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More Diverse Yet Less Tolerant? How the Increasingly Diverse Racial Landscape Affects White Americans' Racial Attitudes

Maureen A. Craig[1] and Jennifer A. Richeson[1]

Abstract

Recent Census Bureau projections indicate that racial/ethnic minorities will comprise over 50% of the U.S. population by 2042, effectively creating a so-called "majority–minority" nation. Across four experiments, we explore how presenting information about these changing racial demographics influences White Americans' racial attitudes. Results reveal that exposure to the changing demographics evokes the expression of greater explicit and implicit racial bias. Specifically, Whites exposed to the racial demographic shift information preferred interactions/settings with their own ethnic group over minority ethnic groups; expressed more negative attitudes toward Latinos, Blacks, and Asian Americans; and expressed more automatic pro-White/anti-minority bias. Perceived threat to Whites' societal status mediated the effects of the racial shift information on explicit racial attitudes. These results suggest that rather than ushering in a more tolerant future, the increasing diversity of the nation may instead yield intergroup hostility. Implications for intergroup relations and media framing of the racial shift are discussed.

Keywords

intergroup relations, demographic changes, prejudice, racial attitudes

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Recent Census Bureau projections indicate that non-Hispanic Whites will no longer comprise over 50% of the U.S. population by 2042, creating a so-called "majority-minority" nation (U.S. Census Bureau, 2008). Indeed, four states (Hawaii, California, New Mexico, and Texas) and the District of Columbia currently have "majority-minority" populations (U.S. Census Bureau, 2009), and as of 2012, racial/ethnic minority births comprise over half of all national births (Tavernise, 2012). These projections have been communicated widely in various media outlets, coupled with speculation regarding what this shift will mean for race relations in America. Alarmingly, recent news sources have attributed rises in hate groups to Whites' reactions to the shifting U.S. racial demographics (e.g., Curry, 2012). The purpose of the present work is to take an experimental approach to examine how information about the impending population changes influences White Americans' racial attitudes.

The U.S. Racial Shift and Racial Attitudes

Prior theorizing across social scientific disciplines provides insight into how changes in the racial makeup of the country may influence White Americans' racial attitudes. Because group size often signals group advantage and/or dominance, the projected increased racial minority population may be perceived as a threat to White Americans' relative societal status (e.g., Blumer, 1958; LeVine & Campbell, 1972; Quillian, 1995; Stephan, Ybarra, & Morrison, 2009). Group threat theory (Blalock, 1967; Blumer, 1958; Quillian, 1995, 1996) suggests that prejudice toward racial minorities stems from perceived threat to the dominant racial group's status or privilege. This work conceptualizes group status threats as threats to the political and/or economic power of the ingroup (i.e., realistic threats) rather than threats to cultural values (Stephan et al., 2009). Threat is purported to stem from fears that one's own group will be disadvantaged relative to the minority group. Quillian (1995, 1996) outlines two primary contributors to perceived threat: economic circumstances (e.g., in poor economic climates, perceptions of threat from minority groups are heightened) and the size of the minority group. Germane to the present research, the size of minority groups is theorized to increase perceived threat due to

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concerns regarding competition over economic resources and potential for efficacious collective action by the minority group (see Blalock, 1967; Blumer, 1958). That is, prejudice stems from challenges to dominant group privileges; the greater the perceived threat to the group's position, the more prejudice expressed toward the challenging outgroup (Blumer, 1958).

The findings of decades of survey research are consistent with the proposition that minority group size is associated with prejudice (e.g., Allport, 1954; Blalock, 1967). For instance, Pettigrew (1959) found that anti-Black attitudes were more pronounced in Southern cities with larger proportions of Black residents, a finding that was replicated nearly 20 years later (Giles, 1977). Analyzing data from the 1972 National Election Study, Fossett and Kiecolt (1989) similarly found that the greater the relative size of the Black population in a metropolitan region or county (be it in the South or not), the greater Whites' perception of threat from Blacks *and* the lower their support for racial integration. In other words, consistent with group threat theory (Blalock, 1967; Blumer, 1958), the larger the Black population in a community, the more negative the racial attitudes held by members of the White majority in that community.

Despite the relative consistency of this work, it may reflect the attitudes of an earlier, more racially prejudiced era of American society. Indeed, a great deal of societal change has taken place since the 1970s, and self-reported racial attitudes, in general, have largely become considerably more positive (Smith, Marsden, Hout, & Kim, 2011). Given these sweeping changes, Alba, Rumbaut, and Marotz (2005) sought to examine whether the correlation between (perceived) minority population proportion and racial attitudes would be observed among White Americans in the new millennium. Specifically, examining data from the 2000 General Social Survey, Alba and colleagues found that White Americans who estimated relatively larger proportions of Blacks and Hispanics in the overall U.S. population were also more likely to express anti-Black and anti-Hispanic attitudes, and were more likely to support restrictions on immigration (Alba et al., 2005). Indeed, research with White participants has found a strong positive relationship between perceiving threat from minorities and estimates of the size of minority groups; this effect is especially pronounced among individuals living in areas with relatively higher proportions of Blacks and Hispanics (Nadeau, Niemi, & Levine, 1993). Considered in tandem, this research offers strong support for the prediction that the projected racial demographic changes may indeed trigger group threat among Whites and, in turn, engender the expression of greater racial bias. Nevertheless, this previous work is correlational and, thus, it is not clear whether or not more recent and/or projected population changes will actually *cause* individuals to express more negative racial attitudes and, further, whether perceived group threat mediates any such attitude expression.

Experimental social psychological research has recently begun to examine how perceived racial demographic shifts affect the cognition, attitudes, and emotions of members of majority groups (e.g., Outten, Schmitt, Miller, & Garcia, 2012; Wilson & Hugenberg, 2010). Of particular relevance to the present work, Outten et al. (2012) found that White Canadians viewing a graph wherein Whites were projected to comprise less than 50% of the national population perceived greater ingroup threat that led to the expression of somewhat more anger toward and fear of racial minorities, compared with White Canadians who viewed a graph depicting a projected future White majority. Exposure to information about the changing demographics also led White Canadians to express less warmth toward East Asian Canadians, the group portrayed to have the largest population growth. Although the pattern of means showed similar trends of less warmth toward other ethnic minorities (e.g., South Asian and Middle Eastern Canadians), no significant differences in warmth were found regarding these groups. Furthermore, perceived group status threat mediated the effect of the information about the changing demographics on expressed warmth toward East Asian Canadians.

Consequently, although Outten et al.'s initial research suggests that racial demographic shifts are perceived as threatening, their impact on attitudes toward racial minority groups that are not projected to be primary contributors to the racial shift remains somewhat unclear. Furthermore, Outten and colleagues compared responses to an impending White minority condition (i.e., the "majority-minority" condition) to either veridical recent population demographic statistics (Study 1) or projections of a future White majority (Study 2) that are unrealistic. Although both of these comparison conditions are important, the present work seeks to extend this previous research by examining the effects of the racial shift information against additional control conditions (e.g., similar racial demographic shifts in other countries) to rule out important plausible alternative explanations for the racial bias effects. Last, no work (to our knowledge) has examined how racial demographic shifts may affect individuals' implicit racial associations. Given that explicit and implicit racial biases predict different types of judgments and behaviors (e.g. Dovidio, Kawakami, & Gaertner, 2002), it is important to consider the effects, if any, of these projected population changes on both types of attitude outcomes. Hence, the present work examines these questions.

Overview of the Present Research

Overall, extant research suggests that the projected shift in the racial demographics of the U.S. population may be perceived by White Americans as a threat to group status, which may have downstream effects on Whites' racial attitudes. Across four studies, we examine whether making the racial demographic shift salient leads Whites to reveal more explicit (Studies 1 and 3) and implicit (Studies 2a and 2b) pro-White and/or anti-minority sentiment, even toward racial minority groups that are not considered primarily responsible for the demographic

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changes (i.e., Blacks and Asian Americans). Furthermore, in Study 3 we conduct an experiment with a nationally representative sample and examine several possible mediators of the anticipated effects of exposure to the racial demographic shift on Whites' racial bias. We predict that Whites for whom a "majority-minority" population is made salient will perceive the shifting racial demographics as a group status threat and, thus, express greater racial bias compared with Whites for whom the impending U.S. racial demographic shift is not made salient.

Study 1

To begin our examination, we first sought to conceptually replicate and extend the results of Outten and colleagues (2012) by examining the effect of the racial shift on explicit racial attitudes. In a web survey, White U.S. citizens either read about the projected (2042) U.S. racial demographics or the current (2010) U.S. racial demographics, prior to completing a self-report measure of racial bias. We predicted that participants for whom the demographic shift was made salient would express greater intergroup bias than participants for whom the current, majority-White racial make-up of the United States was made salient.

Method

Participants. Ninety-two White, U.S. citizens were recruited from the Amazon Mechanical Turk (MTurk.com) marketplace to participate in the study in exchange for $0.20. Participants (57 women, M_{age} = 37.22, SD_{age} = 14.50) lived in 25 different states.

Materials and measures

Demographics information manipulation. The racial demographics of the United States were made salient through a newspaper article manipulation. Participants were randomly assigned to read either about U.S. Census Bureau projections estimating that by 2042 ethnic and racial minorities will comprise a majority of the nation's populace (U.S. racial shift condition) or the Bureau's current (2010) estimates of the national population by race/ethnicity (U.S. current racial makeup condition). For example, the title of the U.S. racial shift condition was "In a Generation, Ethnic Minorities May Be the U.S. Majority" whereas the title of the U.S. current racial makeup condition was, "U.S. Census Bureau Releases New Estimates of the US Population by Ethnicity." The articles were created with information retrieved from the Census Bureau (U.S. Census Bureau, 2010) and relevant *New York Times* and *CNN* articles ("Minorities Expected to be Majority in 2050," 2008; Roberts, 2008), and included a pie chart of either the projected (2042) or the current (2010) demographic breakdown by race (i.e., split into "White, non-Hispanic," "Black," "Asian," "Hispanic," and "Other"). In the U.S. racial shift condition it was clear from the article and the chart that Hispanics/Latinos were the fastest-growing group. Thus, while participants in both conditions were provided with information about the racial make-up of the United States, only the U.S. racial shift condition explicitly referred to the projected growth of racial minorities and, by inference, the shrinking White population. After reading the article, participants answered a number of questions to ensure that they understood the message in the article (e.g., "What is the purpose of the article?").

Racial bias. Racial bias was assessed with the Evaluative Bias Scale (Wolsko, Park, & Judd, 2006), a six-item measure of individuals' preferences for interactions with their own racial/ethnic group and relative discomfort with other racial/ethnic groups. Participants indicated their agreement (1 = *strongly disagree*, 7 = *strongly agree*) to items such as, "I would rather work alongside people of my same ethnic origin," and "It would bother me if my child married someone from a different ethnic background." We re-coded and averaged items to create an index of racial bias (α = .88) in which higher scores indicate greater bias.

Attention check item. We included one item intended to assess whether participants were paying attention as they completed the survey. This item explicitly asked participants to indicate a particular response (*somewhat disagree*) for that item. Thus, this item was intended to identify individuals who were clicking on responses in a haphazard or non-attentive manner.

Procedure. Participants were recruited from MTurk.com in a study allegedly about "opinions regarding current events." After providing consent, half of the sample read the demographic information manipulation article to which they were randomly assigned, completed the racial bias measure (embedded among a number of filler items, including the attention check item), and then reported their demographic characteristics (e.g., race, gender, age, political ideology). The other half of the sample reported their demographic characteristics first, after which they read the manipulation article to which they were assigned and then completed the racial bias measure. Whether participants reported their demographic characteristics first or last was determined randomly and did not influence the results. Finally, participants were thanked, paid, and debriefed.

Results and Discussion

Five participants responded incorrectly to the attention check item (i.e., indicated a response other than the requested *somewhat disagree* response). These participants, as well as one who was an outlier (i.e., a participant with a value that is 1.5 times greater than the interquartile range; Tukey, 1977) on the racial bias measure, were excluded from analyses.[1] The final sample included 86 participants (44 U.S. racial shift, 42 U.S. current racial makeup).

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Consistent with predictions and Outten and colleagues' findings, analyses revealed that participants who read about the future U.S. racial demographics expressed more racial bias ($M = 3.82$, $SD = 1.44$) than did participants who read about the current U.S. racial demographics ($M = 3.17$, $SD = 1.14$), $t(84) = 2.29$, $p = .025$, $d = 0.49$.[2] In other words, Whites exposed to information about the projected population statistics, wherein racial minorities will comprise a majority of the United States, expressed a greater relative preference to be in settings/interactions with other Whites than racial minorities, compared with Whites exposed to the current (2010), majority-White population statistics.

Study 2

The findings of Study 1 suggest that exposure to the changing U.S. racial demographics leads Whites to express greater racial bias. In Study 2, we examined whether the racial shift information may lead to the expression of more racial bias toward racial minority groups that are not primarily responsible for the projected demographic changes (i.e., Asian Americans in Study 2a and Black Americans in Study 2b).[3] That is, it is unclear whether impending racial shifts may influence attitudes toward groups not primarily responsible for the racial shift. In addition, in Study 2 we sought to explore whether greater bias will be revealed in individuals' more implicit, automatic associations. Specifically, we examined how making the impending "majority-minority" shift salient may influence White Americans' automatic evaluative associations with racial minorities. This is the first investigation (to our knowledge) of the effects of the impending U.S. racial demographic shift on White Americans' implicit racial associations. Given that implicit racial biases often predict different types of judgments and behaviors, compared to explicit, self-reported racial bias (e.g., Dovidio et al., 2002; Hofmann, Gschwendner, Castelli, & Schmitt, 2008), the results of the present examination may be particularly relevant to understand the ways in which repeated exposure to the impending racial shift information may shape the attitudes (and behaviors) of White Americans in contemporary U.S. society.

Study 2 also sought to examine the specificity of making salient the projected U.S. ethnic/racial demographic shift by comparing its effects on racial attitudes to those observed in a different control condition. Specifically, we examined individuals' automatic racial bias after making salient either the changing ethnic/racial demographics in the United States or, rather, a similarly described ethnic/racial shift in the Netherlands. This type of comparison condition offers a particularly stringent test of our hypothesis because it is likely to make the concept of a shrinking White/European majority salient (as in the experimental condition), yet should not activate threat in White Americans' majority status in the United States. Consequently, we predicted that White participants in the U.S. racial shift condition would express more pro-White/anti-minority automatic bias than White participants in the Dutch racial shift (control) condition.

Method

Participants. All participants were U.S. citizens participating in exchange for $8. Study 2a included 30 White participants (21 women, $M_{age} = 21.67$, $SD_{age} = 5.65$). Study 2b included a separate sample of 27 White participants (19 women, $M_{age} = 22.22$, $SD_{age} = 7.82$).

Materials and measures

Demographic information manipulation. Changing racial/ethnic demographics were again made salient through a newspaper article manipulation. Participants were randomly assigned to read either an article wherein the projected increase of the racial minority populations of the United States was described (U.S. racial shift condition) or an article about the projected increase in the ethnic minority populations in the Netherlands (Dutch racial shift condition). Importantly, in the U.S. racial shift condition, we included text from a *CNN* article ("Minorities Expected to be Majority in 2050," 2008) to more explicitly call attention to the idea that Hispanics/Latinos are primary contributors of the demographic shift, compared to the information included in the materials of Study 1. We included information such as, "The group predicted to post the most dramatic gain, Hispanics, is projected to nearly triple in size by 2050. There are now roughly nine births for every one death among Hispanics, compared to a roughly one-to-one ratio for Whites." Participants in the Dutch racial shift condition, conversely, read about alleged projections about the rapid growth of non-Western immigrants (e.g., immigrants from Turkey, Africa, Latin America, and parts of Asia) to the Netherlands, and the decline in the Native Dutch population. Thus, both conditions referenced impending changes in the ethnic/racial composition of a predominantly White country, but only the U.S. racial shift condition referred to the projected population shift in the United States (i.e., the growth of U.S. racial minority groups and the shrinking White population). The information in the Dutch control condition article was actually based on press releases by *Statistics Netherlands*, the Dutch organization that collects statistics about the Netherlands (Statistics Netherlands, 2008). Immediately after reading the article, participants were asked the following items to check whether they were attending to the article: "Which racial/ethnic group is expected to be the largest contributor to the dramatic population growth?" and "What is the White/Native Dutch population expected to do in the coming decades?" (1 = *increase dramatically*, 5 = *decrease dramatically*).[4]

Automatic racial bias. We assessed the relative strengths of the associations between valenced concepts (i.e., evaluations) and racial groups with Implicit Association Tests (IAT; Greenwald, McGhee, & Schwartz, 1998). Studies 2a and 2b included IATs that were very similar, except for the target

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categories (Study 2a participants completed an Asian/White IAT; Study 2b participants completed a Black/White IAT). Participants completed seven blocks of trials composed of three training blocks, two practice blocks, and two critical trial blocks that paired the concepts "Good" and "Bad" with the racial categories "White Am." and either "Asian Am." (Study 2a) or "African Am." (Study 2b). Ten words symbolized the "Good" category (e.g., *honest, wonderful*), and 10 words symbolized the "Bad" category (e.g., *terrible, nasty*). The racial categories were represented by black-and-white pictures of 5 White men and 5 White women and either 5 Asian men and 5 Asian women (Study 2a) or 5 Black men and 5 Black women (Study 2b). We scored the IATs such that higher numbers indicate that participants were faster to match stimuli when "White Am." was paired with "Good" and "Asian Am."/"African Am." was paired with "Bad" compared to the reverse pairings. Thus, higher scores reflect a stronger pro-White/anti-minority bias.

Procedure. Participants came to the lab individually and were met by either a White or Asian experimenter who explained that the goal of the study was to examine how "different ways of consuming media affects information processing."[5] After providing informed consent, participants were randomly assigned to read one of the articles (U.S. racial shift or Dutch racial shift) then completed either an Asian/White IAT (Study 2a) or a Black/White IAT (Study 2b). Last, participants were probed for suspicion regarding the hypotheses, debriefed, and thanked.

Results

Study 2a. Two participants who made an unacceptable number of errors on the IAT (>20% of trials were errors) were eliminated from analyses, resulting in a sample of 28 participants (14 U.S. racial shift, 14 Dutch racial shift). The IAT data were analyzed using the improved scoring algorithm (Greenwald, Nosek, & Banaji, 2003). Specifically, we calculated the difference between the mean response latencies during the "*White Am./Good* and *Asian Am./Bad"* block and the "*White Am./Bad* and *Asian Am./Good"* block and divided by the pooled standard deviation across blocks to obtain a D score for each participant. Higher D scores indicate more pro-White/anti-Asian bias—that is, faster associations between "*White Am./Good* and *Asian Am./Bad*" than "*White Am./Bad* and *Asian Am./Good*." As shown in Figure 1, the D scores for participants in both the U.S. racial shift, $t(13) = 6.45$, $p < .001$, $d = 1.72$, and Dutch racial shift, $t(13) = 4.56$, $p < .001$, $d = 1.22$, conditions were positive and significantly different from 0, indicating an overall pro-White bias in both conditions. In addition, consistent with predictions, participants in the U.S. racial shift condition expressed more pro-White/anti-Asian bias than did participants in the Dutch racial shift condition, $t(26) = 2.07$, $p = .048$, $d = 0.84$.

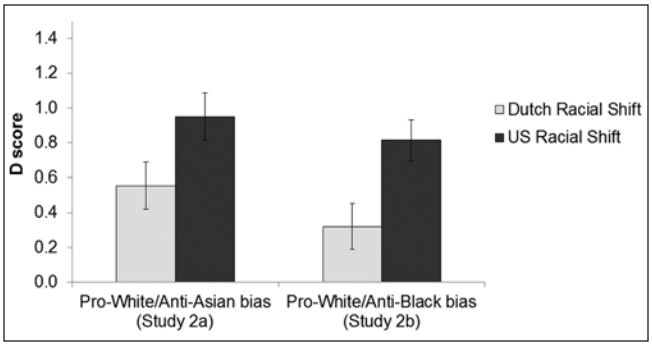

Figure 1. Study 2: D scores by experimental condition.
Note. Error bars represent standard errors of the mean.

Study 2b. Similar to Study 2a, D scores reflecting individuals' pro-White/anti-Black automatic bias were computed (Greenwald et al., 2003). Higher scores indicate more pro-White/anti-Black bias. Two participants with outlying D scores were subsequently removed from analyses, resulting in a final sample of 25 participants (14 U.S. racial shift, 11 Dutch racial shift).[6] Much like in Study 2a, the D scores for participants in both the U.S. racial shift, $t(13) = 6.00$, $p < .001$, $d = 1.60$, and Dutch racial shift, $t(10) = 3.39$, $p = .009$, $d = 0.98$, conditions were positive and significantly different from 0, indicating an overall pro-White bias in both conditions. Furthermore, as shown in Figure 1, participants exposed to the changing U.S. ethnic landscape expressed greater pro-White/anti-Black bias than did participants exposed to the changing Dutch ethnic landscape, $t(23) = 2.80$, $p = .010$, $d = 1.13$.

Discussion

Taken together, Study 2 suggests that making the changing U.S. racial population salient triggers greater pro-White/anti-racial minority automatic associations among Whites, even compared with making salient a similar population shift in a foreign, majority-White country. This comparison condition underscores the likely role of group status threat in engendering the observed effects of the projected U.S. racial population shift on White Americans' expression of racial bias. In other words, the present data suggest that it is not the growth of the number of racial minorities in any nation that is threatening, but rather, the growth in domestic racial minority groups—a rise that could have implications for the status of White Americans.

It is also notable that implicit bias emerged in reference to racial/ethnic minority groups that are not primarily responsible for the dramatic increases in the non-White (i.e., racial minority) population. That is, the article in the U.S. racial shift condition attributed a large percentage of the population shift to projected increases in the Latino/Hispanic population. Nevertheless, participants in this condition expressed greater automatic bias on both a White–Asian and White–Black IAT.

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One possible explanation for this finding is that participants are expressing more "pro-White" bias after exposure to the changing U.S. ethnic/racial demographics, rather than more "anti-minority" bias. Because the IAT does not distinguish between these two sentiments, we sought to examine this possibility directly and include measures of attitudes toward different racial groups separately in the next experiment (Study 3). Nevertheless, the results of Study 2 are the first (to our knowledge) to reveal that considering the changing U.S. racial demographics leads White Americans to express greater automatic racial bias.

Study 3

Building on the findings of Studies 1 and 2, we next sought to explore whether making the "majority-minority" demographic shift salient leads Whites to express greater racial bias using a measure that disaggregates individuals' attitudes toward different racial groups. Specifically, we wanted to explore whether attitudes toward different racial minority groups (and toward Whites) may be affected differentially by the projected racial shift information. Given that certain racial minority groups (e.g., Latinos) are expected to contribute more to the shifting racial demographics than are others (e.g., Blacks and Asians), it is possible that the perceived threat from certain groups may also be greater than perceived threat from others and, thus, attitudes toward different racial minority groups may also differ. Alternatively, it is possible that the perceived loss of a White majority, relative to all other racial groups combined, engenders a more generalized sense of threat that results in increased racial bias directed toward racial minorities in general, irrespective of their actual contribution to the impending racial shift. Indeed, Outten et al.'s (2012) study found that individuals informed of the "majority-minority" shift only expressed significantly lower levels of warmth toward one racial group (the primary contributors to the racial shift), although the trend was in the same direction for the other racial groups examined. Thus, it is not clear whether or not some racial groups are largely buffered from the effects of the prime. Study 3 examines this question.

While the previous studies have found effects that are consistent with a threat mechanism, no process variables have been examined in our studies thus far. Another major aim of Study 3, therefore, was to explore potential mediators of the effect of the changing racial demographics on racial bias. Prior work suggests that perceptions of group status threat from racial minority groups may lead to more negative emotions or feelings directed toward those racial minority groups (Outten et al., 2012); this, coupled with prior theorizing (e.g., Blalock, 1967; Blumer, 1958) suggests that perceived threat to Whites' societal status stemming from the increase in the proportion of racial minorities in the population is perhaps the most likely mediator of the observed racial bias.

Other potential mediators, however, could plausibly contribute to or account for these effects as well; thus, we considered a number of other potential mediators in our examination. For example, feeling uncertain about the future could account for effects similar to those found in Studies 1 and 2 (e.g., Grieve & Hogg, 1999). That is, uncertainty has been found to increase group identification, which, in turn, predicts greater intergroup bias (Hogg, 2000). In addition, increased racial identification alone or uncertainty about the future of American society (i.e., system threat) could also lead to greater endorsement of racial bias (e.g., Jost, Banaji, & Nosek, 2004; Larkey & Hecht, 1995). System threats, such as concerns about the future of one's society, have been found to lead high-status groups to express greater ingroup favoritism (e.g., Jost et al., 2004). Thus, although we considered group status threat to be the most likely mediator of our effects—due to its mediating role in Outten et al. (2012) as well as the large amount of sociological work suggesting group status threat can stem from the size of minority groups—we assessed several reasonable alternative potential mediators as well.

To investigate the aims of the present study, we collaborated with the Time-Sharing Experiments for the Social Sciences program (TESS) and Knowledge Networks to conduct a general population experiment with a nationally representative sample. Participants were randomly assigned to read about either the projected racial shift in the United States or about a shift in geographic mobility in the United States. Then, participants completed measures of several constructs that could potentially mediate the effect of the racial shift prime on racial attitudes (e.g., group status threat, uncertainty, system threat). Participants then completed measures of their racial attitudes among several unrelated items. Drawing on the results of Studies 1 and 2, we predicted that participants for whom the U.S. racial demographic shift was made salient would express greater racial bias than participants in the control condition. It was unclear, however, whether any differences in attitudes observed would be directed toward Latinos or Whites only, or, rather, whether differences would be observed toward other racial minority groups as well. Furthermore, we explored whether group status threat (as well as the other plausible factors) mediates the effect of racial shift salience on racial bias.

Method

Participants. The data were collected as part of the TESS (NSF Grant 0818839, Jeremy Freese and Penny Visser, Principal Investigators). Knowledge Networks fielded the experiment to a sample of 999 general population participants using KnowledgePanel, a nationally representative, probability-based survey web panel. Six hundred and twenty participants actually completed the study (317 women, M_{age} = 49.08, SD_{age} = 16.77, 76.3% White, 9.0% Black, 10.0% Latino, 4.7% Other race). Because we were interested in potential threat responses from dominant group members,

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our analyses will focus on the subpopulation of White participants ($n = 415$; 212 women, $M_{age} = 48.48$, $SD_{age} = 16.97$).

Materials and measures

Demographics information manipulation. Similar to our previously-described experiments, the experimental manipulation was administered via an alleged press release. This manipulation made the changing racial demographics of the United States salient for half of the sample. That is, half of participants were randomly assigned to read about projections that ethnic/racial minorities will comprise a majority of the U.S. populace by 2042 (U.S. racial shift condition). Participants in the control condition read about another social change currently underway in the United States: the growth in geographic mobility in the United States (i.e., an increase in the number of individuals who move residences in a given year). Following the manipulation, participants were asked about their comprehension of the passage.

Potential mediators. We included items designed to assess plausible mediators of the effects of the racial shift on racial bias, namely, two items assessing system threat (adapted from Jost et al., 2007), an item tapping system justification (Kay & Jost, 2003), an item tapping perceived uncertainty, an item assessing perceived threat to Whites' societal status (adapted from Outten et al., 2012), and an item assessing racial identification (Lowery, Knowles, & Unzueta, 2007). Specifically, to assess *system threat*, participants were asked to indicate their agreement (1 = *strongly agree*, 7 = *strongly disagree*) to the statement "the American way of life is seriously threatened" and were asked to indicate their view of the trajectory of American society (1 = *American society is getting much worse every year*, 5 = *American society is getting much better every year*); these two items were standardized and averaged to create an index of system threat ($r = .64$). To assess *system justification*, we asked participants to indicate their agreement (1 = *strongly agree*, 7 = *strongly disagree*) to the statement "American society is set up so that people usually get what they deserve."

The item assessing *perceived uncertainty* asked participants to indicate how certain they were about American society's future on a scale from 1 = *extremely uncertain* to 6 = *extremely certain*. The item assessing *perceived group status threat* asked participants to indicate their agreement (1 = *strongly agree*, 7 = *strongly disagree*) with the following statement, "If they increase in status, racial minorities are likely to reduce the influence of White Americans in society." The *racial identification* question asked participants to indicate their agreement (1 = *strongly agree*, 7 = *strongly disagree*) with the following statement, "My opportunities in life are tied to those of my racial group as a whole." All items were recoded as needed so that higher numbers indicate greater system threat, system justification, perceived uncertainty, perceived group status threat, and racial identification.

Racial attitudes. To assess racial attitudes, participants completed feeling thermometers to indicate how warmly/positively they felt about different racial groups (*Blacks/African Americans, Latinos/Hispanics, Asian Americans*, and *Whites/European Americans*) with a sliding scale anchored by 1 = *cold* and 100 = *warm*.

Procedure. First, participants received the experimental manipulation in which they read a press release about either the impending racial shift in the United States or the increase in the rate of geographic mobility of U.S. residents. Participants then responded to the items assessing potential mediators of the proposed effect of making the U.S. racial shift salient on intergroup bias. Then, participants completed the feeling thermometers.

Results

Because we were interested in the effects of the racial shift on White participants' racial attitudes, we created a subpopulation weight following the guidelines of Graubard and Korn (1996) to examine a subpopulation of the full data set (i.e., White respondents). Specifically, we adjusted the weight that was created by Knowledge Networks so that respondents who were not in the subpopulation of interest were assigned a low weight value (i.e., 0.001). Weights adjust the sample prior to analyses so that characteristics of the weighted sample match characteristics of the population of interest—in this case, the national White population—allowing for more generalizable inferences to be drawn. This subpopulation weight was applied to all analyses reported in Study 3.

Racial attitudes. First, to test whether we replicated the effect of the racial shift on racial attitudes observed in Studies 1 and 2 in this nationally representative sample of White participants, we conducted a 4 (target race: White, Black, Latino, Asian American) × 2 (experimental condition: racial shift, control) mixed-subjects ANCOVA with target race as the within-subjects factor and experimental condition as the between-subjects factor, controlling for participant age, gender, and education level. Results revealed a main effect of racial target group, $F(3, 1098) = 110.82$, $p < .001$, $\eta^2 = .23$.[7] As shown in Figure 2, irrespective of experimental condition, participants reported feeling the most positivity toward Whites (the in-group), followed by Asians, Blacks, and feeling the least positivity toward Latinos; pairwise comparisons indicated that ratings for all target groups significantly differed from one another, all ps $< .05$. In addition, a main effect of experimental condition revealed that participants in the racial shift condition expressed more negative attitudes than control participants, $F(1, 366) = 5.94$, $p = .015$, $\eta^2 = .02$. Although the condition by target group interaction was not reliable, $F(3, 1098) = 2.07$, $p = .102$, $\eta^2 = .01$, examination of the effects of the racial shift manipulation on attitudes toward each racial group revealed that participants in the racial shift condition expressed more negative attitudes toward Blacks, $F(1, 376) = 4.95$, $p = .027$, $\eta^2 = .01$; Hispanics, $F(1, 374) =$

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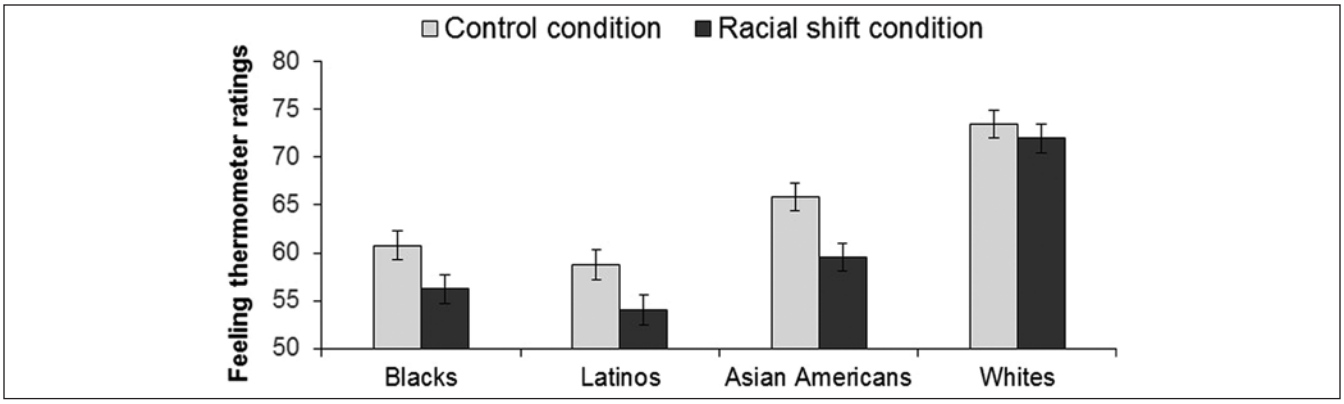

Figure 2. Study 3: Feeling thermometer scores toward different racial groups by experimental condition, controlling for participant gender, age, and education level.
Note. Error bars represent standard errors of the mean.

Table 1. Study 3: Descriptive Statistics of the Potential Mediators by Experimental Condition.

	Control condition	Racial shift condition
Potential mediator	*M* (*SD*)	*M* (*SD*)
Perceived status threat	4.78 (1.36)	5.22 (1.38)***
Perceived uncertainty	4.16 (1.34)	4.41 (1.23)†
Racial identification	3.36 (1.53)	3.65 (1.62)†
System threat	−0.04 (0.88)	0.04 (0.95)
System justification	3.46 (1.42)	3.34 (1.40)

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

4.30, $p = .039$, $\eta^2 = .01$; and Asian Americans, $F(1, 373) = 9.27$, $p = .003$, $\eta^2 = .02$, compared with participants in the control condition. Attitudes toward Whites did not differ reliably by condition, $F(1, 377) < 1$, $p = .420$.

Mediation testing. We first examined the potential mediators as a function of experimental condition, again controlling for participant age, gender, and education level. Consistent with predictions, the only potential mediator that significantly differed by experimental condition was perceived group status threat, $F(1, 387) = 11.35$, $p = .001$, $\eta^2 = .03$. Specifically, participants in the racial shift condition expressed more agreement with the statement that racial minorities would reduce White Americans' societal status, compared with participants in the control condition (see Table 1 for descriptive statistics by condition for the potential mediators). Furthermore, using the PROCESS SPSS macro provided by Hayes (2012), we conducted analyses to examine whether perceived loss of status (i.e., group status threat) mediated the effects of experimental condition (coded as 1 = *racial shift condition*, 0 = *control condition*) on racial attitudes. We calculated the indirect effect of the experimental condition on each of the separate feeling thermometer ratings regarding the racial minority groups through group status threat (with 5000 bootstrap samples). In addition to the separate feeling thermometer ratings, the models included the effect of the experimental condition, the proposed mediator—group status threat—and covariates of participant age, gender, and education level. The significance of a mediated effect with this kind of analysis is determined by bias-corrected confidence intervals, such that if the intervals do not include 0, mediation can be inferred. As shown in Table 2, largely in support of hypotheses, group status threat served as a mediator of the effects of the U.S. racial shift information on attitudes toward Black Americans and Latinos, but interestingly, not Asian Americans.

Discussion

The results of Study 3 replicate those found in Studies 1 and 2 and extend our previous findings by exploring the veracity of several potential mediators of these effects. Utilizing a nationally representative sample of White Americans, we found that making the shifting racial demographics of the United States salient led to the expression of more negative attitudes toward racial minority groups, compared to making a non-racial societal shift salient. Furthermore, these effects were mediated by concerns about the loss of Whites' societal status. That is, consistent with Outten et al. (2012), the demographic changes led to more negative attitudes toward racial minorities via perceived group status threat.

One notable exception is that the effect of the racial shift manipulation on attitudes toward Asian Americans was not significantly mediated by perceived group status threat. This suggests that the greater bias observed regarding Asian Americans is likely driven by processes other than the group status threat that appears to have engendered increased bias against Black Americans and Latinos. One possibility is that Asian Americans may already be perceived as a relatively high-status, albeit minority, group and concerns about relative group status may be less impactful in shaping attitudes toward them. In other words, such relative status concerns may already be built into Whites' racial attitudes regarding Asian Americans (e.g., Fiske, Cuddy, Glick, & Xu, 2002)

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Table 2. Study 3: Path Coefficients and Confidence Intervals (CIs) of Mediational Models.

	Feeling thermometer	Feeling thermometer	Feeling thermometer
	Blacks	Latinos	Asians
a	0.37** (0.11)	0.38*** (0.11)	0.37** (0.11)
b	−2.39*** (0.64)	−2.08** (0.66)	−0.90 (0.60)
c	−4.45* (1.76)	−4.01* (1.80)	−5.85*** (1.64)
c'	−3.58* (1.76)	−3.22† (1.80)	−5.52*** (1.65)
95% CI of the indirect effect	CI = [−1.89, −0.29]	CI = [−1.73, −0.23]	CI = [−1.04, 0.09]

Note. a denotes the path of the experimental condition's effect on perceived status threat; *b* denotes the path of perceived status threat's effect on the dependent variable; *c* denotes the total effect of the experimental condition on the dependent variable; *c'* denotes the direct effect of the experimental condition on the dependent variable. Standard errors are in parentheses.
$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

and, thus, heightening such concerns would do little to increase anti-Asian bias. Future research should explore this intriguing possibility and, further, attempt to discern the mechanism by which the racial shift information seems to increase the expression of bias toward Asian Americans on both implicit (Study 2a) and explicit (Study 3) measures. Overall, using a nationally representative sample of White adults, the present results offer compelling evidence that making the shifting U.S. racial demographics salient can lead Whites to perceive threat to their racial group's status, which evokes more negative attitudes toward racial minority groups.

General Discussion

The present research explored whether White Americans' racial attitudes are affected by information about the changing racial composition of the United States. Employing both explicit and implicit measures and examining both convenience samples and a nationally representative sample, we found consistent evidence that exposure to the changing racial demographics of the United States and, most notably, the impending "majority-minority" U.S. population leads White Americans to express greater racial bias. That is, these studies revealed that White Americans for whom the U.S. racial demographic shift was made salient preferred interactions/settings with their own racial group over minority racial groups, expressed more automatic pro-White/anti-minority bias, and expressed more negative attitudes toward Latinos, Blacks, and Asian Americans. The results of these latter studies also revealed that intergroup bias in response to the U.S. racial shift emerges toward racial/ethnic minority groups that are not primary contributors to the dramatic increases in the non-White (i.e., racial minority) population, namely, Blacks and Asian Americans. Moreover, this research provides the first evidence that automatic evaluations are affected by the perceived racial shift. Taken together, these findings suggest that rather than ushering in a more tolerant future, the increasing diversity of the nation may actually yield more intergroup hostility.

The present results are largely consistent with both classic and more recent research on the role of demography in shaping prejudice (Blalock, 1967). Indeed, previous work has found correlations between the (perceived or actual) percentage of racial/ethnic minorities in a community (or state, country, etc.; Alba et al., 2005; Fossett & Kiecolt, 1989; Pettigrew, 1957) and the level of racial/ethnic bias expressed by members of the dominant racial/ethnic group in that community. One reason for the increase in prejudice is that members of dominant racial/ethnic groups perceive more threat from racial minorities as the proportion of minorities in the society increase (see also Quillian, 1995). Researchers have argued and found that Whites' racial hostility peaks in contexts in which racial minority groups make up between 40% and 60% of the population; that is, in situations in which the power or status of the racial groups may be relatively evenly matched and the threat against the current dominant group (i.e., Whites) is at its highest (Bullock, 1976; Giles & Evans, 1986; Longshore, 1982). Thus, the information about the 50% "majority minority" tipping point may be especially likely to evoke threat and subsequent racial bias. Consistent with this prior work, the present research offers compelling evidence that the impending so-called "majority-minority" U.S. population is construed by White Americans as a threat to their group's position in society and increases their expression of racial bias on both automatically activated and self-report attitude measures.

The results of the present work extend prior research and theorizing and are particularly intriguing given that the explicit and implicit bias emerged in reference to racial/ethnic minority groups that are not primary contributors to the dramatic increases in the non-White (i.e., racial minority) population. That is, the article in the U.S. racial shift condition accurately attributed a large percentage of the population shift to increases in the Latino/Hispanic population, yet, participants in this condition expressed more negative attitudes toward Black Americans and Asian Americans (Study 3) as well as greater automatic bias on both a White-Asian and a White-Black IAT (Studies 2a and 2b). These findings suggest that the information often reported regarding the

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changing U.S. racial demographics may lead White Americans to perceive all racial minority groups as part of a monolithic non-White group. Indeed, the very ways in which the Census Bureau and media outlets often frame reports on these population statistics suggests that it is reasonable to lump all non-White racial groups together. Consider, for instance, the "majority-minority" construct that by definition groups all individuals who indicate belonging to any racial or ethnic category together and separates these individuals from non-Hispanic Whites, including biracial and multiracial individuals who indicate that they are both White and some other racial/ethnic category. Moreover, this framing suggests that the White population is losing its majority status, despite the fact that it will remain the largest single racial group in the nation, compared to any other group individually. Although the authors of such reports may simply be trying to reflect the growing diversity of our nation, the present work suggests that they may also be evoking group status threat in White Americans that can result in heightened racial bias. One practical implication of the present research, therefore, is that media outlets may want to present information regarding the changing racial landscape of the United States in a less threatening manner, perhaps no longer separating non-Hispanic Whites from all other groups and, thus, no longer prioritizing, if not essentializing, the White/non-White racial boundary.

Limitations and Future Directions

Although the findings of the present work are compelling, it is important to acknowledge that the evidence for greater racial bias may have been facilitated by the manner in which the impending racial demographic shifts were framed. Given that a monolithic non-White group is likely to be perceived as a threat to the racial group interests of Whites more than individual racial minority groups considered separately, this type of White versus racial minority framing (i.e., "majority-minority") is likely to increase the degree to which White Americans perceive the changing demographics as threatening. Although we chose this framing because it reflects the current media's framing of the racial shift, future research should examine how the framing of these racial demographic changes affects Whites' racial attitudes. Another limitation of the present work is that it focuses on attitudinal, rather than behavioral, outcome measures. We examined attitudes because we wanted to explore Whites' immediate reactions to the current framing of the racial shift and attitudes (especially automatically activated attitudes) are especially suited to this research question. Nevertheless, future research should consider the implications of these changing demographics for individuals' behavior. Finally, we acknowledge that our measurement of the proposed mediator in Study 3, rather than manipulation, is potentially sensitive to the limitations of correlational research regarding directionality. Future work should manipulate perceived group status threat to provide further confirmation of the mediating role of group status threat in the effect of the racial shift information on racial bias.

Furthermore, research regarding how these demographic changes affect members of different racial minority groups is an essential, yet still missing, piece of the picture. That is, the effects of this information on racial minorities' racial attitudes should be considered as well. Rather than ushering intra-minority harmony—that is, more positive attitudes between members of different racial minority groups—it is possible that the "majority-minority" framework triggers a categorization threat in racial minority individuals, resulting in more negative attitudes toward other minority groups (Branscombe, Ellemers, Spears, & Doosje, 1999; Craig, DeHart, Richeson, & Fiedorowicz, 2012; Richeson & Craig, 2011). That is, the "majority-minority" label imposes a homogonous "minority" group label on members of racial minority groups. Members of relatively high-status racial minority groups (e.g., Asian Americans) may be especially likely to perceive a categorization threat from a "majority-minority" label, leading them to distance themselves from a common "minority" category. Future research is of course needed to investigate this possibility and examine how the impending demographic changes affect racial minority individuals' racial attitudes and behavior.

Conclusion

In sum, the present research provides a detailed examination of how the perceived loss of majority status by Whites in an increasingly diverse country affects the expression of racial bias. This research provides insight into how Whites may react to the impending demographic shift and highlights potential for perceived threat and intergroup hostility. In a nation on the precipice of arguably the greatest change in racial make-up since the Immigration and Nationality Act of 1965, it is vital to understand how both racial majority and minority group members react to this change and, in turn, the potential consequences of such reactions for intergroup relations.

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Notes

1. Including individuals who did not correctly respond to the attention check item or the outlying individual does not influence the significance or direction of the results.
2. In Studies 1 and 2, controlling for demographic variables such as sex, political ideology, and geographical region (Study 1 only) did not meaningfully alter the results. Furthermore, no interactions between political ideology and experimental condition emerged in either study (*p*s > .428).
3. It is important to note that the percent change of the Asian American population is similar to that of the Hispanic/Latino population; however, in terms of raw numbers, Latinos are primarily contributing to the population shift and are more frequently cited in media reports as primarily contributing to the shift; for example, a recent *CNN* article reports, "The group predicted to post the most dramatic gain is the Hispanic population," ("Minorities Expected to be Majority in 2050," 2008).
4. All participants in the U.S. racial shift condition (in both samples) correctly identified Hispanics as the greatest contributors to the U.S. demographic shift and indicated that the proportion of Whites was expected to decrease.
5. Experimenter race did not meaningfully alter the results.
6. Including the outlying individuals in analyses reduced the effect to marginal, $t(25) = 1.97$, $p = .060$.
7. Degrees of freedom may vary from the expected values due to missing data.

References

Alba, R., Rumbaut, R. G., & Marotz, K. (2005). A distorted nation: Perceptions of racial/ethnic group sizes and attitudes toward immigrants and other minorities. *Social Forces*, *84*, 901-919.

Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Perseus Books.

Blalock, H. M. (1967). *Toward a theory of minority-group relations*. New York, NY: John Wiley.

Blumer, H. (1958). Race prejudice as a sense of group position. *Pacific Sociological Review*, *1*, 3-7.

Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 35-58). Oxford, UK: Blackwell.

Bullock, C. (1976). Interracial contract and student prejudice: The impact of southern school desegregation. *Youth & Society*, *7*, 271-309.

Craig, M. A., DeHart, T., Richeson, J. A., & Fiedorowicz, L. (2012). Do unto others as others have done unto you? Perceiving sexism influences women's evaluations of stigmatized racial groups. *Personality and Social Psychology Bulletin*, *38*, 1107-1119.

Curry, C. (2012, May 18). *Hate groups grow as racial tipping point changes demographics*. Retrieved from http://abcnews.go.com/US/militias-hate-groups-grow-response-minority-population-boom/story?id=16370136#.UEeRCKDhcqg

Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2002). Implicit and explicit prejudice and interracial interaction. *Journal of Personality and Social Psychology*, *82*, 62-68.

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, *82*, 878-902.

Fossett, M. A., & Kiecolt, K. J. (1989). The relative size of minority populations and White racial attitudes. *Social Science Quarterly*, *70*, 820-835.

Giles, M. W. (1977). Percent black and racial hostility: An old assumption reexamined. *Social Science Quarterly*, *58*, 412-417.

Giles, M. W., & Evans, A. (1986). The power approach to intergroup hostility. *The Journal of Conflict Resolution*, *30*, 469-486.

Graubard, B. I., & Korn, E. L. (1996). Survey inference for subpopulations. *American Journal of Epidemiology*, *144*, 102-106.

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, *74*, 1464-1480.

Greenwald, A. G., Nosek, B. A., & Banaji, M. R. (2003). Understanding and using the implicit association test: I. An improved scoring algorithm. *Journal of Personality and Social Psychology*, *85*, 197-216.

Grieve, P. G., & Hogg, M. A. (1999). Subjective uncertainty and intergroup discrimination in the minimal group situation. *Personality and Social Psychology Bulletin*, *25*, 926-940.

Hayes, A. F. (2012). *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling* [White paper]. Retrieved from http://www.afhayes.com/public/process2012.pdf

Hofmann, W., Gschwendner, T., Castelli, L., & Schmitt, M. (2008). Implicit and explicit attitudes and interracial interaction. The moderating role of situationally available control resources. *Group Processes & Intergroup Relations*, *11*, 69-87.

Hogg, M. A. (2000). Subjective uncertainty reduction through self-categorization: A motivational theory of social identity processes. *European Review of Social Psychology*, *11*, 223-255.

Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, *25*, 881-919.

Jost, J. T., Napier, J. L., Thorisdottir, 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.

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.

Larkey, L. K., & Hecht, M. L. (1995). A comparative study of African American and European American ethnic identity. *International Journal of Intercultural Relations*, *19*, 483-504.

LeVine, R. A., & Campbell, D. T. (1972). *Ethnocentrism: Theories of conflict, ethnic attitudes and group behavior*. New York, NY: Wiley.

Longshore, D. (1982). School racial composition and white hostility: The problem of control in desegregated schools. *Social Forces*, *61*, 73-78.

Lowery, B. S., Knowles, E. D., & Unzueta, M. (2007). Framing inequity safely: Whites' motivated perceptions of racial privi-

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lege. *Personality and Social Psychology Bulletin*, *33*, 1237-1250.

Minorities expected to be majority in 2050. (2008, August 13). *CNN*. Retrieved from http://articles.cnn.com/2008-08-13/us/census.minorities_1_hispanic-population-census-bureau-white-population?_s=PM:US

Nadeau, R., Niemi, R. G., & Levine, J. (1993). Innumeracy about minority populations. *The Public Opinion Quarterly*, *57*, 332-347.

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.

Pettigrew, T. (1957). Demographic correlates of border state desegregation. *American Sociological Review*, *22*, 683-689.

Pettigrew, T. (1959). Regional differences in anti-Negro prejudice. *Journal of Abnormal and Social Psychology*, *59*, 28-36.

Quillian, L. (1995). Prejudice as a response to perceived group threat: Population composition and anti-immigrant and racial prejudice in Europe. *American Sociological Review*, *60*, 586-611.

Quillian, L. (1996). Group threat and regional change in attitudes toward African-Americans. *American Journal of Sociology*, *102*, 816-860.

Richeson, J. A., & Craig, M. A. (2011). Intra-minority intergroup relations in the twenty-first century. *Daedalus*, *140*, 166-175.

Roberts, S. (2008, August 13). In a generation, minorities may be the U.S. majority. *The New York Times*. Retrieved from http://www.nytimes.com/2008/08/14/washington/14census.html

Smith, T. W., Marsden, P., Hout, M., & Kim, J. (2011). *General social surveys, 1972-2010* [Data file and code book]. Chicago, IL: National Opinion Research Center.

Statistics Netherlands. (2008, December 18). *Dutch population expected to reach 17.5 million in 2038*. Retrieved from http://www.cbs.nl/en-gb/menu/themas/bevolking/publicaties/artikelen/archief/2008/2008-085-pb.htm

Stephan, W. G., Ybarra, O., & Morrison, K. R. (2009). Intergroup threat theory. In T. D. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 43-60). New York, NY: Psychology Press.

Tavernise, S. (2012, May 17). Whites account for under half of the births in U.S. *The New York Times*. Retrieved from https://www.nytimes.com/2012/05/17/us/whites-account-for-under-half-of-births-in-us.html

Tukey, J. W. (1977). Exploratory data analysis. Reading, MA: Addison-Wesley.

U.S. Census Bureau. (2008, August 14). *An older and more diverse nation by midcentury*. Retrieved from http://www.census.gov/newsroom/releases/archives/population/cb08-123.html

U.S. Census Bureau. (2009, May 14). *Census Bureau releases state and county data depicting nation's data population ahead of 2010 census*. Retrieved from http://www.census.gov/newsroom/releases/archives/population/cb09-76.html

U.S. Census Bureau. (2010, June). *Annual estimates of the resident population by sex, race, and Hispanic origin for the United States: April 1, 2000 to July 1, 2009 (NC-EST2009-03)*. Retrieved from http://www.census.gov/popest/data/national/asrh/2009/index.html

Wilson, J. P., & Hugenberg, K. (2010). When under threat, we all look the same: Distinctiveness threat induces ingroup homogeneity in face memory. *Journal of Experimental Social Psychology*, *46*, 1004-1010.

Wolsko, C., Park, B., & Judd, C. M. (2006). Considering the tower of Babel: Correlates of assimilation and multiculturalism among ethnic minority and majority groups in the United States. *Social Justice Research*, *19*, 277-306.

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