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# Racial Attitudes and Visual Cues in Political Judgments: Support for Obama During the 2008 Presidential Election

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The present longitudinal study examined the complex role of race—including racial attitudes and visual representations of race—in White Americans' responses to Obama during the 2008 U.S. presidential election. Consistent with prior research, participants who perceived Obama as darker skinned were less likely to vote for him and generally evaluated Obama less positively. It is important to note, however, that these effects were stronger among Whites with *more* egalitarian expressed racial attitudes. Moreover, this pattern occurred over and above effects of political orientation and remained stable over a 2-month period, including pre- and postelection. Implications of these findings for understanding the complex and persistent influence of race in politics are considered.

*Keywords:* phenotypicality, political orientation, skin-tone bias, voting, Obama

During the 2008 election and continuing well into his presidency, Barack Obama has been challenged in ways that extend beyond traditional political debate. Controversy about the validity of his United States (U.S.) citizenship, which arose during his first presidential campaign, has persisted (Hehman, Gaertner, & Dovidio, 2011; Memmott, 2009). Obama's "Americanness" more generally has been seriously questioned in a number of different ways in popular discourse, the media, and political rhetoric (Fletcher & Thompson, 2010; Grunwald, 2008; Smith & King, 2009). Even today, one in six Americans incorrectly believes Obama to be Muslim (Huffington Post, 2012; Pew Research Center, 2010). Nevertheless, Obama's initial election was hailed by much of the electorate as a sign of a postracial society (Newport, 2008; see also Peery & Bodenhausen, 2009).

Psychological research on racism has revealed both the subtlety and complexity of contemporary racial attitudes toward Blacks, particularly among Whites who report that they are low in prejudice (Dovidio & Gaertner, 2004; Pearson, Dovidio, & Gaertner,

2009). In the present longitudinal study, we investigated the potential interactive contributions of two types of racial influences—expressed racial attitudes and visual representations of Obama's race—on responses to Obama before and after the 2008 presidential election. Specifically, whereas past research on political evaluations and judgments of Obama in particular has assessed the role of race at a single time point (e.g., Caruso, Mead, & Balceris, 2009), we examined the influence of Whites' racial attitudes and skin-tone bias on voting and support for Obama over a 2-month period leading up to and immediately following the 2008 Presidential election.

Empirical evidence implicates the role of race in Whites' judgments of political candidates in the U.S. (see Hutchings & Valentino, 2004, for a review), especially during periods when race is a salient political issue (Kinder & Drake, 2009). Consequently, there has been considerable interest in the role of race in evaluations of Barack Obama as a political candidate. Schaffner (2011), for instance, found that voters for whom race was a more salient feature relative to other characteristics, such as political affiliation, were less likely to support Obama in the 2008 election. In addition, skin-tone bias played a critical role. One week before the 2008 presidential election, Caruso et al. (2009, Study 3) assessed participants' political orientation and racial attitudes and asked participants to indicate the representativeness of an unaltered photograph of Obama, a photograph of him with his skin lightened, and one of him with his skin darkened. After the election, they recontacted participants to about whom they voted for in the election. Caruso et al. found that Whites who believed that a darkened photograph of Obama was more representative of him than a lightened photograph were less likely to vote for Obama, even

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when controlling for political orientation and racial attitudes. Moreover, manipulations that enhanced the salience of race increased the likelihood that non-Blacks associated Obama with stigmatizing political qualities (e.g., being Muslim or socialist; Kosloff, Greenberg, Schmader, Dechesne, & Weise, 2010).

The present research extends prior work on White voters' responses to Obama during his first campaign by examining the role of skin-tone bias *in combination with* expressed racial attitudes on political behavior and judgments *over time*. The consideration of racial attitudes as a moderating factor can be informative because prejudice can have effects independent of political liberalism-conservatism (Kinder & Drake, 2009), and the effects of prejudice may be complex. Whereas Whites who exhibit relatively high levels of racial prejudice on self-report measures generally respond in consistently biased ways toward Blacks (e.g., Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997), aversive racism theory (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 1986) emphasizes that low prejudice-scoring Whites may respond more variably because they hold conscious egalitarian values but many also harbor negative associations with Blacks. These negative associations, which may be activated automatically (Greenwald, Poehlman, Uhlmann, & Banaji, 2009) and unconsciously (Dovidio, Gaertner, Kawakami, & Hodson, 2002) adversely influence their evaluations and behavior toward Blacks, particularly in situations in which low-prejudice Whites are unaware of or unable to correct for the expression of bias (see Pearson et al., 2009 for a review). The present research thus examined the contributions of both racial attitudes *and* visual representations of Obama's race, namely perceptions of skin tone, on Whites' support for Obama over time.

Perceptions of skin tone and associated biases can systematically shape evaluations, and typically in ways that disadvantage Blacks. Whites evaluate individuals with darker skin more negatively across a variety of important dimensions (e.g., personality traits and success in life; see Livingston & Brewer, 2002; and Maddox, 2004). Within the political domain, Whites express less support for darker skinned candidates with whom they are unacquainted (Terkildsen, 1993; Weaver, 2012). When multiracial individuals are perceived as more Afrocentric, the same negative racial stereotypes may become activated as for more prototypic members of the category Black (Blair et al., 2004; Blair, Judd, Sadler, & Jenkins, 2002). Moreover, differential processing of outgroup facial cues occurs rapidly and automatically (Blair, Judd, & Fallman, 2004), i.e., within milliseconds of exposure and prior to social evaluation (He, Johnson, Dovidio, & McCarthy, 2009) and can impact judgments in ways that are difficult to override even with repeated exposure and experience (Livingston & Pearce, 2009; Oosterhof & Todorov, 2008; Zebrowitz & Montepare, 2008). Thus, perceiving a person as darker skinned may subtly influence Whites' impressions in ways that they may not consciously recognize, and even among low-prejudice individuals (Blair et al., 2004; Mendelberg, 2001; cf. Huber & Lapinsky, 2006).

In the present study, participants completed an initial set of measures to assess their political orientation and racial attitudes 5 weeks before the 2008 presidential election. Then approximately 2 weeks before the election, participants completed a task that assessed their visual perceptions of Obama. Young, Ratner, and Fazio (2013) have demonstrated that, despite significant media

exposure, people's perceptions of the facial characteristics of presidential candidates can vary as a function of their support for and attitudes toward the candidate. Specifically, Young et al. found that people who were more supportive of Mitt Romney as a presidential candidate had mental representations of his facial characteristics that reflected greater trustworthiness. Given the importance of race in Obama's candidacy in 2008, we focused on representations of Obama's skin tone. To capture perceptions of subtle variations in skin tone in participants' visual representations of Obama, for the present study, we employed a continuous measure of skin tone using an array of digitally altered images. Specifically, participants selected what they believed to be the true representation of Obama from an array of images that modified Obama's skin tone, from dark to light. Participants subsequently reported their general evaluation of Obama twice weekly in the 2-week period leading up to the 2008 election. Immediately after the election, participants reported whom they had voted for and, over the subsequent 2 weeks, again completed the same political attitudes survey administered prior to the election.

Because of the widely accepted categorization of Obama as Black (see Peery & Bodenhausen, 2008, 2009), we expected participants who were relatively high in self-reported prejudice and/or more politically conservative (see Jost, Glaser, Kruglanski, & Sulloway, 2003) to respond generally more negatively to Obama. In addition, to the extent that perceiving Obama as darker skinned reflects stronger associations of him as Black, we anticipated that these perceptions would predict a lower likelihood of voting for him in the election by White voters (see Caruso et al., 2009) and less favorable evaluations of him over time.

Whereas Caruso et al., 2009 focused primarily on the general relationship between perceptions of Obama's skin-tone and likelihood of voting for him, we further investigated the potential moderating role of Whites' racial attitudes. Specifically, whereas Whites who express a relatively high degree of prejudice toward Blacks may show consistent bias against a Black political candidate, we hypothesized that the support of Whites who express a relatively low level of prejudice—who often avoid acknowledging racial differences (i.e., to be colorblind; Apfelbaum, Sommers, & Norton, 2008) and deny the influence of race in social judgments (Dovidio & Gaertner, 2004)—would vary as a function of their visual racial representation of him. Despite their expressed non-prejudiced beliefs, for individuals low in prejudice, subtle variations in within-category racial features (e.g., perceiving Obama as darker skinned) may directly activate racial category associations, specifically skin-tone bias, and influence subsequent judgments (Blair et al., 2002, 2004). We therefore anticipated that low-prejudice Whites might fail to correct for effects of racial perceptions in their judgments. We thus hypothesized that, whereas White participants relatively high in prejudice would be generally less supportive of Obama, among Whites relatively low in prejudice, those who perceived Obama as darker skinned (i.e., chose a darker skinned image of Obama as most representative of him) would be less likely to vote for him in the election (see also Caruso et al., 2009) and evaluate him less positively.

Finally, whereas voting is a discrete behavior at a particular point in time, by measuring evaluations of Obama both before and after the election, we were able to investigate the robustness of the hypothesized effects of racial attitudes and skin tone perceptions over a 2-month period.

## Method

### Participants

Participants were 79 first-year White college students at a large university in the northeastern United States who were recruited for a larger panel study of student attitudes through the psychology department participant pool and on-campus flyers. Participants received either partial course credit or \$50 and entry into a random drawing for \$100 for completing all of the surveys.

### Procedure

Figure 1 shows the procedure and the measures collected over the course of the study. As part of a larger project investigating student attitudes over time, in late September 2008, participants completed measures of their political orientations and racial attitudes. Beginning October 23 and ending November 24, 2008, participants indicated their general evaluation of Obama in a political opinion survey administered semiweekly. On October 23 (pre-election) and November 6 (postelection), they selected what they believed was the most accurate image of Obama from an array of images in which Obama's skin tone was systematically varied.<sup>1</sup> In addition to these ratings, in a separate survey administered between October 23 and November 24, participants completed semiweekly ratings (every Monday and Thursday; 10 ratings in total) of how positively they perceived Obama.

**Demographics and racial attitudes.** Before the election, participants completed an initial online questionnaire in a separate testing session, which contained the following demographic questions: Political conservatism, which was assessed with the item, "Where on the following scale do you place yourself?" (1 = *very liberal* to 7 = *very conservative*; Jost, 2006;  $M = 3.58$ ,  $SD = 1.42$ ); political party membership (Republican = 23%, Democrat = 47%, Independent = 30%), age ( $M = 18.41$ ;  $SD = .74$ ), and gender (67% female). Explicit racial prejudice was assessed using Brigham's (1993) Attitudes Toward Blacks Scale, which assesses nonegalitarian attitudes and preference for greater social distance (measured on a 1 to 7 scale, with higher values indicating greater prejudice;  $M = 2.36$ ;  $SD = .79$ ;  $\alpha = .71$ ).<sup>2</sup>

**Perceived skin tone.** To assess participants' perceptions of Obama's skin tone, a set of 11 digitally altered images were created from Obama's official U.S. Senate photograph that modified Obama's skin tone (light to dark) by adjusting the opacity of each image in increments of 20%. Images were ordered as shown in Figure 2 and were presented serially so that no more than one image was viewable on screen at a given time. To minimize the influence of desirability concerns, the task was framed as a perceptual accuracy task: Participants were instructed to select what they believed to be the *true* (unaltered) representation of Obama from each photographic array. To control for potential anchoring effects, the initial image viewed by participants within each array was systematically varied: Participants either initially viewed a lighter image of Obama, (i.e., the fourth image out of 11, with the sixth image being the unmodified photo) or a darker (i.e., the eighth image out of 11). Participants were generally quite accurate, although they did perceive Obama as significantly darker than his actual (unmodified) U.S. Senate photograph; judgments ranged

from 3 through 9,  $M$  skin tone = 6.32 ( $SD = 1.14$ ) versus the true image (Image 6),  $t(78) = 2.53$ ,  $p = .014$ .<sup>3</sup>

**Evaluations of Obama and voting.** Beginning October 23 and ending November 24, participants indicated their general evaluation of Obama twice weekly (i.e., four times prior to the election and six times postselection) using the item, "How positively or negatively do you rate Barack Obama as a presidential candidate [president-elect]?" (1 = *negative* to 7 = *positive*). On November 6 participants were asked whether they voted in the election and, if so, for whom.

## Results

Our analyses examined participants' responses, chronologically, to key periods around the 2008 presidential election. We first analyzed the predictors of participants' evaluations of Obama in the period prior to the election (October 23–November 3). We then examined predictors of voting and change in evaluations of Obama pre- and postselection. For each analysis, we describe the model specification, including all main effects and interactions tested, as well as the treatment of categorical and continuous variables. Data were analyzed using multilevel modeling to account for nonindependence in over-time ratings. Note that degrees of freedom are calculated using the Satterthwaite (1946) approximation method and can therefore be fractional.

### Voting Behavior

The majority, 59%, of our sample reported that they voted for Obama, 22% indicated that they voted for McCain, and 19% stated

<sup>1</sup> Consistent with past research (e.g., Hagiwara, Kashy, & Cesario, 2012), to examine potentially differentiable effects of skin tone and stereotypic structural features on judgments, we also included an array that systematically varied structural facial phenotypicality (nose width, thickness of lips) holding skin-tone constant. These perceptions did not have any consistent effects on the outcomes reported here. The results subsequently reported control for these phenotypicality perceptions to examine the effects of skin-tone specifically (see Hagiwara et al., 2012). Details about the measure and findings for phenotypicality are available from the first author.

<sup>2</sup> In addition, implicit racial associations were assessed using the Race Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998) in which category labels were Blacks versus Whites and evaluative attributes were Pleasant (e.g., happy, love) versus Unpleasant (e.g., grief, evil). Scoring followed procedures recommended by Greenwald, Nosek, and Banaji (2003) resulting in a D score, with larger values indicating more negative implicit associations with Blacks. Overall, results demonstrated that participants had more negative implicit associations with Blacks than with Whites,  $M = 0.15$ ,  $t(72) = 4.50$ ,  $p < .001$ , however, there were no significant effects of IAT on the outcomes, and IAT scores did not moderate any effects reported herein,  $ps > .25$ , so this measure was excluded from the analyses reported here.

<sup>3</sup> Although the focus of the research was on how perceptions of Obama's skin tone predicted subsequent evaluations of him, we also administered the task assessing perceptions of his skin tone near the end of the study to assess the stability of these perceptions. The correlation between skin-tone perceptions of Obama at the beginning and near the end of the study was significant,  $r(77) = .61$ ,  $p < .001$ , indicating the reliability of these perceptions over time. No significant effects of postselection skin-tone judgments were found over and above pre-election skin-tone judgments; thus, we focus only on predictive effects of pre-election skin-tone ratings, adjusting for postselection ratings in the analyses, which preceded the measurement of voting behavior and all evaluations of Obama.

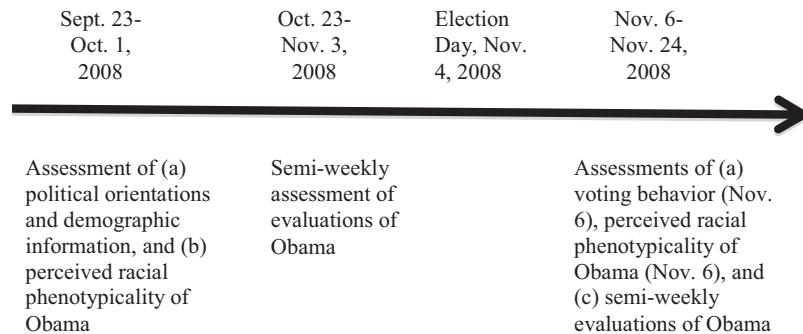


Figure 1. Timeline of data collection and measures.

that they did not vote. Logistic regression was used to examine the extent to which the following variables predicted the decision to vote for Obama (coded 0) or not to vote for him (i.e., voted for McCain or did not vote, coded as 1): Participants' political ideology, partisanship (analyzed using two contrast codes given that it is a three-level categorical variable; Partisanship Contrast 1 compared Democrats (coded -2) to Republicans and Independents (both coded 1). Partisanship Contrast 2 compared Republicans to Independents (Republican = -1, Independent = 1, Democrat = 0), gender, explicit racial attitudes, and perceptions of Obama's skin tone. We also included the interaction between explicit racial attitudes and skin-tone perceptions.

The analysis revealed a main effect for conservatism,  $\text{Wald} = 8.21, B = .98 (SE = .34), p = .004$ , indicating that, over and above the other factors (including party affiliation), more conservative voters were less likely to vote for Obama. A main effect of Partisanship Contrast 1 was also found,  $\text{Wald} = 3.89, B = .55 (.27), p = .049$ , indicating that Democrats were more likely to vote for Obama than Republicans and Independents. Consistent with Caruso et al. (2009), a main effect of skin tone was also found,  $\text{Wald} = 4.97, B = .88 (SE = .40), p = .026$ , indicating that choosing a lighter skinned photo as most representative of Obama was associated with a greater likelihood of voting for him. Moreover, as hypothesized, the predicted Racial Prejudice  $\times$  Skin Tone interaction also emerged,  $\text{Wald} = 4.80, B = -1.30 (SE = .59), p = .028$ . For participants higher in explicit prejudice (+1 SD), skin-tone perceptions did not predict voting,  $p = .568$ . However, for those lower in explicit prejudice (-1 SD), choosing a lighter skinned photo as most representative was associated with a greater likelihood of voting for Obama,  $\text{Wald} = 5.84, B = 1.98 (SE = .82), \text{Exp}(B) = 7.23, p = .016$ . No other significant main effects or interaction effects were found.

## Evaluations of Obama

Recall that evaluations of Obama were made four times prior to the election and six times postelection. To examine evaluations of Obama as a function of prejudice and skin-tone judgments, both overall and across pre-election and postelection time points, a linear growth curve model was estimated using multilevel modeling to account for within-participant repeated measures. We estimated effects of prejudice and skin-tone perceptions, both overall and across time, by including two slopes: One that captured pre-election changes (Slope 1; coded 1, 2, 3, 4 for time points 1 through 4, and coded 0 for time points 5 through 10) from October 23 to November 3, and one that captured postelection changes (Slope 2; coded 0, 1, 2, 3, 4, 5 for time points 5 through 10), from November 6 to November 24 (see Shelton, West, & Trail, 2010, for a similar analysis strategy). All predictor variables included in the model for voting behavior were included in the growth curve model. Because the model included several parameters, we discuss only significant effects in the text. Perceptions of Obama's skin tone were not significantly correlated with participants' racial prejudice or stated political orientation,  $r_s = -.08$  and  $-.01$ , respectively.

The analysis yielded several main effects. Consistent with the results for voting, there was a significant effect of conservatism, over and above other predictors, including party affiliation, on evaluations of Obama,  $t(70.87) = 4.99, p < .01$ . Participants who were more conservative evaluated Obama less positively. Also, there was an independent effect of partisanship (Contrast 1, comparing Democrats to Republicans and Independents),  $t(71.09) = 4.93, p < .01$ . Democrats evaluated Obama more positively than did Republicans and Independents. Republicans evaluated Obama somewhat, but not significantly, less positively than Independents,



Figure 2. Skin-tone array assessing perceptions of Obama's racial phenotypicality. Center image (sixth image from left) indicates Obama's unmodified U.S. Senate photograph. See the online article for the color version of this figure.

$p = .11$ . Moreover, men evaluated Obama more favorably than did women,  $t(70.94) = 3.16, p < .01$ .

In addition, consistent with the findings of Caruso et al. (2009), participants who chose a relatively darker skinned image as most representative of Obama evaluated him less positively,  $t(73.26) = -1.96, p = .06$ . This effect, however, was qualified by a significant Racial Prejudice  $\times$  Skin Tone interaction,  $t(73.45) = 3.18, p < .01$ . As seen in Figure 3, consistent with the pattern for voting, participants relatively high on prejudice ( $+1 SD$ ) showed no effect of skin-tone perception on their evaluation of Obama,  $B = .152 (SE = .134)$ ,  $t(72.40) = 1.13, p = .262$ . In contrast, participants relatively low in prejudice ( $-1 SD$ ) who selected a darker skinned image as most representative of Obama (plotted as one  $SD$  above vs. one  $SD$  below the mean skin-tone selection), evaluated Obama less favorably,  $B = -.593 (SE = .186)$ ,  $t(73.735) = -3.19, p = .002$ . One other significant effect was found: An interaction between prejudice and Slope 2 was found,  $t(54.38) = -2.20, p = .03$ , indicating that the effect of prejudice on evaluations of Obama declined over time, after the election. No other interactions were found between prejudice and skin-tone judgments with Slope 1 or Slope 2 ( $p > .22$ ), indicating that this pattern of effects remained stable across pre- and postelection time points.

## Discussion

The present investigation explored contributions of two forms of racial influences, racial attitudes and visual representations of Obama's race, on Whites' political judgments and voting behavior across multiple time points in the context of the 2008 presidential election. Overall, participants who perceived Obama as darker skinned at the beginning of the study were less likely to vote for him (a skin-tone bias similar to that found by Caruso et al., 2009, found using different methodology) and evaluated Obama less positively. However, whereas previous research suggests that perceptions of another's racial features as "Blacker" may activate skin-tone biases and prompt more negative responses among Whites (Caruso et al., 2009; Maddox, 2004), we also considered

important contextual (e.g., electoral success) and individual difference (e.g., racial attitudes) factors that might systematically moderate this relationship over time.

In the present study, perceiving Obama as darker skinned at the beginning of the study (prior to the election) predicted a lower likelihood of voting for him and less positive evaluations of him both before and after the 2008 presidential election, but, in an important qualification of the findings of Caruso et al. (2009), only for participants relatively *low* in racial prejudice. Indeed, whereas participants higher in racial prejudice generally responded less positively to Obama regardless of their perceptions of his skin tone, low-prejudice participants who perceived Obama as darker skinned showed similar levels of support for Obama as high-prejudice participants in our sample. Moreover, this pattern of effects remained stable over a 2-month period, both pre- and postelection, and occurred over and above effects of political orientation (conservatism-liberalism and partisanship). Thus, whereas previous research has revealed a general negative relationship between darker skin tone and evaluations of Black political candidates (e.g., Terkildsen, 1993) and Obama specifically (Caruso et al., 2009), the present research extends this work by highlighting the critical moderating role of explicit racial attitudes on the relationship between race perceptions (and associated skin-tone biases) and Whites' political judgments. The finding that darker skin tone had a more negative influence for low- compared to high-prejudice participants reveals the subtle but consequential role that race can have on political behavior, even among voters who consciously endorse egalitarian beliefs.

Our findings bridge prior work on the influence of racial attitudes and race phenotypicality on political judgments and support for Obama, in particular. Previous research has demonstrated that Whites who exhibit relatively high levels of racial prejudice on self-report measures tend to maximize racial category distinctions, maintaining a more distinct boundary between Blacks and Whites (Blascovich, Wyer, Swart, & Kibler, 1997), and respond in more consistently biased ways toward Blacks than those lower in explicit prejudice (e.g., Dovidio et al., 1997). By contrast, Whites

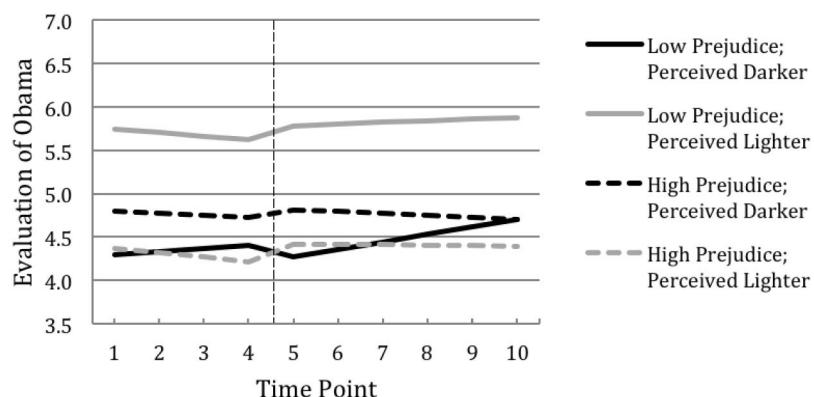


Figure 3. Evaluations of Obama as a function of skin-tone perceptions for relatively high-prejudice ( $+1 SD$ ; dotted lines) and relatively low-prejudice ( $-1 SD$ ; solid lines) participants. Skin-tone perceptions are plotted at  $1 SD$  above (darker lines) and  $1 SD$  below (lighter lines) the mean skin-tone selection. Evaluations were on a 1 to 7 scale, with higher values indicating a more positive evaluation of Obama. Vertical dotted line indicates Election Day (November 4, 2008).

scoring low on self-report measures of racial prejudice may show greater variability in their responses to Blacks to the extent stereotypic representations are automatically activated (Kawakami, Dion, & Dovidio, 1998). In particular, Blair et al. (2004) found that within-category stereotyping based on Afrocentric features (skin tone and structural features) is less controllable than between-category stereotyping. Whereas participants in Blair et al.'s research were cognizant of how racial category information could bias their responses, they were largely unaware of their reliance on Afrocentric features to make judgments and were unable to avoid doing so even when they were informed of its influence. Our findings suggest that, despite their egalitarian conscious beliefs, for low prejudice Whites, subtle variations in within-category racial features (e.g., perceiving Obama as darker skinned) may nevertheless cue category associations and influence political judgments (see Blair et al., 2002, 2004).

The relationship between respondents' initial perceptions of Obama's skin tone and their subsequent responses to him is consistent with our hypotheses derived from previous work on effects of skin-tone bias (e.g., Caruso et al., 2009; Terkildsen, 1993; Weaver, 2012). The period leading up to and following a presidential election is typically a period of uncertainty. Within this context, Whites' may be particularly sensitive to cues that elicit affectively based, threat-related responses (see Redlawsk et al., 2010). Darker skin tone arouses perceptions of danger (Dixon & Maddox, 2005; Kahn & Davies, 2010; Maddox & Gray, 2002) and increases amygdala activation (Ronquillo et al., 2007), a response often indicative of threat. Because the effects of skin tone on evaluations occur very rapidly and without awareness (Blair et al., 2004), low-prejudice participants, who normally can consciously inhibit racially biased responses (Devine, 2005), may have limited opportunity to override these responses. Thus, positive responses toward Obama should be most distinctive for White participants who are low in prejudice *and* perceive Obama as lighter-skinned. This is what we found for both evaluations and voting.

The findings of the present study are also consistent with research showing that leaders are typically evaluated more favorably when they are perceived to exhibit more prototypically White attributes (Eagly & Karau, 2002; Lyness & Heilman, 2006). Historically, Blacks have long been underrepresented in leadership positions in the U.S. In 2008, 94% of U.S. senators (U.S. Senate Statistics, 2008), 94% of chief executive officers of the Fortune 500 (Zweigenhaft & Domhoff, 2011), and all 43 prior U.S. presidents and their vice presidents were White. Moreover, in a series of experiments, Rosette, Leonardelli, and Phillips (2008) found that Whites were perceived to be more prototypical leaders than racial minorities, and that tendencies to associate Whites with leadership accounted for perceivers' judgments of non-White leaders as having lower leadership potential than equivalent White leaders (see also Knight, Hebl, Foster, & Mannix, 2003).

With regard to the longitudinal nature of the study, we found that darker skin tone was consistently associated with more negative responses to Obama, particularly among low-prejudice Whites, throughout the course of the study. Although not a hypothesized outcome, this finding is consistent with prior research suggesting the power of race visual cues, and particularly skin color and associated skin-tone biases, on social judgments. Anthropologist Margaret Mead argued that skin-tone associations run

"terribly, terribly deep" and stem from early "tribal fears of the night, the dark, and the unseen" (Mead & Baldwin, 1971, pp. 28–33). These correlates are directional (negatively valenced) and automatically activated (Smith-McLallen, Johnson, Dovidio, & Pearson, 2006; Blair, Judd, & Fallman, 2004) within milliseconds of exposure (He, Johnson, Dovidio, & McCarthy, 2009) and can impact judgments in ways that can be difficult to override even with experience (Livingston & Pearce, 2009; Oosterhof & Todorov, 2008). Thus, perceiving a person as darker skinned may subtly influence Whites' impressions in ways that they may not consciously recognize (Blair et al., 2004; Mendlberg, 2001; cf. Huber & Lapinsky, 2006). Indeed, Weaver (2012) found similar evidence of a consistent effect of skin color on political judgments, relative to other racial cues. Thus, skin color may carry a more uniformly negative effect on political judgments over time.

Although the longitudinal nature of our design reveals that perceiving Obama as darker skinned predicted voting behavior and subsequent evaluations of him up to two months later, we note that the question of causality remains open. Of course, this limitation applies to a substantial body of work concerning how attitudes predict political behavior. It is possible, for instance, that preexisting ideas about Obama (before the study began) might have shaped our participants' images of him initially, or that attitudes and facial images reciprocally influence each other. Young et al. (2013), for example, proposed that the attitudes influence facial representations and showed that people who were more supportive of Mitt Romney generated facial representations of him associated with greater trustworthiness. Caruso et al. (2009, Study 1), also found that people who were informed that a biracial candidate for government position supported their political positions rated a lighter-skinned image as more representative of him than those who were informed that the candidate did not support their positions. We note, however, that in our multivariate model, racial prejudice and perceptions of Obama's skin tone were not significantly correlated and that these factors, measured initially, predicted subsequent voting behavior and evaluations of Obama. Nevertheless, we caution that our results are most conservatively interpreted as perceptions of Obama's skin tone *predicting* more negative responses (primarily among low-prejudice Whites) to him, rather than as *causing* more negative responses. However, our findings are consistent with and extend research that has demonstrated that skin tone, when experimentally manipulated, can impact evaluations of Black political candidates (Terkildsen, 1993; Weaver, 2012) and Obama, in particular (Caruso et al., 2009).

In addition, while the nature of our sample allowed us to study responses over time to Obama with very limited attrition, our sample is limited in size ( $N = 79$ ) and not a representative one. With respect to the sample size, because each participant served as his her own control, a "within-subjects design results in substantially more sensitivity to treatment effects (power) than would characterize a between-subjects design employing the same number of observations" (Greenwald, 1976, p. 315). In the case such as ours, in which participants evaluated Obama four times prior to the election and six times after the election, the statistical sensitivity of our repeated measures design would equivalent to the sensitivity of a between-subjects design of between 2 and 10 times the current sample, between 158 and 790 participants (see Greenwald, 1976). We acknowledge that our sample was confined to college students, who are generally more liberal and lower in prejudice than the

general population, in a traditionally politically liberal state (Connecticut). However, given that participants in our sample were relatively low on explicit prejudice, the test of our hypotheses regarding the effects of prejudice on evaluations were generally conservative. We also note that discussion of effects for high-prejudiced participants refers to those who were *relatively* high in prejudice, not objectively high in prejudice (vs. the scale midpoint). Although future research would benefit from an examination of the effects of phenotypic perceptions on political judgments for individuals who score higher on racial prejudice measures, we would expect that, consistent with the present research, higher-prejudice respondents' evaluations of Obama would be less flexible, more negative overall, and less dependent upon phenotypic ratings.<sup>4</sup>

In conclusion, the present study has underscored the value of recognizing the subtlety and complexity of forces that may account for the role of race in national politics. Subtle variations in perceptions of racial phenotypicity—differences that could easily be seen as inconsequential—not only consistently predicted evaluations of Obama up to two months later but also predicted voting. It is important to note that these effects were observed among Whites with *more* egalitarian expressed racial attitudes and were found over and above effects of political orientation. The present research has thus highlighted the complexity of race, skin-tone biases, and racial attitudes in U.S. politics and the theoretical and practical importance of understanding how race perceptions and racial attitudes may contribute to political judgments and behavior in an increasingly multiracial society.

<sup>4</sup> Supplementary analyses that excluded nonvoters from the sample produced a marginally significant Racial Prejudice  $\times$  Skin-Tone interaction, Wald = 3.03,  $B = -3.08$  ( $SE = 1.77$ ),  $p = .082$ , consistent with the results reported above that included nonvoters. For participants higher in explicit prejudice, skin-tone perceptions did not predict voting,  $p = .217$ . However, for those lower in explicit prejudice, choosing a lighter skinned photo of Obama as most representative of him was associated with a greater likelihood of voting for Obama over McCain, Wald = 2.82,  $B = 4.11$  ( $SE = 2.45$ ),  $p = .093$ . In this analysis, the main effect of conservatism was consistent with that reported in the main text, Wald = 5.18,  $B = 2.39$  ( $SE = .11$ ),  $p = .023$ . However, the main effects of partisanship contrast 1 and skin-tone were not significant.

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