

Corrigendum



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# Corrigendum: On the Precipice of a "Majority-Minority" America: Perceived Status Threat From the Racial Demographic Shift Affects White Americans' Political Ideology

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It was recently brought to the authors' attention that an issue with the base SPSS package leads the "weight by" command, which was used in the analyses reported in this article, to utilize probability weights improperly (i.e., to treat them as frequency weights; for a more comprehensive description of this issue, see UCLA, Institute for Digital Research and Education, 2015). (We are grateful to political scientist L. J. Zigerell for bringing this issue to our attention.) Misspecifying the weighting variable as frequency weights instead of as probability weights resulted in underestimated standard errors and p values in Studies 1 and 2 of this article (Studies 3a and 3b are not affected). The revised and accurate results of these studies are reported here, along with corrected versions of Figure 1, Table 1, and Table 2. Effect sizes remain largely unchanged from those originally reported in the article.

# **Corrected Results for Study 1**

The first two paragraphs of the Results and Discussion section for Study 1 should read as follows:

To analyze the data for this study, we utilized a software package designed for complex survey data (Stata Version 13.1) to ensure that the weighting variable was treated as a probability weight and that subpopulation analyses were conducted accurately.

Logistic regression analyses that regressed party leaning on condition and participants' demographic characteristics (participants' gender, education level, and linear and quadratic age terms) revealed a marginal effect of condition, b = 0.49, p = .081, odds ratio (OR) = 1.63; as predicted, respondents asked about California's majority-minority racial shift reported leaning somewhat more toward the Republican Party compared with respondents who completed the control survey form. Because the racial shift mentioned was in California, we examined

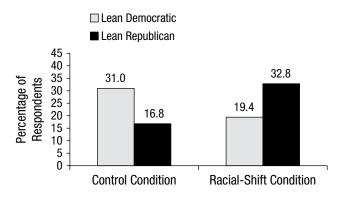
whether the effect was perhaps stronger in the subsample of respondents living closest to the shift (i.e., in the West Census region; n=49) than in the sample as a whole. As shown in Figure 1, among respondents in the West Census region, respondents' odds of leaning toward the Republican Party were 3 times as large in the racial-shift condition as in the control condition, b=1.17, p=0.063, OR = 3.22. Self-reported ideology did not reliably differ by condition, p>0.250.

# **Corrected Results for Study 2**

The first two paragraphs of the Results and Discussion section for Study 2 should be replaced by the following two subsections, and the final paragraph of that section should be preceded by the subhead Discussion.

# Weighted results

To test the effect of the racial-shift information on policy issues, we conducted a series of regressions, regressing



**Fig. 1.** Results from Study 1: percentage of respondents in the West Census region who leaned Democratic or leaned Republican as a function of condition.

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**Table 1.** Results for Political Attitudes in Study 2: Estimated Marginal Means and Standard Errors by Condition

	Cont condi		Racial- condi	
Measure	$M_{ m adjusted}$	SE	$M_{ m adjusted}$	SE
Overall policy attitudes Race-related policy attitudes Race-neutral policy attitudes	-0.07 -0.07 -0.08	0.04 0.05 0.05	0.07 0.06 0.07	0.04 0.05 0.05

Note: All items were standardized prior to creating the policy-attitude indices. Means are adjusted for participants' gender, age, and education level. The index of overall policy attitudes included all policy items.

each of the policy indices on experimental condition and participants' demographic characteristics. These analyses were conducted with Stata Version 13.1 and utilized the weighting variable. Results revealed that participants in the racial-shift condition, compared with those in the control condition, expressed more conservative policy positions on the overall policy index, b = 0.16, p = .011,  $r_{\text{partial}} = .14$ ; the race-related policy index, b = 0.14, p = .052,  $r_{\text{partial}} = .11$ ; and the race-neutral policy index, b = 0.20, p = .025,  $r_{\text{partial}} = .13$ . The only potential mediator that differed significantly by experimental condition was perceived group-status threat, b = 0.47, p = .001,  $r_{\text{partial}} = .17$ .

# Unweighted results

To be able to test for mediation, we also conducted unweighted analyses. For these analyses, we used SPSS and selected only White participants from the sample; the weighting variable was not utilized.

An analysis of covariance (ANCOVA) predicting overall policy attitudes from experimental condition, controlling for participants' demographics, revealed that participants who read about the racial shift expressed more conservative policy support compared with control participants, F(1, 464) = 5.84, p = .016,  $\eta_p^2 = .01.^4$  To test

whether this effect was more pronounced for issues directly related to race than for race-neutral issues, we conducted a 2 (political issue: race related, race neutral) × 2 (condition: control, racial shift) mixed-design ANCOVA, controlling for participants' demographics. Only a main effect of condition emerged, F(1, 464) = 5.80, p = .016,  $\eta_p^2 = .01$  (see Table 1); compared with control participants, participants in the racial-shift condition expressed more support for conservative positions on both race-related issues, F(1, 464) = 3.82, p = .051,  $\eta_p^2 = .01$ , and race-neutral issues, F(1, 464) = 3.89, p = .049,  $\eta_p^2 = .01.5$ 

We next examined whether the potential mediators varied by experimental condition, controlling for participants' demographics. The only potential mediator that differed significantly by experimental condition was perceived group-status threat, F(1, 460) = 15.68, p < .001,  $\eta_b^2 = .03$ . As predicted, participants in the racial-shift condition perceived more group-status threat ( $M_{\text{adjusted}} = 5.31$ , SE = 0.09) than did participants in the control condition  $(M_{\text{adjusted}} = 4.81, SE = 0.09)$ . Furthermore, we analyzed whether perceived group-status threat mediated the effects of experimental condition on policy endorsement. We calculated the indirect effect (Hayes, 2013) of experimental condition on the policy indices through groupstatus threat, controlling for demographic covariates (with 5,000 bootstrap samples). As shown in Table 2, results were consistent with our hypothesis: Group-status threat mediated the effects of condition on policy support (i.e., bias-corrected confidence intervals do not include 0).

#### **Corrections to Endnotes**

The following changes are needed in the endnotes:

- Note 1 should be deleted.
- Note 2 should be renumbered as note 1 and should read as follows: Supplementary analyses of data

Table 2. Mediation Results From Study 2: Path Coefficients and Bias-Corrected Confidence Intervals (CIs)

Coefficient	Overall policy attitudes	Race-related policy attitudes	Race-neutral policy attitudes
a	0.495** (0.125)	0.495** (0.125)	0.495** (0.125)
b	0.094** (0.021)	0.122** (0.024)	$0.053^{\dagger} (0.029)$
С	0.133* (0.057)	0.125† (0.066)	$0.141^{\dagger} (0.077)$
<i>c'</i>	0.086 (0.057)	0.065 (0.065)	0.115 (0.078)
95% CI of the indirect effect	[0.020, 0.086]	[0.027, 0.106]	[0.0003, 0.068]

Note: Experimental condition was coded as 1 (racial-shift condition) or 0 (control condition). All models included participants' gender, age, and education level as covariates. Path coefficients are as follows: a denotes the effect of experimental condition on perceived group-status threat; b denotes the effect of perceived group-status threat on the dependent variable; c' denotes the direct effect of experimental condition on the dependent variable; and c denotes the total effect of experimental condition on the dependent variable. Standard errors are in parentheses.  $^{\dagger}p < .10. *p < .05. **p < .001.$ 

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from the full White subsample (including Democrats and Republicans) did not reveal an interactive effect of condition and participant's political party or of condition and region (West region, other regions) on expressed political ideology, ps > .973.

- Note 3 should be renumbered as note 2 and should read as follows: Supplementary analyses examined the effects of the racial shift on Blacks and Latinos. Among Black participants, those who were asked about the majority-minority shift identified themselves as somewhat more liberal than did those who were in the control condition, b = -0.415, p = .082; no effect was observed for Latino participants (p > .355).
- Note 4 should be renumbered as note 3.
- Note 5 should be renumbered as note 4.
- Note 6 should be renumbered as note 5 and should read as follows: Supplementary analyses examining each policy attitude separately revealed that the experimental manipulation affected attitudes toward affirmative action (weighted p = .032; unweighted p = .015) and health-care reform (weighted p = .074; unweighted p = .024), and somewhat affected attitudes toward defense spending (weighted p = .052; unweighted p = .297). Attitudes toward increasing the number of immigrants (weighted p = .187; unweighted p = .256) and the required time to be eligible for U.S. citizenship (weighted p = .501; unweighted p = .497) did not reliably differ by condition.
- Note 7 should be renumbered as note 6 and should read as follows: Supplementary analyses examined the effects of racial-shift salience on Blacks and Latinos. The experimental manipulation had no effects on any dependent measures among Black participants; however, Latinos in the racial-shift condition perceived less system threat (weighted p = .003,  $r_{\text{partial}} = -.41$ ; unweighted p = .064,  $\eta_p^2 = .06$ ) and expressed more support for defense spending (weighted p = .010,  $r_{\text{partial}} = .34$ ; unweighted p = .125,  $\eta_p^2 = .04$ ), compared with Latinos in the control condition.
- Note 8 should be renumbered as note 7.
- Note 9 should be renumbered as note 8.

#### **Correction to the Reference List**

The article by Graubard and Korn should be deleted.

### **Corrected Figure and Tables**

Figure 1 and Tables 1 and 2 have been updated and are included here where the corresponding corrected results are presented.

#### **Conclusions**

In sum, analyses in which the data were appropriately weighted revealed a weaker effect of information about the racial shift on political independents' leanings toward the Republican Party in Study 1. The effect of information about the racial shift on the endorsement of conservative political attitudes in Study 2 remained statistically significant, but with slightly smaller effect-size estimates. Study 3 was not affected by the weighting issue. Thus, its results remain unchanged. Overall, the primary conclusions drawn from this reanalysis are unchanged from those initially drawn: Making projected changes in racial demographics salient for members of the current majority group (White Americans) can lead them to perceive that their racial group's status in society is threatened and, in turn, to express greater political conservatism on both race-related and more race-neutral issues. This work implies that, contrary to suggestions that the changing racial demographics of the United States may be problematic for the Republican Party (e.g., Wickham, 2012), Whites may be increasingly motivated to support conservative candidates and policies in response to these demographic changes, which may lead to an increasingly polarized political landscape.

We regret our error in analyzing the data from Studies 1 and 2, but we hope that this correction can help other researchers who consider analyzing large-scale data sets. We would like to caution researchers seeking to utilize probability weights (the most common type of weights included in large-scale survey data sets) in their analyses that it is important to utilize software that is designed to accommodate complex weighting. The base package of Stata, the survey package for R, and the Complex Samples package (but not the base package) for SPSS can all handle probability weights appropriately.

#### References

UCLA, Institute for Digital Research and Education. (2015). Stata frequently asked questions. Retrieved from http://www.ats.ucla.edu/stat/stata/faq/weights.htm

Wickham, D. (2012, December 8). Demographics will doom Republican Party. *Chicago Sun-Times*. Retrieved from http:// www.suntimes.com/news/otherviews/16198050-452/ demographics-will-doom-republican-party.html



# On the Precipice of a "Majority-Minority" America: Perceived Status Threat From the Racial Demographic Shift Affects White Americans' Political Ideology

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#### **Abstract**

The U.S. Census Bureau projects that racial minority groups will make up a majority of the U.S. national population in 2042, effectively creating a so-called majority-minority nation. In four experiments, we explored how salience of such racial demographic shifts affects White Americans' political-party leanings and expressed political ideology. Study 1 revealed that making California's majority-minority shift salient led politically unaffiliated White Americans to lean more toward the Republican Party and express greater political conservatism. Studies 2, 3a, and 3b revealed that making the changing national racial demographics salient led White Americans (regardless of political affiliation) to endorse conservative policy positions more strongly. Moreover, the results implicate group-status threat as the mechanism underlying these effects. Taken together, this work suggests that the increasing diversity of the nation may engender a widening partisan divide.

#### **Keywords**

political conservatism, conservative shift, demographic changes

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The U.S. Census Bureau (2008) has projected that racial minority groups will make up a majority of the U.S. population in 2042. Although this so-called majority-minority shift has been cited as a source of impending trouble for the Republican Party (Shear, 2012), there is reason to believe that it may lead to *greater* endorsement of conservative political ideology, at least among White Americans. The present work examines this possibility. Specifically, in four experiments, we investigated whether presenting information about the increasingly diverse racial land-scape influences White Americans' political ideology.

# Perceived Threat and Political Ideology

Theoretical work regarding the motivational foundations of conservatism posits that societal instability, uncertainty, and perceived threat are associated with greater endorsement of conservative views (e.g., Jost, Glaser, Kruglanski, & Sulloway, 2003; Jost et al., 2007). Further, research has found evidence for a *conservative shift*—a shift in political opinions toward conservatism (and away from liberalism)—after individuals perceive or experience threatening events. Indeed, individuals endorse conservative policy positions and support conservative leaders to a greater extent after terrorist attacks (e.g., Bonanno & Jost, 2006; Nail & McGregor, 2009; Ullrich & Cohrs, 2007) or under conditions of mortality salience (Landau et al., 2004; Nail, McGregor, Drinkwater, Steele, & Thompson, 2009).

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It is less clear whether more social, rather than physical, threats engender conservative shift. Initial research examining reactions to majority-minority racial demographic shifts revealed that Whites considering a future White minority perceived the shift as a threat to their racial group's societal status, and this perception led them to express more negative racial attitudes and emotions (Craig & Richeson, in press; Outten, Schmitt, Miller, & Garcia, 2012). We propose that in addition to affecting intergroup relations, perceived threat to the societal status of one's in-group, like other perceived threats, can engender greater political conservatism. In a study consistent with this idea, Thórisdóttir and Jost (2011) found that threats to personal well-being, their political party, or the economic system all led center-right politicians to take more conservative stances. Further, an analysis of voter-registration data for Louisiana parishes revealed that the larger the percentage of Blacks in a parish, the greater the percentage of Whites who were registered as Republicans and the lower the percentage of Whites who were registered as Democrats (Giles & Hertz, 1994). Although this correlation is certainly multiply determined, it suggests that perceived threat from a sizable, albeit minority, out-group may motivate greater political conservatism among members of the dominant majority. In short, this research suggests that social threats—such as group-status threat—may indeed evoke greater political conservatism.

#### The Present Research

The present research examined whether making the impending majority-minority racial demographic shift salient evokes greater endorsement of political conservatism. Study 1 explored whether exposure to the idea of the racial shift would affect White political independents' political-party leanings and ideology. Study 2 explored several possible mediators of the effect of the racial shift on White Americans' political conservatism in a nationally representative sample. In Studies 3a and 3b, we manipulated the proposed mediator (group-status threat) to investigate its causal role in shaping Whites' political ideology in response to the racial shift.

#### Study 1

Study 1 utilized a nationally representative survey wherein self-identified politically independent White respondents were randomly assigned to learn about a majority-minority racial shift or not to learn about the shift; they were then asked about their political-party leanings and ideology. If perceived majority-minority racial shifts evoke group-status threat in White

respondents, as suggested by previous research (Outten et al., 2012), then making such a shift salient should lead politically unaffiliated respondents to lean more toward the Republican Party and express more conservative ideology.

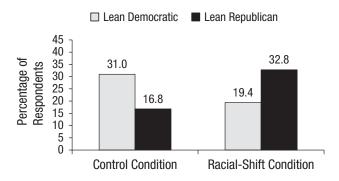
#### Method

Data were obtained from the News Interest Index (N =1,202; Pew Research Center for the People & the Press, 2001). Our focal analyses were limited to White respondents who identified themselves as unaffiliated with either of the two major U.S. political parties (n = 369; 183 men, 186 women; mean age = 45.12 years, SD = 17.35). Respondents were randomly assigned to one of two survey forms that asked slightly different questions, providing an experimental manipulation of racial-shift salience. One survey form asked participants if they had heard that California had become a majority-minority state (racialshift condition); the other asked participants if they had heard that Hispanics had become roughly equal in number to Blacks nationally (control condition). Finally, respondents were asked which party they leaned more toward (1 = Republican, 0 = Democrat), indicated their general political ideology (1 = very liberal, 5 = very conservative), and reported their demographic information (e.g., gender, age).

#### Results and discussion

To analyze the data for this study, we utilized a software package designed for complex survey data (Stata Version 13.1) to ensure that the weighting variable was treated as a probability weight and that subpopulation analyses were conducted accurately.

Logistic regression analyses that regressed party leaning on condition and participants' demographic characteristics (participants' gender, education level, and linear and quadratic age terms) revealed a marginal effect of condition, b = 0.49, p = .081, odds ratio (OR) = 1.63; as predicted, respondents asked about California's majorityminority racial shift reported leaning somewhat more toward the Republican Party compared with respondents who completed the control survey form. Because the racial shift mentioned was in California, we examined whether the effect was perhaps stronger in the subsample of respondents living closest to the shift (i.e., in the West Census region; n = 49) than in the sample as a whole. As shown in Figure 1, among respondents in the West Census region, respondents' odds of leaning toward the Republican Party were 3 times as large in the racialshift condition as in the control condition, b = 1.17, p =.063, OR = 3.22. Self-reported ideology did not reliably differ by condition, p > .250.<sup>1</sup>



**Fig. 1.** Results from Study 1: percentage of respondents in the West Census region who leaned Democratic or leaned Republican as a function of condition.

These results are consistent with the hypothesis that salience of the majority-minority racial shift leads White Americans<sup>2</sup> to endorse conservative political ideology. Although these findings are consistent with our predictions, the Pew survey was not designed to answer the question motivating the present research, and, thus, the two versions of the survey differed systematically in ways that did not concern the majority-minority racial shift. Consequently, it was important to replicate the observed effects in a more controlled experiment. Given that the effect of condition on political-party leaning was particularly strong among respondents closest to the racial shift, however, we feel confident that the findings were due, at least in part, to the manipulation of salience of the racial shift.

## Study 2

In addition to providing a direct test of the effect of the majority-minority racial shift on Whites' political ideology, Study 2 explored potential mediators of the effect. Drawing on recent work (Outten et al., 2012), we examined the potentially mediating role of group-status threat. Further, guided by literature on the antecedents of conservatism (e.g., Jost et al., 2003), we examined perceived system threat, system justification, and uncertainty about the future as potential mediators. We also sought to discern whether individuals' tendency to endorse conservative ideology in response to perceived majority-minority racial shifts is limited to race-related policies (e.g., immigration) that may be particularly relevant to such shifts, or, rather, whether support for policies not readily associated with race (e.g., military funding) is also affected.

In Study 2, participants read about the projected U.S. racial shift or a national shift in geographic mobility. They then completed measures assessing the potential mediators and reported their support for several policies. We predicted that participants primed with the racial shift

would endorse conservative policy positions more than control participants and that this effect would be mediated by perceived group-status threat.

#### Method

Knowledge Networks collected the data (N = 620) from a nationally representative sample of Americans as part of the Time-Sharing Experiments for the Social Sciences program (TESS; National Science Foundation Grant 0818839; J. Freese and P. S. Visser, principal investigators). Because we were interested in potential threat responses from members of the current majority group, our focal analyses included only White respondents (n = 415; 203 men, 212 women; mean age = 48.48 years, SD = 16.97).

Participants first read an alleged press release (see Experimental Stimuli in the Supplemental Material available online). They were randomly assigned to read about projections that racial minorities will constitute a majority of the U.S. populace by 2042 (racial-shift condition) or about the growth in geographic mobility in the United States (control condition). Participants then completed the potential-mediator items assessing system threat (adapted from Jost et al., 2007), system justification (Kay & Jost, 2003), perceived uncertainty, and perceived threat to Whites' societal status (adapted from Outten et al., 2012).3 To assess system threat, we asked participants to indicate their agreement with the idea that the American way of life is threatened (all agreement scales in this study ranged from 1, strongly agree, to 7, strongly disagree) and their view of American society's trajectory (1 = getting much worse every year, 5 = getting much better every year); responses to these two items were standardized and averaged to create a system-threat index ( $\alpha = .78$ ). To assess system justification, we asked participants to rate their agreement with the idea that people usually get what they deserve in American society. To measure perceived uncertainty, we had participants rate how certain they felt American society's future was (1 = extremely uncertain, 6 = extremely certain). To assess perceived group-status threat, we asked participants to indicate their agreement with the idea that increases in racial minorities' status will reduce White Americans' status. Higher numbers indicate greater system threat, system justification, perceived uncertainty, and perceived group-status threat.

Participants were next asked about five political issues, three of which were directly related to race. The racerelated items asked participants to indicate the extent to which the required time to be eligible for U.S. citizenship should be increased or decreased, the extent to which

Table 1.	Results for Political Attitudes in Study 2: Estimated
Marginal	Means and Standard Errors by Condition

	Cont condi		Racial cond	
Measure	$M_{ m adjusted}$	SE	$M_{ m adjusted}$	SE
Overall policy attitudes	-0.07	0.04	0.07	0.04
Race-related policy attitudes	-0.07	0.05	0.06	0.05
Race-neutral policy attitudes	-0.08	0.05	0.07	0.05

Note: All items were standardized prior to creating the policyattitude indices. Means are adjusted for participants' gender, age, and education level. The index of overall policy attitudes included all policy items.

foreign immigration to the United States should be increased or decreased, and their degree of support for affirmative action. The two non-race-related items asked participants to indicate the extent to which funding of the U.S. Department of Defense should be increased or decreased and their degree of support for health-care reform. The response scales for policy-change items ranged from 1, increased a lot, to 5, decreased a lot. The response scales for policy-support items ranged from 1, strongly support, to 7, strongly oppose. Because the scale ranges differed across items, responses were standardized. We created separate indices of overall conservativepolicy endorsement (all five items;  $\alpha = .62$ ), race-related conservative-policy endorsement (three items;  $\alpha = .55$ ), and race-neutral conservative-policy endorsement (two items;  $\alpha = .56$ ). Higher scores indicate greater endorsement of conservative policy positions.

#### Results and discussion

**Weighted results.** To test the effect of the racial-shift information on policy issues, we conducted a series of regressions, regressing each of the policy indices on experimental condition and participants' demographic characteristics. These analyses were conducted with Stata Version 13.1 and utilized the weighting variable. Results revealed that participants in the racial-shift condition, compared with those in the control condition, expressed more conservative policy positions on the overall policy index, b = 0.16, p = .011,  $r_{\text{partial}} = .14$ ; the race-related policy index, b = 0.14, p = .052,  $r_{\text{partial}} = .11$ ; and the race-neutral policy index, b = 0.20, p = .025,  $r_{\text{partial}} = .13$ . The only potential mediator that differed significantly by experimental condition was perceived group-status threat, b = 0.47, p = .001,  $r_{\text{partial}} = .17$ .

*Unweighted results.* To be able to test for mediation, we also conducted unweighted analyses. For these

analyses, we used SPSS and selected only White participants from the sample; the weighting variable was not utilized.

An analysis of covariance (ANCOVA) predicting overall policy attitudes from experimental condition, controlling for participants' demographics, revealed that participants who read about the racial shift expressed more conservative policy support compared with control participants,  $F(1, 464) = 5.84, p = .016, \eta_p^2 = .01.^4$  To test whether this effect was more pronounced for issues directly related to race than for race-neutral issues, we conducted a 2 (political issue: race related, race neutral) × 2 (condition: control, racial shift) mixed-design ANCOVA, controlling for participants' demographics. Only a main effect of condition emerged, F(1, 464) = 5.80, p = .016,  $\eta_p^2 = .01$  (see Table 1); compared with control participants, participants in the racial-shift condition expressed more support for conservative positions on both race-related issues, F(1,464) = 3.82, p = .051,  $\eta_p^2$  = .01, and race-neutral issues,  $F(1, 464) = 3.89, p = .049, \eta_p^2 = .01.5$ 

We next examined whether the potential mediators varied by experimental condition, controlling for participants' demographics. The only potential mediator that differed significantly by experimental condition was perceived group-status threat, F(1, 460) = 15.68, p < .001,  $\eta_b^2 = .03$ . As predicted, participants in the racial-shift condition perceived more group-status threat ( $M_{\text{adjusted}} = 5.31$ , SE = 0.09) than did participants in the control condition  $(M_{\text{adjusted}} = 4.81, SE = 0.09)$ . Furthermore, we analyzed whether perceived group-status threat mediated the effects of experimental condition on policy endorsement. We calculated the indirect effect (Hayes, 2013) of experimental condition on the policy indices through groupstatus threat, controlling for demographic covariates (with 5,000 bootstrap samples). As shown in Table 2, results were consistent with our hypothesis: Group-status threat mediated the effects of condition on policy support (i.e., bias-corrected confidence intervals do not include 0).

**Discussion.** Overall, in a nationally representative sample of White Americans, making the U.S. racial shift salient led to greater endorsement of conservative policies, compared with making a nonracial societal shift salient.<sup>6</sup> Furthermore, these effects were mediated by participants' concerns about the loss of Whites' societal status. The conservative shift emerged for both racerelated and more race-neutral policies. Hence, these results offer compelling evidence that making a majority-minority racial shift salient can lead Whites to perceive that their racial group's status is threatened and, in turn, to express greater political conservatism.

Coefficient	Overall policy attitudes	Race-related policy attitudes	Race-neutral policy attitudes
a	0.495** (0.125)	0.495** (0.125)	0.495** (0.125)
b	0.094** (0.021)	0.122** (0.024)	$0.053^{\dagger} (0.029)$
C	0.133* (0.057)	0.125† (0.066)	$0.141^{\dagger} (0.077)$
<i>c</i> ′	0.086 (0.057)	0.065 (0.065)	0.115 (0.078)
95% CI of the indirect effect	[0.020, 0.086]	[0.027, 0.106]	[0.0003, 0.068]

Table 2. Mediation Results From Study 2: Path Coefficients and Bias-Corrected Confidence Intervals (CIs)

Note: Experimental condition was coded as 1 (racial-shift condition) or 0 (control condition). All models included participants' gender, age, and education level as covariates. Path coefficients are as follows: a denotes the effect of experimental condition on perceived group-status threat; b denotes the effect of perceived group-status threat on the dependent variable; c' denotes the direct effect of experimental condition on the dependent variable; and c denotes the total effect of experimental condition on the dependent variable. Standard errors are in parentheses.

†b < .10. \*b < .05. \*b < .05. \*b < .001.

# Study 3

Although the results of Study 2 are compelling, we measured rather than manipulated the proposed mediator group-status threat. Further, because of constraints associated with a nationally representative survey, we were limited in the number of items we could include to assess potential mediators. Thus, in Study 3, we tested the mediating role of group-status threat directly. Participants read an article about the U.S. racial shift (as in Study 2), a control article, or a third article designed to allay concerns about group status. Specifically, this third article contained the same information as the article about the U.S. racial shift, but also indicated that status relations among racial groups are likely to remain unchanged. Further, to assess participants' ideological shift more precisely, we measured political ideology before and after the manipulation. We predicted that participants for whom the racial shift was made salient, without any alleviation of group-status concerns, would endorse conservative policies more and express a greater conservative shift in their ideology than participants who read the same article but whose concerns about Whites' future status were allayed or participants who did not read about the racial shift at all.

#### Method

Separate samples of White U.S. citizens were recruited from Amazon Mechanical Turk and compensated \$0.40 (Study 3a: n=180; 160 men, 20 women; mean age = 33.13 years, SD=11.53; Study 3b: n=198; 167 men, 31 women; mean age = 34.51 years, SD=13.30).

After providing informed consent, participants reported their demographic characteristics, including their political ideology. This baseline ideology measure included two items; participants indicated the degree to which they endorsed "aspects of conservative political ideology" and "aspects of liberal political ideology" (1 = strongly disagree, 7 = strongly agree). Because these items

were highly correlated (Study 3a: r = -.80; Study 3b: r = -.75), we reverse-scored the liberalism item and averaged scores for the two items to create an index of relative preference for conservative (vs. liberal) ideology.

Participants were then randomly assigned to read an article about the growing geographic mobility of the United States (control condition), an article about the projected majority-minority shift in the United States (status-threat condition), or the latter article with an extra paragraph designed to reduce status threat (assuaged-threat condition; see Experimental Stimuli in the Supplemental Material). Thus, the article in the assuaged-threat condition included the same information about the impending racial demographic shift as the article in the status-threat condition, but also indicated that "despite the shift in the demographic make-up, the relative societal status of different racial groups is likely to remain steady" and "White Americans are expected to continue to have higher average incomes and wealth compared to members of other racial groups." Following the manipulation, participants were asked questions that checked their comprehension of the article and, as a manipulation check, reported their level of perceived group-status threat (as described in Study 2).

Participants then indicated their policy preferences. In Study 3a, we used the same five items as in Study 2, adding one race-related item (support for establishing English as the official U.S. language) and two raceneutral items (support for same-sex marriage and building more prisons). Thus, four policies were directly related to race, and four were not. The response scales for policy-support items ranged from 1, strongly opposed, to 7, strongly in favor. The response scales for policy-change items ranged from 1, increased a lot, to 5, decreased a lot. Study 3b included seven relatively race-neutral policies (and no race-related items): the four race-neutral items from Study 3a and three new items. The new items concerned support for strong unions and drilling in the Arctic National Wildlife Refuge (scales from 1, strongly opposed, to 7, strongly in favor)

Study and measure	Control condition	Assuaged-threat condition	Status-threat condition	
Study 3a				
Overall policy attitudes	-0.09 (0.07)	-0.08 (0.06)	0.15 (0.06)	
Race-related policy attitudes	-0.13 (0.09)	-0.10 (0.08)	0.23 (0.08)	
Race-neutral policy attitudes	-0.04 (0.07)	-0.06 (0.07)	0.08 (0.07)	
Political ideology	3.16 (0.11)	3.06 (0.10)	3.47 (0.10)	
Study 3b				
Race-neutral policy attitudes	-0.03 (0.05)	-0.09 (0.05)	0.10 (0.05)	
Political ideology	3 41 (0 09)	3 31 (0 09)	3.72 (0.09)	

Table 3. Results for Political Attitudes and Ideology in Study 3: Estimated Marginal Means by Condition

Note: All items were standardized prior to creating the policy-attitude indices. Means are adjusted for participants' gender, age, education level, and baseline political ideology. Standard errors are given in parentheses. The index of overall policy attitudes included all policy items.

and whether the minimum wage should be increased or decreased (scale from 1, *increased a lot*, to 6, *get rid of the minimum wage completely*). In both studies, responses were standardized and averaged to create composites. For Study 3a, we computed separate indices of overall conservative-policy endorsement (eight items;  $\alpha = .84$ ), race-related conservative-policy endorsement (four items;  $\alpha = .80$ ), and race-neutral conservative-policy endorsement (four items;  $\alpha = .75$ ). For Study 3b, we created one index of race-neutral conservative-policy endorsement (seven items;  $\alpha = .82$ ). Higher scores indicate greater conservative-policy endorsement. In addition, all participants rated their ideology "in general" (1 = *extremely liberal*, 7 = *extremely conservative*).

#### Results

**Manipulation check.** Analyses of variance confirmed that participants in the status-threat condition expressed greater perceived group-status threat than did participants in the assuaged-threat or control conditions—Study 3a: F(2, 166) = 7.23, p < .001,  $\eta_p^2 = .08$ ; Study 3b: F(2, 184) = 4.03, p = .019,  $\eta_p^2 = .04$ . Perceived groupstatus threat did not differ between the control and assuaged-threat conditions, ps > .487.

**Analysis strategy.** Unless otherwise noted, reported analyses for Studies 3a and 3b are ANCOVAs with experimental condition as the independent variable and demographic characteristics and baseline political ideology as covariates.<sup>7</sup>

**Study 3a.** Two participants who answered one of the article-comprehension items incorrectly (i.e., who incorrectly identified Whites as the group with the fastest increase) and 8 participants who responded incorrectly to an attention-check item were excluded from analyses. The final sample included 170 participants (62 in the status-threat condition, 59 in the assuaged-threat condition,

and 49 in the control condition). Including participants who failed the attention check did not change the direction or significance of the findings.

Results revealed a main effect of experimental condition on overall policy attitudes, F(2, 161) = 4.92, p =.008,  $\eta_p^2 = .06$ . As shown in Table 3, participants in the status-threat condition supported conservative positions more than did participants in the control condition, F(1,161) = 6.94, p = .009,  $\eta_p^2 = .04$ . In addition, participants in the status-threat condition reported more support for conservative policy positions than did participants in the assuaged-threat condition, F(1, 161) = 7.63, p = .006,  $\eta_p^2 = .05$ . Conservative-policy endorsement did not differ between the control and assuaged-threat conditions, F(1, 161) < 1, p = .969. We next analyzed policy endorsement in a 2 (political issue: race related, race neutral) × 3 (condition: status threat, assuaged threat, control) mixed-design ANCOVA. Consistent with Study 2, results revealed only a main effect of experimental condition,  $F(2, 161) = 5.08, p = .007, \eta_p^2 = .06$ , signifying that endorsement of race-related policies and endorsement of race-neutral policies were similarly affected by the manipulation (see Table 3). Across policy types, in other words, participants in the status-threat condition endorsed conservative positions more than did participants in both the control condition, F(1, 161) = 7.12, p = .008,  $\eta_p^2 = .04$ , and the assuaged-threat condition,  $F(1, 161) = 7.91, p = .006, \eta_b^2 = .05$ . Participants in the control and assuaged-threat conditions did not differ, F(1, 161) < 1, p = .979.

As predicted, self-reported political ideology differed by condition, F(2, 160) = 4.44, p = .013,  $\eta_p^2 = .05$  (see Table 3); participants in the status-threat condition identified more with conservatism compared with participants in the control condition, F(1, 160) = 4.26, p = .041,  $\eta_p^2 = .03$ , and participants in the assuaged-threat condition, F(1, 160) = 8.33, p = .004,  $\eta_p^2 = .05$ . Participants in the control and assuaged-threat conditions did not differ, F(1, 160) < 1, p = .511.

**Study 3b.** Three participants who answered one of the comprehension-check items incorrectly, 1 extreme outlier (Tukey, 1977) on the manipulation-check item, and 6 participants who took longer than 30 min to complete the study were excluded from analyses. The final sample included 188 participants (60 in the status-threat condition, 62 in the assuaged-threat condition, and 66 in the control condition). Including outliers did not change the direction or significance of the findings.

As predicted, experimental condition influenced participants' policy endorsement (see Table 3), F(2, 180) = 3.85, p = .023,  $\eta_p^2 = .04$ . Participants in the status-threat condition were somewhat more likely to endorse the conservative positions than were participants in the control condition, F(1, 180) = 3.41, p = .066,  $\eta_p^2 = .02$ , and significantly more likely to endorse those positions than were participants in the assuaged-threat condition, F(1, 180) = 7.40, p = .007,  $\eta_p^2 = .04$ . Policy endorsement did not differ between the control and assuaged-threat conditions, F(1, 180) < 1, p = .360.

Analyses of political ideology also revealed an effect of experimental condition (see Table 3), F(2, 180) = 6.01, p = .003,  $\eta_p^2 = .06$ ; participants in the status-threat condition identified more with conservatism compared with participants in both the control condition, F(1, 180) = 6.57, p = .011,  $\eta_p^2 = .04$ , and the assuaged-threat condition, F(1, 180) = 10.93, p = .001,  $\eta_p^2 = .06$ . Participants in the control and assuaged-threat conditions did not differ in reported political ideology, F(1, 180) < 1, p = .426.

#### Discussion

These experiments provide striking evidence that perceived group-status threat, triggered by exposure to the majority-minority shift, increases Whites' endorsement of conservative political ideology and policy positions. In both experiments, the addition of a simple paragraph stating that Whites are likely to remain at the top of the future racial hierarchy in a majority-minority America eliminated the conservative shift otherwise observed after exposure to the racial-shift information. Overall, these experiments reveal the broad potential impact of perceived group-status threat stemming from exposure to information about the diversifying nation.

#### **General Discussion**

The present research is the first (to our knowledge) to examine whether making projected changes in racial demographics salient evokes conservative shift. Study 1 capitalized on an experimental component of a general population survey, revealing that making the majority-minority shift in California salient led politically unaffiliated White Americans to lean more toward the Republican

(vs. Democratic) Party, compared with respondents for whom this racial shift was not salient. Studies 2 and 3 revealed that making the changing national racial demographics salient led White Americans (regardless of political-party affiliation) to endorse both race-related and relatively race-neutral conservative policy positions more strongly. Moreover, Studies 2 and 3 offer correlational and experimental evidence, respectively, for the mediating role of group-status threat in shaping the effect of the racial demographic shift on endorsement of conservative ideology.

This research is consistent with the growing body of work on political conservatism and contributes to that literature by showing the effects of threats that are often not considered: threats that are not physical threats to life and limb but, rather, more abstract concerns over the potential future loss of majority status. Prior research provides compelling evidence that sensitivity to physical threats can facilitate the endorsement of political conservatism (e.g., Kanai, Feilden, Firth, & Rees, 2011; Oxley et al., 2008), as can life-threatening events (e.g., Bonanno & Jost, 2006; Nail & McGregor, 2009; Ullrich & Cohrs, 2007). The present results prompt intriguing questions regarding the boundary conditions surrounding when potential social threats may evoke conservative shift. Our results suggest that even threats not expected to be manifest for three decades can motivate political conservatism.

Although the present results offer support for the motivated-cognition perspective on conservatism (Jost et al., 2003), it is notable that the observed conservative shift was fairly broad in scope. That is, participants primed with the changing racial demographics endorsed conservative positions on both race-related and race-neutral policies. This generalized conservative shift has been found previously; for example, Nail et al. (2009) found that mortality salience induced greater endorsement of conservative perspectives regarding gay-partner benefits. Indeed, previous research has found that multiple types of threat (e.g., system threat, threats against personal well-being) evoke conservative shift on a range of political issues, including those unrelated to the threat (see Jost, Fitzsimons, & Kay, 2004; Nail et al., 2009; Thórisdóttir & Jost, 2011).

Nevertheless, some previous research also suggests that political attitudes most related to a given threat are affected more strongly than other attitudes. For example, Nail and McGregor (2009) examined political attitudes of Americans both prior to and following the September 11th terrorist attacks and found the largest increase in support for conservative policies related to the attacks (e.g., increased military spending); support for conservative policies increased less for less relevant issues (e.g., socialized medicine). Thus, it is possible that certain kinds of threats engender quite targeted conservative shifts, whereas others yield more generalized conservative shifts. This

possibility is, of course, purely speculative at the moment and beyond the scope of the current data. Nevertheless, the present results offer compelling evidence that making the shifting U.S. racial demographics salient leads Whites to perceive greater threat to their racial group's status, which motivates them to increase their support of a variety of conservative policy positions.

Research regarding how racial shifts affect members of different racial minority groups is an essential, yet still missing, piece of the picture. As of the 2010 Census, Latinos outnumber Black Americans in the majority of U.S. metropolitan areas ("Census," 2011). The present work suggests that making this shift salient for Black Americans may result in group-status threat and shifts in endorsement of conservative ideology similar to those found among White respondents in the present work. Future research is needed to investigate this intriguing possibility and examine how local and national racial demographic changes affect the political ideology and participation of racial-minority individuals.

One implication of the present work is that Whites may be increasingly likely and motivated to support conservative candidates and policies, in response to the changing racial demographics. These results suggest that presumptions of the decline of the Republican Party due to the very same changing racial demographics (e.g., Heavey, 2012; Shear, 2012; Wickham, 2012) may be premature. Future research is needed to examine the extent to which Whites' status concerns, triggered by the changing racial demographics, may influence their political affiliations. Nevertheless, should White Americans (on average) respond to the changing demographics by becoming more politically conservative, the U.S. political landscape is likely to become increasingly racially polarized.

#### **Author Contributions**

M. A. Craig and J. A. Richeson developed the study concept. Both authors contributed to the study design. Data collection, data analysis, and interpretation were performed by M. A. Craig, under the supervision of J. A. Richeson. M. A. Craig drafted the manuscript, and J. A. Richeson provided critical revisions. Both authors approved the final version of the manuscript for submission.

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The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

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#### **Supplemental Material**

Additional supporting information may be found at http://pss .sagepub.com/content/by/supplemental-data

#### **Open Practices**

The data from Study 1 can be found at http://www.people-press.org/2001/04/26/april-2001-news-interest-index/; information about the questionnaire manipulation in this study can be found at http://www.people-press.org/files/legacy-questionnaires/13.pdf. The data for Study 2 have been made publicly available at http://www.tessexperiments.org/previousstudies.html; the articles that participants in Studies 2 and 3 read have been made publicly available via Open Science Framework and can be accessed at https://osf.io/dzv6r/osffiles/PS14\_Craig\_Richeson\_manipulations.pdf/. The complete Open Practices Disclosure for this article can be found at http://pss.sagepub.com/content/by/supplemental-data.

#### **Notes**

- 1. Supplementary analyses of data from the full White subsample (including Democrats and Republicans) did not reveal an interactive effect of condition and participant's political party or of condition and region (West region, other regions) on expressed political ideology, ps > .973.
- 2. Supplementary analyses examined the effects of the racial shift on Blacks and Latinos. Among Black participants, those who were asked about the majority-minority shift identified themselves as somewhat more liberal than did those who were in the control condition, b = -0.415, p = .082; no effect was observed for Latino participants (p > .355).
- 3. Analyses examining the effects of racial-shift salience on the mediator variables and an unrelated dependent variable are reported in Craig and Richeson (in press).
- 4. Degrees of freedom are lower than expected and also varied because of missing data.
- 5. Supplementary analyses examining each policy attitude separately revealed that the experimental manipulation affected attitudes toward affirmative action (weighted p=.032; unweighted p=.015) and health-care reform (weighted p=.074; unweighted p=.024), and somewhat affected attitudes toward defense spending (weighted p=.052; unweighted p=.297). Attitudes toward increasing the number of immigrants (weighted p=.187; unweighted p=.256) and the required time to be eligible for U.S. citizenship (weighted p=.501; unweighted p=.497) did not reliably differ by condition.
- 6. Supplementary analyses examined the effects of racial-shift salience on Blacks and Latinos. The experimental manipulation had no effects on any dependent measures among Black participants; however, Latinos in the racial-shift condition perceived less system threat (weighted p=.003,  $r_{\text{partial}}=-.41$ ; unweighted  $r_{\text{partial}}=-.41$ ; unweight

- .064,  $\eta_p^2$  = .06) and expressed more support for defense spending (weighted p = .010,  $r_{\text{partial}}$  = .34; unweighted p = .125,  $\eta_p^2$  = .04), compared with Latinos in the control condition.
- 7. We conducted exploratory analyses to examine whether baseline political ideology moderated the effects of experimental condition on postmanipulation political ideology and policy support. Results for political ideology revealed no evidence of such moderation in either study (ps > .397). Similarly, baseline political ideology did not moderate the effect of condition on participants' expressed policy positions in Study 3b (p = .117). In Study 3a, however, baseline political ideology and experimental condition had a significant interactive effect on policy endorsement (p = .004,  $\eta_p^2 = .07$ ); the conservative shift was observed among more liberal participants (p < .001,  $\eta_p^2 = .11$ ), but not among more conservative participants (p = .438). Together, these analyses largely suggest that liberals and conservatives responded similarly to the threat.
- 8. Excluding the prison item from analyses did not alter findings in Study 3a, but reduced the effect of condition on policy endorsement in Study 3b (p = .089).

#### References

- Bonanno, G. A., & Jost, J. T. (2006). Conservative shift among high-exposure survivors of the September 11th terrorist attacks. *Basic and Applied Social Psychology*, 28, 311–323.
- Census: Hispanics surpass blacks in most U.S. metros. (2011, April 14). *USA Today*. Retrieved from http://usatoday30.usatoday.com/news/nation/census/2011-04-14-census-black-hispanic.htm
- Craig, M. A., & Richeson, J. A. (in press). More diverse yet less tolerant? How the increasingly-diverse racial landscape affects White Americans' racial attitudes. *Personality and Social Psychology Bulletin*.
- Giles, M. W., & Hertz, K. (1994). Racial threat and partisan identification. American Political Science Review, 88, 317–326.
- Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York, NY: Guilford Press.
- Heavey, S. (2012, November 8). Obama win shows demographic shifts working against Republicans. *Reuters*. Retrieved from http://www.reuters.com/article/2012/11/08/us-usa-campaign-diversity-new-idUSBRE8A70QK20121108
- Jost, J. T., Fitzsimons, G., & Kay, A. C. (2004). The ideological animal: A system justification view. In J. Greenberg, S. L. Koole, & T. A. Pyszczynski (Eds.), *Handbook of experimen*tal existential psychology (pp. 263–286). New York, NY: Guilford Press.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339–375.
- Jost, J. T., Napier, J. L., Thórisdóttir, H., Gosling, S. D., Palfai, T. P., & Ostafin, B. (2007). Are needs to manage uncertainty and

- threat associated with political conservatism or ideological extremity? *Personality and Social Psychology Bulletin*, *33*, 989–1007.
- Kanai, R., Feilden, T., Firth, C., & Rees, G. (2011). Political orientations are correlated with brain structure in young adults. *Current Biology*, 21, 677–680.
- Kay, A. C., & Jost, J. T. (2003). Complementary justice: Effects of "poor but happy" and "poor but honest" stereotype exemplars on system justification and implicit activation of the justice motive. *Journal of Personality and Social Psychology*, 85, 823–837.
- Landau, M. J., Solomon, S., Greenberg, J., Cohen, F., Pyszczynski, T., Arndt, J., . . . Cook, A. (2004). Deliver us from evil: The effects of mortality salience and reminders of 9/11 on support for President George W. Bush. *Personality and Social Psychology Bulletin*, 30, 1136–1150.
- Nail, P. R., & McGregor, I. (2009). Conservative shift among liberals and conservatives following 9/11/01. Social Justice Research, 22, 231–240.
- Nail, P. R., McGregor, I., Drinkwater, A. E., Steele, G. M., & Thompson, A. W. (2009). Threat causes liberals to think like conservatives. *Journal of Experimental Social Psychology*, 45, 901–907.
- Outten, H. R., Schmitt, M. T., Miller, D. A., & Garcia, A. L. (2012). Feeling threatened about the future: Whites' emotional reactions to anticipated ethnic demographic changes. *Personality and Social Psychology Bulletin*, *38*, 14–25.
- Oxley, D. R., Smith, K. B., Alford, J. R., Hibbing, M. V., Miller, J. L., Scalora, M., . . . Hibbing, J. R. (2008). Political attitudes vary with physiological traits. *Science*, *321*, 1667–1670.
- Pew Research Center for the People & the Press. (2001). *April* 2001 News Interest Index [Data file]. Retrieved from http://www.people-press.org/category/datasets/2001/
- Shear, M. D. (2012, November 7). Demographic shift brings new worry for Republicans. *The New York Times*. Retrieved from https://www.nytimes.com/2012/11/08/us/politics/obamasvictory-presents-gop-with-demographic-test.html
- Thórisdóttir, H., & Jost, J. T. (2011). Motivated closed-mindedness mediates the effect of threat on political conservatism. *Political Psychology*, *32*, 785–811.
- Tukey, J. W. (1977). *Exploratory data analysis*. Reading, MA: Addison-Wesley.
- Ullrich, J., & Cohrs, J. C. (2007). Terrorism salience increases system justification: Experimental evidence. *Social Justice Research*, *20*, 117–139.
- U.S. Census Bureau. (2008). *An older and more diverse nation by midcentury*. Retrieved from http://www.census.gov/newsroom/releases/archives/population/cb08-123.html
- Wickham, D. (2012, December 8). Demographics will doom Republican Party. *Chicago Sun-Times*. Retrieved from http://www.suntimes.com/news/otherviews/16198050-452/demographics-will-doom-republican-party.html