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White and Minority Demographic Shifts, Intergroup Threat, and Right-Wing Extremism

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Disclosure Statement

All measures, manipulations, exclusions, and methods of determining final sample sizes in all studies are reported. No additional data collection was continued after initial data analysis in any study. All tables, figures, materials, appendices, analytic code, and data for all studies (other than Study 1 data due to IRB rules) can be found at <https://osf.io/vu9a8/>. All four studies were pre-registered, and the pre-registration forms for Studies 1 through 4 can be accessed via <https://osf.io/vtp5s>, <https://osf.io/trgqf>, <https://osf.io/vxg3e>, and <https://osf.io/rdesx>, respectively, and these forms include descriptions of the hypothesized mediating effect of collective existential threat as well as our analytic plans.

Abstract

We present four studies (one correlational and three experimental) of American Whites that examine relationships between White and minority demographic shifts, intergroup threat, and support for extreme-right groups and actions. We focus in particular on the role of collective existential threat (i.e., a perception that the ingroup will cease to exist), along with three alternative/competing intergroup threats: status threat, symbolic threat, prototypicality threat. Though no zero-order relationship was found between perceived White population decline and far-right variables, we find evidence that (1) perceived White population decline leads to collective existential threat net of other perceived demographic shifts, (2) collective existential threat is related to far-right support net of other threats, and (3) perceived White decline has a robust indirect relationship with measures of far-right support via collective existential threat.

Key words: threats, far-right extremism, demographic shift, population

White and Minority Demographic Shifts, Intergroup Threat, and Right-Wing Extremism

According to the most recent U.S. census, the non-Hispanic White population is shrinking (US Census Bureau, 2018). This trend has been observed in other White-majority countries including Canada (Statistics Canada, 2017), the UK (Coleman, 2016), and New Zealand (Stats New Zealand, 2004). Though a number of previous studies have explored the political and psychological consequences of presenting information about these demographic changes to White Americans (e.g., Bai & Federico, 2019, Bobo & Hutchings, 1996; Craig & Richeson, 2014a, 2014b, 2017; Danbold & Huo, 2015; Outten, et al, 2012), little empirical research has directly examined whether demographic shift predicts increased far-right extremism—specifically, an affinity for right-wing extremist groups that adhere to ethnonationalist or racist ideologies and support for harsh measures against immigrants and minorities. In addition, it is not clear what aspects of demographic change are most significant—for example, whether changes in the White population or the minority population are more crucial—or what mechanisms account for the effects of demographic change. In four studies, we address these questions, focusing in particular on how perceived White population decline may elicit greater support for right-wing extremist groups and political actions by heightening a sense of existential threat to the White ingroup.

Psychological Consequences of Demographic Shift

Past studies suggest that demographic shifts may elicit a sense of intergroup threat among Whites (e.g., Bobo & Hutchings, 1996; Outten et al., 2012; Craig & Richeson, 2014a, 2014b, 2017; Danbold & Huo, 2015). Some of these studies (e.g., Craig & Richeson, 2014a, 2014b, 2017; Willer, Feinberg, & Wetts, 2016) rely on a “population shift paradigm,” in which participants are presented with actual U.S. census information about projected changes in the population share of different racial groups. Participants learn that within the next few decades, due to the prospective population growth of racial minorities and the decline of non-Hispanic Whites, White Americans are projected

to make up less than half of the U.S. population, rendering the United States a “majority-minority” country.

Intergroup threat theory suggests that perceptions of threats from out-group members can lead to defensive reactions such as intolerant attitudes and prejudice toward out-group members (Stephan, Ybarra, & Morrison, 2009; also see Bobo & Hutchings, 1996, Blumer, 1958; Sherif, 1966; Scheepers, Gijssberts, & Coenders, 2002). Along these lines, past studies have also explored several alternative mechanisms for the effect of perceived population threat. Four types of threat have received an especially high level of theoretical and empirical attention in this literature. One of these is *status threat*, which refers to a fear that Whites are losing political and economic status relative to racial minorities (Craig & Richeson, 2014a, 2014b). Researchers have found that status threat mediates the effect of perceived demographic shifts in the direction of a majority-minority society on racial attitudes (Craig & Richeson, 2014b), conservative policy preferences (Craig & Richeson, 2014a), and evaluation of politicians with varying ideologies (Major, Blodorn, & Blascovich, 2018¹). Status threat is not the only kind of intergroup threat that has received attention in this literature, though. *Prototypicality threat* refers to a concern that a dominant majority in-group will lose its standing as the most “representative” racial group in society as a whole. Research suggests that prototypicality threat mediates the effect of perceived demographic shift on intergroup hostility and on support for the idea that minorities should assimilate to the dominant culture (Danbold & Huo, 2015). Another frequently-discussed threat is *symbolic threat*, which refers to a perceived incompatibility of values and beliefs between the in-group and out-groups (e.g., Stephan, Ybarra, & Morrison, 2009). Symbolic threat also appears to mediate the effect of majority-minority

¹ It should be noted that Major and colleagues did not discuss whether greater threat perception is associated with positive evaluations of Trump and negative evaluations of Obama because of their race or ideology. Bai and Federico (2020) develop an ideological account of the basis of these threats.

demographic shifts on intergroup attitudes (Danbold & Huo, 2015; Major, Blodorn, & Blascovich, 2018).

Finally, a fourth type of threat, *collective existential threat* (or “extinction threat,” see Wohl, Branscombe, & Reysen, 2010), has recently received attention in studies of demographic change. Collective existential threat is a perception that the group that one identifies with will cease to exist, or a fear that the ingroup’s population will dwindle to the point that group no longer exists (Hirschberger et al., 2016; Wohl, Branscombe, & Reysen, 2010). Evidence suggests that collective existential threat is an independent mediator of the effects of demographic shift (e.g., Bai & Federico, 2019). More importantly, its mediating role appears to be specific to the perception that the White population is declining in *absolute terms*, as opposed to the more general perception that the minority share of the population is increasing in relative terms. Indeed, White population decline elicits collective existential threat more strongly than it elicits status threat (Bai & Federico, 2019). In the present study, we focus in particular on the role of collective existential threat.

Demographic Shift, Threats, and Far-right Extremism

One especially important political concomitant of demographic shift and the perceived threats associated with it is far-right extremism. Most past research on the antecedents of far-right extremism focuses on contextual social variables such as immigration flows, the effectiveness of right-wing political parties (Lubbers, Gijsberts, & Scheepers, 2002; Rydgren, 2007), and public dissatisfaction with existing political regimes (Knigge, 1998). At the individual level, researchers have shown that far-right extremism is predicted by being unemployed, hostility toward immigration (Lubbers, Gijsberts, & Scheepers, 2002), and a belief in the in-group’s superiority (Doosje et al., 2012). Evidence also suggests that social dominance orientation, identification with the White ingroup, and their interaction also predict far-right extremism in the United States (Bai, 2020). Although the issue of immigration, which is closely related to demographic change, has been linked

to far-right extremism (Lubbers, Gijsberts, & Scheepers, 2002), we are unaware of any research that specifically examines the relationship between growth or decline in the population of different racial groups and support for right-wing extremism, and, critically, what kinds of threat mechanisms might account for any relationship between demographic changes and extreme-right politics. Recent evidence suggests that the perception that Whites are declining as a proportion of the population can lead to right-wing shifts in political preferences (Craig & Richeson, 2014a) and support for right-wing populist movements like the Tea Party (Willer, Feinberg, & Wetts, 2016) and right-wing populist candidates like Donald Trump (Major, Blodorn, & Blascovich, 2016). Based on the theoretical considerations outlined above, we argue that perceived decline in the White population—and not merely perceived growth in minority population—may elicit right-wing extremism by eliciting various kinds of intergroup threat.

Moreover, although shifts in the population of various racial groups may trigger all four types of threats reviewed earlier, different threats may mediate the effect of different demographic changes. In particular, collective existential threat is especially bound up with concerns about the perceived size of the in-group population (as opposed to concerns about the size of out-group populations; see Bai & Federico, 2019). Indeed, concerns about “White genocide” and the “replacement” of native-born White populations via immigration of non-Whites have emerged as core themes and rhetorical tropes within contemporary right-wing extremist groups, alongside more prosaic concerns about economic competition and strains introduced by cultural differences (Serwer, 2019). Theoretically, research on collective existential threat suggests that people who are concerned about the prospect of in-group extinction are particularly motivated to adopt attitudes and behaviors aimed at preserving the ingroup’s future vitality (Wohl, Branscombe, & Reysen, 2010), even if it means resorting to violence against outgroups that might undermine the ingroup (Hirschberger et al., 2016). Nevertheless, very little empirical research has examined the ways in

which collective existential threat relates to far-right support, or how it might connect perceptions about demographic change with support for the extreme right.

Therefore, we are especially interested in the role of collective existential threat. Consistent with earlier work (Bai & Federico, 2019), we expect that perceived White population decline (apart from perceived changes in the population of other groups) will predict greater collective existential threat, along with other threats. In turn, we expect that collective existential threat will consistently predict far-right extremism and mediate the relationship between White population decline in particular and far-right extremism, even after accounting for the role of other threats. In contrast, symbolic threat, status threat and prototypicality threat are conceptually related to the size of the populations of both the racial in-group and racial out-groups. Given this, it is possible that they predict far-right extremism and play a role in mediating the relationships between perceptions of change in the population of racial in-groups and out-groups and far-right-extremism. Along these lines, based on previous research (Craig & Richeson, 2014a; Craig & Richeson, 2014b), we expected status threat to mediate the relationship between both kinds of demographic change and extremism. We examine the mediating role of the other threats (i.e., symbolic threat and prototypicality threat) in a more exploratory fashion (as noted in our pre-registration).

Current Studies

The present research extends the literature on perceived demographic shift by examining relationships between different types of racial population shifts (i.e., White population decline versus minority population growth), different forms of intergroup threat, and right-wing extremism among Whites. In particular, we expect (1) that perceived White population decline will predict collective existential threat, along with other threats; (2) that collective existential threat will predict support for extreme-right politics, net of other threats; and (3) that collective existential threat will serve as a key mediator of the relationship between White population decline and support for extreme-right

politics, after accounting for the role of other threats. For these reasons, our models across both studies assume that the perceived population changes of different racial groups have causal effects on extremism mediated by perceived racial threats. These assumptions are consistent with the theoretical considerations from intergroup threat theory (Stephan, Ybarra, & Morrison, 2009; see also Bobo & Hutchings, 1996, Blumer, 1958; Sherif, 1966; Scheepers, Gijssberts, & Coenders, 2002) and experimental evidence (e.g., Craig & Richeson, 2014a, Bai & Federico, 2019) suggesting that (1) perceptions of out-group population growth and ingroup population decline have causal effects on perceived threats and (2) intergroup threats have causal effects on defensive psychological reactions (Pichon, de Gelder, & Grezes, 2011). Given the absence of prior research comparing the mediating role of all four threats in the context of the same analysis, our comparison of their relative importance as conduits for the indirect effects of demographic change is somewhat exploratory.

We examine these predictions in four studies. In Study 1, we measure Whites' perceptions of changes in the size of the White population and the Asian, Black, and Hispanic/Latino populations in the United States and examine the relationships between these variables, intergroup threats, and support for extreme-right politics in a correlational analysis. In Study 2, we replicate our basic analysis by independently manipulating White participants' perceptions of change in the White and minority populations in the United States. Studies 3 and 4 investigate the two steps of the theoretical causal chain respectively. In particular, focusing on the first step of the causal chain, Study 3 tests whether perceptions of different types of population change (i.e., White population decline, Asian population growth, Hispanic population growth, and Black population growth) have causal effects on different types of threat perceptions. Focusing on the second step of the causal chain, Study 4 investigates whether collective existential threat has a causal effect on far-right extremism.

Technical details and open-science practices. Unless noted otherwise, all analyses were executed using Stata 15, all path analyses were estimated using maximum likelihood, and confidence intervals

for the indirect effects examined throughout the studies were derived from bootstrapped variance estimates (based on 1000 bootstrap samples). All measures were rescaled to range from 0 to 1, with higher scores on a variable indicating a higher level of that construct. This recoding was done to simplify interpretation of the unstandardized model estimates: with this coding, the coefficient for a predictor indicates the proportion change in the dependent variables associated with going from the lowest to the highest level of the predictor. The full text of all items and stimuli used in all studies can be found in Appendix A. The distribution of all measures in all studies are described in Figure B1 through B10 in Appendix B. All measures, manipulations, exclusions, as well as the method of determining the final sample size in all studies are reported. No additional data collection was continued after data analysis in any study. All tables, figures, materials, appendices, analytic code, data, and survey files for all studies (other than Study 1 data due to IRB rules) can be found at <https://osf.io/vu9a8/>. All four studies were pre-registered, and the pre-registration form of Studies 1 through 4 can be accessed via <https://osf.io/vtp5s>, <https://osf.io/trgqf>, <https://osf.io/vxg3e>, and <https://osf.io/rdesx>, respectively, and these forms include descriptions of the hypothesized mediating effect of collective existential threat as well as our analytic plans.

Study 1

Study 1 relies on correlational data to examine the relationship between demographic shifts, intergroup threats and right-wing extremism. In this study, we tested how four types of threats mediate the relationship between perceived White population decline, perceived growth in different racial-minority populations, and positive affect toward extreme-right social groups and support for extreme-right political actions.

Method

Participants and Procedures

This study was embedded in a larger survey that includes measures and materials used in several individual studies, and the survey was distributed on Amazon Mechanical Turk. The overall survey had a predetermined target sample size of 1000, and we received 1100 responses that includes incomplete responses, 781 of which were from White participants. We only used White participants for analysis, per pre-registration, and excluded all responses flagged as contaminated (Bai, 2018) using the Prims, Sisso, and Bai (2018) method (see <https://itaysisso.shinyapps.io/Bots/>). The exclusion of contaminated responses was not pre-registered. The final sample for analysis is 722 (281 male, 440 female, and 1 other). The mean age was 40.3.

We conducted an analysis to determine whether this sample size was likely to provide adequate power for our analyses. To do so, we focused conservatively on the power to detect the indirect effect of White population decline on each of the dependent variables via collective existential threat, given that indirect effects generally require larger sample sizes for sufficient power than tests on individual parameters (Schoemann, Boulton, & Short, 2017).² As inputs for this analysis, we used standardized effects for estimates from Bai and Federico's (2019) Study 1, which employed a similar design and measures. From this study's data, we drew on the standardized estimates for the effect of White population decline (independent variable) on collective existential threat (mediator) and the effects of collective existential threat and White population decline on racial bias (dependent variable). Our assumption is that these indirect effects are comparable to the ones we examine in the present study. These parameters were 0.36, 0.36, and -0.17, respectively. For

² We used the MedPower application to perform this analysis and the equivalent one in Study 2: <https://davidakenny.shinyapps.io/MedPower/>.

$N=722$, this analysis indicated a power approaching 1.00 to detect an indirect effect similar in magnitude to that reported by Bai and Federico (2019, Study 1).³

Measures

Population change variables. White participants' perceptions of changes in the population of various racial groups was measured with four items. These items were prefaced with the instruction, "Please answer the following questions based on your belief about the population growth of different groups in the U.S." Each item had the following format: "Which one of the following do you think best describes the current population growth or decline of [group]?" (1=declining very fast to 9=growing very fast). The four racial groups were: "WHITE people," "ASIAN people," "BLACK people," and "HISPANICS and LATINOS people." Scores were reversed for the measure of White population change so that higher values indicate a stronger perception that the White ingroup's population is *declining*. The rest were left in their original format, such that high scores indicate stronger perceptions that each out-group's population is *increasing*. The three non-white group items were entered independently as controls in the models below.

Demographic threat variables. *Collective existential threat* was measured with 13 items used previously by Bai and Federico (2019). An example of an item from this scale is, "My racial group faces a threat to its existence."⁴ *Status threat* was assessed using three items. One item was revised from Craig and Richeson (2014b): "If other racial groups increase in status, they are likely to reduce

³ When we adjusted the input parameter for the direct effect of White population decline on the dependent variable to zero (instead of -0.17) to simulate a situation with no direct relationship between the two, the power to detect the indirect effect continued to approach 1.00.

⁴ In terms of operationalization of collective existential threat, our strategy is agnostic as to what the source of the threat is. Though it could subjectively be due to any event threatening the continued existence of the in-group in the minds of participants given the question wording, it is presumed in the context of this paper that participants were focused on the consequences of demographic shift. This is because the collective existential threat questions were administered soon after the presentation of questions about population change (Study 1) or articles related to population change (Studies 2 through 4).

the influence of my racial group in society.” In addition, we wrote two more items to generate a more-reliable scale measure of status. *Prototypicality threat* was measured using three items, such as “I fear that in the future, my ethnic group will not represent the American identity” that were adopted from Danbold and Huo (2015). *Symbolic threat* was measured using three items, such as “The growth of other ethnic groups is undermining American culture” that were adopted from Stephan, Ybarra, and Bachman (1999). All items used a seven-point response scale (1=strongly agree to 7=strongly disagree). The items comprising each measure were averaged to form scales.⁵

Dependent variables: Support for extreme-right groups and political actions. Affect toward *extreme-right groups* was measured using three feeling thermometers for the following groups: “KKK,” “alt-right,” and “Nazi Party.” Participants were instructed that “ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the entity,” and that “ratings between 0 degrees and 50 degrees mean that you don't feel favorable toward the entity and that you don't care too much for that entity.” The feeling thermometers were averaged to form a scale for attitudes to extreme-right groups (“extreme-right groups” in the tables and figures). Support for *extreme-right political actions* was measured using the six-item Posse scale (Craig & Richeson, 2014c). In this scale, participants read an article about illegal immigration, and were then prompted to indicate their level of support for six progressively extreme far-right actions, such as “I would support the use of physical violence to make illegal immigrants reveal the identity of other immigrants.” (1=strongly agree to 7=strongly disagree). The items were averaged to form a scale for attitude for extreme-right political actions.

⁵ To verify the structure of the threat measures, we estimated a four-factor measurement model using maximum likelihood in Stata 14. The factors were allowed to correlate; the errors for all reversed threat items were also allowed to correlate with one another. This model fit acceptably, $\chi^2(188)=1224.38$, $p<0.001$, RMSEA=0.076, CFI=0.934, AIC=67,952.78. In comparison, a model that allowed all items to load on a single threat factor fit the data more poorly, $\chi^2(194)=2092.40$, $p<0.001$, RMSEA=0.101, CFI=0.880, AIC=68,808.80; $\Delta\chi^2(6)=868.01$, $p<0.001$.

Results

Bivariate Relationships

Descriptive statistics and intercorrelations for the key variables are summarized in Table 1. Reviewing the correlations in this table, we can see that perceived White population decline is mostly uncorrelated with perceived Asian and Hispanic/Latino population growth, though it is marginally associated with greater perceived Black population growth. In contrast, perceptions of growth in the population of all three racial minority groups are positively and significantly correlated ($ps < 0.001$).

Furthermore, perceived White population decline is positively correlated ($ps < 0.001$) with all types of threats other than symbolic threat. Perceived Asian population growth is correlated only with greater status threat ($p < 0.001$), whereas perceived Hispanic/Latino population growth is correlated with greater status threat ($p < 0.001$) and greater symbolic threat ($p < 0.01$) and marginally correlated with greater prototypicality threat ($p < 0.10$). Perceived Black population growth is positively correlated with all four types of threat ($ps < 0.01$, for prototypicality threat and collective existential threat; $ps < 0.001$, for status threat and symbolic threat). Perceived Black population growth is also correlated with positive affect toward extreme-right groups ($p < 0.05$) and marginally correlated with support for extreme-right political actions ($p < 0.10$), while perceived Hispanic/Latino population growth is negatively correlated with positive affect toward extreme-right groups ($p < 0.05$). Perceived Asian population growth is not correlated with either extreme-right support variable. Interestingly, perceived White population decline was not directly correlated with either extreme-right support measure, suggesting that any relationships it has with support for extreme-right groups and political actions is likely to be indirectly channeled by various forms of perceived group threat. Finally, all four types of threats are positively correlated with each other and with the extreme-right

support measures ($ps < 0.001$), and the two extreme-right support measures were also positively correlated with one another ($ps < 0.001$).

Path Analysis

To test our predictions, we estimated a path model; the basic model specification was pre-registered. In this model, White population decline and perceived growth in the Asian, Black, and Hispanic populations were allowed to have direct effects on the four mediators, and each mediator was allowed to have a direct effect on the two extremism variables (extreme group and extreme policy). We also allowed (1) the four population variables to correlate, (2) the disturbance terms for the four mediators to correlate, and (3) the disturbance terms for the two extremism variables to correlate. In the preliminary run of the analyses that we pre-registered, we included direct effects of all population variables on the extremism variables. These analyses revealed that the direct effects of the Asian and Black population-growth variables on both extremism variables were statistically indistinguishable from zero, so we dropped them from the model for the sake of parsimony; doing so did not produce a significant decline in model fit. The resulting model is summarized in Figure 1.

This final model provided an excellent fit to the data, $\chi^2(4) = 4.007, p > 0.250$, RMSEA = 0.002, CFI = 1.000. Whites who thought the White population was in decline experienced higher levels of all threats other than symbolic threat ($ps < 0.001$, for status threat, prototypicality threat, and collective existential threat). Whites who thought the Black population was growing reported higher levels of all four threats ($p < 0.05$ for status threat, $ps < .01$ for prototypicality threat and symbolic threat, and $p < 0.001$ for collective existential threat), and those who thought the Hispanic/Latino population was growing only experienced a higher level of status threat ($p < 0.01$). Perceived Asian population growth was not associated with any of the threats ($ps > 0.250$). As predicted (and consistent with prior work; Bai & Federico, 2019), White population decline had a relatively strong relationship with collective existential threat ($b = 0.30, \beta = 0.25, p < 0.001$) compared to

the other population change variables (i.e., $\beta=0.003$ for Asian growth, $\beta=0.16$ for Black growth, and $\beta=-0.05$ for Hispanic growth). White population decline also appeared to be more strongly related to collective existential threat (again, $\beta=0.25$) than the other threats (i.e., versus $\beta=0.18$ for status threat, $\beta=0.19$ for prototypicality threat, and $\beta=0.03$ for symbolic threat).

In turn, the threat variables varied in their relationships with the extreme-right variables.⁶ As predicted, collective existential threat predicted positive affect toward extreme-right groups ($b=0.18$, $\beta=0.26$, $p<0.001$) and support for extreme-right political actions ($b=0.20$, $\beta=0.20$, $p<0.001$), net of the other threat variables. Symbolic threat was also associated with both positive affect toward extreme-right groups ($b=0.17$, $\beta=0.29$, $p<0.001$) and support for extreme-right political actions ($b=0.52$, $\beta=0.61$, $p<0.001$). Prototypicality threat was not significantly related to positive affect toward extreme-right groups ($b=0.03$, $\beta=0.04$) and support for extreme-right political actions ($b=0.01$, $\beta=0.01$), all $ps>0.250$. Unexpectedly, after adjusting for the other threats, status threat was associated with *less* positive affect toward extreme-right groups ($b=-0.06$, $\beta=-0.09$, $p=0.05$) and *less* support for extreme-right political actions ($b=-0.08$, $\beta=-0.08$, $p=0.038$). Interestingly, both White population decline ($ps<0.05$) and Hispanic/Latino population growth ($ps<0.01$) were also directly associated with reduced positive affect toward extreme-right groups and reduced support for extreme-right political actions once the direct statistical effects of the threat variables were adjusted for.

Indirect effects. Following up on these direct effects, we also examined indirect effects of the population-change variables on the extreme-right support variables via the threat mediators. To

⁶ Despite the relatively high correlations between the threat variables (see Table 1), the variance inflation factor (VIF) estimates for the four threat measures were all below 3: 1.66 for status threat, 2.84 for prototypicality threat, 2.19 for symbolic threat, and 2.54 for collective existential threat. These estimates are well below the traditional VIF cutoff of 10 (Belsley, Kuh, & Welsh, 1980) and also below more stringent recommendations (e.g., VIF=5; Fox, 2016)

minimize the overall number of indirect-effect tests, we examined only those indirect effects for which both constituent paths (i.e., from population change to threat and from threat to far-right support) were significant. These tests are summarized in Table 2. As predicted, White decline was indirectly associated with greater positive affect toward extreme-right groups ($IE=0.053, p<0.05$) and support for extreme-right political actions ($IE=0.060, p<0.05$) via collective existential threat. However, unexpectedly, White decline was indirectly associated with *reduced* positive affect toward extreme-right groups ($IE=-0.014, p<0.05$) and support for extreme-right political actions ($IE=-0.016, p<0.05$) via status threat.

Though they are not our main focus, indirect effects of perceived changes in the Black and Hispanic/Latino populations are also reported in Table 2. Paralleling the indirect effects of White population decline, perceived growth in the Black and Hispanic/Latino populations was indirectly associated with reduced positive affect toward extreme-right groups ($p<0.05$) and support for extreme-right political actions ($p<0.05$) via status threat. Moreover, perceived Black population growth was associated with increased positive affect toward extreme-right groups and greater support for extreme-right political actions via both symbolic threat (both $ps<0.05$) and collective existential threat (both $ps<0.05$).

Discussion

Study 1 found that perceived White population decline in America was associated with higher levels of collective existential threat among Whites even after the impact of perceived changes in the population of minority groups was adjusted for. In turn, collective existential threat predicted positive affect toward extreme-right groups and greater support for extreme-right policy, net of the other threats. Finally, perceived White population decline indirectly predicted greater positive affect toward extreme-right groups and greater support for extreme-right policy via a perception that the White racial ingroup was threatened with being wiped out, i.e., collective

existential threat. Thus, our predictions were supported. This core finding adds to extant research linking perceived White population decline (net of perceived changes in the non-White population), perceptions of collective existential threat, and defensive political attitudes among Whites (Bai & Federico, 2019). Interestingly, whereas collective existential threat and symbolic threat were both associated with greater extremism (net of the other threats), status threat was associated with reduced extremism. As a result, perceived White population decline and perceived growth in the Black and Hispanic/Latino populations were also indirectly associated with reduced positive affect toward extreme-right groups and reduced support for extreme-right policy via status threat.

Study 2

Building on Study 1, we turn to a parallel experiment in Study 2. Study 2 had two aims: (1) to provide stronger causal inference by manipulating rather than measuring perceived changes in the White population; (2) to dissociate the effect of White population decline from minority population growth; and (3) to examine how different types of threats may be selectively activated by White population decline versus minority population growth.

Method

Study 2 was also embedded in a larger survey that includes measures and materials used in multiple studies, and the survey was administered via Amazon Mechanical Turk. The overall survey that includes the experiment used in Study 2 has a predetermined target sample size of 1500, and we received 1578 responses (including incomplete responses), 1062 of which were from White participants. We only used White participants for analysis and also excluded all responses flagged as contaminated (Bai, 2018) using the Prims, Sisso, and Bai (2018) method. The exclusion of contaminated responses was not pre-registered. The final analysis sample was 734 (279 male, 453 female, 3 other). The mean age was 39.4.

We again determined the power of this sample size to detect the most sample-size-intensive effect we predicted, i.e., an indirect effect of assignment to a White population decline condition (versus control) on each of the dependent variables via collective existential threat. As input, we used standardized effects for estimates from Bai and Federico's (2019) Study 2, which employed a roughly similar design and measures. From this study's data, we drew on the standardized estimates for the effect of the White population decline condition (independent variable) on collective existential threat (mediator) and the effects of collective existential threat and the White population decline condition on racial bias (dependent variable). These parameters were 0.21, 0.16, and 0, respectively. As in Study 1, we use racial bias as a conceptual proxy for the extreme-right variables in the present study. For $N=734$, this analysis indicated a power of 0.99 to detect an indirect effect similar to that reported by Bai and Federico (2019, Study 2).

Manipulation. Participants were randomly assigned to one of the four conditions in order to independently manipulate White population decline and minority population growth. There were three treatment conditions. In the *White decline and minority growth condition* (C1), participants read an article about demographic change similar to the one presented in studies by Craig and Richeson (2014a, 2014b). The article talks about White population decline and non-White population growth in the U.S. In the *White decline and minority-stability condition* (C2), participants read an article similar to that in C1, with one change: the minority population was explicitly described as being stable. In the *White stability and minority growth condition* (C3), participants read an article similar to that in C1, with one change: White population was explicitly described as being stable. Finally, the article in the *control condition* (C4) simply discusses geographic mobility, which is also what Craig and Richeson (2014a, 2014b) used as a control.⁷

⁷ Alternatively, we could have used a full-factorial design where White population and minority population growth are each independently manipulated (to be growing, stable or in decline).

Following the experimental manipulation, all participants completed measures of perceived changes in the population of different racial groups (as manipulation checks), the same threat measures used in Study 1⁸, and the measures of affect toward extreme-right groups and the Posse scale used in Study 1. Additionally, participants were prompted to respond to two items discussed in the news media at the time of data collection, i.e., the Muslim ban and separation of families at the U.S.-Mexico border (see item wordings in Appendix A).⁹ These two items were averaged with the six items from the Posse scale to form a final composite measure of support for extreme-right political actions.

Results

Descriptive statistics and intercorrelations for the key study variables are summarized in Table 3. Reviewing the bivariate relationships in this table, all four types of threats and the two

However, aside from our motivation to maximize the number of observations per condition, we opted for the current design because it speaks to earlier work on this topic that focuses specifically on the effect of White population decline relative to minority populations (Craig & Richeson 2014a, 2014b). Furthermore, minority population growth and White population decline are the two population trends that are in fact happening, so White population growth and minority population decline are less ecologically-valid scenarios. Finally, Bai and Federico (2019) found that experimental conditions that implied White population growth were not different from control in their effect, so we concluded that the incremental contribution of a White growth condition was likely minimal.

⁸ One item in the symbolic threat scale was reworded in Study 2 (see Appendix A). To verify the structure of the threat measures, we again estimated a four-factor measurement model using maximum likelihood in Stata 14. The four factors were allowed to correlate with one another, and the errors for all reversed threat items were allowed to correlate with one another as well. This model fit acceptably, $\chi^2(182)=1711.10$, $p<0.001$, RMSEA=0.074, CFI=0.944, AIC=106,946.78. The corresponding one-factor model fit the data more poorly, $\chi^2(188)=2464.30$, $p<0.001$, RMSEA=0.089, CFI=0.916, AIC=107,687.99; $\Delta\chi^2(6)=753.21$, $p<0.001$.

⁹ Though these are part of official government policy and may thus now be considered “conventional” right-leaning positions rather than extreme right-wing positions, we still consider them a reasonable operationalization of right-wing extremism. This is because these policies contradict basic United Nations human-rights principles (Cumming-Bruce, 2018; Sengupta, 2017) and have received so much societal criticism that they were revised (Executive Order 13780) or abandoned altogether (Executive Order 13841) in less than three months after their introduction.

measures of far-right extremism are all positively and strongly correlated with one another (p s<0.001). These patterns are similar to those in Study 1.

Manipulation Check

As a manipulation check, we conducted five one-way analyses of variance to compare mean responses to perceived changes in the White, Black, Asian, and Hispanic/Latino populations and the minority population in general (defined as the average of perceived changes in the Black, Asian, and Hispanic/Latino populations) across conditions. Tukey post-hoc comparisons were used to compare specific groups. The mean population growth of White minority in general in each condition is summarized in Table 4, and the post hoc comparisons are summarized in Table 5.¹⁰

First, mean perceptions of White population growth differed significantly across the four conditions in the intended directions, $F(3,730) = 27.35, p < 0.001, \eta^2 = .10$. Tukey post-hoc comparisons confirmed the expected differences between conditions such that participants in White decline and minority growth condition (C1) and White decline and minority stability condition (C2) perceive that White population is declining more than participants in White stability and minority growth condition (C3) and control (C4). Moreover, participants in White decline and minority growth condition (C1) and White decline and minority stability condition (C2) do not differ from each other and those in White stability and minority growth condition (C3) and control condition (C4) do not differ from each other either regarding their perceptions of White population change. It is worth noting that in the control condition, the mean White population change score is 5.11; as a reference, the option of “neither growing nor declining” is scored as 5. Comparing the average

¹⁰ Here, we provide comparisons of perceptions of the White population versus the minority population on average. Comparisons between all individual racial groups can be found in Tables C1 and C2 in Appendix C.

perceptions of White population change across the four conditions suggests that in this sample, average perceptions of White population change are stable.

We also confirmed that mean perceptions of minority population growth differed significantly across the four conditions in the intended directions, $F(3,730) = 9.23, p < 0.001, \eta^2 = .04$. Tukey post-hoc comparisons show participants in White decline and minority growth condition (C1) indeed perceived that the minority population is growing more than participants in White decline and minority stability condition (C2) and control (C4), but not White stability and minority growth condition (C3).¹¹ Participants in White stability and minority growth condition (C3) also perceived that the minority population is growing more than participants in White decline and minority stability (C2), although not more so than in control (C4). Lastly, we found that minority growth was perceived to be greater in White decline and minority growth condition (C1) compared to the control condition (C4) but not in White stability and minority growth condition (C3) compared to the control condition (C4). This suggests that minority population growth is more noticeable when the White population is perceived to be declining rather than stable. In other words, minority population growth is less noticeable to Whites when the White population is perceived to be stable.

Path Analysis

As in Study 1, we examined the key relationships among the variables of interest by estimating a path model; the specifications of this model were pre-registered.¹² Three indicator variables were used to code experimental condition, with the control condition as the excluded

¹¹ This pattern is similar across perceptions of changes in the Black, Asian, and Hispanic/Latino populations individually. The difference between White decline and minority stability (C2) and White stability and minority growth (C3) is not reflected in the perceptions about population growth of Black, Asian and Hispanic/Latino individually, as perceptions in C3 do not differ from those in C2 and C4 (control).

¹² In the pre-registration, we indicated that we would allow the error terms of the population variables to be correlated. This sentence was included in error; there are no population variables in the model as there were in Study 1.

group: D1 contrasts the first treatment (i.e., White decline and minority growth; C1) with the control condition (C4), D2 contrasts the second treatment (i.e., White decline and minority stability; C2) with the control condition (C4), and D3 contrasts the third treatment (i.e., White stability and minority growth; C3) with the control condition (C4). Each of these indicator variables was allowed to have direct effects on the four threat mediators, and each threat mediator was allowed to have a direct effect on the two extremism variables. We also allowed (1) the disturbance terms for the four mediators to correlate and (2) the disturbance terms for the two extremism variables to correlate. In the preliminary run of the analyses that we pre-registered, we tested a saturated model that included direct effects of all experimental-condition indicators on the extremism variables. These analyses revealed that the direct-effect paths from the condition indicators to the two extremism variables were indistinguishable from zero, so we dropped them from the model for parsimony; this modification did not produce a significant decrement in model fit.

The final model is summarized in Figure 2. The model provided an excellent fit to the data, $\chi^2(6) = 8.427, p > 0.208$, RMSEA = 0.024, CFI = 0.999. As predicted, the estimates suggest that participants assigned to the two White-decline conditions both expressed greater threat relative to those in the control condition.¹³ Participants assigned to the White decline and minority growth condition (C1) perceived greater status threat ($b = 0.05, p = 0.012$) and collective existential threat ($b = 0.05, p = 0.033$) than participants in the control condition (C4). Participants assigned to the White decline and minority stability condition (C2) experienced higher levels of all four threats relative to control participants ($b = 0.06, p = 0.004$, for status threat; $b = 0.05, p = 0.024$, for prototypicality threat; $b = 0.06, p = 0.024$, for symbolic threat; $b = 0.07, p = 0.002$, for collective existential threat). In

¹³ Since all variables are recoded to run from 0 to 1, estimates for each indicator variable represent the change in the outcome variable, *expressed as a proportion of its total range*, associated with moving from the control condition to the condition coded by that indicator.

comparison, differences between participants assigned to the White stability and minority growth condition (C3) and those assigned to the control condition were more muted. Participants in this condition experienced a marginally higher level of status threat ($b=0.04, p=0.097$) and symbolic threat ($b=0.04, p=0.071$) than those in the control condition. They did not differ notably from control participants in collective existential threat ($b=0.03, p=0.151$), or prototypicality threat ($b=0.03, p=0.151$). Importantly, this last existential-threat result suggests that the White decline conditions elicit incrementally more collective existential threat than those that do not feature White decline, though we caution that the differences in effects associated with the indicators are relatively small.

Also as predicted, collective existential threat was associated with greater positive affect toward extreme-right groups ($b=0.23, \beta=0.27, p<0.001$) and with greater support for extreme-right political actions ($b=0.19, \beta=0.19, p<0.001$), net of the other threats. In addition, symbolic threat predicted greater positive affect toward extreme-right groups ($b=0.21, \beta=0.28, p<0.001$) and greater support for extreme-right political action ($b=0.48, \beta=0.49, p<0.001$). Prototypicality threat and status threat were more weakly related to the extreme-right measures. Prototypicality threat was largely unrelated to affect toward extreme-right groups ($b=-0.04, \beta=-0.05, p>0.250$), though it was slightly associated with increased support for extreme-right actions ($b=0.11, \beta=0.11, p=0.018$). Finally, status threat was largely unrelated to both extreme-right variables ($b=-0.04, \beta=-0.05$, for extreme-right affect; $b=-0.01, \beta=-0.01$, for extreme-right actions; both $ps>0.250$).¹⁴

¹⁴ As in Study 1, the threat variables were relatively highly correlated in Study 2 (see Table 3). Despite this, the variance inflation factors for the four threat measures were all again below 3 and relatively similar to those observed in Study 1: 1.78 for status threat, 2.91 for prototypicality threat, 2.21 for symbolic threat, and 2.51 for collective existential threat. These all fall below the aforementioned VIF cutoff values of 10 and 5.

Finally, we also examined selected indirect effects of the experimental condition indicators on the extreme-right support variables via the threat mediators. To minimize the overall number of tests, we again looked at only those indirect effects for which both constituent paths were at least marginally significant. Table 6 summarizes these tests. As predicted, collective existential threat mediates the positive indirect effect of exposure to both White-decline conditions on both extremism measures. This was the case for the effect of exposure to the White decline and minority growth condition (C1) versus the control for positive affect toward extreme-right groups ($IE=0.011$, $p<0.05$) and support for extreme-right political actions ($IE=0.009$, $p<0.05$); the effect of exposure to the White decline and minority stability condition (C2) versus the control for positive affect toward extreme-right groups ($IE=0.016$, $p<0.05$) and support for extreme-right political actions ($IE=0.013$, $p<0.05$).

In addition, exposure to the White decline and minority stability condition versus the control condition had an indirect relationship with support for extreme-right policy via prototypicality threat ($IE=0.006$, $p<0.05$), as well as indirect relationships with positive affect toward extreme-right groups ($IE=0.012$, $p<0.05$) and support for extreme-right policy ($IE=0.027$, $p<0.05$) via symbolic threat. None of the examined indirect effects of exposure to the White stability and minority growth condition (versus the control) reached significance. Finally, status threat did not mediate the effect of any of our treatments on the extremism variables. Although all three treatment conditions boost status threat vis-à-vis the control condition, status threat does not in turn predict either extremism measure, net of the other threats. As a result, status threat did not serve as a conduit for the influence of demographic change on defensive reactions once other threats were considered.

Discussion

Study 2 experimentally replicated many of the core findings of Study 1. Compared to participants assigned to a control condition, participants in treatments which made White population

decline salient experience greater levels of collective existential threat, as well as other intergroup threats. Participants in the White decline and minority growth condition experienced higher levels of collective existential threat and status threat than control participants. Moreover, participants in the White decline and minority stability condition experienced higher levels of collective existential threat and the three other threats relative to control participants. In turn, collective existential threat predicted support for both far-right support variables net of the other threats. Finally, exposure to information about White population decline indirectly predicted right-wing extremism via the group-threat variables. In particular, as in Study 1, collective existential threat played the predicted robust role in mediating the relationship between White population decline and the extremism variables. Exposure to both White-decline conditions (versus control) indirectly predicted positive affect toward extreme-right groups and support for extreme-right policy via collective existential threat. Additionally, exposure to the White decline and minority stability condition also indirectly predicted greater positive affect toward extreme-right groups via prototypicality threat and greater support for extreme-right policy via both prototypicality threat and symbolic threat. Thus, Study 2 provides converging evidence linking perceived White population decline, collective existential threat, and right-wing extremism.

Study 3

Study 3 more closely examines the first step of the theorized causal chain, i.e., the causal effect of perceived group-populations changes on different types of threats. Specifically, Study 3 examines whether perceived population changes in different racial groups indeed have different effects on different types of threats (as the observational analysis in Study 1 suggests). Among White participants, we expect that information about White population decline (relative to control) will have a more notable effect on collective existential threat compared to information about increases in the population of various non-White groups (relative to control). The effects of other types of

population change were somewhat inconsistent across Studies 1 and 2, so the effects of perceived increases in the population of non-White groups were investigated in a more exploratory capacity in Study 3. In this study, we also included the extremism variables that are involved in the second step of the theoretical causal chain (i.e., from threats to extremism), but we treat analyses of this step as exploratory. We pre-registered these core expectations.

Method

Participants and Procedure

Study 3 was administered via Prolific. We sought a predetermined sample size of 750 White American participants, and a total of 771 White Americans entered the online survey and consented to participate. Of these, 684 (or 88.72%) passed both check questions (see below), and only their data are included in the analyses per pre-registration.¹⁵ Of these, 323 were male, 345 were female, and 16 did not indicate; the mean age was 35.1. We conducted a power analysis to determine the power of this sample size to detect the most sample-size-intensive effect that was considered in Study 3 (i.e., an indirect effect of assignment to a White population decline condition versus control on each of the dependent variables via collective existential threat). The power analysis is identical to that used in Study 2, using the same effect-size input parameters (i.e., 0.21, 0.16, and 0). As in Studies 1 and 2, we use racial bias as a conceptual proxy for the extreme-right variables. For $N=684$, this analysis indicated a power of 0.985 to detect an indirect effect similar to that reported by Bai and Federico (2019, Study 2).

¹⁵ During the recruitment, the respondents' political ideology was bench-marked against the Gallup national distribution (i.e., approximately 37% conservative, 35% moderate, and 24% liberal; see <https://news.gallup.com/poll/275792/remained-center-right-ideologically-2019.aspx>) based on their prior ideological identification reported to Prolific. Mirroring this distribution, the ideological distribution of the final sample is relatively even (see Figure B8 in Appendix B).

Manipulation. Participants were randomly assigned to one of five conditions. In the “Hispanic growth” condition, participants read an article focused on growth in the Hispanic American population without references to population change for any other racial groups. The same is for the “Asian growth” and “Black growth” conditions. Participants in the “White decline” condition read an article focused on population decline among White Americans without references to population change for any other racial groups. Finally, participants in the control condition read about geographic mobility, a topic that does not reference any racial groups. The stimuli were revised from materials used by Craig and Richeson (2018). Four indicator variables were created to represent condition assignment, with participants in the control condition serving as the reference group.

After reading the article, participants were asked the following two questions as manipulation checks. Each question was presented on a separate page, and participants could not go back to the previous page when answering them. The first was: “Which one of the following populations is the article about?” The choices were: 1=Black Americans (answer for the Black growth condition), 2=Asian Americans (answer for the Asian growth condition), 3=Hispanic Americans (answer for the Hispanic growth condition), 4=White Americans (answer for the White decline condition), and 5=American people who have moved from one place to another (answer for the control condition). The second question was: “What aspect of the population is the article focusing on?” The choices were: 1=The population's increase (answer for the Black/Asian/Hispanic growth conditions and the control condition), 2=The population's decline (answer for White decline condition), and 3=The population's stability (distractor option). The baseline chance for answering the two check questions correctly is therefore 20% (i.e., one out of five) $\times 33.33\%$ (i.e., one out of three) $= 6.67\%$, which is significantly less than the observed probability of passing the check

questions (88.72%) according to a two-sided exact binomial test, $p < 0.001$, suggesting that the manipulation was effective.¹⁶

Measures

Following the manipulation and check items, participants completed threat measures similar to those in Study 2. For *status threat*, *prototypicality threat*, and *symbolic threat*, the items were identical to those in Study 2. For *collective existential threat*, an abbreviated three-item subset of the 13-item scale from Studies 1 and 2 was used.¹⁷ Next, participants completed the same measures of affect toward *extreme-right groups* and support for *extreme-right political actions* used in Study 2.

Results

Descriptive statistics and intercorrelations for key variables are shown in Table 7. To examine differences between the experimental conditions on our key variables, we conducted series of one-way analyses of variance, and the means of the variables by condition are reported in Table 8. The only omnibus test from these analyses of variance that reached conventional levels of significance was for collective existential threat, $F(4, 661) = 2.79$, $p = 0.026$. Tukey post-hoc comparisons were used to compare specific groups (see Table C3 in Appendix C). For collective existential threat, we find that it is significantly higher in the White population decline condition than Black population growth condition ($p = .048$) and marginally higher in the Hispanic population growth condition ($p = .065$).

Path Analysis

¹⁶ The exact binomial test produced similar results when conducted separately within each of the treatment conditions using the same expected probability of success as a baseline (all $ps < 0.001$).

¹⁷ To confirm the structure of the threat measures, we estimated another four-factor measurement model using maximum likelihood in Stata 14. The four factors were allowed to correlate with one another, and the errors for all reversed threat items were allowed to correlate with one another as well. This model fit adequately according to most criteria, $\chi^2(42) = 288.79$, $p < 0.001$, RMSEA = 0.088, CFI = 0.950, AIC = 30,547.71. The corresponding one-factor model fit the data more poorly, $\chi^2(48) = 833.61$, $p < 0.001$, RMSEA = 0.147, CFI = 0.840, AIC = 31,080.54; $\Delta\chi^2(6) = 544.82$, $p < 0.001$.

We again examined the key relationships of interest using path analysis; the specifications of this model were pre-registered. The four indicator variables for condition assignment were allowed to have direct effects on all four threat variables, and the four threat variables (which served as mediators) were allowed to have direct effects on both extremism variables. The disturbances for the four threat variables were allowed to correlate among themselves, and the disturbances for the two extremism variables were allowed to correlate as well.¹⁸ In the preliminary run of the analyses that we pre-registered, we tested a saturated model that included direct effects of all experimental-condition indicators on the extremism variables. Since these paths were indistinguishable from zero, they were dropped from the final model for parsimony.¹⁹

This model is shown in Figure 3. The model fit the data well, $\chi^2(8)=7.724$, $p>0.250$, RMSEA<0.001, CFI=1.000. Reviewing the results from the final model, White population decline had the predicted effect on collective existential threat ($b=0.09$, $p=0.017$). Other than this, no other indicator-coded population change variable had a significant effect on any threat variable. This complete absence of other effects differs somewhat from what was found in Studies 1 and 2, though we did not pre-register specific expectations for the other population-change indicators given previous inconsistent results.

Collective existential threat was again associated with greater positive affect toward extreme-right groups ($b=0.09$, $\beta=0.18$, $p=0.001$) and with greater support for extreme-right political actions ($b=0.18$, $\beta=0.23$, $p<0.001$), net of the other threats. Also, symbolic threat predicted greater positive

¹⁸ Preliminary analyses indicated that the path model failed to converge in 19 of the resamples, so our final bootstrap analyses requested 1,019 resamples to produce a final set of 1,000 bootstrap samples.

¹⁹ The Stata 15 default optimization procedure resulted in a not-concave situation (i.e., a local minimum when attempting to maximize the likelihood). As such, the optimization technique was changed to start with Newton-Raphson for three iterations and then switch to Berndt–Hall–Hall–Hausman (another numerical root-finding algorithm) for 5 iterations, repeating these steps thereafter until convergence.

affect toward extreme-right groups ($b=0.24, \beta=0.39, p<0.001$) and greater support for extreme-right political actions ($b=0.45, \beta=0.51, p<0.001$), echoing our previous results. Prototypicality threat was inversely related to positive affect toward extreme-right groups ($b=-0.07, \beta=-0.11, p<0.040$), but unrelated to support for extreme-right actions ($b=0.05, \beta=0.05, p=0.200$). Finally, status threat was unrelated to both extreme-right variables ($b=0.01, \beta=0.02$, for extreme-right affect; $b=0.01, \beta=0.01$, for extreme-right actions; both $ps>0.250$).²⁰

Given that only the path from the White-decline indicator to collective existential threat was significantly different from zero in the first stage of the path model, we examined only indirect effects of the White decline indicator on each of the two extremism variables via collective existential threat. As predicted, collective existential threat mediated the relationship between exposure to the White decline condition and positive affect toward extreme-right groups (IE=0.008; 95% bias-corrected CI: 0.001, 0.019; $p<0.05$) and support for extreme-right action (IE=0.02; 95% bias-corrected CI: 0.003, 0.032; $p<0.05$).

Discussion

Study 3 replicated the core finding of Studies 1 and 2 about the mediating role of collective existential threat. Nonetheless, this study suggests that the causal relationship between perceived White population decline and collective existential threat seems to be somewhat *bijective*—i.e., perceived White population decline triggers perceived collective existential threat but not any other inter-group threat, and perceived collective existential threat is triggered by perceived White population decline but not by any other type of population change. This pattern is different from Studies 1 and 2, and it will be discussed more in the general discussion. Although there was no total

²⁰ The threat variables were again correlated in Study 3 (see Table 7). Despite this, the variance inflation factors for the four threat measures all fell below 3 and relatively similar to those observed in Study 1: 1.68 for status threat, 2.42 for prototypicality threat, 2.23 for symbolic threat, and 2.24 for collective existential threat. These are all below the VIF cutoff values of 10 and 5.

effect of perceived White population decline on extremism variables, the mediating role of collective existential threat was significant. Therefore, Study 3 once again confirms a core expectation about the causal effect of perceived White population decline on collective existential threat (i.e., the first step of the causal chain) and collective existential threat's role in mediating the relationship between perceived White population decline and far-right extremism.

Study 4

Complementing Study 3, Study 4 attempts to establish the second step of the theoretical causal chain mentioned earlier by testing the causal effect of perceived collective existential threat on extremism. We hypothesize that participants who are experimentally induced to experience a higher level of collective existential threat will score higher on the extremism measures than participants in the control condition.

Method

Participants and Procedure

Study 4 was administered via Prolific. We sought a predetermined sample size of 500 White American participants, and a total of 516 White Americans entered the online survey and consented to participate.²¹ Of these, 347 (or 67.25 %)²² passed both check questions (see below), and only their data are included in the analyses per pre-registration. Of these, 155 were male, 191 were female, and

²¹ During the recruitment, the respondents' political ideology was bench-marked against the Gallup national distribution, as in Study 3. Mirroring this distribution, the ideological distribution of the final sample is relatively even (see Figure B11 in Appendix B).

²² We noted that a large number of participants in the control condition responded to the second check question with the "stability" option (109 responded with "the population's increase," 31 responded with "The population ceasing to exist as a distinct group", and 111 responded with "The population's stability"; see below). After reviewing the material again, we realized that "stability" could be a reasonable response for the second check question. The same text was used in Study 3 but we did not encounter this issue in Study 3 probably because the text was paired with a graph that shows the number as growing more saliently. Nonetheless, whether we count participants responded with "stability" as pass or fail, the results are similar (see Appendix D).

1 did not indicate; the mean age was 35.74. A sensitivity analysis using G*Power 3.1 (Faul et al., 2007) shows that this sample can detect an effect size of $d=0.33$ at a power of 0.80, $\alpha=.05$, $N1=106$, $N2=241$, two-tailed.

Manipulation and measures. In this study, participants were randomly assigned to one of two conditions. In the treatment condition, participants read an article talking about how White Americans may cease to exist as a distinct racial group due to White population decline. Participants in the control condition read about geographic mobility, a topic that does not reference any racial groups. After reading the article, participants were asked the two questions as manipulation checks. The two questions are similar to the ones used in Study 3 except that “The population's decline” choice for the second item was replaced with “The population ceasing to exist as a distinct group.” Following the manipulation and check items, participants completed the abbreviated collective existential threat ($\alpha=0.89$) measure used in Study 3 and the two extremism measures ($\alpha=0.57$ for extreme-right group affect, $\alpha=0.90$ for extreme-right political actions) used in Studies 1 through 3.

Results

To test the effectiveness of the manipulation, an independent t-test was conducted. Participants in the treatment condition ($M=0.46$, $SD=0.27$) experienced a significantly higher level of collective existential threat than participants in the control condition ($M=0.26$, $SD=0.25$), $t(345)=6.28$, $p<.001$, $Mdiff$ 95% CI=[.13,.25], $d=0.73$. This suggests that the manipulation was effective at increasing collective existential threat.

We tested our hypotheses by looking at the manipulation's effect on the two extremism variables. Contrary to our pre-registered expectations, an independent t-test indicated that the participants in the treatment condition ($M=0.08$, $SD=0.13$) and the control condition ($M=0.10$, $SD=0.13$) were not significantly different in affect toward extreme-right groups, $t(345)=1.05$, $p>0.250$, $Mdiff$ 95% CI=[-0.05, 0.01], $d=0.12$. Moreover, participants in the treatment condition

($M=0.20$, $SD=0.20$) and the control condition ($M=0.21$, $SD=0.21$) did not significantly differ in support for extreme-right actions, $t(344)=.40$, $p>0.250$, M_{diff} 95% CI=[-0.05, 0.04], $d=0.05$.

To further explore this null finding, we estimated an exploratory path model (which was not pre-registered). This model allowed the manipulation to have indirect effects on the two extremism variables via the existential-threat check measure; the disturbances for the extremism variables were allowed to correlate.²³ The resulting model is summarized in Figure 4. The indirect effects of the manipulation on extreme-right group affect ($IE=0.02$, $p=0.010$) and support for extreme-right political actions ($IE=0.06$, $p<0.001$) via collective existential threat were both significant and in the predicted direction. Interestingly, the direct effects of the manipulation on each dependent variable are negative, in contrast to these indirect effects (see Figure 4). This suggests a suppression effect—once perceived collective existential threat is accounted for, if anything, the manipulation *reduces* extremism.

Discussion

The primary pre-registered analyses examining the second step of our model's causal chain were not consistent with expectations. Nevertheless, the significant effect of the manipulation on the manipulation check suggests that this null finding is not due to a failed manipulation. Moreover, follow-up analyses suggested an interesting combination of indirect effects: the manipulation had the expected indirect relationships with the extremism variables via collective existential threat, but the direct effects of the manipulation on the extremism measures become negative once collective existential threat was accounted for. We discuss this result further below.

General Discussion

²³ This model was saturated (i.e., with zero degrees of freedom), so standard fit statistics are not reported.

Across four studies, we found evidence linking Whites' perceptions about demographic change, intergroup threat, and support for extreme-right groups and political actions. Specifically, the studies suggest (1) that perceptions of White population decline are associated with a sense of collective existential threat (i.e., a fear that the White in-group will be wiped out); (2) that collective existential threat is in turn associated with two measures of far-right support; and (3) that perceptions of White decline are indirectly related to the measures of far-right support via collective existential threat.²⁴

Core findings about collective existential threat's mediating role

With respect to collective existential threat—our main focus in this study—our findings extend earlier work by Bai and Federico (2019). Their research indicated that perceived White population decline predicts collective existential threat (net of other perceived demographic changes) and indirectly predicts intergroup bias and conservative political preferences via collective existential threat. Though the present study focuses specifically on perceived decline in the American White population as opposed to the global White population that Bai and Federico (2019) focused on, both their studies and the present studies find evidence for the mediating role of collective existential threat. Regardless of whether White perceivers focus on the national or the global White population, collective existential threat consistently mediates the relationship between White population decline and variables related to defensive reactions, especially when White decline is

²⁴ It is possible that not all Whites respond to perceived White population decline by experiencing collective existential threat. For example, given that conservative identifiers are more likely to favor the status quo and seek to maintain existing forms of hierarchy (e.g., Jost et al., 2003), conservative Whites might be expected to react to White decline with greater collective existential threat than liberal Whites. To address this possibility, we conducted supplementary analyses in Studies 1-3 examining whether ideological self-placement (as liberal versus conservative) moderates the relationship between White decline and collective existential threat (see Appendix E). In no case did we find any evidence for this moderation hypothesis ($p > 0.100$ for all product terms representing interactions between White population decline and ideology).

considered on its own. In contrast, collective existential threat is less consistent as a mediator of the relationship between perceived changes in the population of other racial groups and various outcomes. Therefore, as Bai and Federico (2019) argued, the collective existential threat pathway is especially relevant to the correlates of perceived White population decline.

We must note that in no study we found any zero-order relationship between perceived White population decline and far-right extremism. In the data we report here, the relationship between perceived White demographic decline and support for extreme right groups and political actions appears to be a completely indirect one, mediated by threat—in particular, collective existential threat. In general, this tracks earlier research (Bai & Federico, 2019), which also found more evidence for indirect than direct relationships between perceived White demographic change and political outcomes.

The absence of direct effects of this sort requires further study. Along these lines, it is possible that the perceived source of White population decline and collective existential threat might play a role in whether the latter are translated into extremism. White population decline in our experimental materials was framed as caused by the actions of Whites. This framing is informed by related literature in the past, which focus on declining White birthrates and immigration rates (e.g., Craig & Richeson, 2014a, Bobo, 1996). However, narratives about White population decline in far-right political communities are often implicitly framed as something actively caused by the actions of racial out-groups and their accomplices, as if racial minorities seek the subjugation and elimination of Whites (e.g., see Moses, 2019). As such, one reason why we did not observe any total effect of White population decline on extremism may be because of how our manipulations framed White population decline. If the manipulations had instead attributed White population decline directly to aggressive actions by racial minorities and their political allies, we may have observed a direct effect

of White population decline on the extremism variables. Future research should address this possibility.

On a more positive note, an implication of the absence of direct effects is that perceptions of White population decline, though undoubtedly present among many, does not inevitably elicit defensive right-wing extremism. Future research may also consider how to help majority group members deal with demographic shifts in ways that are more adaptive and accommodating of change. In line with the above considerations, a potential strategy would be to discursively emphasize the gradual and passive nature of demographic shifts (including White population decline) so as to minimize framings that imply conscious, conspiratorial, or aggressive efforts to change the composition of the population.

In thinking about how to reduce the potentially negative impact of perceived White population decline, our collective existential threat findings suggest other practical avenues as well. In particular, they suggest that the most fruitful approaches may be aimed at either counteracting the belief that White population decline implies the ‘elimination’ or ‘replacement’ of White people or emphasizing other positive implications of demographic change for all groups. For instance, existential concerns might be alleviated or offset once they take into consideration that demographic shifts that bring an end to institutional White dominance do not necessarily imply ‘extinction,’ danger, or political subjugation. This might be particularly applicable to Whites whose social circles are more racially diverse and where positive framing of demographic change may be aided by intergroup contact. Interestingly, we see some indirect evidence for this in Study 1, given that the direct effects of White decline on the two far-right extremism variables become negative once intergroup threat is accounted for; that is, once we covary out threat perceptions, perceived White population decline is associated with reduced extremism. Nevertheless, we urge caution in

interpreting this finding, given the absence of direct effects of White decline in Studies 2 and 3.

Future research should address this possibility more thoroughly.

The association between collective existential threat and extremism variables

In addition, our results were somewhat inconsistent with respect to the relationship between collective existential threat and the extremism variables. Though the relationship between measured collective existential threat and the extremism variables was consistent (and robust to controls for other forms of intergroup threat) across Studies 1-3, the manipulation of collective existential threat in Study 3 did not result in significant shifts in either extremism variable in Study 4 (contrary to predictions). Nevertheless, the manipulation did produce a shift in measured collective existential threat (used as a manipulation check) in Study 4, and collective existential threat again predicted both extremism variables. In turn, the manipulation had an indirect effect on both extremism variables via measured collective existential threat.

Though this overall pattern is broadly consistent with our expectations, the absence of a causal effect of the existential-threat manipulation on extremism in Study 4 was not expected and it raises questions that will need to be addressed by future research. Speculatively, a number of processes may account for our results. First, the manipulation may have activated an unmeasured competing mediator that offsets the positive indirect effect via collective existential threat. That is, the manipulation may have a negative indirect effect on the extremism variables through another unobserved competing mediator (or mediators). The observation that perception of demographic shift can trigger positive reactions from dominant group members is not unique to the current data—earlier results suggest that people can react to demographic change with celebratory reactions as well as defensive ones, depending on their sociodemographic background (see Bai & Federico 2019 and Bai, under review). Second, the association between collective existential threat as indexed by the check measure and the extremism variables may be spurious. That is, a third unobserved

variable may cause both measured collective existential threat and far-right extremism. We explored this second possibility with sensitivity analyses (Cinelli & Hazlett, 2018). These analyses indicated that unobserved confounders would need to account for 18.52% of the remaining variance in measured collective existential threat and positive affect toward extreme groups and 33.69% of the remaining variance in measured collective existential threat and support for extreme-right actions to reduce the respective estimates for measured collective existential threat to 0. Though this analysis does not definitively rule out the possibility of spurious relationships, it allows us to make a probabilistic statement about the likelihood of confounding and it suggests that a spurious link is somewhat more probable in the case of extreme-right actions.

Other findings about the inconsistent roles of minority population growth and other threat mechanisms

Reviewing other aspects of the first step of the causal chain, different types of minority growth perceptions (population growth of Black Americans, Hispanics, and Asian Americans, or unspecified minorities) were found to be associated with other types of inter-group threat. However, these patterns are somewhat inconsistent: in Study 1, perceived Black population growth was associated with all four types of intergroup threat. Perceived Hispanic population growth was associated with status threat. However, none of these effects was replicated experimentally in Study 3, though the aggregated minority population growth manipulations had a marginal effect on status threat and symbolic threat in Study 2. In no case was perceived Asian population growth associated with any threat, net of other effects. Thus, our evidence on the effects of minority population growth on inter-group threat is very inconsistent.

These findings are inconsistent with past studies on the topic of psychological consequences of demographic shift, which found that status threat and prototypicality threat mechanism can be triggered by the perceived racial-minority population growth (e.g., Craig & Richeson, 2014a, 2014b; Danbold & Huo, 2015). There are several possible reasons for this. Theoretically, it is possible that

as the White American population continues to decline and this decline continues to be discussed in the media (Bloe, 2018), concerns about in-group survival may be growing in salience relative to concerns about group status compared to other racial groups. Methodologically, past studies on similar topics usually focus on one mediator at a time (e.g., Craig & Richeson, 2014a; Craig & Richeson, 2014b; contra Danbold & Huo, 2015), but our Studies 1-3 simultaneously include four alternative mediators. Thus, it is possible that the other threat mechanisms discovered in the prior studies reflect an unobserved but confounded collective existential threat mechanism like the one the current studies focus on. Future studies should consider these possibilities. Furthermore, though Study 1's finding that Black population growth is perceived differently than Asian or Hispanic population growth is not replicated in Study 3, it suggests an important question for additional research: whether growth in the population of some racial groups is perceived in more threatening terms than others by various subsets of Whites. Future research should more systematically explore this question.

Reviewing other aspects of the second step of the chain, among all four types of threat, collective existential threat and symbolic threat are the only two types of inter-group threat that were consistently associated with far-right extremism variables in the expected direction across studies. In contrast, findings were very inconsistent regarding connections between status threat and far-right extremism (significant in the direction opposite of predictions in Study 1 and not significant in Studies 2 and 3) and prototypicality threat (significant with respect to the extreme-action variable in Study 2, not significant in Study 1, and significant in the direction opposite predictions in one case in Study 3).

Reviewing other indirect effects, the patterns are also mixed: symbolic threat mediated both the effect of perceived White decline and (in some cases) minority growth in Studies 1 and 2, but no such effects were found in Study 3. Prototypicality threat did not play a mediating role in Study 1

and its role was comparatively small in Study 2. Moreover, Study 3 provided no evidence of a causal effect of population changes on prototypicality threat. Finally, no study provides support for the status-threat mechanism; its effect is opposite expectations in Study 1 and absent in Studies 2 and 3.

Regardless, focusing on our core expectations regarding the collective existential mechanism, we found that collective existential threat plays a key role in mediating the association between perceived White population decline and far-right extremism, even after three other threat-related mediators (i.e., status threat, symbolic threat, and prototypicality threat) of the relationship between population change and extreme-right support are taken into account.

Key theoretical contributions

This paper makes several important theoretical contributions. First, it clarifies the relationship between different kinds of demographic shift and threat perceptions. Earlier studies on this topic primarily focused on growth in minority populations relative to the White population, without clarifying exactly which racial groups' population changes are related to which kinds of threats among White Americans. Our data shows that, among all types of population-change effects on threat perceptions, the correspondence between perceived White population decline and collective existential threat is the only one that remains consistent and robust across studies. As such, this paper contributes to the literature by highlighting White population decline as an important element of present-day demographic shift—one that explains White Americans' inter-group threat perceptions well.

To be sure, earlier work by Bai and Federico (2019) provided evidence that perceived White population decline *can* trigger collective existential threat among Whites, but it did not provide experimental evidence that collective existential threat could be activated by perceived changes in the

population of other racial groups.²⁵ By manipulating White population decline and minority population growth independently, Studies 2 and 3 clarify this linkage and further our understanding of the relationship between perceived population change and perceived threat. Specifically, the present studies suggest that collective existential threat is largely a function of perceived decline in the White population as opposed to increases in the population of other groups. Study 3—which went beyond Study 2 by manipulating changes in each group separately without mention of changes in any other group—takes this further, suggesting that the correspondence between perceived White population decline and collective existential threat is “bijective” (though we caution that this last finding needs replication). The pattern we report here provides a novel and alternative perspective on the psychological consequences of demographic shift above and beyond the predominant theoretical focus on perceived out-group population growth (e.g., Craig & Richeson, 2014a; Craig & Richeson, 2014b; Danbold & Huo, 2015; Major, Blodorn, & Blascovich, 2018; Outten, Schmitt, Miller, & Garcia, 2012).

Second, this paper contributes to the growing literature on the psychological underpinnings of far-right extremism by clarifying which threat, among the various threats discussed in the literature on demographic shift, is most likely to relate to far-right extremism. Importantly, far-right extremism is a dependent variable that has not previously investigated in the literatures on demographic shift and intergroup threat—including Bai and Federico’s (2019) previous work on collective existential threat. The current findings are thus novel in that they suggest that mechanisms that explain ‘normal’ variation in intergroup and political attitudes (e.g., intergroup bias and conservative political preferences; Bai & Federico, 2019) also explain variance in more extreme

²⁵ Bai and Federico (2019, Study 2) manipulated White decline, but compared it only a White-growth condition and a control condition, without any manipulation of perceived changes in minority populations.

attitudes. Across all studies, we found that collective existential threat and symbolic threat are the only threat variables that are consistently associated with far-right extremism. These findings, hence, suggest that interventions for reducing far-right extremism may be more fruitful if they target these two mechanisms than the status threat and prototypicality threat mechanisms.

Thus, this paper helps bridge the literature of demographic shift and far-right extremism. Across all studies, collective existential threat is the only mediator that *consistently* mediates the association between perceived population change (White population decline in particular) and far-right extremism. That is, the relationship between perceived White population decline and indices of far-right extremism is primarily explained by White collective existential threat, as opposed to the status-threat mechanism that many past studies have focused on (e.g., Craig & Richeson, 2014a; Craig & Richeson, 2014b), potentially clarifying the nature of the grievances that have fueled the growth of far-right extremism among White Americans that we observe today.

Conclusion

In the studies reported here, we find (1) that perceived demographic shift (in particular, White population decline) predicts inter-group threat (in particular, collective existential threat), (2) that inter-group threat (in particular, collective existential threat) predicts positive affect toward extreme-right groups and support for extreme-right political actions, and (3) that perceived demographic change (in particular, White population decline) is indirectly associated with higher levels of support for extreme-right groups and political actions via collective existential threat.

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Figure 1. Path model for Study 1. All coefficients are unstandardized. Values in parentheses represent standard errors. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure 2. Path model for Study 2. All coefficients are unstandardized. Values in parentheses represent standard errors. $^\dagger p < .10$, $*p < .05$, $**p < .01$, $***p < .001$.

Figure 3. Path model for Study 3. All coefficients are unstandardized. Values in parentheses represent standard errors. $*p < .01$, $***p < .001$.

Figure 4. Path model for Study 4. All coefficients are unstandardized. Values in parentheses represent standard errors. $*p < .01$, $***p < .001$.

Table 1. Study 1 Descriptives and Correlations

	α	Mean	SD	White decline	Asian growth	Black growth	Hispanic/Latino growth	Status threat	Prototypicality threat	Symbolic threat	Collective existential threat	Extreme-right groups
White decline	-	0.51	0.18	1.00								
Asian growth	-	0.64	0.16	-0.04	1.00							
Black growth	-	0.65	0.15	-0.06†	0.37***	1.00						
Hispanics/Latino growth	-	0.75	0.17	0.06	0.38***	0.44***	1.00					
Status threat	0.67	0.47	0.21	0.20***	0.14***	0.16***	0.23***	1.00				
Prototypicality threat	0.65	0.37	0.22	0.20***	0.05	0.12**	0.07†	0.58***	1.00			
Symbolic threat	0.86	0.34	0.25	0.04	0.02	0.14***	0.10**	0.57***	0.70***	1.00		
Collective existential threat	0.95	0.30	0.22	0.24***	0.04	0.12**	0.03	0.56***	0.76***	0.64***	1.00	
Extreme-right groups	0.87	0.12	0.15	-0.03	0.02	0.08*	-0.09*	0.21***	0.37***	0.42***	0.40***	1.00
Extreme-right political actions	0.58	0.22	0.22	-0.01	>-.01	0.07†	-0.02	0.37***	0.53***	0.70***	0.54***	0.54***

Note. SD = standard deviation. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 2. Study 1 Indirect Effects of Population Variables

Group	Mediator	Extremism variable	Estimated indirect effect	95% bias-corrected (BC) confidence interval
White (decline)	Status threat	Extreme-right groups (1)	-.0136	[-0.032 -0.002]
		Extreme-right political actions (2)	-0.016	[-0.041 -0.001]
	Collective existential threat	Extreme-right groups (3)	0.053	[0.027 0.097]
		Extreme-right political actions (4)	0.060	[0.030 0.101]
Black (growth)	Status threat	Extreme-right groups (5)	-0.008	[-0.024 -0.003]
		Extreme-right political actions (6)	-0.010	[-0.029 >-0.001]
	Symbolic threat	Extreme-right groups (7)	0.038	[0.011 0.081]
		Extreme-right political actions (8)	0.114	[0.025 0.206]
	Collective existential threat	Extreme-right groups (9)	0.040	[0.013 0.082]
		Extreme-right political actions (10)	0.044	[0.014 0.091]
Hispanic (growth)	Status threat	Extreme-right groups (11)	-0.013	[-0.032 -0.003]
		Extreme-right political actions (12)	-0.016	[-0.037 -0.002]

Table 3. Study 2 Descriptives and Correlations

	α	Mean	SD	D1 (White decline and Minority growth)	D2 (White decline and Minority stability)	D3 (White stability and minority growth)	Status threat	Prototypicality threat	Symbolic threat	Collective existential threat	Extreme- right groups
Status threat	0.63	0.48	0.21	0.05	0.07†	-0.01	1.00				
Prototypicality threat	0.64	0.33	0.22	>-.01	0.06	0.02	0.60***	1.00			
Symbolic threat	0.81	0.32	0.23	-0.04	0.07†	0.04	0.57***	0.70***	1.00		
Collective existential	0.95	0.29	0.21	0.03	0.09*	-0.01	0.60***	0.74***	0.64***	1.00	
Extreme-right group	0.67	0.13	0.18	-0.04	>-.01	<.01	0.25***	0.33***	0.40***	0.38***	1.00
Extreme-right political actions	0.91	0.23	0.23	>-.01	<.01	0.02	0.43***	0.57***	0.67***	0.56***	0.62***

Note. SD = standard deviation. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Correlations involving each indicator variable contrast the group coded by that indicator with all individuals not in that group

Table 4. Study 2 mean population growth of White and minority racial groups across condition

	White	Minority
White decline and minority growth (C1)	4.25	6.66
White decline and minority stability (C2)	4.22	6.23
White stability and minority growth (C3)	4.99	6.49
Control (C4)	5.11	6.30

Table 5. Study 2 contrasts between conditions for the perception of population growth of different racial groups

	White	<i>t</i>	<i>Cohen's d</i>	Minority	<i>t</i>	<i>Cohen's d</i>
C2-C1	-0.03	-0.25 <i>ns</i>	0.03	-0.43	-4.69***	0.48
C3-C1	0.74	5.79***	0.64	-0.17	-1.83 <i>ns</i>	0.19
C4-C1	0.86	6.92***	0.63	-0.36	-4.07***	0.42
C3-C2	0.77	5.81***	0.73	0.26	2.75*	0.29
C4-C2	0.89	6.89***	0.68	0.07	.71 <i>ns</i>	0.07
C4-C3	0.12	0.95 <i>ns</i>	0.10	-0.19	-2.10 <i>ns</i>	0.22

Table 6. Study 2 Indirect Effects of experimental manipulations

Condition Indicator	Mediator	Extremism variable	Estimated indirect effect	95% bias-corrected (BC) confidence interval
D1 (White decline; minority growth)	Collective existential threat	Extreme-right groups (1)	0.011	[0.001 0.023]
		Extreme-right political actions (2)	0.009	[0.001 0.020]
D2 (White decline; minority stability)	Prototypicality threat	Extreme-right political actions (3)	0.006	[0.001 0.017]
	Symbolic threat	Extreme-right groups (4)	0.012	[0.003 0.024]
		Extreme-right political actions (5)	0.027	[0.006 0.052]
	Collective existential threat	Extreme-right groups (6)	0.016	[0.007 0.029]
		Extreme-right political actions (7)	0.013	[0.005 0.026]
D3 (White stability; minority growth)	Symbolic threat	Extreme-right groups (8)	0.010	[-0.0004 0.021]
		Extreme-right political actions (9)	0.021	[-0.001 0.043]

Table 7. Study 3 Descriptives and Correlations

Variable	α	M	SD	Hispanic/Latino s growth	Asian growth	Black growth	White decline	Status threat	Prototypicality threat	Symbolic threat	Collective existential threat	Extreme- right groups
Status threat	0.68	0.46	0.22	-0.06	0.06	0.01	0.03					
Prototypicality threat	0.70	0.32	0.23	-0.05	0.07†	-0.01	0.02	.56***				
Symbolic threat	0.78	0.32	0.23	-0.04	.09*	-0.04	0.01	.59***	.68***			
Collective existential threat	0.91	0.28	0.27	-0.05	0.03	-0.06	.11**	.55***	.70***	.64***		
Extreme-right groups	0.63	0.09	0.14	0.07†	<.01	-0.06	0.01	.29***	.30***	.44***	.36***	
Extreme-right political actions	0.88	0.20	0.20	0.01	0.07†	-0.06	0.02	.46***	.58***	.70***	.61***	.59***

Note. SD = standard deviation. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Correlations involving each indicator variable contrast the group coded by that indicator with all individuals not in that group

Table 8. Study 3 Variable means across conditions

		Status threat	Prototypicality threat	Symbolic threat	Collective existential threat	Extreme group	Extreme policy
Hispanic growth	C1	0.44	0.29	0.30	0.25	0.11	0.21
Asian growth	C2	0.49	0.35	0.36	0.29	0.09	0.23
Black growth	C3	0.47	0.31	0.30	0.25	0.07	0.18
White decline	C4	0.48	0.32	0.32	0.33	0.09	0.21
Control	C5	0.44	0.29	0.30	0.25	0.08	0.18

Appendix A

This appendix describes all measures and stimuli used throughout the studies.

Collective existential threat was measured with the following items (1=strongly agree, 7=strongly disagree). Reverse coded items are indicated with asterisks:

- 1 My racial group may one day disappear.
- 2* It is unlikely that my racial group will be wiped out in the future.
- 3* I feel confident that my racial group will survive.
- 4 I feel concerned that the future vitality of my racial group is in jeopardy.
- 5 The existence of my racial group is threatened.
- 6 The threat to my racial group's existence is something I think about.
- 7* I don't think anything poses a threat to existence of my racial group.
- 8 The physical existence of my racial group is in danger.
- 9 My racial group is on the verge of annihilation.
- 10 The existence of my racial group is in jeopardy.
- 11 My racial group faces a threat to its existence.
- 12 My racial group will not survive for very long.
- 13* There is no real threat to the existence of my racial group.

Status threat was measured with the following items (1=strongly agree, 7=strongly disagree). Reverse coded items are indicated with asterisks:

- 1 If other racial groups increase in status, they are likely to reduce the influence of my racial group in society.
- 2* If other racial groups attain higher status, it will be good for my racial group.
- 3 My racial group will have less economic and political power if other racial groups gain economic and political power.

Symbolic threat was measured with the following items (1=strongly agree, 7=strongly disagree).

- 1 The values and beliefs of other ethnic groups regarding moral issues are not compatible with the values and beliefs of my ethnic group.
- 2 The growth of other ethnic groups is undermining American culture.
- 3 The values and beliefs of other ethnic groups regarding work are not compatible with the values and beliefs of my ethnic group²⁶.

Prototypicality threat was measured with the following items (1=strongly agree, 7=strongly disagree).

- 1 I fear that in the future, it won't be clear what it means to be American.
- 2* I believe that there will always be a place for my ethnic group in American society.
- 3 I fear that in the future, my ethnic group will not represent the American identity.

²⁶ In Study 2, this item is "The values and beliefs of other ethnic groups regarding work are compatible with the values and beliefs of my ethnic group."

Manipulation in Study 2

Instructions:

We will now show you the text from a recent press release. After the text, please give your opinions about the topic. Please pay close attention while reading, as you will be asked questions about the content of the press release after you've read it.

Stimulus for White decline and minority growth condition (C1):

New U.S. Census Bureau data suggest that America will become a “majority-minority” nation much faster than once predicted. The nation's racial minority population is steadily rising while the White population is declining, advancing an unmistakable trend that could make minorities the new American majority by midcentury. The data show a declining number of White adults and growing under-18 populations of Hispanics, Asians, and other minorities. Demographers calculate that by 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites.

The main reasons for the accelerating change are growing non-White immigration and significantly higher birth rates among racial and ethnic minorities, along with declining White immigration and significantly lower birth rates among Whites. As older Whites age past their childbearing years, younger non-White parents are having children – and driving U.S. population growth. For example, there are now roughly 1.5 births for every 1 death among non-Whites, compared to a roughly one-to-one ratio for Whites, and the trend of White population decline is shared by many other White majority countries. The latest figures are predicated on current and historical trends, which can be thrown awry by several variables, including prospective overhauls of public policy.

Stimulus for White decline and minority stability condition (C2):

New U.S. Census Bureau data suggest that America will become a “majority-minority” nation much faster than once predicted. The nation's racial minority population is stable while the White population is declining, advancing an unmistakable trend that could make minorities the new American majority by midcentury. The data show a declining number of White adults but a stable under-18 population of Hispanics, Asians, and other minorities. Demographers calculate that by 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites.

The main reasons for the accelerating change are declining White immigration and significantly lower birth rates among Whites. As older Whites age past their childbearing years, younger non-White parents are maintaining a stable birthrate. For example, there is almost exactly 1 birth for every 1 death among non-Whites, compared to a less than one-to-one ratio for Whites, and the trend of White population decline is shared by many other White majority countries. The latest figures are predicated on current and historical trends, which can be thrown awry by several variables, including prospective overhauls of public policy.

Stimulus for White stability and minority increase condition (C3):

New U.S. Census Bureau data suggest that America will become a “majority-minority” nation much faster than once predicted. The nation's racial minority population is steadily rising while the White population is stable, advancing an unmistakable trend that could make minorities the new American majority by midcentury. The data show a stable number of White adults but a growing under-18 population of Hispanics, Asians, and other minorities. Demographers calculate

that by 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites.

The main reasons for the accelerating change are growing non-White immigration and significantly higher birth rates among racial and ethnic minorities. As the White population remains stable, younger non-White parents are having children. For example, there are now roughly 1.5 births for every 1 death among non-Whites, compared to a roughly one-to-one ratio for Whites. The latest figures are predicated on current and historical trends, which can be thrown awry by several variables, including prospective overhauls of public policy.

Stimulus for control condition (C4):

New U.S. Census Bureau data suggest that the rate of geographical mobility, or the number of individuals who have moved within the past year, is increasing. The national mover rate increased from 11.9 percent in 2008 (the lowest rate since the U.S. Census Bureau began tracking the data) to 12.5 percent in 2009.

According to the new data, 37.1 million people changed residences in the U.S. within the past year. 84.5 percent of all movers stayed within the same state. Renters were more than five times more likely to move than homeowners.

The estimates also reveal that many of the nation's fastest growing cities are suburbs. Specifically, principal cities within metropolitan areas experienced a net loss of 2.1 million movers, while the suburbs had a net gain of 2.4 million movers. For those who moved to a different county or state, the reasons for moving varied considerably by the length of their move. The latest figures are predicated on current and historical trends, which can be thrown awry by several variables, including prospective overhauls of public policy.

Additional extreme-right policy measures used in Studies 2 through 4:

Muslim ban item: Some people have proposed that the U.S. government should unconditionally ban Muslims immigrants from entering the United States, regardless of their country of origin and citizenship. Do you support or oppose banning Muslim from entering the country? (1= Strongly oppose banning Muslims, 7= Strongly support banning Muslims)

Family separation item: As of June 2018, children who cross the U.S.-Mexico border illegally are separated by federal authorities from their parents or accompanied adults under the "zero tolerance" policy. Some people believe it is necessary to do so for an effective border control. Do you support or oppose this policy? (1= Strongly oppose the zero tolerance policy, 7= Strongly support the zero tolerance policy)

Manipulation in Study 3

Instruction:

We are interested in your opinion about what is happening in the United States nowadays. Please read the following article and indicate your agreement with the statements following it. **Please pay close attention while reading, as you will be asked questions** related to the content.

Stimulus for Hispanic growth condition:

The Hispanic American Population is Surging

New U.S. Census Bureau data reveal that Hispanic Americans have emerged as the fastest growing of the four major ethnic populations (Whites, Asians, Hispanics, and Blacks) in the United States. According to Census Bureau data, the Hispanic American population is increasing four times faster than the total U.S. population. This trend is also reflected on a state-by-state basis; in almost all states, the Hispanic American population is growing by 30 percent or more.

Estimated % Hispanic population growth (2010-2060)

Source: U.S. Census Bureau

In the next forty years, the Hispanic American population is expected to more than double. The primary reasons for this accelerating demographic change are rapid growth in Hispanic immigration to the US as well as rising birthrates among US-born Hispanic Americans. “A greater Hispanic presence is now evident in all parts of the country – in large and small metropolitan areas, in the Snowbelt and in the Sunbelt,” said Mark Gray, a demographer at the Brookings Institution, who analyzed the Census Bureau data.

Stimulus for Asian growth condition:

The Asian American Population is Surging

New U.S. Census Bureau data reveal that Asian Americans have emerged as the fastest growing of the four major ethnic populations (Whites, Asians, Hispanics, and Blacks) in the United States. According to Census Bureau data, the Asian American population is increasing four times faster than the total U.S. population. This trend is also reflected on a state-by-state basis; in almost all states, the Asian American population is growing by 30 percent or more.

Estimated % Asian population growth (2010-2060)

Source: U.S. Census Bureau

In the next forty years, the Asian American population is expected to more than double. The primary reasons for this accelerating demographic change are rapid growth in Asian immigration to the US as well as rising birthrates among US-born Asian Americans. “A greater Asian presence is now evident in all parts of the country – in large and small metropolitan areas, in the Snowbelt and in the Sunbelt,” said Mark Gray, a demographer at the Brookings Institution, who analyzed the Census Bureau data.

Stimulus for Black growth condition:

The Black American Population is Surging

New U.S. Census Bureau data reveal that Black Americans have emerged as the fastest growing of the four major ethnic populations (Whites, Asians, Hispanics, and Blacks) in the United States. According to Census Bureau data, the Black American population is increasing four times faster than the total U.S. population. This trend is also reflected on a state-by-state basis; in almost all states, the Black American population is growing by 30 percent or more.

Estimated % Black population growth (2010-2060)

Source: U.S. Census Bureau

In the next forty years, the Black American population is expected to more than double. The primary reasons for this accelerating demographic change are rapid growth in Black immigration to the US as well as rising birthrates among US-born Black Americans. “A greater Black presence is now evident in all parts of the country – in large and small metropolitan areas, in the Snowbelt and in the Sunbelt,” said Mark Gray, a demographer at the Brookings Institution, who analyzed the Census Bureau data.

Stimulus for White decline condition:

The White American Population is Shrinking

New U.S. Census Bureau data reveal that White Americans have emerged as the fastest declining of the all major ethnic populations in the United States. According to Census Bureau data, the White American population in the recent decade is declining four times faster than the prior decade. This trend is also reflected on a state-by-state basis; in almost all states, the White American population is declining by 30 percent or more.

In the next forty years, the White American population is expected to be more than halved. The primary reasons for this accelerating demographic change are rapid decline in White immigration to the US as well as declining birthrates among US-born White Americans. “A shrinking White presence is now evident in all parts of the country – in large and small metropolitan areas, in the Snowbelt and in the Sunbelt,” said Mark Gray, a demographer at the Brookings Institution, who analyzed the Census Bureau data.

Stimulus for control condition:

U.S. Census Bureau Reports National Mover Rate Increases After a Record Low

New U.S. Census Bureau data suggest that the rate of geographical mobility, or the number of individuals who have moved within the past year, is increasing. The national mover rate increased from a record low of 11.6 percent (the lowest rate since the U.S. Census Bureau began tracking the data) in 2011 to 12.0 percent in 2012. According to the new data, about 36.5 million people changed residences in the U.S. within the past year. A majority (64.4%) of all movers stayed within the same county. Renters were more than five times more likely to move than homeowners. The estimates also reveal that many of the nation’s fastest-growing communities are suburbs. For example, suburbs had 17.9 million move in and 9.2 million move out — an increase of 8.7 million movers. For those who moved to a different county or state, the reasons for moving varied considerably by the length

of their move (e.g., family-related, job-related). “A greater amount of geographic mobility is now evident in all parts of the country – in large and small metropolitan areas, in the Snowbelt and in the Sunbelt,” said Mark Gray, a demographer at the Brookings Institution, who analyzed the Census Bureau data, “From now on, local, state, and national politicians will need to pay attention to their residents’ mobility.”

Manipulation in Study 4

Instruction: We are interested in your opinion about what is happening in the United States nowadays. Please read the following article and indicate your agreement with the statements following it. **Please pay close attention while reading, as you will be asked questions** related to the content.

Stimulus for existential threat condition:

The White American Population is Disappearing

According to recent Census data, the White population is declining faster than the U.S. population at large, both at the national level and in most states and in both large cities and small towns. This change is occurring because fewer Whites are immigrating to the United States and because birthrates are dropping among US-born Whites. And there is little chance that the decline in the White population will reverse. Studies routinely find that once a natural population decrease begins, it is unlikely to reverse itself. Based on this demographic trend, it is highly likely that Whites will gradually disappear as a distinct racial category in the U.S. Though the idea of “White extinction” has been treated as a controversial idea by many people, demographically speaking, it is a very real possibility that White Americans will no longer exist as a distinct group in the future.

Stimulus for control condition:

U.S. Census Bureau Reports National Mover Rate Increases After a Record Low

New U.S. Census Bureau data suggest that the rate of geographical mobility, or the number of individuals who have moved within the past year, is increasing. The national mover rate increased from a record low of 11.6 percent (the lowest rate since the U.S. Census Bureau began tracking the data) in 2011 to 12.0 percent in 2012. According to the new data, about 36.5 million people changed residences in the U.S. within the past year. A majority (64.4%) of all movers stayed within the same county. Renters were more than five times more likely to move than homeowners. The estimates also reveal that many of the nation’s fastest-growing communities are suburbs. For example, suburbs had 17.9 million move in and 9.2 million move out — an increase of 8.7 million movers. For those who moved to a different county or state, the reasons for moving varied considerably by the length of their move (e.g., family-related, job-related). “A greater amount of geographic mobility is now evident in all parts of the country – in large and small metropolitan areas, in the Snowbelt and in the Sunbelt,” said Mark Gray, a demographer at the Brookings Institution, who analyzed the Census Bureau data, “From now on, local, state, and national politicians will need to pay attention to their residents’ mobility.”

Appendix B

This appendix describes the distributions of all variables in all studies across all conditions. The density plots described in Figures B1 through B11 were generated using an Epanechnikov kernel function with an “optimal” bandwidth that minimizes the mean integrated squared error.

Figure B1. Study 1 population-change variables

Figure B2. Study 1 threat variables

Figure B3. Study 1 extremism variables

Figure B4. Study 2 threat variables

Figure B5. Study 2 extremism variables

Figure B6. Study 3 Threat variables

Figure B7. Study 3 extremism variables

Figure B8. Study 3 ideological distribution of final Sample. The distribution is plotted based on participants' response to the question asked in the beginning of the survey for Study 3.

Figure B9. Study 4 collective existential threat (extinction threat) variable

Figure B10. Study 4 extremism variable

Figure B11. Study 4 ideological distribution of final Sample. The distribution is plotted based on participants' response to the question asked in the beginning of the survey for Study 3.

Appendix C

Table C1. Study 2 mean population growth of different racial groups across condition

	White	Black	Asian	Hispanic
White decline and minority growth (C1)	4.25	6.59	6.19	7.19
White decline and minority stability (C2)	4.22	6.12	5.81	6.77
White stability and minority growth (C3)	4.99	6.35	6.08	7.04
Control (C4)	5.11	6.14	5.88	6.87

Table C2. Study 2 contrasts between conditions for the perception of population growth of different racial groups

	White	<i>t</i> (White)	Black	<i>t</i> (Black)	Asian	<i>t</i> (Asian)	Hispanic	<i>t</i> (Hispanic)
C2-C1	-0.03	-0.25 <i>ns</i>	-0.47	-4.05***	-0.38	-3.3**	-0.43	-3.63**
C3-C1	0.74	5.79***	-0.23	-2.01 <i>ns</i>	-0.11	-0.98 <i>ns</i>	-0.15	-1.30 <i>ns</i>
C4-C1	0.86	6.92***	-0.45	-3.91**	-0.31	-2.76*	-0.33	-2.85*
C3-C2	0.77	5.81***	0.24	1.97 <i>ns</i>	0.27	2.24 <i>ns</i>	0.27	2.24 <i>ns</i>
C4-C2	0.89	6.89***	0.03	0.23 <i>ns</i>	0.07	0.59 <i>ns</i>	0.10	.84 <i>ns</i>
C4-C3	0.12	0.95 <i>ns</i>	-0.21	-1.78 <i>ns</i>	-0.20	-1.69 <i>ns</i>	-0.17	-1.46 <i>ns</i>

Note. This table indicates that the pattern of contrast for minorities summarized in Table 5 is relatively a good representation of the effect of manipulation on perceived population growth of each racial group, as the pattern of significance are very similar across the two tables (except for C3-C2 comparison). * $p < .05$; ** $p < .01$; *** $p < .001$.

Table C3. Study 3 contrasts between conditions for the perception of population growth of different racial group

Condition	Status threat			Prototypicality threat			Symbolic threat			Collective existential threat			Extreme group			Extreme policy		
		<i>t</i>			<i>t</i>			<i>t</i>			<i>t</i>			<i>t</i>			<i>t</i>	
C2-C1	0.05	1.87	<i>ns</i>	0.05	2.05	<i>ns</i>	0.06	2.2	<i>ns</i>	0.04	1.27	<i>ns</i>	-0.02	-1.02	<i>ns</i>	0.02	1.03	<i>ns</i>
C3-C1	0.03	1.21	<i>ns</i>	0.02	0.73	<i>ns</i>	0.00	-0.03	<i>ns</i>	0.00	-0.11	<i>ns</i>	-0.04	-2.09	<i>ns</i>	-0.03	-1.10	<i>ns</i>
C4-C1	0.04	1.48	<i>ns</i>	0.03	1.19	<i>ns</i>	0.02	0.82	<i>ns</i>	0.08	2.64	†	-0.02	-0.94	<i>ns</i>	0.01	0.23	<i>ns</i>
C5-C1	0.00	-0.15	<i>ns</i>	0.00	0.01	<i>ns</i>	0.00	0.12	<i>ns</i>	-0.01	-0.16	<i>ns</i>	-0.03	-1.38	<i>ns</i>	-0.03	-0.94	<i>ns</i>
C3-C2	-0.02	-0.67	<i>ns</i>	-0.04	-1.33	<i>ns</i>	-0.06	-2.22	<i>ns</i>	-0.04	-1.38	<i>ns</i>	-0.02	-1.07	<i>ns</i>	-0.05	-2.13	<i>ns</i>
C4-C2	-0.01	-0.38	<i>ns</i>	-0.02	-0.85	<i>ns</i>	-0.04	-1.37	<i>ns</i>	0.04	1.37	<i>ns</i>	0.00	0.08	<i>ns</i>	-0.02	-0.79	<i>ns</i>
C5-C2	-0.05	-1.72	<i>ns</i>	-0.05	-1.71	<i>ns</i>	-0.05	-1.72	<i>ns</i>	-0.05	-1.23	<i>ns</i>	-0.01	-0.52	<i>ns</i>	-0.05	-1.80	<i>ns</i>
C4-C3	0.01	0.28	<i>ns</i>	0.01	0.47	<i>ns</i>	0.02	0.84	<i>ns</i>	0.09	2.75	*	0.02	1.15	<i>ns</i>	0.03	1.33	<i>ns</i>
C5-C3	-0.04	-1.17	<i>ns</i>	-0.02	-0.60	<i>ns</i>	0.00	0.15	<i>ns</i>	0.00	-0.07	<i>ns</i>	0.01	0.39	<i>ns</i>	0.00	-0.02	<i>ns</i>
C5-C4	-0.04	-1.39	<i>ns</i>	-0.03	-0.99	<i>ns</i>	-0.02	-0.56	<i>ns</i>	-0.09	-2.38	<i>ns</i>	-0.01	-0.58	<i>ns</i>	-0.03	-1.13	<i>ns</i>

†*p* < .10; **p* < .05; ***p* < .01; ****p* < .001.

Appendix D

This appendix describes the main analyses of Study 4 that includes participants in control condition who responded “The population's stability,” and these results are similar to the main analyses described in the main text.

An independent t-test shows that participants in the treatment condition ($M=.46$, $SD=.27$) experienced a significantly higher level of collective existential threat than participants in the control condition ($M=.26$, $SD=.25$), $t(459)=8.27$, $p<.001$, $Mdiff$ 95% $CI=[.15,.25]$, $d=.77.$, suggesting that the manipulation was effective at increasing collective existential threat.

Reviewing the manipulation's effect on the two extremism variables, an independent t-test shows that the participants in the treatment condition ($M=.08$, $SD=.13$) and the control condition ($M=.10$, $SD=.15$) are not significantly different on their responses to the extreme-right group variable, $t(459)=1.40$, $p=.162$, $Mdiff$ 95% $CI=[-.04,.01]$, $d=.13.$, nor are the participants in the treatment condition ($M=.20$, $SD=.20$) and the control condition ($M=.21$, $SD=.21$), $t(457)=.48$, $p=.630$, $Mdiff$ 95% $CI=[-.05, .03]$, $d=.04$ significantly different on their responses to the extreme-right political actions variable.

Appendix E

Using data from Studies 1-3, we estimated linear regression models predicting collective existential threat using each study's variables representing White population decline and other forms of population shift, ideological self-placement, and all relevant interactions between the population-shift variables and ideological self-placement. Ideological self-placement in all studies is measured using a single seven-point scale item: "How would you describe your ideological preference in general?" Responses on the original items ranged from 1=very liberal to 7=very conservative; responses were recoded to run from 0 to 1, with higher scores indicating greater conservatism. Descriptive statistics for the recoded ideology items were as follows: $M_{\text{study 1}}=.45$, $SD_{\text{study 1}}=.31$; $M_{\text{study 2}}=.43$, $SD_{\text{study 2}}=.29$; $M_{\text{study 3}}=.42$, $SD_{\text{study 3}}=.28$.

The results of these analyses are summarized in Tables E1 through E3. As the estimates in these models indicate, we found no evidence for a moderating effect of ideology on the relationship between White population decline and collective existential threat in any of the studies ($p>0.100$ for all relevant product terms representing interactions between White population decline and ideological self-placement). Thus, the implications of perceived White population decline do not appear to differ as a function of ideological commitments.

Table E1. Study 1 interaction between population change and participant ideology

	<i>b</i>	SE	95% CI		
White decline	0.16	0.10	[-0.03	0.36	]
Asian growth	0.12	0.11	[-0.09	0.34	]
Black growth	0.23+	0.14	[-0.04	0.50	]
Hispanics/Latino growth	-0.17+	0.09	[-0.35	0.02	]
Ideology	0.29	0.17	[-0.07	0.66	]
White decline $\times$ ideology	0.26	0.19	[-0.07	0.58	]
Asian growth $\times$ ideology	-0.21	0.19	[-0.59	0.16	]
Black growth $\times$ ideology	-0.16	0.22	[-0.59	0.27	]
Hispanic growth $\times$ ideology	0.13	0.17	[-0.20	0.45	]
Constant	-0.00	0.11	[-0.22	0.21	]
Observations	627				
R-squared	0.24				

† $p<.10$; * $p<.05$; ** $p<.01$; *** $p<.001$.

Table E2. Study 2 interaction between population change and participant ideology

	<i>b</i>	SE	95% CI	
White decline; minority grow (C1)	0.07*	0.03	[0.00	0.13]
White decline; minority stable (C2)	0.11**	0.03	[0.04	0.18]
White stable; minority grow (C3)	0.07*	0.04	[0.00	0.14]
Ideology	0.26***	0.05	[0.16	0.36]
C1 × ideology	-0.04	0.07	[-0.19	0.1-]
C2 × ideology	-0.10	0.07	[-0.24	0.04]
C3 × ideology	-0.10	0.08	[-0.26	0.05]
Constant	0.14***	0.02	[0.10	0.18]
Observations	720			
R-squared	0.10			

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table E3. Study 3 interaction between population change and participant ideology

	<i>b</i>	SE	95% CI	
White decline	0.01	0.06	[-0.10	0.12]
Black growth	-0.01	0.05	[-0.11	0.09]
Asian growth	-0.02	0.05	[-0.12	0.08]
Hispanics/Latino growth	-0.00	0.06	[-0.11	0.11]
Ideology	0.38***	0.09	[0.16	0.51]
White decline × ideology	0.13	0.12	[-0.14	0.34]
Black growth × ideology	-0.01	0.11	[-0.26	0.21]
Asian growth × ideology	0.09	0.11	[-0.16	0.29]
Hispanic growth × ideology	-0.04	0.12	[-0.30	0.20]
Constant	0.11*	0.04	[0.02	0.19]
Observations	666			
R-squared	0.20			

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.