moderate correlations overall (e.g., correlations of the placement of the self, Black people, Asian people, and Latinx people, with the placement of “white people” varied from  $r = 0.36$  to  $r = 0.13$ ). Likewise, our theory led us to believe that the placement of the self and all racial groups is likely to be driven by external social events and histories that may uniquely inform the placement of each group. Finally, we used maximum likelihood estimation with robust standard errors. As a robustness check, using Study 1 data, we also tested alternative models with different allowances for variance and covariance structures;

fortunately, these alternative models coincided on the same conclusions reported below (see Supplemental Tables 7–10).

**Criteria for evaluating LPA model fit.** As discussed in prior work<sup>42</sup>, the process of identifying the number of profiles in LPA involves a combination of data and theory. Thus, we began by comparing model results from a one-profile model to a two-profile model, and so on until we reached a five-profile model. At that point, we felt we had a holistic sense of the number of profiles that best balanced the model fit statistics with our theory. The model fit statistics we focused on most closely were the log-likelihood value, Akaike’s Information Criterion (AIC), the Bayesian Information Criterion (BIC), and the Sample-Adjusted BIC (SABIC). For all of these indices lower values indicate better model fit, although the magnitude of the difference should also be considered. We also considered the model entropy (i.e., a measure of classification uncertainty; ranges from 0 to 1 with higher values representing greater classification certainty), as well as the results of the Lo-Mendell Rubin (LMR) test and the bootstrapped log likelihood test (BLRT), both of which compare the fit of the selected model to a model with  $k-1$  profiles (i.e., a statistically non-significant result favors the more parsimonious model). Likewise, we aimed to avoid adding an additional profile if that additional profile accounted for less than 10% of the sample<sup>42</sup> and/or did not fit with our theory. The results of the 1–5 profile models on each of our fit statistics of interest appear in Tables 1 (Pilot Study) and 2 (Study 1).

Notably, both studies coincided on a 3-profile model as detailed below.

To summarize our decision-making process, although the 5-profile model was still yielding a significant LMR (in the case of Study 1) and BLRT (in the case of both the Pilot Study and Study 1), some of the other indices of model fit for the 5-profile model did not meet our standards (e.g., the 5th profile only accounted for, at most, 9% of cases). Likewise, although the log likelihood, AIC, BIC, and SABIC values decreased with each additional profile, the magnitude of that decrease was often largest in the transition from 2 to 3 profiles and then leveled off after that. Notably, across both the Pilot Study and Study 1, in the 3-profile model, the third profile maps onto our theorized “Last Place” model (i.e., white Americans in this profile rated the self as lower status than all other racial groups). We should also note that this theorized “Last Place” profile still emerged in the 4-profile solution, despite that solution not being the best fit according to our *a priori* process for deciding the number of profiles. Based on these factors, we determined that the best model fit was for 3 profiles (i.e., entropy was highest in this model at 0.80 for the Pilot Study and 0.83 for Study 1, the lowest probability profile still accounted for over 10% of cases for both studies, and the content of the profiles fit our theory). A summary of the indicator means for each of these three profiles appears in Tables 3 (Pilot Study) and 4 (Study 1); a visual of the indicator means, mapped onto our measure, for each of these three profiles appears in Figs. 1 (Pilot Study) and 2 (Study 1) below. Critically, across both studies, we find a similar pattern of results. We describe this pattern in more detail below.

Figures 1a and 2a denote what we have called our “Second Place” profile. In this profile, participants see the self as behind the perceived high status of white people (as we see across all profiles), but these participants

also express an awareness of racial economic inequality that harms People of Color relative to white people such that all other racial groups are perceived to be lower status than the self. The “Second Place” profile accounted 28% of participants in the Pilot Study and 22% of participants in Study 1.

Figures 1b and 2b denote what we have called our “Third Place” profile. In this profile participants reflect societal stereotypes linking white and Asian people with wealth and Black and Hispanic people with relative poverty<sup>11</sup>. They see themselves as behind two racial groups that are stereotypically associated with wealth (i.e., white and Asian people), but also ahead of (Study 1) [or virtually tied with (Pilot)] two racial groups that are stereotypically associated with poverty (i.e., Black and Latinx people). The “Third Place” profile accounted for 62% of participants in the Pilot Study and 66% of participants in Study 1.

Figures 1c and 2c denote what we have called our “Last Place” profile. In this profile, participants see themselves as very far behind other white people, and also see all other racial groups as ahead of the self and that there is a tight race among all racial groups at the top. As reviewed in our introduction, this profile was the one that we theorized would be most likely to predict alt-right extremism. The “Last Place” profile accounted for 11% of participants in the Pilot Study and 12% of participants in Study 1.

**Using subjective status profiles to predict alt-right outcomes via study 1 data**

As a reminder, for Study 1, we both aimed to replicate the identification of a “Last Place” profile (as reported above), and also wanted to further test whether this profile predicted a tendency toward alt-right extremism. Thus, in Study 1, we followed our LPA by importing participants’ profile classification into our datafile that included all key demographic variables and alt-right outcomes so that we could assess the association between latent within- and between-group subjective status profile membership and alt-right outcomes, while controlling for potential confounding variables. Although there is invariably error associated with classifying participants into latent profiles, the use of such classifications to predict relevant outcomes, without a need for concern about classification uncertainty, is considered appropriate as long as the LPA model entropy is above 0.80<sup>42</sup>. Our 3-profile model’s entropy was 0.83 in Study 1, so we used this method.

Given our interest in multiple correlated alt-right outcomes, we ran a MANOVA using profile (1—“Second Place” profile vs. 2—“Third Place” profile vs. 3—“Last Place” profile) to predict support for alt-right events/groups/social movements, support for alt-right ideology (via our scale and the adapted scale from Kamenowski and colleagues<sup>34</sup>), and voting support for an alt-right political candidate. We controlled for income, education, age, and gender to ensure that the effects of within- and between-group subjective status profile were not confounded with objective status or demographic variables. Notably, within- and between-group subjective status profile was a significant predictor of these outcomes overall,  $F(8, 2810) = 5.18, p < 0.001$ , partial  $\eta^2 = 0.02$ , so we interpret the univariate ANOVAs. (In Supplementary Tables 2–5, we ran a second model in which we additionally controlled for social and economic conservatism. We also ran a third model in which we did not include any control variables. The predicted effects of subjective status profile held across all models.)

**Table 1 | Comparative model fit statistics for 1 to 5 profile models, pilot study**

Model	Log likelihood	AIC	BIC	SABIC	Entropy	Smallest class %	LMR p-value	LMR meaning	BLRT p-value	BLRT meaning
1	-10557.58	21135.16	21176.58	21144.84	-	-	-	-	-	-
2	-10407.24	20846.48	20912.75	20861.97	0.66	42%	0.006	2 > 1	<0.001	2 > 1
<b>3</b>	<b>-10317.69</b>	<b>20679.37</b>	<b>20770.5</b>	<b>20700.68</b>	<b>0.80</b>	<b>11%</b>	<b>0.003</b>	<b>3 &gt; 2</b>	<b>&lt;0.001</b>	<b>3 &gt; 2</b>
4	-10284.27	20624.54	20740.52	20651.66	0.79	10%	0.069	4 < 3	<0.001	4 > 3
5	-10238.17	20544.33	20685.16	20577.25	0.85	3%	0.536	5 < 4	<0.001	5 > 4

Note.  $N = 465$ ; The Lo-Mendell Rubin (LMR) test and Bootstrapped Loglikelihood Test (BLRT) compare the current model with a model with  $k-1$  profiles. The bolded row indicates our best-fitting model based on a combination of the data and theory.

**Table 2 | Comparative model fit statistics for 1 to 5 profile models, study 1**

Model	Log likelihood	AIC	BIC	SABIC	Entropy	Smallest class %	LMR $p$ -value	LMR meaning	BLRT $p$ -value	BLRT meaning
1	-32646.01	65312.03	65364.81	65333.05	-	-	-	-	-	-
2	-32169.37	64370.73	64455.19	64404.36	0.62	49%	0.185	2 < 1	<0.001	2 > 1
<b>3</b>	<b>-31792.97</b>	<b>63629.95</b>	<b>63746.08</b>	<b>63676.20</b>	<b>0.83</b>	<b>12%</b>	<b>&lt;0.001</b>	<b>3 &gt; 2</b>	<b>&lt;0.001</b>	<b>3 &gt; 2</b>
4	-31669.40	63394.80	63542.60	63453.66	0.81	11%	0.003	4 > 3	<0.001	4 > 3
5	-31565.23	63198.46	63377.93	63269.92	0.82	9%	0.0001	5 > 4	<0.001	5 > 4

Note.  $N = 1449$ ; The Lo-Mendell Rubin (LMR) test and Bootstrapped Loglikelihood Test (BLRT) compare the current model with a model with  $k-1$  profiles. The bolded row indicates our best-fitting model based on a combination of the data and theory.

**Table 3 | Summary of indicator means for 3-profile model, pilot study**

Variable	"Second place" profile ( $n = 128$ ) $M(SE)$	"Third place" profile ( $n = 286$ ) $M(SE)$	"Last place" profile ( $n = 51$ ) $M(SE)$
Self	31.21 (2.41)	46.63 (1.39)	60.41 (7.04)
white People	59.14 (3.49)	64.19 (1.37)	75.57 (4.63)
Black People	23.14 (1.76)	47.58 (1.82)	79.10 (4.12)
Asian People	30.76 (3.25)	55.27 (1.56)	79.27 (3.12)
Latinx/Hispanic People	18.55 (1.40)	44.69 (1.80)	74.27 (3.98)

Note. Means and standard errors for variables across all profiles.

**Table 4 | Summary of indicator means for selected 3-profile model, study 1**

Variable	"Second place" profile ( $n = 320$ ) $M(SE)$	"Third place" profile ( $n = 959$ ) $M(SE)$	"Last place" profile ( $n = 170$ ) $M(SE)$
Self	33.79 (1.75)	49.19 (0.90)	63.77 (2.57)
white People	57.07 (2.69)	66.95 (0.71)	77.69 (1.88)
Black People	20.33 (1.16)	43.20 (1.06)	76.06 (1.82)
Asian People	28.10 (3.33)	56.31 (0.72)	77.27 (1.49)
Latinx/Hispanic People	18.00 (0.99)	41.21 (1.05)	73.49 (2.09)

Note. Means and standard errors for indicator variables across all profiles.

Consistent with hypotheses, within- and between-group subjective status profile was a significant predictor of all four alt-right outcomes (see Table 5). Thus, for these four significant univariate ANOVAs, we conducted pairwise comparisons with a Least Significant Difference adjustment for multiple comparisons to probe the pattern of effects (see Table 6). Most critically, across all alt-right outcomes, participants who fell into our hypothesized "Last Place" profile expressed the strongest support for an alt-right political candidate, alt-right events/groups/social movements like January 6th, and the most support for alt-right ideologies (measured both via our own scale and a scale from prior work).

**Individual difference measures associated with latent profile membership**

For exploratory purposes, we also investigated whether several theoretically germane individual difference measures were associated with latent profile membership. In particular, previous research suggests that white Americans who are less educated and have less income may be particularly likely to think of themselves as "falling behind" other people<sup>24</sup>. For that reason, we reasoned that the "Last Place" profile may include white Americans who

were less educated or lower income than the other profiles. Relatedly, white Americans in this "Last Place" profile may feel they are of lower social class, may more strongly feel they are being "left behind" by the U.S. government, may be more politically conservative, e.g.<sup>43</sup> may be more racially prejudiced<sup>44</sup>, or may more strongly believe that certain groups should be in power (e.g., high SDO<sup>45</sup>) than people in the other profiles, because they may be more likely to feel that other racial/ethnic groups are threatening their status. Finally, the "Last Place" profile may also include white Americans who feel more highly identified with, or greater belonging to, their racial group (i.e., "white people" in this sample) than other profiles e.g.<sup>24</sup>. For exploratory purposes, we also investigated whether white Americans' degree of identification with, and belonging to, their social class group may be predicted by profile placement.

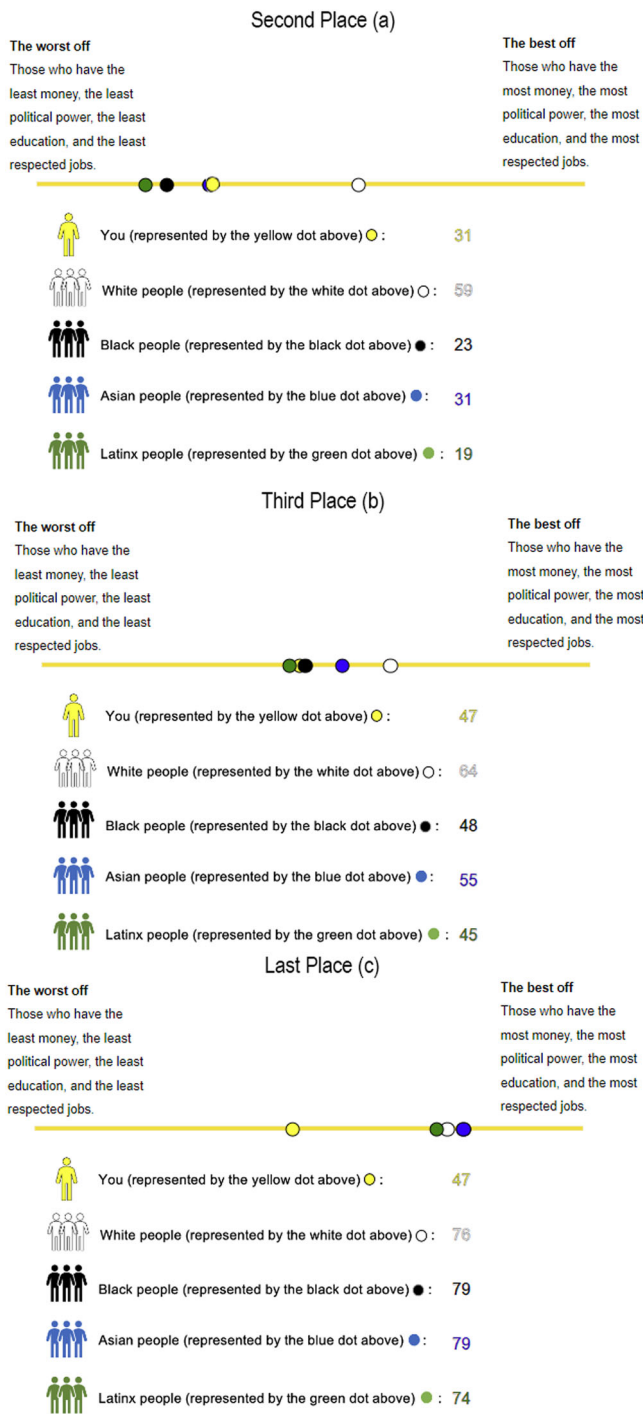
To investigate these possibilities, we conducted a MANOVA using profile to predict individual difference variables, while controlling for gender (1 = woman, 0 = another gender identity) and age (standardized). The omnibus main effect of profile was significant,  $F(26, 2858) = 5.30, p < 0.001$ , partial  $\eta^2 = 0.046$ , 95% CI [0.02, 0.05] so we interpret the univariate ANOVAs. See Table 7 for univariate results, all of which were statistically significant except internal motivations to respond without prejudice.

For significant univariate ANOVAs, we conducted pairwise comparisons with a Least Significant Difference (LSD) adjustment for multiple comparisons (see Table 8). Notably, those in the "Last Place" profile were not the least educated nor did they have the lowest income; instead, it was the "Second Place" profile which had participants with the lowest average objective status (i.e., education and income). Those in the "Last Place" profile actually rated their own social class (on a subjective measure from "lower class" to "upper class") to be significantly higher than those in either of the other two profiles; this is not surprising given that those in the "Last Place" profile also tended to place both the self and all racial groups as higher status overall on our measure. Likewise, those in the "Last Place" profile were the highest in white identification and white belonging (as predicted), but also the highest in social class identification and social class belonging (which was not predicted). Interestingly, those in the "Last Place" profile were also the highest in SDO. Overall, these exploratory analyses lend some evidence to previous theory and data, but also provide new avenues to consider for future research.

**Discussion**

Together these findings suggest that there are some white Americans who feel they are both "falling behind" their racial group in terms of their socioeconomic status and getting passed by racial outgroups. This perception of being in "Last Place" is then associated with more support for alt-right ideology, politicians, and events. Interestingly, this "Last Place" profile does not simply capture white Americans who are objectively low status—instead, participants in the "Second Place" profile had the lowest income and education.

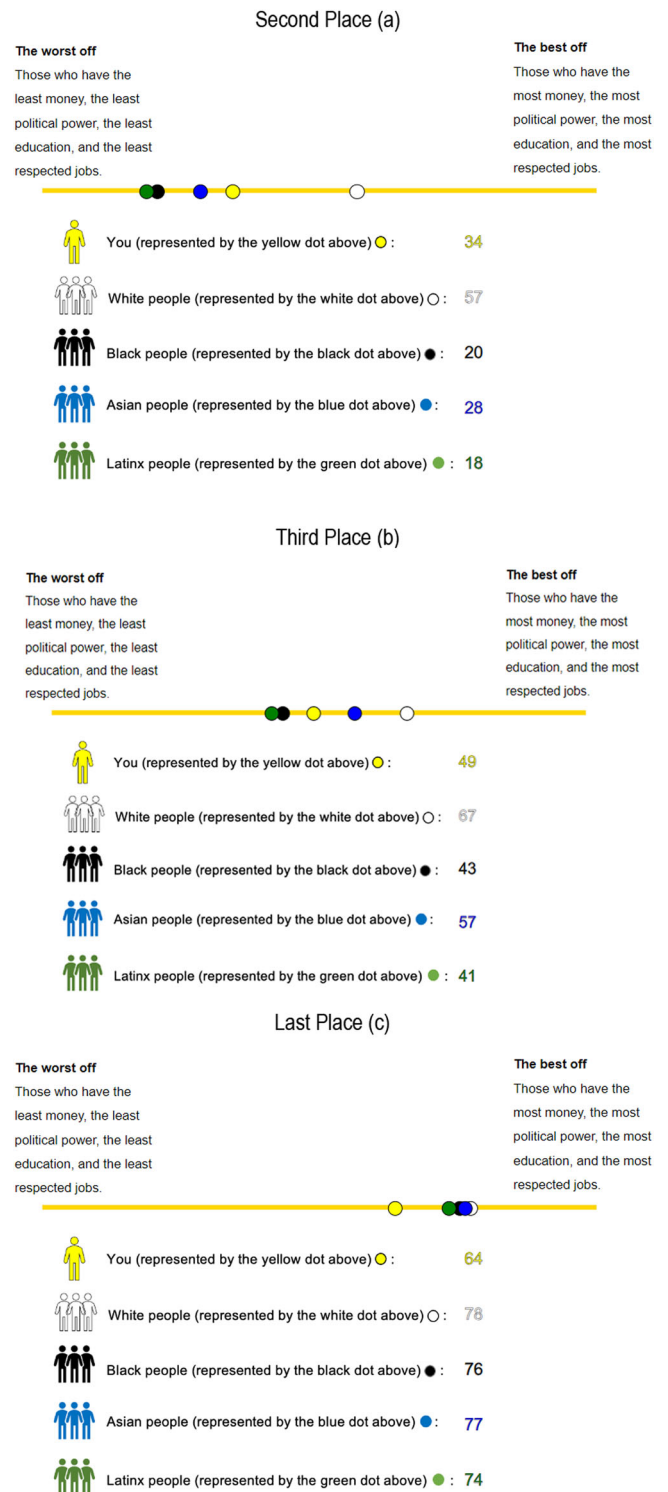
Which factors are related to white Americans' subjective status profile placement? Exploratory analyses revealed that white Americans in this "Last Place" profile tended to be the most highly identified as "white", and experienced the highest sense of belonging with being "white" out of all the



**Fig. 1 | Visual depiction of 3-profile model indicator means for each profile, Pilot Study. a** Mean rankings for second place profile. **b** Mean rankings for third place profile. **c** Mean rankings for last-place profile.

profiles. Perhaps such racial identification both amplifies a sense of intergroup status threat, as well as motivations to reach the stereotypical high status of whiteness. Likewise, those in the “Last Place” profile were highest in SDO. Perhaps such preferences for group-based hierarchy reflect hopes that such a hierarchy—a hierarchy in which their ingroup is perceived to be near the top—will have the potential to pull up their own status to the perceived higher status of their racial group.

Although we focus on the relative placement of the self compared to both one’s own racial group and other racial groups, the three profiles also reflected interesting variability in participants’ use of the range of the status



**Fig. 2 | Visual depiction of 3-profile model indicator means for each profile, Study 1. a** Mean rankings for second place profile. **b** Mean rankings for third place profile. **c** Mean rankings for last place profile.

scale. Of particular interest, the “Last Place” profile was characterized by ranking all groups toward the top of the status hierarchy. We can think of multiple reasons for this: perhaps the belief that one’s own (and other) racial groups are high in status makes people more likely to place themselves last because they do not see themselves as having achieved this objectively high level of status or because they are motivated to deny personally experiencing racial privilege<sup>8,46</sup>. Or, perhaps the fact that all racial groups are tightly

**Table 5 | Univariate ANOVAs following significant MANOVA predicting alt-right outcomes by subjective status profile membership, study 1**

Dependent variable	F	df	p-value	Partial η <sup>2</sup> [95% CI]
Alt-Right Candidate Support	7.73	2, 1408	<.001	0.011 [0.002, 0.02]
Alt-Right Event/Group/Movement Support	16.19	2, 1408	<.001	0.022 [0.009, 0.04]
Alt-Right Ideology (Our Scale)	10.78	2, 1408	<.001	0.015 [0.005, 0.03]
Alt-Right Ideology (Kam. et al., 2021)	11.76	2, 1408	<.001	0.016 [0.005, 0.03]

Note. Kam. stands for Kamenowski.

**Table 6 | Estimated marginal means and post-hoc tests for significant univariate ANOVAs predicting alt-right outcomes by subjective status profile membership, study 1**

Dependent Variable	"Second place" profile M (SE)	"Third place" profile M (SE)	"Last place" profile M (SE)
Alt-Right Candidate Support	3.84a (0.13)	4.11a (0.07)	<b>4.67b (0.17)</b>
Alt-Right Events	2.77a (0.09)	3.01b (0.05)	<b>3.60c (0.12)</b>
Alt-Right Ideology (Our Scale)	3.62a (0.08)	3.68a (0.05)	<b>4.21b (0.11)</b>
Alt-Right Ideology (Kam. et al., 2021)	3.05a (0.08)	3.11a (0.05)	<b>3.67b (0.11)</b>

Note. Kam. stands for Kamenowski. The letter next to the estimated marginal means indicate which means are significantly different ( $p < 0.05$ ) from one another. When means share a letter (e.g., both have an "a") then these two means do not significantly differ from one another. When means do not share a letter (e.g., one is "a" and one is "b") then these two means significantly differ from one another. Bolded cells are ones in which the "Last Place" profile differs significantly from both of the other profiles.

clustered in this profile reflects a subjective sense of a competitive status "race". Whatever the reason, it is interesting that people in this "Last Place" profile rate the self as having the highest status as compared to the relative placement of the self in the "Second Place" and "Third Place" profiles, yet endorse alt-right ideologies that capture a belief that the system is not working as well for them as it is for others.

Critical to our hypotheses, both the Pilot Study and Study 1 replicated the emergence of a latent "Last Place" profile in which white participants placed their own status behind all other racial groups, including the racial ingroup (i.e., "white Americans"). That said, it is interesting to note that the placement of the ingroup varied between the two studies: Pilot participants in the "Last Place" profile placed the ingroup as behind, yet close to, both Black and Asian Americans; in contrast, Study 1 participants in the "Last Place" profile placed the ingroup in first place (although still quite close to Black and Asian Americans). This slight variability in ingroup placement across samples allows for two important insights. First, because the "Last Place" profile was most strongly linked to alt-right extremism in both samples (despite minor variations in where the ingroup was placed), this suggests that the association to alt-right beliefs may be influenced more strongly by the relative placement of the self vs. the relative placement of the ingroup. Indeed, the centrality of the placement of the self to the meaning of the profiles maps onto our naming of the latent profiles based on the relative placement of the self in particular (i.e., "Last" vs. "Second" vs. "Third" placement of the self). Second, because the Pilot sampled white Americans without a college degree but Study 1 obtained a representative quota sample of white Americans' educational status, the slightly lower relative ranking of the ingroup in the Pilot may have been driven by the Pilot participants' lower objective status on average. For example, perhaps being lower objective status leads one to have more daily interactions with other low-status white people due to class and racial segregation in the U.S.<sup>17</sup>. Such exposure to poorer white Americans may shift the relative ranking of "white Americans" as a group to be slightly lower. That said, we should note that in both studies

the placement of the ingroup in the "Last Place" profile is relatively neck and neck with both Black and Asian Americans. Thus, it is also possible that the observed minor shifts in the relative placement of the ingroup is just sampling error. Future research should explore these nuances more directly.

It is also noteworthy that no profile emerged in which white Americans placed themselves above their racial group. The lack of such a "First Place" profile in our findings suggests that such a profile may be exceedingly rare among white Americans. Perhaps as U.S. wealth becomes increasingly consolidated into the hands of a few (mostly white) people, the white-wealth standard may feel increasingly unattainable to most white Americans. In contrast, maybe sampling a wealthier demographic of white people would lead us to observe a "First Place" profile. Future research should explore these possibilities.

These findings may also have implications for how to approach discussions about white advantage/privilege in the United States. In particular, these data suggest that some white people may agree that "white people" have economic advantages in the U.S.; however, despite being white themselves, they do not personally feel that they experience these advantages and, in fact, see themselves as falling behind *all* racial groups. This perception suggests that, in some cases, emphasizing the relative advantages of white people in the U.S. may actually make some white people feel particularly disadvantaged due to the perceived contrast of the self with the spoils of the ingroup and the fact that outgroups are also perceived to be "better off." This conflict may produce support among those white Americans for radical political candidates who focus on their plight as white people<sup>24,25</sup>. As a result, they may be drawn to alt-right ideology that prioritizes white superiority.

**Limitations**

Although our hypothesis proposes a causal direction from subjective perceptions of where the self falls in the racial economic hierarchy and alt-right extremism, we should overtly note that these data are correlational and cannot speak to a causal direction. Thus, it is also possible that being involved in alt-right political movements exposes white Americans to rhetoric and worldviews that lead them to feel "Last Place." Future research could begin to investigate potential causality by assessing how or if white Americans' profile membership shifts with exogenous shocks such as an alt-right political candidate having a major victory or loss, widespread news coverage of alt-right political events, or an individual's gain or loss of employment. Moreover, recent years have brought a surge of relevant social movements such as the Black Lives Matter movements of 2020, the 2024 U.S. presidential election with Donald Trump as the Republican nominee, and societal demographic shifts that indicate white people have a diminishing racial majority<sup>44</sup>. Thus, future research should also explore whether and how such racialized societal events influence the probability of white Americans falling into a "Last Place" subjective status profile.

Finally, this work focused on the subjective status profiles of white Americans. However, future work should explore the types of latent subjective status profiles that emerge among other racial and ethnic groups in the United States, as well as the downstream consequences of those perceptions. Such work could help to illuminate how varying landscapes of racial economic inequality influence subjective perceptions of where the self falls in relation to the racial/ethnic ingroup and racial/ethnic outgroups, with potentially important political and social implications.

**Table 7 | Univariate ANOVA results predicting individual differences by subjective status profile placement, study 1**

Individual difference variable	F	df	p-value	partial η <sup>2</sup> [95% CI]
Education	8.21	2, 1441	<0.001	0.011 [0.003, 0.02]
Income	7.88	2, 1441	<0.001	0.011 [0.002, 0.02]
Perceived Social Class	19.37	2, 1441	<0.001	0.026 [0.01, 0.04]
Left Behind	4.17	2, 1441	0.016	0.006 [0.0002, 0.02]
Social Conservatism	8.60	2, 1441	<0.001	0.012 [0.003, 0.02]
Economic Conservatism	14.59	2, 1441	<0.001	0.020 [0.008, 0.04]
SDO	10.98	2, 1441	<0.001	0.015 [0.005, 0.03]
Internal MRWP	0.20	2, 1441	0.818	0.000 [0, 0.003]
External MRWP	4.01	2, 1441	0.018	0.006 [0.0001, 0.01]
white ID	20.57	2, 1441	<0.001	0.028 [0.01, 0.05]
Social Class ID	12.12	2, 1441	<0.001	0.017 [0.005, 0.03]
white Belonging	27.78	2, 1441	<0.001	0.037 [0.02, 0.06]
Social Class Belonging	12.25	2, 1441	<0.001	0.017 [0.006, 0.03]

Note. SDO stands for social dominance orientation; MRWP stands for motivations to respond without prejudice; ID stands for identification.

**Table 8 | Post-hoc tests for significant univariate ANOVAs predicting individual differences, study 1**

Individual difference variable	“Second place” profile M (SE)	“Third place” profile M (SE)	“Last place” profile M (SE)
Education	2.58a (0.06)	2.87b (0.04)	2.82b (0.09)
Income	2.92a (0.10)	3.33b (0.06)	3.45b (0.13)
<b>Perceived Social Class</b>	2.12a (0.05)	2.43b (0.03)	<b>2.60c (0.07)</b>
Left Behind	4.95a (0.10)	4.62b (0.06)	4.75ab (0.14)
Social Conservatism	3.74a (0.10)	4.16b (0.06)	4.38b (0.14)
Economic Conservatism	3.88a (0.10)	4.46b (0.06)	4.60b (0.14)
<b>SDO</b>	3.06a (0.08)	3.24a (0.05)	<b>3.71b (0.11)</b>
External MCP	4.14ab (0.09)	3.97a (0.05)	4.30b (0.12)
<b>white ID</b>	3.76a (0.08)	4.00b (0.05)	<b>4.61c (0.11)</b>
<b>Social Class ID</b>	4.13a (0.07)	4.21a (0.04)	<b>4.68b (0.10)</b>
<b>white Belonging</b>	4.25a (0.08)	4.64b (0.05)	<b>5.31c (0.12)</b>
<b>Social Class Belonging</b>	4.78a (0.07)	4.98b (0.04)	<b>5.40c (0.10)</b>

Note. The letter next to the estimated marginal means indicate which means are significantly different ( $p < 0.05$ ) from one another. When means share a letter (e.g., both have an “a”) then these two means do not significantly differ from one another. When means do not share a letter (e.g., one is “a” and one is “b”) then these two means significantly differ from one another. Bolded cells are ones in which the “Last Place” profile differs significantly from both of the other profiles.

### Conclusion

In the U.S., already high levels of economic and racial economic inequality are widening, and political polarization is increasing<sup>48</sup>. These striking social changes underscore the importance of understanding how economic inequality—and specifically, perceptions of this inequality along racial lines—may lead to increased support for right-wing political extremism among white Americans. The current work helps to illuminate how some white Americans’ perceptions of falling behind might be related to the endorsement of politicians that promise to fortify white interests.

### Data availability

All of the materials and data from the Pilot study and Study 1 are available at: <https://osf.io/vyw7n>.

### Code availability

All code files for completing the analyses for the Pilot study and Study 1 using three statistical softwares (MPLUS 8.10 with Mixture Add-On, R, and SPSS v. 29 with PROCESS macro) are available at: <https://osf.io/vyw7n>.

Received: 12 July 2024; Accepted: 16 October 2024;

Published online: 28 October 2024

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## Acknowledgements

This work was funded by the Russell Sage Foundation (RSF Grant#: 2204-38042). The funders had no role in study design, data collection and analysis, decision to publish or preparation of the manuscript.

## Author contributions

The two first authors contributed equally. Erin Cooley: Conceptualization; Funding acquisition; Investigation; Methodology; Data curation; Formal analysis; Project administration; Resources; Writing—original draft; Writing—review & editing. Jazmin Brown-Iannuzzi: Conceptualization; Funding acquisition; Investigation; Methodology; Data curation; Project administration; Resources; Writing—review & editing. Nava Caluori: Investigation; Methodology; Data curation; Formal analysis; Writing—review & editing. Nicholas Elacqua: Data curation; Formal analysis; Writing—review & editing. William Cipolli: Investigation; Methodology; Data curation; Formal analysis; Writing—review & editing.

## Competing interests

The authors declare no competing interests.

### Additional information

**Supplementary information** The online version contains supplementary material available at <https://doi.org/10.1038/s44271-024-00154-w>.

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**Peer review information** *Communications psychology* thanks the anonymous reviewers for their contribution to the peer review of this work. Primary Handling Editor: Marike Schiffer. A peer review file is available.

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