WHEN THE MAJORITY BECOMES THE MINORITY: CHANGING DEMOGRAPHICS AS SOCIAL IDENTITY THREAT FOR WHITES AND IMPLICATIONS FOR PREJUDICE AND DISCRIMINATION

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ABSTRACT

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U.S. Census Bureau projections indicate that by the year 2024 the number of people who identify as non-White (including Black, Hispanic, Asian, Native American, and mixed race individuals) is expected to reach 54%. That is, groups that are currently considered racial minorities will make up the numerical majority of the population. The numerical size of a group is related to its perceived power and social status. Thus, the projected demographic changes may signal to Whites that their power and social status are in jeopardy. The current research uses Social Identity Theory and Intergroup Threat Theory to explain why Whites may react negatively to the impending demographic changes and extend research on attitudinal reactions by investigating potential negative intergroup behavior responses. Results indicated that reading about demographic changes did not significantly increase Whites' feelings of threat, and that self-esteem did not mediate relationships between threat condition, experienced threat, and discriminatory backlash behaviors. Implications of these findings are discussed. However, to the extent that Whites did feel threatened they engaged in more discriminatory backlash, and specific appraisals of the type of threat that the changes represented were associated with discrete emotional experiences. Results are discussed with respect to proposed functions of intergroup emotion.

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Introduction

U.S. Census Bureau projections indicate that by the year 2042, the majority will become the minority (U.S. Census Bureau, 2008). That is, the proportion of the population that identifies as an ethnic minority is steadily increasing and will soon be greater than the number of people who currently identify as White. The number of people who identify as non-White (including Black, Hispanic, Asian, Native American, and mixed race individuals) is expected to reach 54% by the middle of the 21st century. The number of minority children has already reached 44% of the total population of American children. These demographic changes present a unique opportunity to examine the dynamics of race, power, and privilege. How will White Americans respond to the change in their numerical majority? Does a loss of numerical dominance trigger perceptions of loss of power and privilege? If so, what impact do those perceptions have on intergroup relations? Will White people attempt to reassert their social status through intergroup hostility? In the current study, I explore how White people react to the projected increase in the proportion of non-White Americans. Using a Social Identity Theory framework (Tajfel & Tuner, 1986), I examine how White American's feelings of identity threat in response to the demographic changes may manifest in prejudice toward racial minority group members.

First, I discuss research on the relationship between numerical group size and perceptions of power. Next, I introduce Social Identity Theory to explain how membership in important groups can impact a person's self-concept. I also introduce Intergroup Threat Theory to describe how people perceive and react to threats to important groups, the impact group threats have on intergroup relations, and how certain reactions can help maintain a positive self-concept. Finally, I directly relate the above research to the projected demographic changes and explain how Social

Identity Theory and Intergroup Threat Theory can be used to predict Whites' reactions to the changes.

Group Size vs. Power

Majority status, including the privileges and power that go with it, requires more than sheer numbers. Vescio, Gervais, Heiphetz, and Bloodhart (2009) define power as "the ability to influence other people in psychologically meaningful ways through the giving or withholding of rewards and punishments" (p. 248). This definition of power allows broad interpretations of what constitutes reward and punishment, as well as forms of influence. Specifically, Vescio et al. define four forms of power: legitimate power, which comes from holding a position of authority; reward power, which comes from control over the distribution and withholding of rewards; punishment (or coercive) power, which comes from control over the withholding or administering of punishments; and information power, which comes from possession of necessary or desired information. Examination of these four types of power illustrate that, although they may tend to be held by groups who have a numerical majority, none of them necessarily require a numerical majority. There are many cases throughout history, such as apartheid in South Africa, wherein a powerful numerical minority group has maintained a position of status and privilege over a numerically larger group.

Despite these counterexamples, research has shown that numerical size and perceptions of power and status are often psychologically linked (Blalock, 1967; Bobo, 1983; Kamans, Otten, & Gordijn, 2011). Larger groups are perceived to have more economic, social, and political power (Blumer, 1999; Frankenberg, 2001). For Whites living in the United States, their higher social status and numerical majority until recently have been aligned. Changes in this racial balance may lead to new sources of intergroup conflict. Previous research suggests that

when people perceive that their group's proportion of the population is decreasing (Gallagher, 2003; Nadeau, Niemi, & Levine, 1993) or that an ethnic outgroup population is increasing (Oliver & Wong, 2003; Quillan, 1995; Schuleuter & Scheepers, 2010; Taylor, 1998) they report feeling threatened and that their economic, political, and cultural status is vulnerable. Although research has shown that proportional racial group changes inspire feelings of threat, perceptions that minority group's power is increasing, and negative emotional reactions in Whites (Outten, Schmitt, Miller, & Garcia, 2012), this research has neglected the impact that these feelings of threat and negative reactions have on intergroup relations. My research seeks to examine the effect that White individuals' awareness of the demographic changes has on their expressions of prejudice and discrimination toward racial minorities.

Prejudice

When people feel threatened by an outgroup, they often respond with prejudice and discrimination toward that outgroup. Allport (1954) defined prejudice as "antipathy based upon a faulty and inflexible generalization. It may be felt or expressed. It may be directed toward a group as a whole, or toward an individual because he is a member of that group" (pg. 9). Thus, prejudice is any attitude, belief, or emotion toward others that is formed without previous knowledge or individualizing information and is based solely on an individual's membership in a social group. Although Allport acknowledged that prejudice can as reasonably encompass positive perceptions about a group as negative perceptions, he argued that most prejudice of interest to psychologists involves negative attitudes and beliefs about a particular social group. Prejudice is usually distinguished from discrimination in that discrimination is the behavioral manifestation of prejudice and involves treating members of different social groups differently, and often unequally, based on their membership in a social group. Stereotypes, another related

concept, are defined as "a set of beliefs about the personal attributes of a social group" (Ashmore & Del Boca, 1981, p. 21). Stereotypes describe attributes or characteristics that people are assumed to have because of their membership in a particular social group. Although the accuracy and rationality of stereotypes has been debated (see Jussim, Cain, Crawford, Harber, & Cohen, 2009), they are often implicated alongside prejudice as culprits for intergroup conflict, discrimination, and negative treatment of minority group members. Social identity processes have been employed to understand prejudice, discrimination, and stereotypes.

Social Identity Theory

Social Identity Theory has arguably been one of the most influential and generative theories of intergroup attitudes, beliefs, and behavior (Tajfel & Tuner, 1986). Tajfel defined a social identity as "the individual's knowledge that he belongs to certain social groups together with some emotion and value significance to him of this group membership" (Tajfel, 1972, p. 292). In other words, social identities are aspects of the self-concept that are derived from one's membership in important social groups. This is in contrast to, for example, self-concept components that are based on an individual's unique idiosyncratic attributes (i.e., personal identity) or that derive from important dyadic relationships with significant others (i.e., relational identity; Brewer & Gardner, 1996).

Categorization processes are integral in social identification. Perceptions of the social groups that a person belongs to affect both the individual's self-concept and how other's view that person (Turner, 1999). People frequently and effortlessly categorize themselves and others into social groups and, at any given time, an individual can be categorized into a multitude of groups and hold a multitude of identities (Turner, Oakes, Haslam, & McGarty, 1994). Which identities are more important or salient at any moment depend on features of the immediate

social context. Oakes (1987) argued that identities become more or less psychologically salient depending on both their accessibility and fit with the situation. Accessiblity describes how easily a particular identity comes to mind. Identitites can be accessible because they are more chronically acessible in memory (e.g., because one often thinks of themsevles in terms of their race it easily comes to mind when they describe who they are) or because there are strong situational demands that make the identity particularly salient and relevant (e.g., because one is the only Black person in a room full of White people). However, even if an identity is accessible, its influence on a person's attitudes and behavior further depends on the fit of the identity with the particular situation. An identity has structural fit when it adequately explains similarities and differences between people (e.g., race). That is, it reliably distinguishes between different types of people. An identity has normative fit when its associated characteristics allow prediction and explanation of a person's behavior and attitudes. That is, knowing a person's identity tells you something more about the person (e.g., knowing that someone is Black means that you also know they are more likely to have experienced racial discrimination). Although people belong to many types of social groups, for many people race is a chronically salient category and particularly important social identity (Frable, Blackstone, & Scherbaum, 1990).

The processes theorized to occur when one categorizes an individual as a member of a social group can explain the role of stereotypes in person percpetion. First, categorization involves comparisons to a prototype, or roughly-defined set of attributes (i.e., stereotypes) that describe members of a particular group (Turner et al., 1994). This comparison causes a depersonalization proccess wherein an individual is no longer perceived by their individual attributes, but instead through comparison of the individual to the group prototype which is comprised of stereotypes (Hogg, 2006). Thus, categorization leads one to see others in ways that

are consistent with stereotypes of their social group. Second, it can also lead to self-stereotyping, wherin the person views themselves in comparison to the group prototype. Finally, according to the metacontrast principle, category-based person perception leads people to simultaneously accentuate similarities of individuals within their ingroup and differences between their ingroup and the outgroup (Hogg). Together, the social comparison processes involved in categorization lead to perceiving others and oneself in stereotypical ways. Again, because race is a particularly salient and important social identity, following the principles of Social Identity Theory, people are often viewed in accordance with racial stereotypes and members of the same race are perceived as more similar to each other and different from people of other races.

Social Identity Theory and Prejudice

One of Social Identity Theory's central tenents is that phenomena that explicitly involve the interplay of different social groups, such as discrimination and prejudice, must be understood within a group framework. That is, it is not enough to study individual differences in levels of prejudice or focus on individual-level explanations for intergroup conflict. Instead, these phenomena must be examined by considering their role within the social context. Thus, Social Identity Theory proposes that social identities are important because they satisfy certain needs for the individual and that prejudice and discrimination occur because they help identities to meet these needs.

There are three main functions of identification with social groups. First, identifying with a group can serve a self-enchancement motive. Tajfel and Tuner (1986) argued that an individual's self-esteem and positive self-perceptions are, in part, derived from their social identity. An individual can take on positive attributes of the group as part of their own-self concept, thereby bolstering their postive self-image. Therefore, people strive to maintin positive

social identities that will increase their personal self-esteem (Turner, 1982). For example, the self-esteem hypothesis argues that people engage in outgroup derogation (i.e., evaluating the outgroup negatively or expressing negative attitudes about the outgroup) because it can help to reaffirm a positive self-image and restore collective self-esteem (Abrams & Hogg, 1988). Second, social identities can help to reduce uncertainty about social interactions and the status of the self within society. Social groups have particular group norms and expectations for group members' personal behavior and social interactions with others. When one identifies with a social group, uncertainty is reduced because the group provides one with behavioral guidelines; knowledge of the norms for outgroup members also allows one to predict outgroup members' behavior (Hogg, 2000). Third, the principle of optimal distinctiveness argues that people seek membership in groups that not only satisfy a need to belong, but also help to define the self and distinguish the self from others (Brewer, 1991). Therefore, people seek to identify with social groups that provide a balance between inclusion and uniqueness.

Prejudice and discrimination can help to satisfy each of these functions. Essentially, people seek membership in groups that allow them to fufill each of these social identity motives and engage in behaviors and hold attitudes that, although they may be prejudicial or discriminatory, help to bolster the positive distinctiveness of their ingroup. Viewing others in terms of narrowly-defined group stereotypes aids in uncertainty reduction by differentiating ingroup and outgroup norms (Hogg, 2006). Furthermore, because the metacontrast principle means that people overemphaize differences between ingroup and outgroup members, stereotyping helps to satisfy optimal distinctiveness motives by exaggerating the perceived uniqueness of a social identity (Brewer, 1991). By engaging in ingroup favoritism and holding positive biases toward the ingroup, and also derogating members of the outgroup through

expressions of prejudice and discrimination, achieving optimal distinctiveness also helps to fufill self-enhancement motives (Brewer, 2003). Because these biases help to increase the perceived positivity of an important social group, they also help to increase the part of an individual's personal self-esteem that is derived from their membership in that group (Brewer & Campbell, 1976; Tajfel & Turner, 1986). Due to these powerful personal benefits of social identities, people often develop feelings of belongingness to important social groups and report greater attachement to groups that fulfill self-enhancement, uncertainty reduction, and optimal distintiveness motives (Sedikides & Strube, 1997). They are also vigilant for potential threats to the postititivity, distinctiveness, or values of the group, as such threats decrease the positive functions served by social identities.

Intergroup Threat

Social Identity Theory has spawned theories of intergroup conflict that focus on how and what group members perceive as threats to the well-being of their group. It uniquely enables an understanding of intergroup conflict that accounts for threats to not only the physical well-being of a group's members, but also to the positive distinctiveness of the group. Social Identity Theory argues that outgroups can threaten the attitudes, beliefs, and identity of a group. Specifically, because identified group members derive personal self-definition and self-esteem from the group, actions that compromise defining aspects of the group, especially those that threaten their positivity, are perceived as threats. Importantly, threats need not necessarily directly impact the individual's self-interest; threats to the group as a whole are viewed as personally threatening (Bobo, 1983). A number of different types of identity and group related threats have been proposed and are described below.

One of the first theories of intergroup group threat, Realistic Group Conflict Theory (Sherif & Sherif, 1969), focused on intergroup conflict that results from realistic threat, or competition over scarce resources. Specifically, it proposed that negative intergroup relationships will develop when two or more groups have competing goals. However, much intergroup conflict does not involve resource competition. Symbolic racism (Kinder & Sears, 1981; McConahay, 1982) was proposed to explain intergroup conflict that results from situations in which the values or beliefs of two groups are perceived to be in direct contradiction. Under symbolic identity threat, rather than perceiving the outgroup to be in direct competition with the ingroup for resources or as a material threat to their physical safety, the individual believes that the values of the outgroup are incompatible with the values of the ingroup and pose a threat to the existing social fabric. Some evidence suggests that symbolic threat may be a better predictor of discrimination than realistic group threat (Kinder & Sears) and can increase intergroup bias (Biernat, Vescio, & Theno, 1996; Dunbar, Saiz, Stela, & Saez, 2000).

In their Intergroup Threat Theory, Stephan and Stephan (1996, 2000) proposed that there are four major types of intergroup threat: realistic threat, symbolic threat, intergroup anxiety, and negative stereotypes. All four types of threat are thought to contribute to negative outgroup attitudes and may be elicited by the same outgroup. Realistic and symbolic threats are analogous to the two previous conceptualizations of threat by the same names; however, intergroup anxiety and negative stereotypes are novel additions proposed by Intergroup Threat Theory.

Intergroup anxiety involves discomfort in interracial interactions caused by the uncertainty of how to behave toward a member of the outgroup (Stephan & Stephan, 1985). It is considered a form of intergroup threat because it makes interactions with outgroup members seem intimidating and leads to people avoiding intergroup contact. Furthermore, intergroup

anxiety has been associated with increased feelings of hostility (Brown, Maras, Masser, Vivian, & Hewstone, 2001; Plant & Devine, 2003). Lastly, negative stereotypes are considered a type of threat because they lead to negative expectations of outgroup members. However, the association between negative stereotypes and negative outgroup attitudes is less clear than for the other three types of threat. Some have suggested that negative stereotypes may serve as a precursor to the other four types of threat; that is, if a person holds negative stereotypes about an outgroup, they are more likely to see members of that outgroup as sources of realistic, symbolic, or anxiety threat (Stephan et al., 2002). Because of these problems associated with negative stereotypes, it will not be considered further as a form of intergroup threat.

Reactions to Intergroup Threat

Emotional reactions to intergroup threat. Several researchers have theorized that social identity threats are related to a variety of negative intergroup emotions. For example, Intergroup Emotions Theory theorizes that anger and fear are common reactions when a group feels that their power or social status is threatened (Mackie & Smith, 2002; Smith, 1993). Neuberg and Cottrell's (2002) biocultural model of threat differentiates specific emotional reactions based on the specific type of threat that is perceived. Threats to the group's resources, such as in realistic group threat, primarily lead to anger and fear, whereas threats to the group's integrity, such as in symbolic threat, also lead to anger, but may also evoke pity, envy, and disgust. Additionally, intergroup anxiety is thought to elicit worry-related emotions (Stephan and Renfro, 2002).

Self-esteem responses to intergroup threat. All three types of threat (realistic, symbolic, intergroup anxiety) have been found to have a negative relationship with self-esteem. As stated earlier, Social Identity Theory posits that individuals derive positive feelings about

themselves through their membership in important and socially-valued groups (Tajfel & Turner, 1979). Thus, threats that pertain to the perceived value, prestige, or status of a group also threaten the self-image of individuals who identify with that group (Branscombe, Spears, Ellemers, & Dooje, 1999). Social identity threats affect the potential for group members to derive a positive self-image simply through association with a socially positively valued group. That is, when the positive social perception of a group is threatened, the self-esteem that an individual associates with that group is also threatened (Turner, 1982). For example, Frable, Wortman, and Joseph (1997) found that gay men who perceived a lot of stigmatization based on their social identity reported lower personal self-esteem. Similarly, Branscombe, Schmitt, and Harvey (1999) found that African-Americans who attributed negative treatment to prejudice had lower personal self-esteem. Other studies have demonstrated similar negative relationships between threats to the positivity of one's ingroup and collective self-esteem (Branscome, Spears, Ellemers, & Doosje, 2002; Branscombe & Wann, 1994). McCoy and Major (2003) demonstrated that attributions to prejudice were especially detrimental to personal self-esteem when a person was highly identified with the relevant social group. When a person's collective self-esteem is lowered through identity threats, people may respond with outgroup derogation and discrimination, particularly when disassociation with the ingroup is not possible (Branscombe & Wan, 1994; Branscombe et al., 2002; Leach, Spears, Branscombe, & Doosje, 2003; Tajfel & Turner, 1979).

Outgroup attitudes in response to intergroup threat. A common reaction to identity threat is increased negative outgroup attitudes (Riek, Mania, & Gaertner, 2006; Stephan & Stephan, 2000). These negative outgroup attitudes are directly related to the negative impact that identity threats have on the positive distinctiveness of a group membership. As stated earlier, the

self-esteem hypothesis argues that outgroup derogation is directly related to detriments in self-esteem that result from threats to one's social identity (Abrams & Hogg, 1988). Specifically, the self-esteem hypothesis has two corollaries: 1) engaging in outgroup derogation can bolster personal self-esteem, and 2) the negative impact that identity threats have on self-esteem motivates increased intergroup bias in an effort to reaffirm a positive self-image (Abrams & Hogg). So, when a person's self-image is threatened through threats to a positive social identity, the person may increase negative outgroup attitudes in an effort to reaffirm the self-esteem that they derive through identification with that social group (Crocker, Thompson, McGraw, & Ingerman, 1987; Maass, Cadinu, Guarnieri, & Grasselli, 2003). However, most research suggests mixed results for the self-esteem hypothesis, with more support for corollary 2 than corollary 1 emerging (see Hogg & Sunderland, 1991; Rubin & Hewstone, 1998), suggesting that although people may engage in outgroup derogation in hopes of reaffirming their self-esteem, these efforts are not always successful. Bettencort, Charlton, Dorr, and Hume (2001) argue that compared to low status group members, high status group members faced with identity threat may be even more likely to show even greater ingroup favoritism in order to reaffirm their social status.

Behavioral responses to intergroup threat. When confronted with identity threats, high status groups may engage in behaviors that not only reaffirm the positivity of their social group, but may also be attempts to actually re-establish their social dominance. Rudman and Fairchild (2004) developed a model of backlash wherein people who violate cultural stereotypes experience negative social and economic sanctions from perceivers for violating normative expectancies. Much of the early work on backlash centered around gender deviant behavior and showed that, for example, when female job applicants display agentic traits or behaviors (stereotypical and prescribed traits for men), or male job applicants display communal traits or

behaviors (stereotypical and prescribed traits for women), they are less likely to be hired and promoted and are penalized in evaluations (Eagly & Karau, 2002; Rudman & Phelan, 2008).

Phelan and Rudman (2010) demonstrated that backlash also occurs in response to racial stereotypic inconsistent behavior. Furthermore, their results demonstrated the role of backlash in maintaining the status quo. In their study, racial minorities received backlash for any stereotype violations; however, White people received backlash only when the stereotype violation was not status enhancing (i.e., they violated a positive stereotype about White people). The authors argue that both types of racial backlash serve to enforce cultural stereotypes that help maintain status hierarchies. In the study, backlash was used to punish both minority and majority group members who dared to break prescriptive stereotypes, particularly when the stereotype violation threatened Whites' higher position in the racial hierarchy. Additionally, the threat of backlash restricted people's behavior out of fear of negative treatment and prevented actions that could potentially threaten the racial hierarchy. Consistent with the self-enhancement motivations of Social Identity Theory, backlash behaviors allow group members to maintain their self-esteem (Branscombe & Wann, 1994; Spencer, Fein, Wolfe, Fong, & Duinn, 1998). Other researchers have argued that self-esteem maintenance may be an especially important motivator for backlash behavior when an outgroup's behavior serves as a threat to the ingroup's self-worth (Parks-Stamm, Heilman, & Hearns, 2008; Tesser, 1988, 2000).

The specific behavioral reaction to an identity threat is dependent in part on perceptions of the threat and, in turn, the experienced emotion. Neuberg and Cottrell (2002) argued that realistic threats are more likely to initiate aggressive behaviors toward the outgroup, whereas symbolic threats are more likely to initiate withdrawal or avoidance of the outgroup. Additionally, Mackie, Devos, and Smith (2000) found that intergroup anger was associated with

an inclination to aggress against the outgroup, whereas intergroup fear was associated with an inclination to flee from the outgroup. Stephan and Stephan (2000) also argued that intergroup anxiety and associated worry-related emotions led to behavioral tendencies to exclude members of the outgroup or avoid interaction with outgroup members.

Moderators of Reactions to Intergroup Threat

Identification. There are several additional factors that may influence when social identity threats will be felt more or less strongly. Identity threats may be more consequential when the threatened identity is particularly important to the individual. Although categorization may be sufficient for understanding how people view others, self-perception requires more than simple categorization processes (Hogg, 2006). For a group membership to affect a person's self-concept, a person must identify with the group. When a person feels strongly attached to a group, experiences belonging from their membership in that group, and incorporates aspects of the group into their self-concept, the person is said to be highly identified with the group and the group is important to the person (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). The more that a person identifies with a group, the more they are likely to perceive identity threats to that group (Riek et al., 2006).

Status. The relative status of the groups in question is an important factor in determining how much different types of identity threat will affect attitudes toward the outgroup and whether it will lead to discriminatory behavior. Much of the research indicates that intergroup threat more strongly predicts negative attitudes toward low status, rather than high status, outgroup members (Riek et al., 2006). When a group is of higher relative status, they have more to lose. Humans are loss averse, such that they are more sensitive to signals of losing something they already have than to opportunities to gain something new (Kahneman & Tversky, 2000). Thus, lower status

groups pose more of a threat to the status, resources, or value dominance that a high status group may already have, such that perceived threat by lower status groups is more egregious than threat from higher status groups.

Legitimacy. Perceptions of intergroup threat may also be moderated by perceived legitimacy, or how much individuals view the status of their group as fair. Jetten, Schmitt, Branscombe, Garza, and Mewse (2011) argue that when discrimination is perceived as legitimate, individuals are more accepting of discrimination toward their ingroup, and endorse status-legitimizing ideologies (i.e., believe that the current social system is good, fair, legitimate, and desirable). That is, if a group believes that lesser treatment is justified, they are less likely to fight against it and less likely to show the typical reactions to intergroup threat, such as increased commitment to the group and increased collective action (Kay, Jost, Mandisodza, Sherman, Petrocelli, & Johnson, 2007). A group may believe that their treatment is justified if they believe that social hierarchies are based on real differences in the social value, abilities, and contributions of different groups. Both implicit and explicit outgroup favoritism among low status group members has been repeatedly demonstrated (see Jost, Banaji, & Nosek, 2004; Jost, Pellham, & Carvallo, 2002). Additionally, low status group members often report lower personal and collective self-esteem than high status group members (Jost & Thompson, 2000; O'Brien & Major, 2005), indicating that low status group members sometimes believe that they are less desirable or deserving than high status group members. There are strong motivations for justifying the status quo even when it does not benefit the ingroup, including cognitive-motivational needs that can be satisfied by system-justification (Allport, 1966; Crandall & Beasley, 2001; Festinger, 1957; Hafer & Begue, 2005; Kruglanski, 2004; Langer, 1975; Lerner, 1980; Plaks, Grant & Dweck, 2005) and social pressure to maintain social stability (Kaiser,

Dyrenforth, & Hagiwara, 2006). However, much of the work on legitimacy appraisals has focused on when lower status groups accept their lower societal position. Little research has looked at what happens when higher status groups believe that threats to their position of power or privilege are threatened. It is possible that members of higher status groups may perceive their higher status to be unfair or undeserved. If this is the case, they may be more accepting of societal changes that would undermine that higher status and be less affected by threats to that privileged social identity.

There are several cases in which higher status group members may perceive their higher status to be illegitimate. Social Dominance Orientation (SDO) is one type of status-legitimizing ideology; it reflects an individual difference in personal preference for social hierarchies and group-based discrimination (Sidanius & Pratto, 2001). People who denounce social hierarchies in general, may view a reduction in a high status group's dominance more positively. For example, people who are lower in social dominance orientation have more positive attitudes toward programs and policies that reduce status disparities (Pratto, Sidanius, Stallworth, & Malle, 1994).

Guilt is the emotional reaction people have when they believe their higher social status to be illegitimate (Swim & Miller, 1999). When people are highly cognizant of historical and institutional discriminatory practices of their high status group toward lower status groups, they may feel guilt about their higher social position. People who feel guilt may be more accepting of actions or policies that would lessen the status differential between groups (Swim & Miller).

Whites' Reactions to Changing Demographics

It is possible that the projected demographic changes represent a threat to Whites' racial social identity and signify a potential loss in their higher social status. The previous research on

Social Identity Theory and Intergroup Threat Theory and their relationship to prejudice can be applied to understanding Whites' potential reactions to the changing demographics. Previous research shows that Whites have negative reactions to similar situations that also signify potential threats to their social group and higher social status. For example, the demographic changes mean that U.S. society is becoming more diverse and multicultural. Despite evidence that Whites are becoming more tolerant and racist attitudes are declining (Schuman et al., 1997), research suggests that calls for diversity and multiculturalism are not always perceived positively by majority group members. Using an implicit association test (IAT), Plaut, Garnett, Buffardi, and Sanchez-Burks (2011) found that Whites had stronger associations between multiculturalism and exclusion and weaker associations between multiculturalism and the self. Furthermore, these associations predicted their support for diversity efforts in the workplace. These results indicate that White people may not perceive themselves as included in efforts to increase multiculturalism and diversity and may also explain, in part, why White people often express lower support for efforts to increase diversity.

Whereas Plaut et al. (2011) investigated Whites reactions to efforts at increasing appreciation of and support of diversity, Outten et al. (2012) investigated Whites' reactions to actual increases in numerical diversity. They reported that presenting White participants with the possibility of a future White minority (vs. future White majority) produced strong emotional reactions, including anger toward and fear of ethnic minorities and sympathy for Whites. The White participants also expressed stronger ethnic identification with their White ingroup and less liking of the minority outgroup when White participants were told their group would be a minority in the future (vs. White majority in the future).

These feelings of exclusion from multiculturalism and diversity may partially stem from an invisibility of whiteness. Historically, as the dominant group in U.S. society, White people have not been conceptualized as racialized beings (Grover, 1997). Lipsitz (1998) described whiteness as "the unmarked category which…never has to speak its name, never has to acknowledge its role as an organizing principle in social and cultural relations" (p. 1). Often White culture is conceptualized as synonymous with American culture (Jackson, 1999; McKinney, 2008). In scholarly research, often Whiteness is taken for granted and treated as the racial standard to which minority racial groups are compared (Gould, 1996; Guthrie, 2004). Due to this invisibility and normalization of whiteness, White people are often unable to sufficiently demonstrate an awareness or understanding of their own whiteness (Knowles & Marshburn, 2010), or describe White people as lacking a race or culture (Case, 2012; McKinney, 2008). Although racial minority group members often have no choice but to confront how their race impacts their life, White people are not forced to examine their own racial identities (Giroux, 1997). Thus, both sociohistorical and academic constructions of Whiteness may lead Whites to feel excluded from growing racial diversity, because they feel that they do not have a race or culture.

There is also evidence to suggest that White's opposition to increased diversity stems from an underlying feeling of threat. White people may perceive increasing diversity as a threat to their racial power and privilege. For example, in the previously discussed Outten et al. (2012) study, the relationships between reading about a future White minority and emotion, ethnic identification, and outgroup liking were mediated by appraisal of intergroup threat. That is, compared to participants who did not perceive intergroup threat, participants who perceived the demographic changes as threatening to their White racial group experienced more intense

emotional reactions, greater ethnic identification, and less outgroup liking. This indicates that many participants interpreted their decreasing numerical advantage as indicating a potential decrease in their relative group status as well.

This sentiment is also reflected in studies that examine White's support for affirmative action policies. Often, even while acknowledging past discrimination and expressing support for equality, members of the dominant or advantaged group often oppose policies that aim to provide reparation (Crosby, Iyer, Clayton, & Downing, 2003). Part of this apparent conflict in ideals may be explained by how White people perceive affirmative action policies will affect the interests of their ingroup. Protecting against the loss of advantages or privilege for their ingroup may be valued more than providing reparation for past wrongs to the outgroup. For example, Lowery, Unzueta, Knowles, and Goff (2006) found that support for affirmative action policies was mediated by how Whites expected the policies to affect their White ingroup. Furthermore, Whites' support for affirmative action policies was related to their level of identification with their White racial group only when policies were framed in terms of the potential losses for the White ingroup; however, level of White racial identification was unrelated to affirmative action support when the policy was framed in terms of the potential gains for the Black outgroup. Other research suggests that the majority group often uses loss-framing when thinking about minority progress, such that White people see minority gains as necessarily implying losses for their own group (Eibach & Keegan, 2006). Furthermore, loss-aversion biases, wherein people give greater psychological weight to things they have lost than things they have gained (Kahneman & Tversky, 2000; Prislin, Limbert, & Bauer, 2000), can lead White people to overweigh privileges they may have conceded and hence, perceive greater progress toward racial equality than that pereceived by minority group members (Eibach & Keegan). Similarly, Norton and Sommers

(2011) found that Whites perceive that there is now more anti-White bias than anti-Black bias. They also observed a negative correlation between Whites' perceptions of the prevalence of anti-White bias and anti-Black bias over time, suggesting that Whites may perceive racism as a zero-sum game.

Negative reactions to demographic changes may be amplified by an ignorance of the privilege associated with a White identity. Many White people are often unaware of the social, economic, and political advantages they are afforded through their racial membership (Crosby, 1997; Eibach & Keegan, 2006; McIntosh, 1988; Ostrander, 1984; Roediger, 1991). Other Whites believe that their higher social status is natural or deserved through principles of meritocracy (Hurtado & Stewart, 1997). Still others employ notions of egalistarianism and colorblind ideology to argue that race is not an important factor in determining an individual's success and interpersonal treatment (Anics & Szymanski, 2001; Thompson & Neville, 1999).

When White people are confronted with their racial privilege they often have negative reactions. For example, Branscombe, Schmitt, and Schiffhauer (2007) found increased racist attiutdes in response to thinking about White privilege, particularly among those who had high White racial identification. Further, framing racial inequaity as White privilege, as opposed to anti-Black discrimination, leads to more feelings of guilt (Iyer, Leach, & Crosby, 2003; Swim & Miller, 1999). Whites may prefer to frame racial inequality as anti-Black discrimination because acknowledging White racial privilege undermines positive self-esteem derived from the belief that they have earned their success and status (Lowery, Knowles, & Unzueta, 2007). Furthermore, when opportunities are made more equal, thus reducing Whites' racial privilege, Whites often perceive that they are now being discriminated against (Johnson, 1980; Matheson, Warren, Foster, & Painter, 2000; Flores & Rodriguez, 2006).

Whites' Intergroup Threat

For White people, the impending demographic changes may be perceived as a threat to the positive distinctiveness of their White racial group. The demographic changes may signal any one of the three main types of threat (realistic, symbolic, intergroup anxiety) proposed by Stephan and Stephan (1996). As racial minorities become more numerically dominant, White people may fear realistic threat -- that racial minorities will take more of the resources, such as jobs and political power, which have previously been reserved for White people. Furthermore, as racial minority groups becomes more numerous, White people may fear symbolic threat -- that the values and beliefs that they associate with their racial ingroup will become marginalized in favor of the values and beliefs held by racial minority group members. Finally, a growing number of racial minorities increases the probability of interracial interactions. Thus, White people may feel threatened by the increasing potential of intergroup anxiety. These feelings of threat are likely to generate negative intergroup emotions toward racial minority group members and decrease White individuals' sense of personal and collective self-esteem.

If White people perceive the demographic changes as indicating threats to the positive distinctiveness of their group and have negative emotional and self-esteem reactions, they may be motivated to engage in prejudicial attitudes and behaviors toward racial outgroups. As discussed, one way to restore personal and collective self-esteem lost due to identity threat is to engage in backlash toward the relevant outgroup (Rudman & Fairchild, 2004). Thus, if White people feel that the demographic changes represent a threat to the positivity of their social identity and their status in the social hierarchy, they may be motivated to enhance their collective self-esteem and reinforce the status quo by penalizing racial minority group members when given the opportunity.

However, perceptions of identity threat may be moderated by the perceived legitimacy of the demographic changes by White people and the degree to which they identify with being white. In particular, the degree to which White people feel that their White identity is an important part of their self-concept should moderate the relationship between the demographic changes and feelings of threat. Additionally, when White people feel that their racial privilege and higher social status is undeserved or illegitimate, they may be less likely to feel threatened by the impending changes, and thus, respond less negatively. As Swim and Miller (1999) demonstrated, many White people harbor feelings of guilt about past injustices toward Blacks and other racial minorities by members of their race that may lessen how upset they are by minority advances in society.

Implicit Identity Threat

Thus, the negative reactions that White people have to shifting demographics are likely because they feel their identity is threatened. Since, they cannot leave their White social group, they may express even greater negative attitudes toward racial minorities (Bettencourt et al. (2001). However, in modern society, there are strong cultural taboos against racism and race-based hierarchy. Blatant prejudice and discrimination are actively discouraged. Not only is it taboo, but discrimination on the basis of race is against the law in many contexts. However, many people still harbor negative sentiments about racial minorities. Gaertner and Dovidio (1986) developed the concept of aversive racism to describe the ambivalence of people who purport to endorse egalitarian ideals, but still harbor unacknowledged or hidden negative feelings and beliefs about racial minorities.

This ambivalence manifests in discrepancy between implicit and explicit measures of prejudice; often individuals show positivity or neutrality to racial minority groups on explicit

measures, but show negative associations with racial minorities on implicit measures (Fazio & Olson, 2003; Jost et al., 2002; Nosek, Banaji, & Greenwald, 2002; Rudman, Feinberg, & Fairchild, 2002). Additionally, taboos against negative intergroup attitudes may obscure the degree to which people are explicitly willing to admit that they feel threatened by an outgroup or feel negative emotions toward an outgroup (Gonsalkorale, Carlisle, & von Hippel, 2007; Rudman & Goodwin, 2004; Rudman, Ashmore, & Gary, 2001; Phelps et al., 2000). Dunton and Fazio (1997) demonstrated individual differences in motivation to respond without prejudice, or the degree to which individuals feel it is important to appear non-prejudice when responding on scales about their racial attitudes. People who are prejudiced but who are also motivated to respond without prejudice would not be expected to score highly on measures of explicit threat, which is an easily controllable behavior, but would still express threat on implicit measures that are less easily manipulated. Thus, it is important to measure White's reactions to changing demographics both explicitly and implicitly. If White people are reluctant to admit feeling threatened by growing diversity, their negative attitudes may still emerge if threat is measured implicitly.

Furthermore, implicit measures of prejudice are strong predictors of actual behavior, sometimes even exceeding the predictive validity of explicit measures (Fazio & Olson, 2003). Although aversive racists may publically sympathize with victims of racial injustice and express support for policies that promote racial inequality and fight racism, their negative attitudes toward racial minorities may emerge in situations where social norms for behavior are weak or ambiguous or when there are nonracial factors to which discrimination can be attributed (Gaertner & Dovidio, 1986). Therefore, implicit measures of threat may better predict when identity threat is most likely to lead to negative intergroup behavior. White people who score

highly on measures of implicit threat in reaction to changing demographics, regardless of their level of explicit threat, may be more likely to engage in discriminatory behaviors.

Devine (1989) argued that differences in implicit and explicit expressions of prejudice reflect automatic versus controlled prejudice processes. According to this model, people who hold strong egalitarian beliefs and strive to be non-prejudiced engage in controlled processes to inhibit the influence of automatically activated stereotypes and prejudices on outwardly expressed attitudes and behavior. Thus, people who endorse egalitarian ideals may strive to control initial prejudicial reactions to avoid engaging in discriminatory behavior. Two types of egalitarian beliefs that may affect the degree to which initial levels of threat affect discriminatory behavior include color-blind racial ideology which argues that race should not be a determinant in how people are treated (Neville, Lilly, Duran, Lee, & Browne, 2000); and, blatant positive attitudes toward minorities (Brigham, 1993).

The Current Study

In the current study, I sought to replicate and extend research by Outten et al. (2012) that examines Whites reactions to impending demographic changes that will make Whites a numerical minority. Outten et al. reported that after reading about demographic changes, White people reported more negative intergroup emotions and that the relationship between reading about the changes and negative affect was mediated by appraisals that the White ingroup was threatened. However, in several pilot studies, I was unable to replicate these results. Specifically, in my studies, White participants reported positive evaluations of and positive emotional reactions to both a projected decrease in Whites' numerical majority and a projected increase in racial minorities' numerical majority. I found the same results across a variety of contexts, including corporate and college settings. Because of the previously discussed norms of

egalitarianism and anti-racist taboos that pervade American society, I had reason to believe that students may be reluctant to openly report their displeasure with the projected demographic changes for fear of appearing racist (Gaertner & Dovidio, 1986). In the current study, I explored the possibility that feelings of threat in response to the demographic changes will emerge when threat is measured implicitly rather than explicitly. Thus, in the present study, after reading about the impending demographic changes, participants completed both implicit and explicit measures of intergroup threat and scores on each will be examined (see Figure 1).

Additionally, I sought to examine several important potential moderators of the relationship between demographic changes and feelings of intergroup threat (see Figure 1). Namely, I sought to examine the role of racial identification, status-legitimizing ideology, and motivation to respond without prejudice on an individual's feelings of threat. Several measures of status-legitimizing ideologies were measured to examine the degree to which believing that one's racial privilege is illegitimate lessened the perceived threat of the demographic changes. Participants' motivation to respond without prejudice was also examined to determine the degree to which participants were actively trying to control prejudiced reactions to the demographic changes. Additionally, I measured the centrality (i.e., importance) of White people's racial identity to explore whether the impact of demographic changes was greater for those that report their White identity to be a more core component of their self-concept.

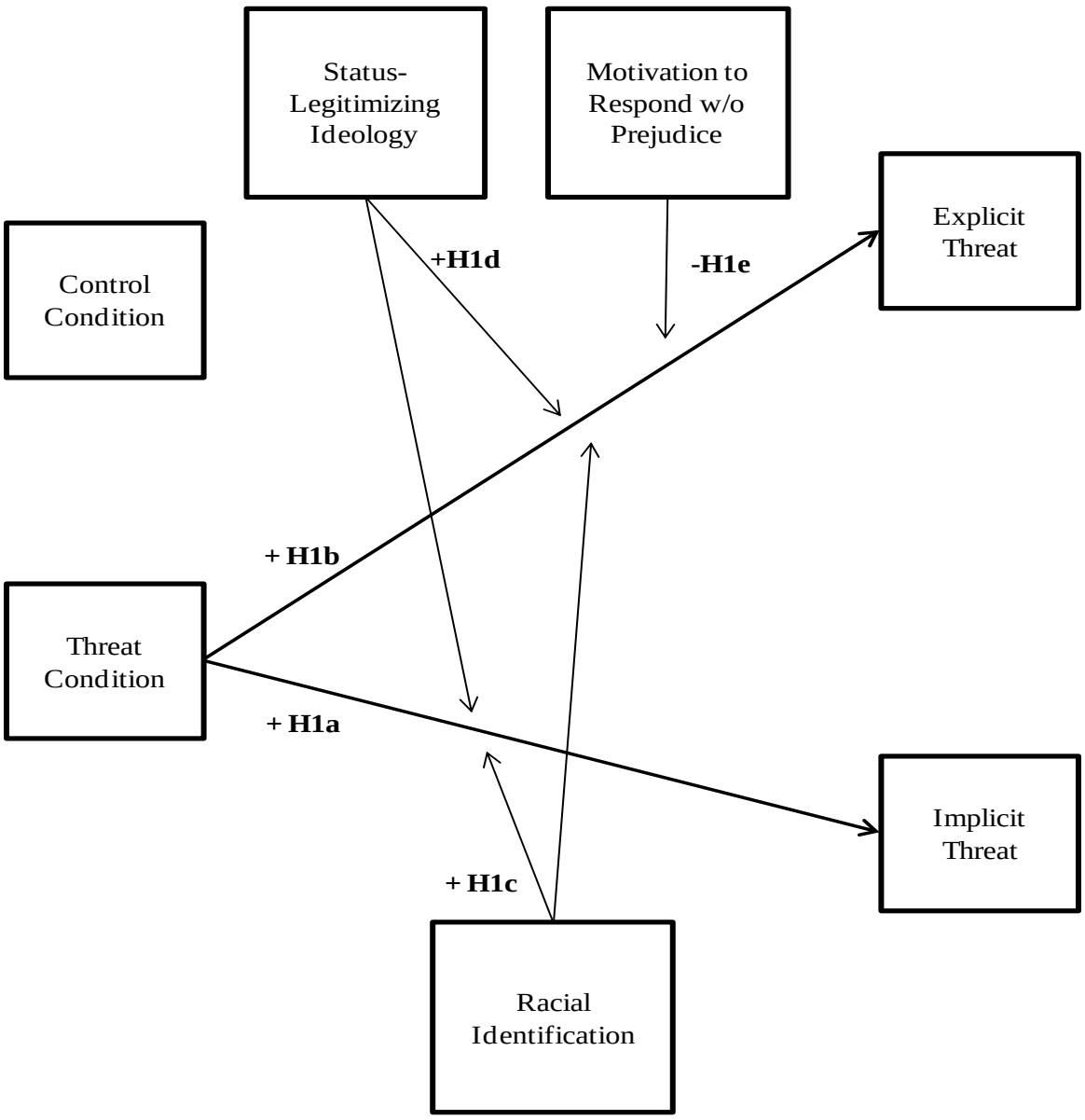

Figure 1. Model of hypothesis 2. Path labels represent the corresponding hypothesis and predicted direction of the relationship.

To further clarify whether reactions to demographic changes in the United States reflect threats to social identities or negative reactions to change in general, another set of conditions was included. Specifically, some participants read about demographic changes (or lack of changes) in Eritrea, a small African country (see Figure 2). Pilot studies indicated that this was a country about which undergraduate students had little knowledge or familiarity. Inclusion of this

condition allowed me to examine whether negative reactions to demographic changes were specific to changes within a group of which the participants were a member (U.S.) or whether they reflected general negativity toward changes in the status quo. The former explanation lends greater support to Social Identity Theory explanations of intergroup threat.

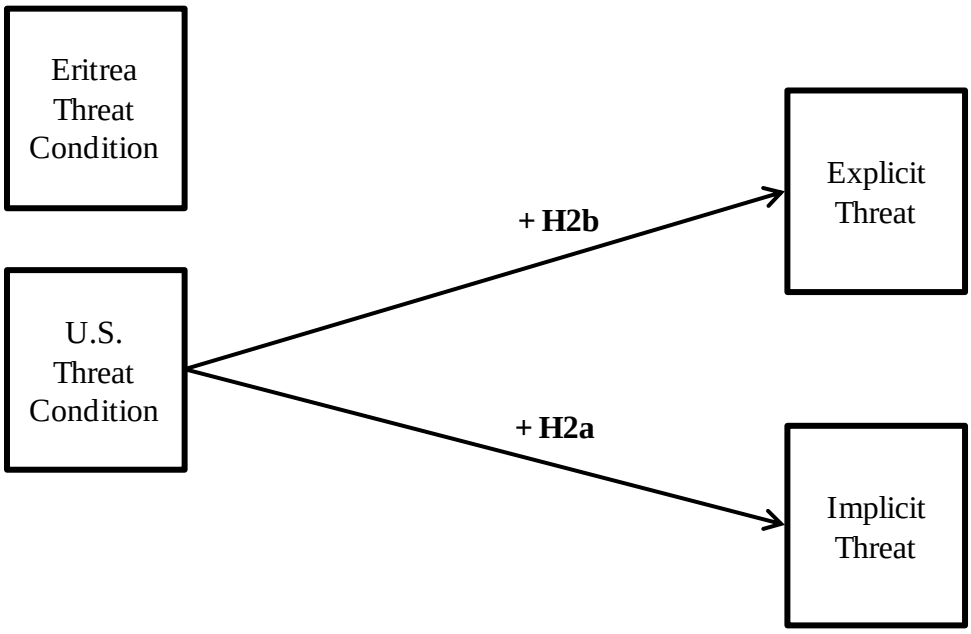

Figure 2. Model of hypothesis 1. Path labels represent the corresponding hypothesis and predicted direction of the relationship.

Additionally, I extended previous research on White's reactions to demographic changes by examining behavioral reactions to the demographic changes (see Figure 3). After reading about the demographic changes, Whites were asked to evaluate job applications of equally qualified White and Black candidates. Thus, Whites had the opportunity to engage in backlash behavior by giving more negative evaluations to Black applicants than White applicants. I also

gave pre and posttest measures of self-esteem to examine whether self-esteem mediates the relationship between threat and backlash behaviors. I also examined the ability of both implicit and explicit identity threat to predict these backlash behaviors (see Figure 4). Additionally, as Devine (1989) describes, people who endorse equality and pro-minority attitudes may control initial negative intergroup attitudes to refrain from engaging in discriminatory behavior. To investigate this possibility, measures of egalitarian beliefs were included to examine their moderating role on discriminatory backlash behaviors.

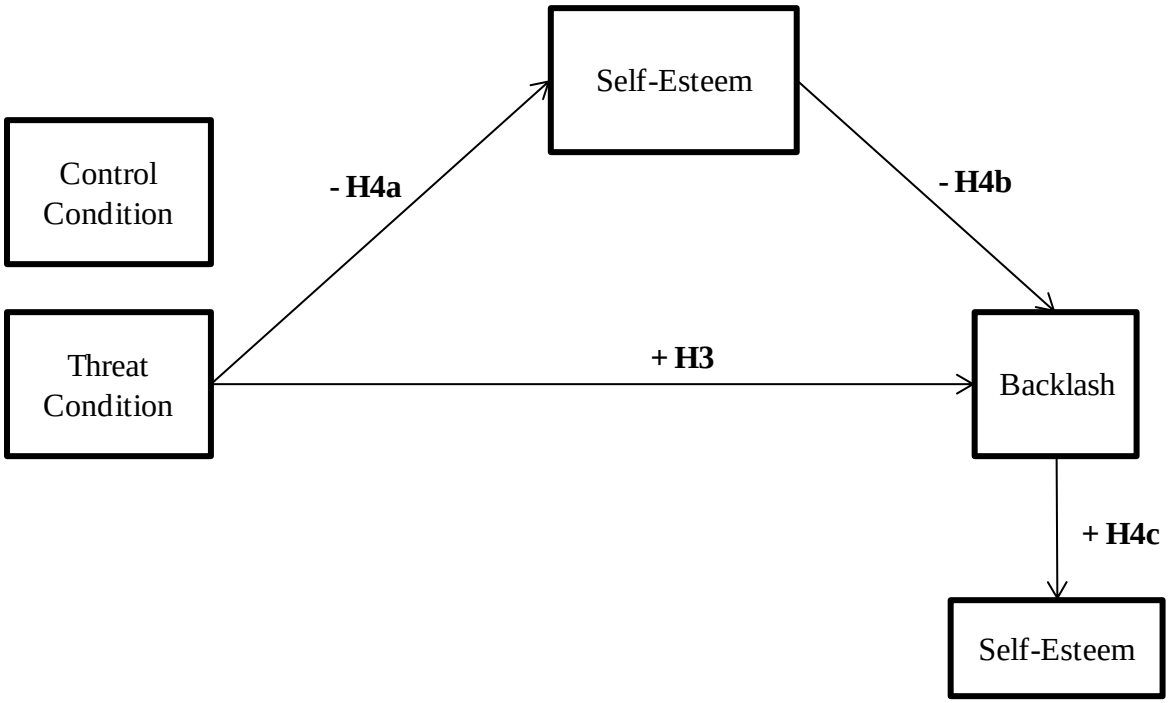

Figure 3. Model of hypotheses 3 and 4. Path labels represent the corresponding hypothesis and predicted direction of the relationship.

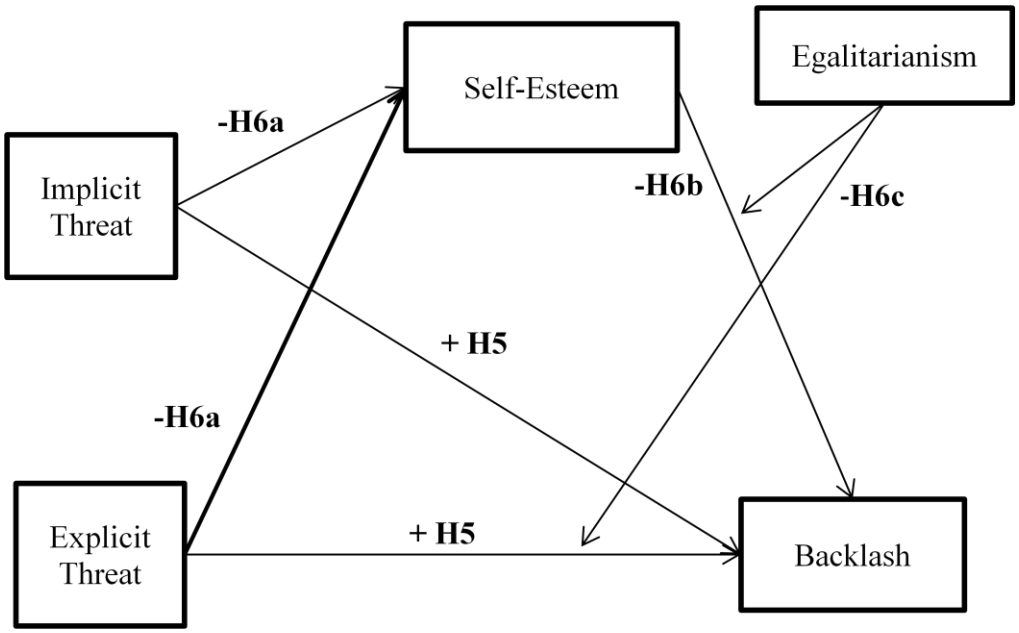

Figure 4. Model of hypotheses 5 and 6. Path labels represent the corresponding hypothesis and predicted direction of the relationship.

Furthermore, I examined discrepancies between implicit and explicit measures of threat by examining processes separately for people with different threat profiles (see Figure 5). Participants were divided into three groups based on their scores on the implicit and explicit measures of prejudice. Explicit racists were those who scored high on both types of measures and true egalitarians were those who scored low on both types of measures. Aversive racists scored highly on implicit measures of threat, but lowly on explicit measures. Specifically, I sought to examine whether people who scored high on implicit measures of threat would be more likely to engage in backlash than those who scored low, regardless of their level of explicit threat. That is, I examined whether both explicit and aversive racists would be more likely to engage in backlash than true egalitarians.

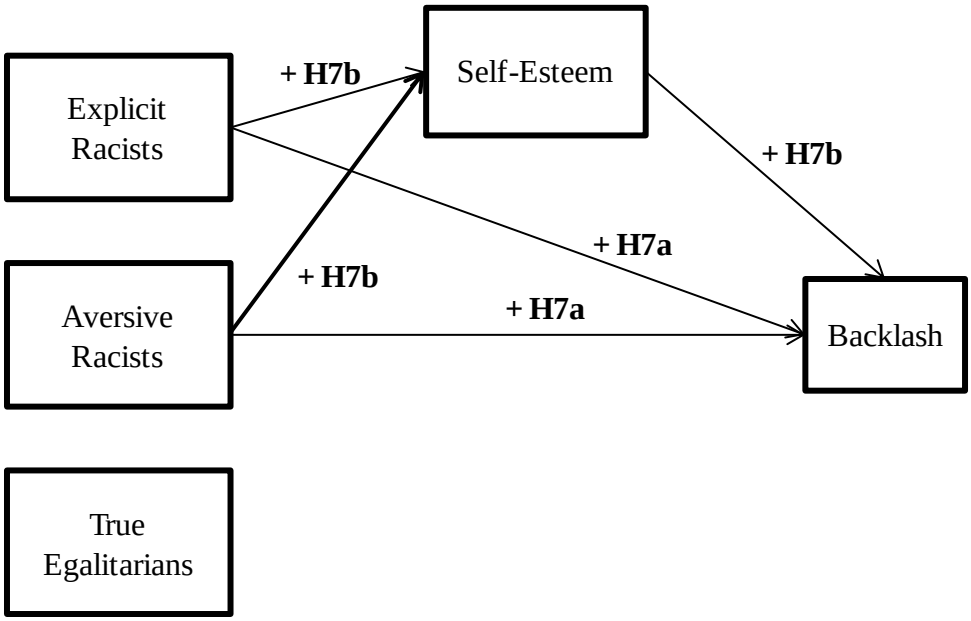

Figure 5. Model of hypothesis 7. Path labels represent the corresponding hypothesis and predicted direction of the relationship.

Finally, a secondary aim of the study was to more thoroughly explore the exact nature of the intergroup threat felt by Whites (see Figure 6). Using Stephan and Stephan's Intergroup Threat framework (1996), I studied whether the demographic changes represented symbolic threat, realistic threat, or intergroup anxiety for Whites. This distinction is important because different types of threat are associated with different intergroup emotions and predict different intergroup behaviors in response. Thus, I also measured several intergroup affect variables, including anger, fear, worry, pity, envy, and disgust, and examined their relationship to the specific type of threat perceived.

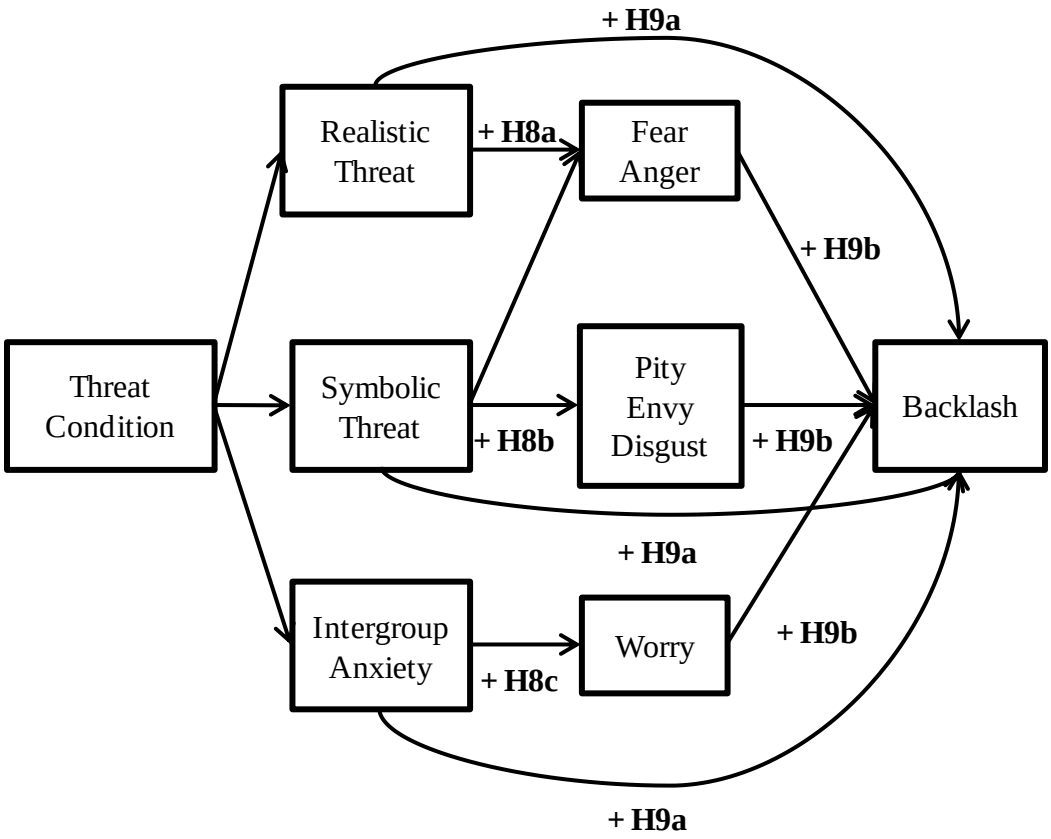

Figure 6. Model of hypotheses 8 and 9. Path labels represent the corresponding hypothesis and predicted direction of the relationship.

Hypotheses

Primary

1) Reading about demographic changes in the U.S., compared to demographic changes in Eritrea, will result in more explicit and implicit threats to the social identity (see Figure 2).
    a. On a word completion task used to assess implicit threat, participants who read that Whites are projected to be the minority in the future in the United States (U.S. threat condition) will show more implicit threat (i.e., provide a greater percentage of social threat-related word-endings) than participants who read that the Tigrinya ethnic group are projected to be the minority in the future in Eritrea (Eritrea threat condition).
    b. Participants who read about a future White minority in the U.S. (U.S. threat condition) will show more explicit threat as measured by greater negative affect and more negative explicit evaluations of the demographic projections than participants who read about a future Tigrinya minority in Eritrea (Eritrea threat condition).
2) The remaining hypotheses compare only the U.S. Conditions (U.S. threat and U.S. Control). Reading about demographic changes (as opposed to no changes) will result in explicit and implicit threats to the social identity (see Figure 1).
    a. On a word completion task used to assess implicit threat, participants who read that Whites are projected to be the minority in the future in the U.S. (U.S. threat condition) will show more implicit threat (i.e., provide a greater percentage of social threat-related word-endings) than participants who read that demographics are expected to remain stable in the U.S. (U.S. control condition).

b. Participants who read about a future White minority in the U.S. (U.S. threat condition) will show more explicit threat as measured by greater negative affect and more negative explicit evaluations of the demographic projections than participants who read about no changes in ethnic diversity in the U.S. (U.S. control condition).

c. The relationship between threat condition and both implicit and explicit threat will be moderated by racial identification (i.e., the degree to which participants consider race to be an important aspect of their identity), such that the relationship between the threat condition and the experience of both implicit and explicit threat will be stronger for those whose White racial identity is a more central aspect of their identity.

d. The relationship between threat condition and both explicit and implicit threat will be moderated by status-legitimizing ideologies (i.e., the degree to which participants believe that their loss of power and privilege are legitimate), such that the relationship between the threat condition and the experience of both implicit and explicit threat will be stronger for those who have greater status-legitimacy (as indicated by low white guilt, high diffuse system justification, and high social dominance orientation).

e. The relationship between threat condition and explicit threat, but not implicit threat, will be moderated by participant's motivation to respond without prejudice, such that participants who express a greater desire to express egalitarian racial identities will report less explicit threat than those who report a

lower motivation to respond without prejudice. However, motivation to respond without prejudice will not affect participant's implicit experience of threat.

3) Reading about demographic changes (as opposed to no changes) will lead to more discriminatory backlash behaviors (i.e., rating of job applicants; see Figure 3). Those participants who read about a future White minority (threat condition) will rate racial minority candidates less positively than White candidates. Those participants who read about no demographic changes (control condition) will rate racial minority candidates and White candidates similarly.
4) The relationship between threat condition and job applicant ratings will be mediated by collective and personal self-esteem (see Figure 3).
    a. Participants in the threat condition will report less collective and personal self-esteem than participants in the control condition.
    b. Those with decreased collective and personal self-esteem will be more likely to rate the minority job applicants lower than White job applicants.
    c. Participants who do engage in backlash when given the chance to discriminate (through ratings of the job applicants) will show greater collective and personal self-esteem afterward.
5) Both implicit and explicit measures of identity threat will predict discriminatory backlash behaviors (i.e., rating of job applicants; see Figure 4). Those who show more threat will rate racial minority candidates more poorly than White candidates.
6) The relationship between implicit and explicit threat and job applicant ratings will be mediated by collective and personal self-esteem (see Figure 4).

a. Increased implicit and explicit threat will lead to decreased collective and personal self-esteem.
b. Those with decreased collective and personal self-esteem will be more likely to rate the minority job applicants lower than White job applicants.
c. Participant's endorsement of egalitarian beliefs will moderate the relationship between explicit threat and backlash behaviors and the relationship between self-esteem and backlash behaviors. Participants who endorse egalitarian beliefs (as indicated by high colorblind racial attitudes and positive attitudes toward minorities) will show less discrepancy between ratings of Black and White job applicants when they score higher on explicit measures of threat (intergroup affect and evaluations of demographic changes) and decreased personal and collective self-esteem than participants who do not endorse egalitarian beliefs.

7) The relationship between threat and discriminatory backlash behaviors will differ depending on the congruency between participants' implicit and explicit threat ratings (see Figure 5).
   a. Both explicit racists (i.e., those who score high on both measures of implicit and explicit threat) and aversive racists (i.e., those who score high on measures of implicit threat, but low on measures of explicit threat), will show more backlash behavior than true egalitarians (i.e., those who score low on both measures of implicit and explicit threat).
   b. Personal and collective self-esteem will mediate the relationship between threat and backlash behaviors (as outlined previously), for explicit racists and aversive racists, but not true egalitarians.

Secondary

8) The type of intergroup threat perceived will correspond to the type of intergroup affect expressed (see Figure 6).
    a. Perceptions of realistic threat will correspond to anger and fear.
    b. Perceptions of symbolic threat will also correspond to anger, but additionally will correspond to envy, pity, and disgust.
    c. Intergroup anxiety will correspond to worry.
9) The type of intergroup threat perceived and type of intergroup affect expressed will correspond to the likelihood of discriminatory backlash behaviors (see Figure 6).
    a. Perceptions of realistic threat will be the strongest predictor (compared to symbolic threat and intergroup anxiety) of job applicant ratings, such that participants who perceive more realistic threat will show a greater difference between minority and white job applicant ratings.
    b. The emotional experience of anger will be the strongest predictor (compared to other types of intergroup emotions) of job applicant ratings, such that participants who experience more anger will show a greater difference between minority and white job applicant ratings.

Method

Participants

In total, 442 participants were included in the final analyses. Two-hundred and forty-one of those participants were a community sample collected through Amazon's Mechanical Turk (Mturk) service. The other 201 participants were a student sample collected through the Human Research Pool (HPR) at Michigan State University. Because I was interested in reactions to threats to privilege, only White participants from the United States were recruited. Each participant was randomly assigned to one of four demographic change conditions (U.S. control, n = 94; U.S. threat, n = 99; Eritrea control, n = 81; Eritrea threat, n = 85).

Procedure

In the first part of the study, participants took an online pre-suvey using Qualtrics software that contained several individual difference measures, including measures of egalitarian ideals (attitudes toward minorities, color-blind racial ideology), motivation to respond without prejudice, system justification beliefs (white guilt, diffuse system justification, and social dominance orientation), and racial centrality. These measures were included to allow exploration of potential moderating variables. Several additional measures of individual differences that were not included in the main hypotheses were also included in the pre-survey, including measures of the Big Five personality traits, self-regulatory style, locus of control, need for closure, and optimism. Although the main focus of the study was to look at perceptions of threats to privileged identities, these measures served as distracters for the race-related measures. Participants completed the pre-survey separated in time and space from the main experiment to hopefully prevent the experimental manipulation from biasing responses on these measures and alleviate potential participant suspicion about the true purpose of the study. Mturk participants

signed-up to complete the pre-survey for $2 compensation and were told they may be contacted to participate in another study in the near future. HPR participants were prompted through the university's survey system to complete the pre-survey in order to be eligible to sign-up for the second part of the study.

The second part of the study contained the experimental manipulation and the main dependent variables. Mturk participants were first contacted two to seven days after they completed the pre-survey to complete the second part of the study in order to receive an additional $3 in compensation. Approximately 79.8% of the Mturk participants who completed the first part of the study also completed the second part of the study. Mturk participants completed the entire second part of the study online. After completing the pre-survey, HPR participants scheduled an hour-long in-lab session one day to a week later to complete the second part of the study and received 3 HPR credits for their participation in both parts of the study. Approximately 78.5% of the HPR participants who completed the first part of the study also completed the second part of the study.

At the beginning of the in-lab part of the study, HPR participants were greeted by a White experimenter and seated at a computer. The experimenter then gave the participants a brief overview of the study's purpose and format, and then directed them to follow the instructions on the computer (see Appendix A). From that point, both Mturk and HPR participants saw the same instructions and completed the same experiment online using Qualtrics software (see Appendix A). They were told that the study was concerned with how information is presented, how the presentation affects readers' comprehension of the information, and how the presentation of the information makes them feel. The online instructions explained that the study consisted of two parts. In each part, the participant was presented with different kinds of

information and then asked to give their personal opinion of the way the information was presented and how easy it was to learn and understand.

During the first part of the study, participants were shown an electronic copy of a mock informational insert from a textbook (see Appendix B). The insert described changing demographics among populations. The insert varied by condition in whether it described a decrease in the proportion of White people in the U.S. population (U.S. threat condition), no change in ethnic diversity in the U.S. (U.S. control condition), a decrease in the majority ethnic population in Eritrea (Eritrea threat condition), and no change in diversity in Eritrea (Eritrea control condition). Immediately following the presentation of the information, participants completed a word-completion task intended to measure implicit threat associations. In keeping with the information presentation cover story, participants were told that they were doing the word-completion task because I was interested in the impact of the way the information was presented on verbal ability. Participants were then asked to give their personal ratings of how the information was presented. They were told that their ratings would be compared to those of other participants who saw the same insert and others who saw the same information presented in different formats and styles. The ratings that were collected (in order of presentation) include: intergroup affect (anger, fear, worry, pity, envy, disgust), questions about the style of the insert (to reinforce the cover story), evaluations of the changes (positive, negative, threat concerns), questions relating to comprehension of the information (to serve as a manipulation check), and perceptions of intergroup threat (realistic, symbolic, intergroup anxiety). At that time, participants also completed half of the private collective self-esteem and personal self-esteem measures.

When they were finished with that part of the study, participants were told that they were moving on to the second part of the study. They were told that in the second part they would also be judging another way that information is presented, but that the information presented in the second part was not related to the information presented in the first part of the study. Participants were shown an electronic copy of a brief description of a job opening (see Appendix C). They were then shown electronic copies of applications of people who have applied for that job (see Appendix D). The applications consisted of people who differ by race (1 White, 1 Black). Applications were pretested to ensure that each applicant was perceived as equally strong, $t(146) = -.29$, $p = .78$, qualified, $t(146) = .97$, $p = .33$, competent, $t(146) = .25$, $p = .80$, and likely to be hired, $t(146) = .43$, $p = .67$, for the job so that race was the only factor that varied between the applicants. Participants were told that they should judge each application to determine whether the style of the application was useful for deciding who to hire. They were told that these judgments would be compared with those of other participants who saw the same applications as well as participants who saw the information presented in different formats. Participants were again asked stylistic and comprehension questions. They were also asked to evaluate the job applicants based on the information that was presented, including ratings of competency, sociability, and likelihood of being hired.

Next, participants were asked to give some basic demographic information and complete a measure of socially desirable responding. Participants were also asked to complete the second half of the private and collective self-esteem measures, having been told that it was supposed to be completed earlier but was accidentally skipped. Finally, participants were thoroughly debriefed. HPR participants were given a hardcopy of a debriefing form, while Mturk

participants were shown an electronic version. Both were given contact information if they had any additional questions.

Measures

Individual difference measures in pre-survey.

Egalitarian ideals. Attitudes toward racial issues in general and awareness of white privilege were measured using an Attitudes toward Minorities Scale (Brigham, 1993) and the Color-Blind Racial Attitude Scale (COBRAS; Neville et al., 2000), described below.

The Attitudes toward Minorities scale consisted of ten items drawn from Brigham's (1993) original 20 item Attitudes toward Blacks Scale used to assess modern attitudes toward racial minorities (see Appendix E). The measure was designed to capture modern aspects of racism, including negative affective reactions (e.g., "I enjoy a funny racial joke, even if some people might find it offensive."), opposition toward governmental policies designed to address race issues (e.g., "I favor open housing laws that allow more racial integration of neighborhoods."), discomfort interacting with racial minority group members (e.g., "I would not mind at all if a Black family with about the same income and education as me moved in next door."), and personal worry about being denied an opportunity due to preferential treatment for racial minorities (e.g., "I worry that in the next few years I may be denied my application for a job or a promotion because of preferential treatment given to minority group members."). Higher scores on the measure indicated more negative attitudes toward racial minorities. Participants were asked to rate how much they agreed or disagreed with each statement on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Items were presented in random order.

The COBRAS consisted of 14 items that measured attitudes toward racial issues in the United States on three subscales: racial privilege, institutional discrimination, and blatant racial

issues (see Appendix F). The racial privilege subscale measured the degree to which participants were aware of the existence of white privilege and special advantages afforded to majority group members. It consisted of five items, such as "Race is very important in determining who is successful and who is not." The institutional discrimination subscale measured the degree to which participants were aware of institutional forms of discrimination. It consisted of five items, such as "Due to racial discrimination, programs such as affirmative action are necessary to help create equality." The blatant racial issues subscale measured the degree to which participants were aware of racism and racial inequality in general. It consisted of four items, such as "Racism is a major problem in the U.S." Higher scores on each subscale indicated *less* awareness and *more* color-blind attitudes. Participants were asked to rate how much they agreed or disagreed with each statement on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Items were presented in random order.

An overall egalitarian beliefs variable was created by averaging participants' scores on all of the items in the Attitudes toward Minorities scale and Color-Blind Racial Attitude Scale. This variable consisted of 34 items total. Higher scores on the egalitarian beliefs variable indicated more positive attitudes toward racial minorities and more awareness of white privilege.

Status-legitimizing beliefs. Participants' status-legitimizing beliefs were measured using the White Guilt Scale (Swim & Miller, 1999) and the Diffuse System Justification Scale (Kay & Jost, 2003). Participants overall attitudes toward social hierarchies were measured using the Social Dominance Orientation Scale (Pratto et al., 1994)

Participants' feelings of white guilt were measured using the White Guilt Scale (see Appendix H; Swim & Miller, 1999). The scale was designed to measure participants' feelings of guilt for collective wrong to minorities. Participants indicated the degree to which they agreed

with five statements on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Items were presented in random order and higher scores indicated more feelings of guilt. Sample items include "I feel guilty about the past and present social inequality of racial minorities (i.e., slavery, poverty)" and "I feel guilty about the benefits and privileges that I receive as a White American."

Participants' system-justifying beliefs were measured using the Diffuse System Justification Scale (see Appendix I; Kay & Jost, 2003). The scale was designed to measure participants' beliefs that, in general, social and economic systems are fair and legitimate, and their desire to maintain the status-quo. Participants indicated the degree to which they agreed or disagreed with eight statements on a scale from 1 (*strongly agree*) to 5 (*strongly disagree*). Sample items include "In general, I find society to fair," and "Most policies serve the greater good." Items were presented in random order and higher scores indicated stronger system-justification beliefs.

Participants' individual differences in support of social hierarchies were measured using the Social Dominance Orientation Scale (see Appendix G; Pratto et al., 1994). Participants indicated the degree to which they agree or disagree with 16 statements on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include "All groups should be given an equal chance in life," and "Some groups of people are just more worthy than others." Items were presented in random order and higher scores indicated greater support of social hierarchies.

An overall status-legitimization variable was created by averaging participants' scores on all of the items in the White Guilt Scale, Diffuse System Justification Scale, and Social Dominance Orientation Scale. This variable consisted of 29 items total. Higher scores on the

status-legitimization variable indicated greater support of social hierarchies, stronger system-justification beliefs, and less white guilt.

Racial centrality. The extent to which participants perceive their racial group to be personally important and valued were measured using a modified version of the centrality subscale of the Multidimensional Inventory of Black Identity (see Appendix J; Sellers et al., 1997). The measure was designed to examine how important race was for participants' self-definition and identity. Participants indicated the degree to which they agreed or disagreed with 4 statements about themselves on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include "In general, being White is an important part of my self-image," and "I have a strong sense of belonging to members of my race." Items were presented in random order and higher scores indicated stronger racial identity.

Motivation to respond without prejudice. The extent to which participants seek to respond in a non-prejudiced manner was measured using the Motivation to Control Prejudiced Reactions scale (see Appendix K; Dunton & Fazio, 1997). The measure was designed to examine how important it is to participants to control expressions of prejudice. Participants indicated the degree to which they agreed or disagreed with 17 statements about themselves on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include "It's important to me that other people not think I'm prejudiced," and "It's never acceptable to express one's prejudices."

Manipulation check and cover story filler questions. After reading the insert, rating their affect, and completing the measure of implicit threat participants answered questions to determine if they correctly understood the demographic changes being described (see Appendix L). Additionally, they were asked questions about their opinion of the style of the insert to reinforce the cover story.

Dependent measures.

Implicit threat. Immediately after reading the insert, participants were asked to complete a word-completion task (see Appendix M). Participants were given a random 24-word stem subset of 96 possible three-letter word stems adapted from Mathews, Mogg, May, and Eysenck (1989). Each three-letter word stem was unique from any other stem in the subset. Additionally, each three-letter word stem had at least two possible completions: one representing the target category and one neutral word that had a higher word frequency than the target word. Each subset contained three target categories of stems containing eight stems each. Each subset was randomly presented in the sample and word stems were presented in random order within participants. The three categories of words were socially threatening (e.g., despised, useless, hostile), physically threatening (e.g., attack, cancer, collapse), and nonthreatening neutral words (e.g., capable, confident, prize). Participant word completions that were not on the original target word list were coded by the author as socially threatening, physically threatening, or nonthreatening. These initial codes were reviewed by a second coder. Disagreements were discussed until 100 percent agreement was reached between the two coders.

The nonthreatening words were included as filler words to serve as a distraction and to minimize suspicion of the true intent of the measure. They were not analyzed further. Within the socially threatening and physically threatening categories the proportion of the total 24 stems within the category that were completed with threat-related words (relative to nonthreat-related words) were calculated. Therefore, implicit threat scores ranged from zero to one and implicit threat was indicated by a higher proportion of threat-related word completions. For example, the stem "des_" could be completed with the words despised or desired. The stem "use_" could be completed with the words useless or useful. A person who is feeling threatened should be more

likely to complete the stems with despised or useless than desired or useful. I predicted that the demographic changes should primarily be related to social threat, rather than physical threat; however, most analyses examined relationships for both the socially threatening and physically threatening word completions, as well as a combined total implicit threat variable that was created by combining the proportion of socially threatening and physically threatening word-stem completions.

Intergroup Affect. Intergroup emotions were measured using a scale adapted from Cottrell and Neuberg (2005), Mackie et al. (2000), and Watson and Clark (see Appendix N; 1991). Participants were asked to rate how much they currently felt 18 emotions on a scale from 1 (*very slightly or not at all*) to 5 (*extremely*). The 18 emotions were presented in random order. Six affect variables were created with three items per affect variable. Higher scores on each variable indicated more of that emotion. An anger variable was created by calculating the mean of participants' ratings of the following items: angry, irritated, and furious. A fear variable was created by calculating the mean of the following items: afraid, scared, and intimidated. A worry variable was calculated using the following items: worried, anxious, and concerned. A pity variable was created using the following items: pity, compassion, sympathy. An envy variable was created using the following items: envious, jealous, resentful. A disgust variable was created using the following items: disgusted, repelled, sick. Additionally, a composite intergroup affect variable was computed by averaging scores on all of the emotion variables (15 items total). Higher scores on this composite variable indicated more negative affect. Prior to creating the composite intergroup affect variable, the items were subjected to an exploratory factor analysis and analysis of inter-item consistency. These analyses indicated that the three pity items were

negatively correlated with the other affect variables and prevented the creation of a reliable, unidimensional intergroup affect variable; therefore, they were excluded from analyses.

Evaluation of Changes. Immediate explicit evaluations of the demographic projections described in the textbook insert were measured using a short questionnaire adapted from studies by Outten et al. (2012) and Davies, Steele, and Markus (2008). It was designed to measure the degree to which participants felt the information was promising or alarming (see Appendix O). Participants were asked to indicate the degree to which they agreed or disagreed with statements about the changes described on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Two subscales were created to reflect positive and negative evaluations of the changes. Higher scores on the positive subscale indicated that participants thought the changes were more hopeful, encouraging, promising, and fair. Higher scores on the negative subscale indicated that the participants thought the changes were troubling, disturbing, and alarming. Additionally, a threat subscale was created to reflect whether participants thought the changes were threatening to their social group, including assessments of whether they thought the changes meant White people were *losing* power and social status or minorities were *gaining* power and social status; whether they believed the information presented was accurate; how the changes would affect their own ethnic group; and how much influence both ethnic minorities and White Americans would have over American society. Higher scores on the threat subscale indicated that participants thought the changes were more threatening to their social group. All items were presented in random order.

For the analyses, a composite evaluations variable was created by reverse scoring the positive evaluation items and averaging them with the negative evaluation items (seven items total). Higher scores on the composite evaluation score indicate participants had more negative

evaluations of the demographic changes. Prior to creating the composite evaluation score, the items were subjected to an exploratory factor analysis and analysis of inter-item consistency. These analyses indicated that the threat subscale was not unidimensional and had low inter-item reliability. Furthermore, the seven threat items prevented the creation of a reliable, unidimensional composite evaluations variable; therefore, they were excluded from analyses.

Additionally, a composite overall explicit threat variable was created by averaging the intergroup affect items and the evaluation items (22 items total). Higher scores on the overall explicit threat variable indicated that participants had more negative overall feelings and evaluations of the demographic changes. Most analyses examined relationships for both the individual intergroup affect and evaluations variables, as well as the combined overall explicit threat variable.

Intergroup threat perceptions. Participants' perceptions of what kind of identity threat the increase in ethnic minorities represented were measured with items adapted from Stephan and Stephan (see Appendix P; 1996). The measure contained three subscales that reflected different components of the Integrated Intergroup Threat model (realist threat, symbolic threat, intergroup anxiety). Participants were asked to indicate how much they agreed with 36 items on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items included "Racial minorities hold too many positions of power and responsibility in this country," "Whites and racial minorities have very different values," and "How much uncertainty do you feel when interacting with racial minorities?" Items were presented in random order and higher scores on each subscale indicated more feelings of that kind of threat.

Self-esteem. I measured two types of self-esteem, collective and personal. Collective self-esteem was measured using Luhtanen and Crocker's (1992) private collective self-esteem

subscale (see Appendix Q). Participants were asked to rate how much they currently agreed with 4 items on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include "I often regret that I belong to some of the social groups I do," and "In general, I'm glad to be a member of the social groups I belong to." Items were presented in random order and higher scores on the scale indicated more positive private collective self-esteem.

Personal self-esteem was measured using Rosenberg's self-esteem scale (see Appendix R; 1979). Participants were asked to rate how much they currently agreed with 10 items on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include "I feel that I am a person of worth, at least on an equal plane with others," and "I feel that I have a number of good qualities." Items were presented in random order and higher scores on the scale indicated more positive personal self-esteem.

As described previously, participants completed half of each of the collective and personal self-esteem scales before rating the job applicants and the other half after rating the job applicants. At each time point, a composite self-esteem variable was created by averaging items on both the personal and collective self-esteem scales (7 items total at each time point). These composite variables (self-esteem at Time 1 and self-esteem at Time 2) were used in the analyses.

Application ratings. Participants' ratings of the applicants were measured using a questionnaire designed to measure participants' evaluations of each applicant, including subscales to measure evaluations of applicants' competence, interpersonal social skills, and overall likelihood of being hired (see Appendix S). Using 35 items adapted from other hiring paradigms (see Heilman, Block, & Lucas, 1992; Rudman & Glick, 2001), participants were asked to answer questions about the applicants on 5-point scales with response options corresponding to the particular question. On the competence subscale participants answered two

questions about the applicants' competence, including "How competently do you expect this individual to perform this job?" and "How effective do you think this individual will be at doing the work," as well as rated the applicants on 15 adjectives (e.g., confident, analytical, persistent). On the social skills subscale participants answered four questions about the applicants' interpersonal skills, such as "Would you characterize this person as someone you want to get to know better?" and "How likely is it that the applicant is willing to listen and support others in this job?", as well as rated the applicants on 12 adjectives (e.g., helpful, friendly, cooperative). Additionally participants answered two questions about the likelihood of the applicants being hired: "Would you choose to interview the applicant for the job?" and "Would you hire the applicant for the job?" Items were presented in random order. Higher scores on each subscale indicate more positive evaluations of the applicant. A composite application rating variable was also created by averaging the response on all three subscales. Higher scores on this composite variable indicated more positive evaluations of the applicant. The questionnaire also included items about the style of the application to reinforce the cover story.

For the analyses, a job applicant differential variable was created by subtracting the Black applicant's ratings from the White applicant's ratings. The sign of the variable indicated whether the Black or White applicant was preferred. Positive scores indicated a preference for the White applicant over the Black applicant and negative scores indicated a preference for the Black applicant over the White applicant. The size of scores on this variable indicated the degree of preference. A differential variable was created for each of the three rating subscales (competences, sociability, likelihood to be hired), as well as for the composite rating variable.

Measures after experiment.

Demographics. Participants were asked to report on several demographic variables, including their age and gender (see Appendix T). Participants also reported their socioeconomic status by responding to the question, "How would you describe your economic situation?" on a scale from 1 (*very poor, not enough to get by*) to 6 (*extremely well to do*). Participants answered this question in reference to when they were growing up and currently, and the socioeconomic status was calculated by averaging these two responses, such that higher score on this variable indicated higher socioeconomic status. Participants reported their mother and father's level of education on a scale from 1 *(less than high school)* to 8 (*professional* degree). Mother and father's level of education was averaged to create the parent's education level variable; higher scores on this variable indicated more educated parents. Political orientation was measured with a single item in which participants rated their political beliefs from 1 (*extremely liberal*) to 7 (*extremely conservative*). Religiosity was also measured with a single item, in which participants reported how important religion was in their life from 1 (*not at all important*) to 7 (*extremely important*); higher scores on this variable indicated greater religiosity. Participants' level of racial contact was measured with nine items, including "How many close friends do you have who are white/black/another race?" and "How would you describe the racial composition of your current workplace?" Different items had different response scales so z-scores were computed for each item and the z-scores were averaged to create a racial contact variable; higher scores on this variable indicated more racial contact. HPR participants also reported their year in school on a scale from 1 (*freshmen*) to 4 (*senior*).

Social Desirability. Participants' tendency to respond in a socially-desirable manner was measured using a shortened version of the Marlowe-Crowne Social Desirability Scale (see

Appendix U; Ballard, 1992). Participants indicated the degree to which they agreed or disagreed with 11 statements on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include “I’m always willing to admit when I make a mistake,” and “I have never deliberately said something that hurt someone’s feelings.” Items were presented in random order and higher scores indicated more socially desirable responding.

Results

Descriptives

Careless responding questions that asked participants to give specific responses were included to ensure that participants were engaged and paying attention throughout the study. Additionally, several manipulation checks were included to ensure that participants had understood the threat manipulation. Eighty participants who did not correctly answer the careless responding and/or manipulation check were excluded from analyses. Additionally, a question asked participants to report what they really thought they study's purpose was to see if the deception had worked. These responses were coded by the researcher for level of suspicion. Five participants who correctly made the association between the first and second part of the study were excluded from analyses. Finally, five participants who reported their race as anything other than White were excluded from analyses. Some of these exclusions overlapped leaving a final sample size of 359 participants (132 men, 227 women). From Mturk there were 204 valid participants and from the HPR sample there were 155 valid participants. All of the hypothesized relationships were examined for differences between the two samples; however, only significant differences are reported. Otherwise, reported results reflect analyses using the combined sample.

Five participants reported they were not born in the United States, but only one of those participants moved to the United States as an adult. The rest had been living in the United States since they were 17 years old or younger. Demographic information for the combined sample is presented in Table 1. Table 1 also presents demographic differences between the Mturk and HPR samples. Correlations between these demographic variables and all of the main study variables are presented in Table 3. Demographic variables that were associated with main dependent study variables were included as control variables in all of the main analyses. The variables meeting this criterion were socioeconomic status, amount of racial contact, and gender. Political

orientation and religiosity were also correlated with the main study variables; however, because they were also related to each other (r = .43), I choose the more strongly correlated variable, political orientation, to include as a control variable. To maintain consistency in interpretation, these control variables were included in all analyses, even when they were not shown to be correlated with the particular dependent variable being tested. Although some of these control variables were not associated with some of the dependent variables in the current study, previous research provides theoretical justification for their inclusion, as well. There are demonstrated gender differences in levels of related variables, such as prejudice and discrimination. For example, women often report less prejudicial racial attitudes than men (e.g., Mills, McGrath, Sobkoviak, Stupec, & Welsh, 1995; Sidanius & Pratto, 1999; Qualls, Cox, & Schehr, 1992). Research on prejudice reduction indicates that amount of racial contact can also influence the degree to which people express prejudice both explicitly and implicitly (for a review see Brown & Hewstone, 2005). Additionally, socioeconomic status (Case, Greeley, & Fuchs, 1989; Pavlak, 1973) and political orientation (Bierly, 1985; Luguri, Napier, & Dovidio, 2012; Prezza, Zampatti, Pacilli, & Paoliello, 2008) often correlate with racial attitudes.

The overall sample means, standard deviations, and Cronbach's alpha for all of the main study variables and their subscales are presented in Table 2. Table 2 also presents the means and standard deviations for the two samples, as well as the results of independent sample t-tests examining differences on all the main variables between the Mturk and HPR samples.

Table 1

Means, standard deviations, and sample differences for demographic variables

Demographic Variable	Scale range	Overall *M (SD)*	Mturk *M (SD)*	HPR *M (SD)*	*t*	*df*	*p*
Age	18-69	28.92 (12.04)	36.33 (11.26)	19.18 (1.30)	21.56	357	**<.001**
Year in school	1-4	1.77 (1.00)	-	1.77 (1.00)	-	-	-
SES	1-6	3.65 (.87)	3.36 (.77)	4.05 (.83)	-8.13	357	**<.001**
Parent's education level	1-8	3.90 (1.58)	3.40 (1.58)	4.56 (1.32)	-7.56	357	**<.001**
Political orientation	1-7	3.46 (1.56)	3.18 (1.61)	3.82 (1.40)	-3.99	356	**<.001**
Religiosity	1-7	3.42 (2.28)	2.83 (2.26)	4.20 (2.06)	-5.97	356	**<.001**
Racial contact	*z*-score	.00 (.36)	.01 (.37)	-.01 (.34)	.66	357	.51
Social desirability	1-5	3.01 (.47)	3.0 1(.50)	3.01 (.42)	-.05	357	.96

Table 2

Means, standard deviations, alphas, and sample differences for all main study variables

Variable	Scale Range	α	Overall *M (SD)*	Mturk *M (SD)*	HPR *M (SD)*	*t*	df	*p*
Implicit Threat	0-1	-	.28 (.09)	.28 (.09)	.29 (.09)	-.88	356	.38
Social	0-1	-	.15 (.08)	.15 (.08)	.1 6(.08)	-1.64	356	.10
Physical	0-1	-	.13 (.07)	.13 (.07)	.13 (.07)	.73	356	.47
Explicit Threat	1-5	.90	1.67 (.42)	1.67 (.48)	1.67 (.31)	.02	357	.98
Intergroup Affect	1-5	.90	1.23 (.37)	1.23 (.43)	1.23 (.28)	-.00	357	.10
Fear	1-5	.85	1.26 (.56)	1.23 (.58)	1.28 (.52)	-.66	357	.51
Anger	1-5	.82	1.16 (.44)	1.16 (.50)	1.16 (.33)	-.06	357	.95
Envy	1-5	.53	1.12 (.30)	1.12 (.33)	1.11 (.27)	.32	357	.75
Disgust	1-5	.81	1.11 (.35)	1.12 (.41)	1.09 (.25)	.66	357	.51
Worry	1-5	.71	1.51 (.64)	1.51 (.70)	1.52 (.56)	-.05	357	.96
Evaluations	1-5	.90	2.61 (.72)	2.61 (.78)	2.61 (.63)	.02	357	.98
Applicant Ratings	1-5	.86	3.93 (.54)	3.85 (.55)	4.04 (.51)	-3.33	357	**.001**
White	1-5	.85	3.90 (.61)	3.81 (.63)	4.03 (.55)	-3.52	357	**<.001**
Black	1-5	.85	3.95 (.64)	3.89 (.63)	4.04 (.65)	-2.29	357	**.02**
Competence	1-5	.71	3.98 (.57)	3.92 (.58)	4.06 (.55)	-2.34	357	**.02**
White	1-5	-	3.96 (.64)	3.89 (.66)	4.05 (.60)	-2.39	357	**.02**
Black	1-5	-	4.00 (.65)	3.95 (.64)	4.07 (.66)	-1.74	357	.08
Social Skills	1-5	.77	3.92 (.63)	3.80 (.64)	4.08 (.59)	-4.15	357	**<.001**
White	1-5	-	3.89 (.69)	3.77 (.70)	4.06 (.64)	-4.05	357	**<.001**
Black	1-5	-	3.95 (.71)	3.83 (.70)	4.09 (.70)	-3.42	357	**.001**
Hiring	1-5	.44	3.89 (.62)	3.82 (.62)	3.97 (.62)	-2.34	357	**.02**
White	1-5	-	3.85 (.75)	3.76 (.77)	3.98 (.70)	-2.80	357	**.01**
Black	1-5	-	3.92 (.81)	3.88 (.78)	3.97 (.84)	-1.03	355	.30
Self-Esteem	1-5	.92	4.03 (.62)	4.00 (.68)	4.06 (.53)	-1.03	357	.32
Time 1	1-5	.86	4.18 (.59)	4.14 (.65)	4.23 (.51)	-1.49	357	.14
Collective	1-5	.65	4.05 (.68)	4.01 (.66)	4.10 (.71)	-1.20	357	.23
Personal	1-5	.86	4.23 (.67)	4.18 (.76)	4.28 (.53)	-1.37	357	.17

Table 2 (cont'd)

Time 2	1-5	.86	3.87 (.71)	3.86 (.77)	3.90 (.63)	-.51	357	.61
Collective	1-5	.68	4.03 (.67)	3.97 (.69)	4.10 (.63)	-1.95	357	**.05**
Personal	1-5	.87	3.81 (.84)	3.82 (.92)	3.81 (.74)	.02	357	.98
Intergroup Threat	1-5	.95	2.28 (.54)	2.24 (.60)	2.33 (.44)	-1.57	357	.12
Realistic	1-5	.93	2.15 (.72)	2.09 (.80)	2.24 (.60)	-2.16	357	**.03**
Symbolic	1-5	.89	2.40 (.66)	2.36 (.73)	3.46 (.56)	-1.35	357	.18
Intergroup Anx.	1-5	.91	2.28 (.47)	2.28 (.51)	2.28 (.43)	-.11	357	.92
Race Centrality	1-7	.91	4.09 (1.41)	4.00 (1.45)	4.21 (1.35)	-1.42	357	.16
Status Legit.	1-5	.93	2.80 (.75)	2.73 (.83)	2.90 (.63)	-2.15	357	**.03**
White Guilt	1-5	.91	3.42 (1.02)	3.58 (1.08)	3.21 (.90)	3.51	357	**.001**
Diffuse S.J.	1-5	.81	2.87 (.69)	2.90 (.77)	2.84 (.58)	.77	357	.44
SDO	1-5	.94	2.57 (1.07)	2.38 (1.16)	2.82 (.88)	-4.09	357	**<.001**
Egalitarian Beliefs	1-5	.85	2.89 (.58)	2.81 (.68)	3.00 (.40)	-3.01	356	**<.001**
CobRAS	1-5	.80	3.00 (.58)	2.95 (.69)	3.06 (.39)	-1.76	356	.08
Att. Toward Min.	1-5	.78	2.75 (.81)	2.62 (.88)	2.91 (.69)	-3.39	356	**< .001**
MRWP	1-5	.81	3.22 (.51)	3.23 (.55)	3.21 (.45)	.44	357	.66

Table 3

Correlations between main study variables and demographic variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 ImpTh	-															
2 ExpTh	-.09	-														
3 AppRat	.09	-.01	-													
4 SelEst	-.07	-.01	.12*	-												
5 IntTh	-.08	.55*	-.06	-.01	-											
6 RaCen	-.07	.26*	.05	.19*	.38*	-										
7 StaLeg	-.16*	.35*	-.04	.19*	.57*	.30*	-									
8 EgBlf	-.14*	.30*	-.05	.16*	.67*	.29*	.64*	-								
9 MRWP	.07	-.10	.10	-.13*	-.22*	.01	-.34*	-.32*	-							
10 Age	-.13*	.08	-.08	.04	-.02	.02	-.09	-.10	.12*	-						
11 YrSch	-.06	-.05	-.09	.12	-.07	.10	-.05	-.10	.04	.87*	-					
12 SES	.07	.09	-.02	.21*	.10	.12*	.21*	.20*	-.08	-.34*	-.06	-				
13 ParEd	.08	-.05	.00	.05	-.04	.07	.10	.01	.00	-.30*	-.04	.45*	-			
14 Polit	-.13*	.20*	.12*	.18*	.37*	.18*	.40*	-.06	.01	.01	.01	.16*	.10	-		
15 Relig	-.07	.10	.16*	.24*	.08	.22*	.09	.19*	.10*	-.08	-.04	.16*	.09	.43*	-	
16 RaCon	.03	-.10	-.06	.02	-.30*	-.22*	-.13*	-.24*	-.09	-.06	-.13	-.01	.04	-.13*	-.02	-
17 SocDe	-.02	-.12*	-.05	.25*	-.10	.02	-.04	.05	.06	.07	-.01	.09	.03	.02	.10	.05

Note. Abbreviated variables are total implicit threat (ImpTh), overall explicit threat (ExpTh), overall job applicant rating differential (AppRat), overall self-esteem (SelEst), combined intergroup threat (IntTh), racial centrality (RaCen), status-legitimzation (StaLeg), egalitarian beliefs (EgBlf), motivation to respond without prejudice (MRWP), year in school (YrSch), socioeconomic status (SES), parent's level of education (ParEd), political orientation (Polit), religiosity (Relig), racial contact (RaCon), and social desirability (SocDe). *$p < .05$.

Hypothesis 1

The purpose of Hypothesis 1 was to examine whether threat responses to demographic changes are specific to changes within one's own social group (the United States) or a general response to change. I hypothesized that reading about demographic changes in the U.S., compared to demographic changes in Eritrea, would result in more explicit and implicit threats to the social identity. A series of one-way between subjects ANOVAs were used to test whether threat levels differed as a function of threat condition (U.S. threat vs. Eritrea threat). Political orientation, socioeconomic status, racial contact, and gender were included as covariates. Cell means are presented in Table 4. All interactions with the sample were not statistically significant; therefore, all results below are presented for the combined sample.

Hypothesis 1a. The ANOVA indicated that there was not a statistically significant difference in social implicit threat, $F(1, 177) = 1.52$, $MSE = .01$, $p = .22$, physical implicit threat, $F(1, 177) = .37$, $MSE = .01$, $p = .54$, or total implicit threat, $F(1, 177) = .38$, $MSE = .01$, $p = .54$. Thus, Hypothesis 1a was not supported as implicit threat levels did not differ as a function of threat condition.

Hypothesis 1b. The ANOVA did not indicate a statistically significant difference in either intergroup affect, $F(1, 178) = .41$, $MSE = .20$, $p = .52$, or overall explicit threat, $F(1, 178) = .46$, $MSE = .22$, $p = .50$. However, the ANOVA did indicate a statistically significant difference in evaluations of the demographic changes between the two threat conditions, $F(1, 178) = 5.27$, $MSE = .50$, $p = .02$, $d = .28$. However, the direction of the difference was opposite of what was predicted, such that evaluations were more negative in the Eritrea threat condition than the U.S. threat condition. Thus, Hypothesis 1b, that explicit social threat would be greater in the U.S. threat condition than in the Eritrea threat condition, was not supported. Evaluations of

the changes, but not overall explicit threat or intergroup affect, were more negative in the Eritrea threat condition than in the U.S. threat condition.

Overall, Hypothesis 1 was not supported. On most of the threat variables, participants who read about demographic changes in the U.S. did not differ from participants who read about demographic changes in Eritrea. The only statistically significant difference was in evaluations of the changes; however, the observed relationship was opposite of the predicted relationship. Participants actually had more negative evaluations of changes in Eritrea than they did of changes in the U.S.

Table 4

Means and standard deviations for threat variables as a function of threat condition

	U.S. Threat *M (SD)*	Eritrea Threat *M (SD)*
Total Implicit Threat	.30 (.10)	.29 (.09)
Implicit Social Threat	.16 (.09)	.14 (.07)
Implicit Physical Threat	.13 (.08)	.14 (.06)
Overall Explicit Threat	1.73 (.55)	1.77 (.37)
Intergroup Affect	1.32 (.42)	1.27 (.42)
Evaluations	2.64 (.88)	2.85 (.56)

Hypothesis 2

Hypothesis 2 examined the main effect of reading about demographic changes on threat responses. It also looked at the moderating role of several attitudes on the relationship between threat condition and reported threat. First, I hypothesized that reading about demographic changes in the United States (as opposed to no changes) would result in explicit and implicit threats to the social identity. Because Hypothesis 1 already tested whether threat responses were specific to one's own social group and the remaining hypothesis were based on Social Identity Theory predictions, all further analyses only included comparisons between the threat condition

and the control condition within the United States. A series of two-way between subjects ANOVAs were used to test whether threat levels differ as a function of U.S. condition (U.S. threat vs. U.S. control). U.S. Condition was the main independent variable. Sample was also included as an independent variable to examine differences between participants from the Mturk and HPR samples. Separate ANOVAs were conducted treating each of the implicit (social, physical, total) and explicit (overall, intergroup affect, evaluations) variables as dependent variables. Political orientation, socioeconomic status, racial contact, and gender were included as covariates. Cell means for the overall sample are presented in Table 4.

Hypothesis 2a. For the implicit threat variables, there was no significant difference in levels of either total implicit threat, $F(1, 183) = .72$, $MSE = .01$, $p = .40$, or social implicit threat, $F(1, 183) = .11$, $MSE = .01$, $p = .74$, between the U.S. threat condition and U.S. control condition. There was also not a significant main effect of sample for total implicit threat, $F(1, 183) = .39$, $MSE = .01$, $p = .53$, or social implicit threat, $F(1, 183) = .30$, $MSE = .01$, $p = .58$. Furthermore the interaction between U.S. Condition and sample was not significant for either total implicit threat, $F(1, 183) = 1.58$, $MSE = .01$, $p = .21$, or social implicit threat, $F(1, 183) = .38$, $MSE = .01$, $p = .54$. For physical implicit threat, the main effects of U.S. condition, $F(1, 183) = .01$, $MSE = .01$, $p = .14$, and sample, $F(1, 183) = .02$, $MSE = .01$, $p = .88$, were not significant. However, there was a significant interaction between the sample and U.S. condition for physical implicit threat, $F(1, 183) = 5.31$, $MSE = .01$, $p = .02$.

To break down the interaction, two simple main effects were computed. In the first, the effect of U.S. condition was assessed for Mturk participants. This analysis yielded an $F(1, 109) = .59$, $MSE = .01$, $p = .44$. Thus, for Mturk participants, the U.S. threat condition, $M = 12.30$ ($SD = 7.35$), and the U.S. control condition, $M = 13.36$ ($SD = 7.19$), did not differ from each other in

level of physical implicit threat. In the second simple main effect, the effect of U.S. condition was assessed for HPR participants. This analysis yielded an $F(1, 70) = 7.32$, $MSE = .01$, $p = .01$. For the HPR sample, participants in the U.S. threat condition, $M = 14.17$ ($SD = 9.29$), felt more physical implicit threat than participants in the U.S. control condition, $M = 10.77$ ($SD = 6.52$), $d = .42$.

Thus, Hypothesis 2a, that implicit threat would be greater in the U.S. threat condition than in the U.S. control condition, was only partially supported. Social and total implicit threat did not differ between the two conditions. Participants in the U.S. threat condition felt more physical implicit threat than participants in the U.S. control condition, but only for HPR participants.

Hypothesis 2b. Next, I compared the effects of the U.S. condition and sample, as well as the interaction, on each of the explicit threat variables (overall, intergroup affect, evaluations) separately. The main effect of condition was not significant for intergroup affect, $F(1, 184) = 3.29$, $MSE = .14$, $p = .07$; evaluations, $F(1, 184) = 1.33$, $MSE = ..56$, $p = .25$; or overall explicit threat, $F(1, 184) = 2.96$, $MSE = .19$, $p = .09$. The main effect of sample was also not significant for intergroup affect, $F(1, 184) = 1.00$, $MSE = .14$, $p = .32$; evaluations, $F(1, 184) = 2.96$, $MSE = .56$, $p = .09$; or overall explicit threat, $F(1, 184) = 2.39$, $MSE = .19$, $p = .12$. The interaction between U.S. condition and sample was not significant for intergroup affect, $F(1, 184) = 3.22$, $MSE = .14$, $p = .08$, or evaluations, $F(1, 184) = 3.65$, $MSE = .56$, $p = .06$. However, for overall explicit threat the ANOVA indicated a significant interaction between the sample and U.S. condition, $F(1, 184) = 4.45$, $MSE = .19$, $p = .04$.

To break down the interaction, two simple main effects were computed. In the first, the effect of U.S. condition was assessed for Mturk participants. This analysis yielded an $F(1, 109) =$

7.55, *MSE* = .24, *p* = .01. For Mturk participants, participants felt more overall explicit threat in the U.S. threat condition, *M* = 1.78 (*SD* = .63), than in the U.S. control condition, *M* = 1.53 (*SD* = .29), *d* = .51. In the second simple main effect, the effect of U.S. condition was assessed for HPR participants. This analysis yielded an *F*(1, 71) = .07, *MSE* = .11, *p* = .79. For the HPR participants, participants in the U.S. threat condition, *M* = 1.67 (*SD* = .36), and in the U.S. control condition, *M* = 1.66 (*SD* = .35), did not differ from each other in level of overall explicit threat.

Thus, Hypothesis 2b, that explicit threat would be greater in the U.S. threat condition than in the U.S. control condition, was only partially supported. The subscales of intergroup affect and evaluations did not significantly differ between the two U.S. conditions or between the two samples, nor were the interactions between condition and sample significant. However, participants in the Mturk, but not the HPR sample, reported more overall explicit threat in the U.S. threat condition.

Table 5

Means and standard deviations for threat variables as a function of U.S. condition

	U.S. Threat Condition *M* (*SD*)	U.S. Control Condition *M* (*SD*)
Total Implicit Threat	.29 (.10)	.28 (.08)
Implicit Social Threat	.16 (.09)	.16 (.08)
Implicit Physical Threat	.13 (.08)	.12 (.70)
Overall Explicit Threat	1.74 (.55)	1.58 (.33)
Intergroup Affect	1.32 (.48)	1.18 (.24)
Evaluations	2.64 (.88)	2.45 (.71)

Hypothesis 2c. Multiple regression analyses were conducted to examine the moderating role of racial centrality on the relationship between U.S. threat condition and reported threat. In the first step, political orientation, socioeconomic status, racial contact, and gender were entered

as control variables. In the second step, racial centrality and U.S. threat condition were entered as predictors. In step 3, the two-way interaction between racial centrality and U.S. threat condition was entered as a predictor. Prior to computing the regression, racial centrality was centered at its mean, threat condition was dummy coded, and the interaction effect was computed by multiplying these two variables. Separate regression analyses were examined for each implicit threat outcome (total, social, physical) and each explicit threat outcome (overall, intergroup affect, evaluations). The regression results are presented in Table 5. All three-way interactions between the sample, racial identity, and threat condition were not statistically significant; therefore, all results below are presented for the combined sample.

As can be seen in the table, the main effects of racial centrality and U.S. threat condition were not statistically significant for any of the implicit threat variables (total, physical, social). Furthermore, the interaction between racial centrality and U.S. threat condition was not statistically significant for any of the implicit threat variables, indicating that the relationship between threat condition and experiences of implicit threat did not differ depending on the level of participants' racial centrality.

For explicit threat, both the main effects of threat condition and racial centrality were significant for overall explicit threat and intergroup affect. Participants who reported that race was a central part of their identity and participants in the threat condition reported more overall explicit threat and more negative intergroup affect. Participants who reported more racial centrality did report more negative evaluations of the changes; however, threat condition did not uniquely predict variance in the evaluations of the changes. However, as with implicit threat, the two-way interactions for all three explicit variables were not significant, indicating that the relationship between threat condition and experiences of explicit threat did not differ depending

on the level of participants' racial identity. Thus, Hypothesis 2c was not supported; racial centrality did not moderate the relationship between threat condition and implicit and explicit threat.

Table 6

Regression results predicting threat with threat condition, racial centrality, and the interaction

	Total Implicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.02								
Political Orientation		-.01 (-.10)	.00		-.01 (-.11)	.00		-.01 (-.10)	.00
Socioeconomic Status		.01 (.06)	.01		.01 (.05)	.01		.01 (.05)	.01
Racial Contact		.00 (.00)	.02		.00 (.01)	.02		.00 (.02)	.02
Gender		.01 (.08)	.01		.01 (.07)	.01		.01 (.07)	.01
Step 2				.00					
Racial Centrality					.00 (.05)	.01		-.00 (-.02)	.01
U.S. Threat Condition					-.01 (-.04)	.01		-.01 (-.04)	.01
Step 3							.00		
Racial Centrality x U.S. Threat Condition								.01 (.09)	.01
Total R^2							.03		

	Social Implicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.06								
Political Orientation		-.01 (-.08)	.00		-.01 (-.10)	.00		-.01 (-.10)	.00
Socioeconomic Status		.00 (.04)	.01		.00 (.02)	.01		.00 (.03)	.01
Racial Contact		-.01 (-.05)	.02		-.01 (-.02)	.02		-.01 (-.03)	.02
Gender		.04 (.21)**	.01		.04 (.22)**	.01		.04 (.22)**	.01
Step 2				.01					
Racial Centrality					.01 (.12)	.00		.01 (.17)	.01
U.S. Threat Condition					.00 (.02)	.01		.00 (.02)	.01
Step 3							.00		
Racial Centrality x U.S. Threat Condition								-.01 (-.07)	.01

Table 6 (cont'd)

Total R^2							.07		
	Physical Implicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.03								
Political Orientation		-.00 (-.03)	.00		-.00 (-.02)	.00		-.00 (-.01)	.00
Socioeconomic Status		.00 (.03)	.01		.00 (.04)	.01		.00 (.03)	.01
Racial Contact		.01 (.05)	.02		.01 (.04)	.02		.01 (.05)	.02
Gender		-.02 (-.16)*	.01		-.03 (-.17)*	.01		-.03 (-.17)*	.01
Step 2				.01					
Racial Centrality					-.00 (-.08)	.00		-.01 (-.22)*	.01
U.S. Threat Condition					-.01 (-.07)	.01		-.01 (-.08)	.01
Step 3							.02		
Racial Centrality x U.S. Threat Condition								.01 (.20)	.01
Total R^2							.06		
	Overall Explicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.09								
Political Orientation		.05 (.19)**	.02		.05 (.17)*	.02		.05 (.16)*	.02
Socioeconomic Status		.03 (.06)	.04		.02 (.04)	.04		.02 (.05)	.04
Racial Contact		-.21 (-.17)*	.09		-.14 (-.11)	.09		-.15 (-.12)	.09
Gender		.06 (.06)	.07		.05 (.05)	.07		.05 (.05)	.07
Step 2				.09***					
Racial Centrality					.08 (.25)***	.02		.11 (.36)**	.03
U.S. Threat Condition					-.15 (-.16)**	.06		-.14 (-.15)*	.06
Step 3							.01		
Racial Centrality x U.S. Threat Condition								-.07 (-.15)	.04

Table 6 (cont'd)

Total R^2							.14		
	Intergroup Affect								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.04								
Political Orientation		.02 (.07)	.02		.01 (.05)	.02		.01 (.05)	.02
Socioeconomic Status		.03 (.07)	.03		.02 (.05)	.02		.02 (.05)	.03
Racial Contact		-.11 (-.10)	.08		-.05 (-.05)	.08		-.06 (-.05)	.08
Gender		.09 (.11)	.06		.08 (.10)	.06		.08 (.10)	.06
Step 2				.07***					
Racial Centrality					.06 (.22)**	.02		.08 (.28)**	.03
U.S. Threat Condition					-.13 (-.16)*	.05		-.12 (-.16)*	.06
Step 3							.00		
Racial Centrality x U.S. Threat Condition								-.03 (-.09)	.04
Total R^2							.08		
	Evaluations								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.11								
Political Orientation		.13 (.26)***	.04		.13 (.25)***	.04		.12 (.24)***	.04
Socioeconomic Status		.04 (.04)	.06		.01 (.02)	.06		.02 (.03)	.06
Racial Contact		-.44 (-.20)**	.15		-.33 (-.15)*	.15		-.35 (-.16)*	.15
Gender		-.01 (-.00)	.12		-.01 (-.01)	.11		-.02 (-.01)	.11
Step 2				.06**					
Racial Centrality					.12 (.22)**	.04		.19 (.35)**	.06
U.S. Threat Condition					-.19 (-.12)	.11		-.17 (-.11)	.11
Step 3							.01		

Table 6 (cont'd)

Racial Centrality x U.S. Threat Condition		-.13 (-.17)	.07
Total R^2	.20		

Note. R^2 values do not sum to total R^2 because of rounding.
*** $p < .001$. ** $p < .01$ * $p < .05$.

Hypothesis 2d. Similar multiple regression analyses were conducted to examine the moderating role of status-legitimizing beliefs on the relationship between the threat condition and experiences of social identity threat. In the first step, political orientation, socioeconomic status, racial contact, and gender were entered as control variables. In the second step, status-legitimization and U.S. threat condition were entered as predictors. In step 3, the two-way interaction between system justification and U.S. threat condition was entered as a predictor. Prior to computing the regression, status-legitimization was centered at its mean, threat condition was dummy coded, and the interaction effect was computed by multiplying these two variables. Separate regression analyses were examined for each implicit threat outcome (total, social, physical) and each explicit threat outcome (overall, intergroup affect, evaluations). The regression results are presented in Table 6. All three-way interactions between the sample, status-legitimization, and threat condition were not statistically significant; therefore, all results below are presented for the combined sample.

As can be seen in the table, status-legitimization beliefs significantly predicted both total implicit threat and physical implicit threat, such that participants who reported more belief in the status quo reported less total implicit threat and physical implicit threat. However, status-legitimization beliefs did not significantly predict social implicit threat. Threat condition did not significantly predict any of the implicit threat variables. Also, the interaction between status-legitimization and threat condition was not significant for any of the implicit threat variables, indicating that the relationship between level of experienced implicit threat and threat condition did not depend on participants' level of status-legitimization.

For explicit threat, as with racial centrality, both the main effects of threat condition and status-legitimization were significant for overall explicit threat and intergroup affect. Participants

who reported more belief in the status quo and participants in the threat condition reported more overall explicit threat and more negative intergroup affect. Participants who reported more status-legitimization did report more negative evaluations of the changes; however, threat condition did not uniquely predict variance in the evaluations of the changes. The interaction between status-legitimization and threat condition was significant only for intergroup affect.

To break down this interaction, simple slopes analyses were conducted. In these analyses, the effect of threat condition was estimated separately for participants in the U.S threat condition and participants in the control condition. In the U.S. threat condition, the simple slope for status-legitimization was $b = .23$, $t(93) = 3.80$, $p < .001$. Thus, for individuals who read about demographic changes, more status-legitimization was related to more negative intergroup affect. In the control condition, the simple slope for status-legitimization was $b = .02$, $t(87) = .49$, $p = .63$, indicating that when participants read about no demographic changes status-legitimization was unrelated to intergroup affect. Thus, Hypothesis 2d was only partially supported; status-legitimization only moderated the relationship between threat condition and negative intergroup affect.

Table 7

Regression results predicting threat with threat condition, status-legitimization, and the interaction

	Total Implicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.02								
Political Orientation		-.01 (-.10)	.00		-.00 (-.04)	.00		-.00 (-.04)	.00
Socioeconomic Status		.01 (.06)	.09		.01 (.09)	.09		.01 (.09)	.09
Racial Contact		-.00 (-.00)	.02		-.01 (-.02)	.02		-.01 (-.02)	.02
Gender		.01 (.08)	.01		.01 (.03)	.01		.01 (.03)	.01
Step 2				.05*					
Status-legitimization					-.03 (-.22)**	.01		-.03 (-.22)*	.01
U.S. Threat Condition					-.01 (-.05)	.01		-.01 (-.05)	.01
Step 3							.00		
Status-legitimization x U.S. Threat Condition								-.00 (-.01)	.02
Total R^2							.06		
	Social Implicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.06								
Political Orientation		-.01 (-.08)	.00		-.00 (-.06)	.00		-.00 (-.06)	.00
Socioeconomic Status		.00 (.04)	.01		.01 (.05)	.01		.01 (.07)	.01
Racial Contact		-.01 (-.05)	.02		-.01 (-.06)	.02		-.01 (-.05)	.02
Gender		.04 (.21)**	.01		.04 (.20)**	.01		.03 (.19)*	.01
Step 2				.01					
Status-legitimization					-.01 (-.10)	.01		-.00 (-.03)	.01
U.S. Threat Condition					.00 (.02)	.01		.00 (.02)	.01
Step 3							.01		

Table 7 (cont'd)

Status-legitimization x U.S. Threat Condition								-.02 (-.11)	.02
Total R^2							.07		
	Physical Implicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.03								
Political Orientation		-.00 (-.03)	.00		.00 (.02)	.00		.00 (.02)	.00
Socioeconomic Status		.00 (.03)	.01		.00 (.05)	.01		.00 (.02)	.00
Racial Contact		.01 (.05)	.02		.01 (.04)	.02		.00 (.03)	.02
Gender		-.02 (-.16)*	.01		-.03 (.20)**	.01		-.03 (-.19)*	.01
Step 2				.03					
Status-legitimization					-.02 (-.16)*	.01		-.02 (-.24)*	.01
U.S. Threat Condition					-.01 (-.08)	.01		-.01 (-.08)	.01
Step 3							.01		
Status-legitimization x U.S. Threat Condition								.02 (.12)	.01
Total R^2							.07		
	Overall Explicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.09								
Political Orientation		.05 (.19)**	.02		.03 (.09)	.02		.02 (.08)	.02
Socioeconomic Status		.03 (.06)	.04		.01 (.02)	.03		.02 (.04)	.03
Racial Contact		-.21 (-.17)*	.09		-.15 (-.12)	.09		-.15 (-.12)	.08
Gender		.06 (.06)	.07		.11 (.12)	.06		.10 (.11)	.06
Step 2				.17***					
Status-legitimization					.24 (.40)***	.04		.30 (.49)***	.05
U.S. Threat Condition					-.13 (-.15)*	.06		-.13 (-.15)*	.06
Step 3							.01		

Table 7 (cont'd)

Status-legitimization x U.S. Threat Condition								-.13 (-.14)	.08
Total R^2							.14		
	Intergroup Affect								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.04								
Political Orientation		.02 (.07)	.02		-.00 (-.01)	.02		-.00 (-.01)	.02
Socioeconomic Status		.03 (.07)	.03		.02 (.04)	.03		.03 (.07)	.03
Racial Contact		-.11 (-.10)	.08		-.07 (-.06)	.07		-.06 (-.06)	.07
Gender		.09 (.11)	.06		.12 (.14)	.06		.11 (.13)	.06
Step 2				.11***					
Status-legitimization					.15 (.30)***	.04		.23 (.45)***	.05
U.S. Threat Condition					.16 (.30)*	.04		-.12 (-.15)*	.05
Step 3							.03*		
Status-legitimization x U.S. Threat Condition								-.17 (-.22)*	.07
Total R^2							.08		
	Evaluations								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.13								
Political Orientation		.13 (.26)***	.04		.08 (.16)*	.03		.08 (.16)	.03*
Socioeconomic Status		.04 (.04)	.06		-.00 (-.00)	.06		.00 (.002)	.06
Racial Contact		-.44 (-.20)**	.15		-.34 (-.15)*	.14		-.34 (-.15)*	.14
Gender		-.01 (-.003)	.12		.09 (.06)	.11		.09 (.05)	.11
Step 2				.16***					
Status-legitimization					.43 (.41)***	.07		.45 (.43)***	.09
U.S. Threat Condition					-.16 (-.10)	.10		-.16 (-.10)	.10
Step 3							.00		

Table 7 (cont'd)

Status-legitimization x U.S. Threat Condition		-.05 (-.03)	.14
Total R^2	.29		

Note. R^2 values do not sum to total R^2 because of rounding.
*** $p < .001$. ** $p < .01$ * $p < .05$.

Hypothesis 2e. Finally, similar multiple regression analyses were conducted to examine the moderating role of motivation to respond without prejudice (MRWP) on the relationship between U.S. threat condition and experiences of social identity threat. In the first step, political orientation, socioeconomic status, racial contact, and gender were entered as control variables. In the second step, MRWP and U.S. threat condition were entered as predictors. In step 3, the two-way interaction between MRWP and U.S. threat condition was entered as a predictor. Prior to computing the regression, MRWP was centered at its mean, threat condition was dummy coded, and the interaction effect was computed by multiplying these two variables. Separate regression analyses were examined for each implicit threat outcome (total, social, physical) and each explicit threat outcome (overall, intergroup affect, evaluations). The regression results are presented in Table 7. All three-way interactions between the sample, MRWP, and threat condition were not statistically significant; therefore, all results below are presented for the combined sample.

As can be seen in the table, as predicted, neither of the main effects nor the interaction was statistically significant for any of the implicit threat variables. However, for explicit threat, as seen in previous analyses, threat condition significantly predicted overall explicit threat and intergroup affect, such that explicit threat was higher and intergroup affect was more negative in the threat condition compared to the control condition. Threat condition did not significantly predict evaluations of the changes. MRWP did significantly predict evaluations, such that participants who reported a greater desire to appear non-prejudiced reported less negative evaluations of the changes. MRWP did not significantly predict overall explicit threat or intergroup affect. The two-way interaction between MRWP and threat condition was not significant for any of the explicit threat variables, indicating that the relationship between

participants' experiences of explicit threat and threat condition did not depend on their motivation to respond without prejudice. Thus, Hypothesis 2e was only partially supported. MRWP did not moderate the effect of threat condition on implicit threat as predicted; however, it also did not moderate the effect of threat condition on explicit threat.

Table 8

Regression results predicting threat with threat condition, motivation to respond without prejudice, and the interaction

	Total Implicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.02								
Political Orientation		-.01 (-.10)	.00		-.01 (-.10)	.00		-.01 (-.10)	.00
Socioeconomic Status		.01 (.06)	.01		.01 (.06)	.01		.01 (.07)	.01
Racial Contact		-.00 (-.00)	.02		.00 (.00)	.02		.00 (.01)	.02
Gender		.01 (.08)	.01		.01 (.06)	.02		.01 (.07)	.02
Step 2				.00					
MRWP					.00 (.02)	.01		-.02 (-.10)	.02
U.S. Threat Condition					-.01 (-.04)	.01		-.01 (-.04)	.01
Step 3							.02		
MRWP x U.S. Threat Condition								.04 (.18)	.03
Total R^2							.06		
	Social Implicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.06								
Political Orientation		-.01 (-.08)	.00		-.01 (-.09)	.00		-.01 (-.08)	.00
Socioeconomic Status		.00 (.04)	.01		.00 (.04)	.01		.00 (.05)	.01
Racial Contact		-.01 (-.05)	.02		-.01 (-.05)	.02		-.01 (-.04)	.02
Gender		.04 (.21)**	.01		.04 (.21)**	.01		.04 (.21)**	.01
Step 2				.00					
MRWP					.00 (.02)	.01		-.01 (-.08)	.02
U.S. Threat Condition					.00 (.02)	.01		.00 (.02)	.01
Step 3							.01		

Table 8 (cont'd)

MRWP x U.S. Threat Condition								.03 (.14)	.02
Total R^2							.07		
	Physical Implicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.03								
Political Orientation		-.00 (-.03)	.00		-.00 (-.03)	.00		-.00 (-.03)	.00
Socioeconomic Status		.00 (.03)	.01		.00 (.03)	.01		.00 (.03)	.01
Racial Contact		.01 (.05)	.02		.01 (.06)	.02		.01 (.06)	.02
Gender		-.02 (-.16)*	.01		-.03 (-.17)*	.01		-.03 (-.17)*	.01
Step 2				.01					
MRWP					.00 (.01)	.01		-.01 (-.03)	.01
U.S. Threat Condition					-.01 (-.07)	.01		-.01 (-.07)	.01
Step 3							.00		
MRWP x U.S. Threat Condition								.01 (.06)	.02
Total R^2							.04		
	Overall Explicit Threat								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.09								
Political Orientation		.05 (.19)**	.02		.06 (.20)**	.02		.06 (.20)**	.02
Socioeconomic Status		.03 (.06)	.04		.03 (.06)	.04		.03 (.06)	.04
Racial Contact		-.21 (-.17)*	.09		-.23 (-.18)**	.09		-.23 (-.19)**	.09
Gender		.06 (.06)	.07		.09 (.09)	.07		.09 (.09)	.07
Step 2				.06**					
MRWP					-.17 (-.19)**	.06		-.15 (-.17)	.09
U.S. Threat Condition					-.15 (-.17)*	.06		-.15 (-.17)*	.06
Step 3							.00		

Table 8 (cont'd)

MRWP x U.S. Threat Condition								-.04 (-.03)	.12
Total R^2							.15		
	Affect								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.04								
Political Orientation		.02 (.07)	.02		.02 (.08)	.02		.02 (.08)	.02
Socioeconomic Status		.03 (.07)	.03		.03 (.07)	.03		.03 (.07)	.03
Racial Contact		-.11 (-.10)	.08		-.11 (-.10)	.08		-.11 (-.10)	.08
Gender		.09 (.11)	.06		.09 (.11)	.06		.09 (.11)	.06
Step 2				.03					
MRWP					-.05 (-.06)	.06		-.05 (-.06)	.08
U.S. Threat Condition					-.13 (-.17)*	.06		-.13 (-.17)*	.06
Step 3							.00		
MRWP x U.S. Threat Condition								.00 (.00)	.10
Total R^2							.07		
	Evaluations								
	Step 1			*Step 2*			*Step 3*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.13								
Political Orientation		.13 (.26)***	.04		.14 (.28)***	.03		.14 (.28)***	.03
Socioeconomic Status		.04 (.04)	.06		.03 (.04)	.06		.03 (.03)	.06
Racial Contact		-.44 (-.20)**	.15		-.49 (-.22)***	.15		-.50 (-.23)***	.15
Gender		-.01 (-.00)	.12		.09 (.05)	.12		.08 (.05)	.12
Step 2				.08***					
MRWP					-.42 (-.27)***	.11		-.36 (-.24)*	.14
U.S. Threat Condition					-.20 (-.13)	.11		-.20 (-.13)	.11

Table 8 (cont'd)

Step 3	.00		
MRWP x U.S. Threat Condition		-.11 (-.05)	.20
Total R^2	.18		

Note. R^2 values do not sum to total R^2 because of rounding.
*** $p < .001$. ** $p < .01$ * $p < .05$.

Hypothesis 3

The purpose of Hypothesis 3 was to examine the effect of U.S. threat condition on discriminatory backlash behavior. I hypothesized that participants who read about demographic changes in the United States, compared to those who read about no changes, would show more discriminatory backlash behavior (as indicated by a greater difference in ratings of White job applicants and Black job applicants). A one-way between subjects ANOVA was used to test this prediction. Means and standard deviations for the two groups are presented in Table 9. All interactions with the sample were not statistically significant; therefore, all results below are presented for the combined sample.

The ANOVA did not indicate a statistically significant difference in the overall applicant rating differential between the U.S. threat and U.S. control conditions, $F(1, 186) = 1.22$, $MSE = .39$, $p = .27$. Job applicant rating differentials of social skills, $F(1, 186) = .09$, $MSE = .39$, $p = .77$, and likelihood to be hired, $F(1, 186) = .49$, $MSE = .80$, $p = .49$, also did not differ between the two conditions. However, the job applicant rating differential of competence was significantly different, $F(1, 186) = 3.91$, $MSE = .40$, $p = .05$, such that participants in the threat condition actually rated Black applicant as more competent than White applicant, whereas participants in the control condition rated the White applicant as more competent than the Black applicant. Thus, Hypothesis 3 was not supported. For most of the job applicant ratings, reading about a future White minority did not increase participants' engagement in discriminatory backlash behaviors. However, for the competence ratings, there was a difference between White and Black applicants in the opposite direction of what was predicted.

Table 9

Means and standard deviations for applicant rating differentials as a function of threat condition

	U.S. Threat Condition	U.S. Control Condition
	M (SD)	*M (SD)*
Total Rating Differential	-.10 (.53)	.00 (.70)
Competence Rating Differential	-.11 (.55)	.08 (.70)
Social Skills Rating Differential	-.05 (.60)	-.03 (.63)
Likelihood to be Hired Rating Differential	-.13 (.78)	-.04 (.98)

Hypothesis 4

Hypothesis 4 examined the mediating role of self-esteem. I predicted that the relationship between U.S. threat condition and discriminatory backlash behavior would be mediated by participants' self-reported self-esteem at time 1. Although there was no relationship between U.S. threat condition and applicant ratings, Edwards and Lambert (2007) notes that mediation may still occur in such a case if the entire relationship between the variables is indirect through the mediator. Thus, I proceeded to test mediation.

Hypotheses 4a and 4b. Hypothesis 4a and 4b were tested using mediation analysis, whereby U.S. threat condition was the independent variable, job applicant rating differential was the dependent variable, self-esteem at time 1 was the mediator, and political orientation, socioeconomic status, racial contact, and gender were controlled (Baron & Kenny, 1986). Using an algorithm by Preacher and Hayes (2007), I employed a bootstrapping procedure in which a 95% confidence interval was created for the size of the indirect effect (using 5000 bootstrap resamples). All interactions with the sample were not statistically significant; thus, results are presented for the combined sample.

Threat condition did not significantly predict either job applicant rating differentials or self-esteem at Time 1 (see Figure 7). Self-esteem also did not significantly predict job applicant

rating differentials. Furthermore, self-esteem did not mediate the relationship between threat condition and overall job applicant rating differentials, indirect effect = .003, *SE* = .01, 95% CI: (-.01, .04). Thus, neither Hypothesis 4a nor Hypothesis 4b was supported, as self-esteem did not mediate the relationship between threat condition and discriminatory backlash behaviors.

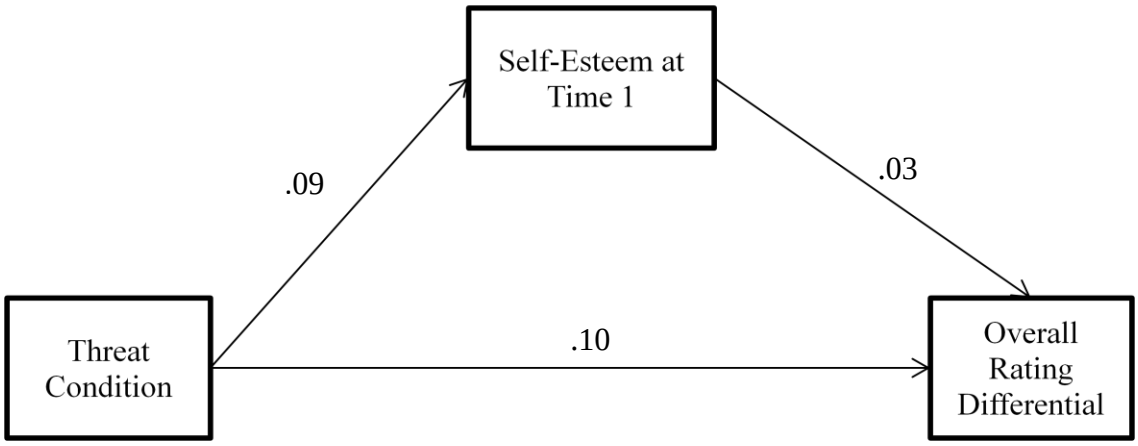

Figure 7. The mediating role of self-esteem at time 1 in the relation between threat condition and job applicant rating differential.
Note. Coefficients are unstandardized. Analyses control for political orientation, socioeconomic status, racial contact, and gender.

Hypothesis 4c. Multiple regression analyses were used to determine the degree to which self-esteem at time 2 could be predicted by job applicant rating differentials. The outcome was self-esteem at time 2 and job applicant rating differential score was entered as the predictor. Self-esteem at time 1 was included as a control variable. Because the interactions with the sample were not statistically significant, all results are presented for the combined sample. As can be seen in Table 10, controlling for self-esteem at time 1, overall job applicant rating differentials did not significantly predict self-esteem at time 2. Thus, engaging in backlash did not lead to an increase in Time 2 self-esteem and Hypothesis 4c was not supported.

Table 10

Regression results predicting self-esteem at time 2 with overall job differential ratings.

	Self-Esteem at Time 2		
	b	*β*	*SE*
Self-Esteem at Time 1	.97***	.81	.04
Overall Rating Differential	-.03	-.03	.04

*** $p < .001$.

Hypothesis 5

Whereas Hypothesis 3 examined the relationship between reading about demographic changes (i.e., condition) and discriminatory backlash behavior, Hypothesis 5 examined the relationship between actual reported threat and discriminatory backlash behavior. I predicted that participants who reported more implicit or explicit threat would show more discriminatory backlash behaviors (as indicated by a great differential between ratings of White job applicants and Black job applicants). Multiple regression analyses were conducted to determine the degree to which job applicant rating differentials could be predicted as a function of level of experienced threat. The outcome was the difference score between ratings of White and Black job applicants. In the first step, political orientation, socioeconomic status, racial contact, and gender were entered as control variables. In the second step, overall explicit and total implicit threat were entered simultaneous as predictors. Separate regression analyses were examined for each of the job applicant rating differential variables (overall, competence, social skills, likelihood to be hired). The regression results are presented in Table 11. All interactions with the sample were not statistically significant; therefore, all results below are presented for the combined sample.

For the overall applicant rating differential, controlling for total implicit threat, individuals who reported more explicit threat reported greater rating differentials, such that as explicit threat increased, the White applicant was rated more positively than the Black applicant. However, controlling for explicit social threat, implicit social threat did not predict a significant proportion of variance in the overall rating differentials. Similar patterns of results were found for each of the three applicant rating differential subscales. Controlling for implicit social threat, as explicit threat increased, the White applicant was rated as more competent, more socially skilled, and more likely to be hired than the Black applicant. Thus, Hypothesis 5 was partially supported. Explicit, but not implicit threat, predicted discriminatory backlash behaviors.

Table 11

Regression results predicting applicant rating differential with overall explicit threat and total implicit threat

	Overall Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b(β)*	*SE*	ΔR^2	*b(β)*	*SE*
Step 1:	.00					
Political Orientation		-.00 (-.01)	.02		-.02 (-.05)	.24
Socioeconomic Status		.01 (.01)	.04		.01 (.01)	.04
Racial Contact		-.05 (-.03)	.09		-.02 (-.01)	.09
Gender		-.06 (-.04)	.07		-.06 (-.04)	.07
Step 2				.03		
Overall Explicit Threat					.26 (.18)***	.08
Total Implicit Threat					-.39 (-.06)	.37
Total R^2				.04		
	Competence Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b(β)*	*SE*	ΔR^2	*b(β)*	*SE*
Step 1:	.00					
Political Orientation		.06 (.01)	.02		-.01 (-.03)	.02
Socioeconomic Status		.01 (.02)	.04		.01 (.02)	.04
Racial Contact		-.02 (-.01)	.09		.01 (.00)	.09
Gender		-.08 (-.06)	.07		-.08 (-.06)	.07

Table 11 (cont'd)

Step 2				.04		
Overall Explicit Threat					.27 (.18)***	.08
Total Implicit Threat					-.45 (-.07)	.37
Total R^2				.04		
	Social Skills Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b(β)*	*SE*	ΔR^2	*b(β)*	*SE*
Step 1:	.00					
Political Orientation		.00 (.00)	.02		-.01 (-.03)	.02
Socioeconomic Status		.00 (.00)	.04		-.01 (-.01)	.04
Racial Contact		-.02 (-.01)	.09		.00 (.00)	.09
Gender		-.01 (-.01)	.07		-.01 (-.01)	.07
Step 2				.03		
Overall Explicit Threat					.24 (.16)**	.08
Total Implicit Threat					-.22 (-.03)	.36
Total R^2				.03		
	Likelihood to be Hired Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b(β)*	*SE*	ΔR^2	*b(β)*	*SE*
Step 1:	.00					
Political Orientation		-.01 (-.02)	.03		-.03 (-.05)	.03
Socioeconomic Status		.01 (.01)	.06		.01 (.01)	.06
Racial Contact		-.10 (-.04)	.14		-.08 (-.03)	.14
Gender		-.07 (-.04)	.10		-.07 (-.04)	.10
Step 2				.02		
Overall Explicit Threat					.26 (.11)*	.13
Total Implicit Threat					-.52 (-.05)	.57
Total R^2				.02		

Note. R^2 values do not sum to total R^2 because of rounding.
*** $p < .001$. ** $p < .01$ * $p < .05$.

Hypothesis 6

Similar to Hypothesis 4, Hypothesis 6 examined the mediating role of self-esteem, this time in the relationship between reported threat and discriminatory backlash behavior. In Hypotheses 6a and 6b, I predicted that self-esteem would mediate the relationship between both implicit and explicit threat and discriminatory backlash behaviors (as indicated by the differential between ratings of White job applicants and Black job applicants). Additionally, in Hypothesis

6c, I predicted that egalitarian beliefs would moderate the relationship between self-esteem and backlash, as well as the relationship between implicit and explicit threat and backlash, such that relationships would be weaker for participants who were more concerned with equality. Hypothesis 6 was tested using mediation analysis, whereby experienced threat was the independent variable, job applicant rating differential was the dependent variable, self-esteem at time 1 was the mediator, and political orientation, socioeconomic status, racial contact, and gender were controlled (Baron & Kenny, 1986). Furthermore, egalitarian beliefs were included as potential moderator of the path from self-esteem at Time 1 to job applicant rating differentials and the path from threat to job applicant rating differentials. Using an algorithm by Preacher and Hayes (2007), we employed a bootstrapping procedure in which a 95% confidence interval was created for the size of the indirect effect (using 5000 bootstrap resamples). A separate moderated mediation model was estimated for each of the types of threat, overall explicit threat and total implicit threat. Furthermore, because there were sample differences, results are presented separately for the two samples (Mturk/HPR).

Explicit threat. Overall explicit threat did not significantly predict self-esteem at Time 1 in either the Mturk or HPR sample (see Figure 8). In both samples, overall explicit threat significantly predicted overall rating differentials. However, self-esteem at Time 1 only significantly predicted overall rating differentials in the Mturk sample, but not the HPR sample. The mediation of the relationship between overall explicit threat and overall rating differentials by self-esteem at time1 was not significant for either the Mturk sample, indirect effect = -.01, *SE* = .02, 95% CI (-.07, .01), or HPR sample, indirect effect = -.0003, *SE* = .02, 95% CI (-.04, .03). Egalitarian beliefs moderated the relationship between self-esteem and overall rating differentials

in the Mturk sample; however, in the HPR sample, egalitarian beliefs moderated the relationship between overall explicit threat and overall rating differentials.

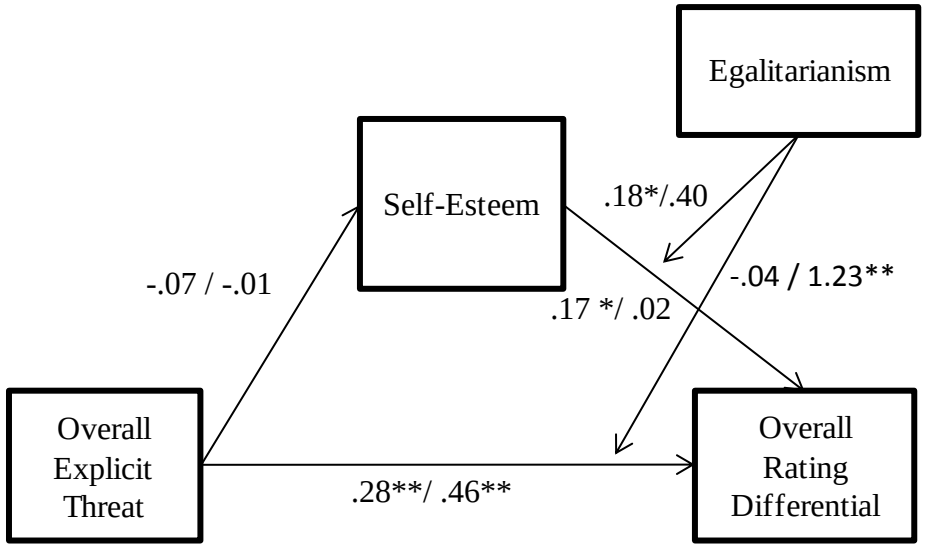

Figure 8. The mediating role of self-esteem at Time 1 in the relation between overall explicit threat and job applicant rating differential moderated by egalitarian beliefs.
Note. Coefficients are unstandardized; coefficient before slash represents Mturk sample; coefficient after slash represents HPR sample. Analyses control for political orientation, socioeconomic status, racial contact, and gender.

To break down the interaction between egalitarian beliefs and overall explicit threat in the HPR sample, simple slopes analyses were conducted (see Figure 9). In these analyses, the effect of overall explicit threat was estimated separately for high egalitarian beliefs (i.e., one standard deviation above average on egalitarian beliefs) and low egalitarian beliefs (i.e., one standard deviation below average). When egalitarian beliefs were high, the simple slope for explicit threat was $b = 1.00$, $t(154) = 4.20$, $p < .001$. Thus, opposite of the predicted relationship, for individuals who were high on egalitarian beliefs, more explicit threat was related to a greater differential between the applicants, such that they preferred the White applicant more than the Black applicant. However, when egalitarian beliefs were low, the simple slope for overall

explicit threat was b = -.08, $t(154)$ = -.35, p = .73, indicating that explicit threat was not related to ratings of the job applicants for people who did not feel strongly about equality.

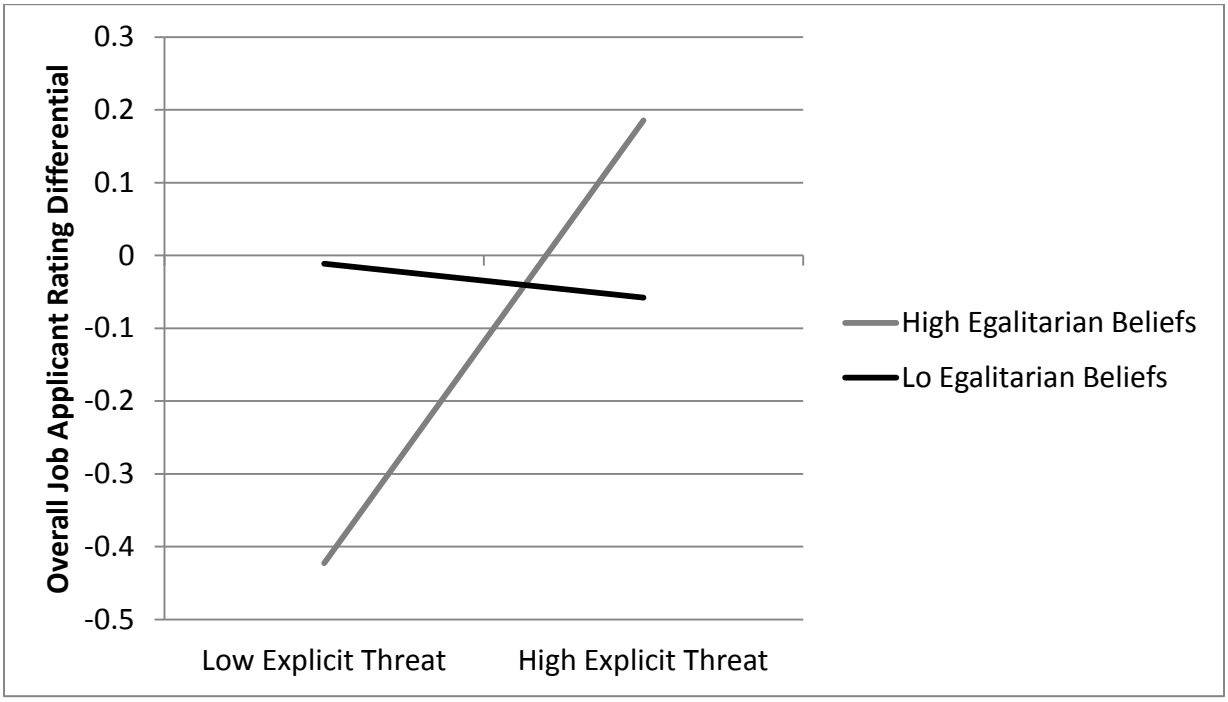

Figure 9. Simple slopes for overall explicit threat predicting overall job applicant rating differential at high and low egalitarian beliefs in the HPR sample.

Similar simple slopes analyses were conducted to break down the interaction between egalitarian beliefs and self-esteem at Time 1 in the Mturk sample (see Figure 10). In these analyses, the effect of self-esteem at Time 1 was estimated separately for high egalitarian beliefs (i.e., one standard deviation above average on egalitarian beliefs) and low egalitarian beliefs (i.e., one standard deviation below average). When egalitarian beliefs were high, the simple slope for threat condition was b = .29, $t(203)$ = 2.64, p = .01. Thus, again contrary to the predicted relationship, for individuals who were high on egalitarian beliefs more self-esteem at Time 1 was related to greater differential between the applicants, such that they preferred the white applicant more than the black applicant. However, when egalitarian beliefs were low, the simple slope for overall explicit threat was b = .05, $t(203)$ = .68, p = .50, indicating that more self-esteem was still

related to a greater preference for White applicants over Black applicants, but the relationship was not significant.

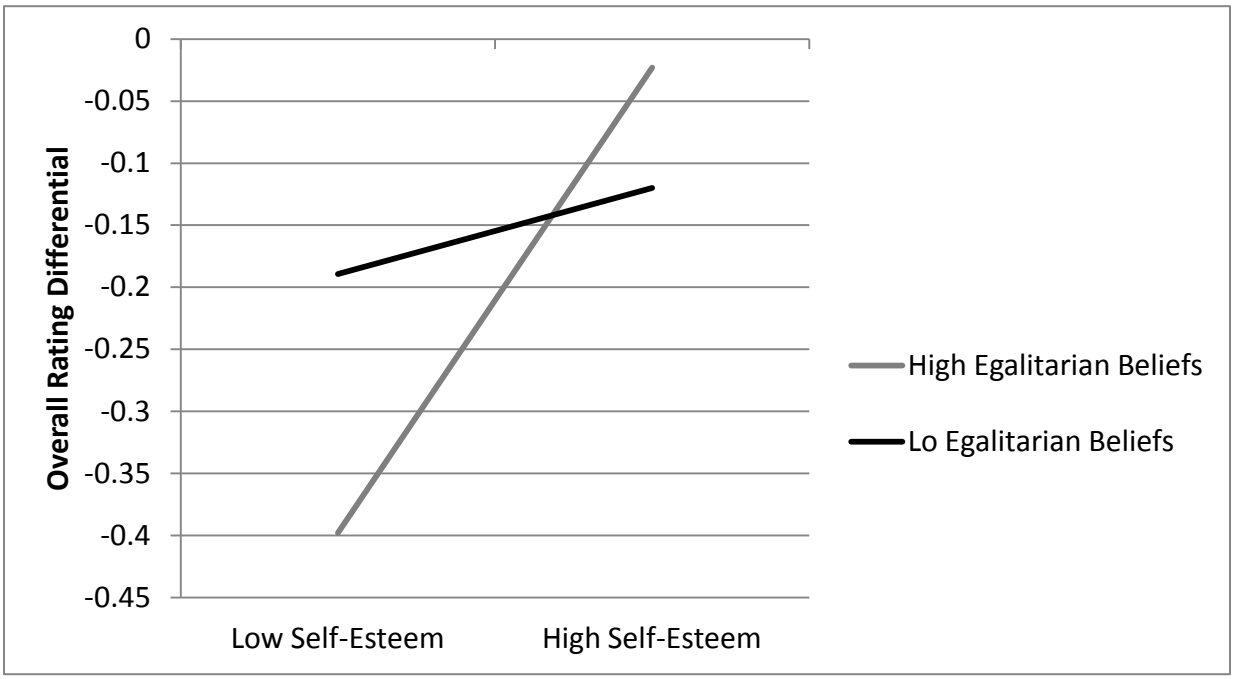

Figure 10. Simple slopes for self-esteem at time 1 predicting overall job applicant rating differential at high and low egalitarian beliefs in the Mturk sample.

Implicit threat. The above moderated mediation procedure was repeated using total implicit threat as the predictor variable. Total implicit threat did not significantly predict overall job applicant rating differentials or self-esteem at Time 1 in either the Mturk or HPR samples (see Figure 11). Self-esteem significantly predicted overall rating differentials in the Mturk, but not the HPR, sample. Self-esteem did not mediate the relationship between total implicit threat and the overall rating differential in either the Mturk sample, indirect effect = -.06, *SE* = .09, 95% CI (-.33, .05), or the HPR sample, indirect effect = -.01, *SE* = .06, 95% CI (-.21, .07). Furthermore, egalitarian beliefs did not moderate the relationship between either self-esteem and overall rating differentials or total implicit threat and overall rating differentials for either of the samples.

Thus, Hypothesis 6a was not supported as neither implicit nor explicit threat significantly predicted self-esteem at Time 1. Hypothesis 6b was only partially supported as explicit, but not implicit threat predicted a greater preference for White over Black job applicants. Overall, there was no evidence that self-esteem mediated the relationship between reported threat and discriminatory backlash behaviors. Hypothesis 6c was not supported. Egalitarian beliefs moderated the relationship between explicit threat and overall rating differentials only in the HPR sample, whereas they moderated the relationship between self-esteem at Time 1 and overall rating differentials only in the Mturk sample; however, the direction of moderation was opposite of what was predicted.

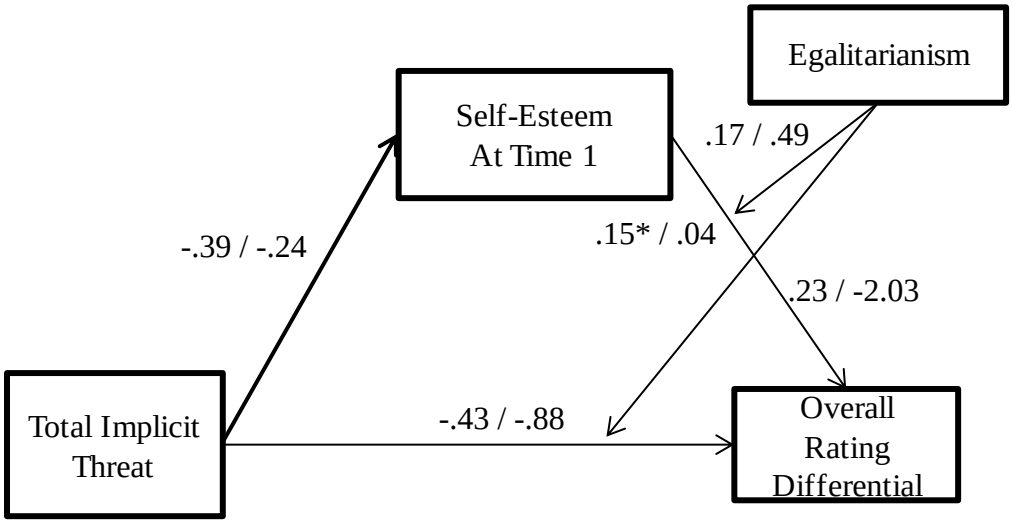

Figure 11. The mediating role of self-esteem at time 1 in the relation between total implicit threat and job applicant rating differentials moderated by egalitarian beliefs.
Note. Coefficients are unstandardized; coefficient before slash represents Mturk sample; coefficient after slash represents HPR sample. Analyses control for political orientation, socioeconomic status, racial contact, and gender.

Hypothesis 7

The purpose of Hypothesis 7 was to examine whether the congruency between participants' reports of implicit and explicit threats affected their likelihood to engage in discriminatory backlash behaviors. First, median splits were used to divide participants into four

groups. Explicit racists (n = 42) were individuals who scored above the median on both explicit and implicit social threat. Aversive racists (n = 87) were individuals who scored below the median on explicit threat but above the median on implicit threat. True egalitarians (n = 142) were individuals who scored below the median on both explicit and implicit social threat. Confused racists (n = 87) were individuals who scored above the median on explicit threat but below the median on implicit social threat. Because there were no clear predictions for confused racists, they were excluded from the analysis.

Hypothesis 7a. I predicted that explicit racists and aversive racists would engage in more discriminatory backlash behaviors than true egalitarians. A series of one-way between subjects ANOVA was used to test whether job applicant rating differentials differed as a function of the congruency between participants' implicit and explicit threat ratings. Political orientation, socioeconomic status, racial contact, and gender were included as covariates. The means and standard deviations for each of the rating differentials for each of the three groups are presented in Table 12. The ANOVA indicated that neither overall rating differentials, $F(2, 262) = 1.56$, $MSE = .33$, $p = .21$, nor competence rating differentials, $F(2, 262) = .92$, $MSE = .33$, $p = .40$, nor social skills rating differentials, $F(2, 262) = 2.15$, $MSE = .33$, $p = .12$, nor likelihood to be hired rating differentials, $F(2, 262) = 1.16$, $MSE = .33$, $p = .32$ significantly differed between the three racism groups. Thus, Hypothesis 7a was not supported.

Table 12
Means and standard deviations for job applicant rating differentials by group.

	Overall Differential	*Competence Differential*	*Social Skills Differential*	*Likelihood to be Hired Differential*
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*
Explicit Racists	-.03 (.52)	-.01 (.55)	-.11 (.59)	.02 (.79)
Aversive Racists	-.05 (.49)	-.06 (.49)	-.01 (.46)	-.07 (.83)
True Egalitarians	-.17 (.63)	-.14 (.62)	-.18 (.62)	-.21 (.95)

Hypothesis 7b. I predicted that self-esteem at Time 1 would mediate the relationship between reported threat and discriminatory backlash behaviors for explicit racists and aversive racist, but not true egalitarians. This hypothesis was tested using mediation analysis, whereby reported threat was the independent variable, job applicant rating differential was the dependent variable, self-esteem at time 1 was the mediator, and political orientation, socioeconomic status, racial contact, and gender were controlled (Baron & Kenny, 1986). This mediation model was tested separately for each of the three racism groups (Explicit Racists, Aversive Racists, True Egalitarians). I used the same SPSS algorithm previously described. The moderating role of egalitarian beliefs was not tested in this model. All interactions with the sample were not statistically significant; thus, results are presented for the combined sample.

For explicit threat, none of the paths were statistically significant (see Figure 12). Furthermore, self-esteem did not mediate the relationship between overall explicit threat and overall rating differentials for either explicit racists, indirect effect = .005, *SE* = .03, 95% CI (-.04, .10); aversive racists, indirect effect = .01, *SE* = .07, 95% CI (-.14, .18); or true egalitarians, indirect effect = -.02, *SE* = .07, 95% CI (-.21, .09).

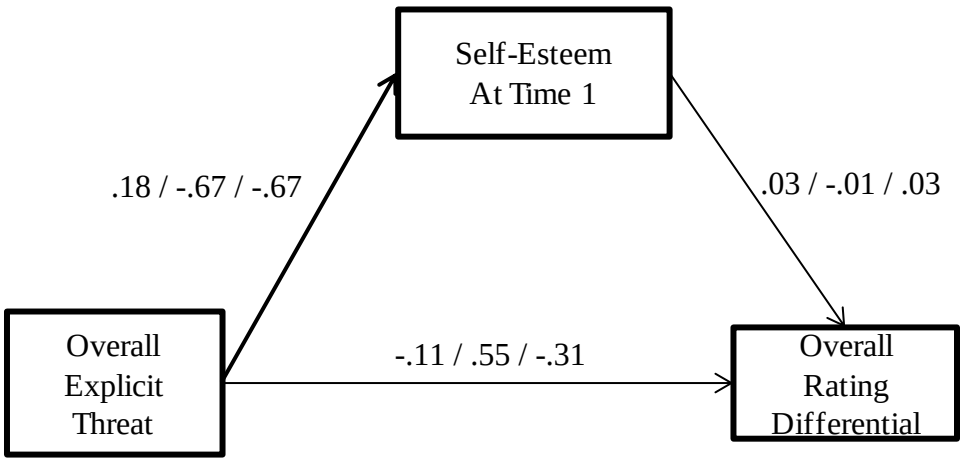

Figure 12. The mediating role of self-esteem at Time 1 in the relation between overall explicit threat and job applicant rating differentials for each of the three racism groups.

Note. Coefficients are unstandardized; first coefficient represents Explicit Racists; second coefficient represents Aversive Racists; third coefficient represents True Egalitarians. Analyses control for political orientation, socioeconomic status, racial contact, and gender.

Similarly, for implicit threat, none of the paths were statistically significant for any of the three racism groups (see Figure 13). Furthermore, self-esteem did not mediate the relationship between total implicit threat and overall rating differentials for either explicit racists, indirect effect = .03, *SE* = .3, 95% CI (-.49, .90); aversive racists, indirect effect = .002, *SE* = .13, 95% CI (-.21, .35); or true egalitarians, indirect effect = -.01, *SE* = .08, 95% CI (-.25, .13).

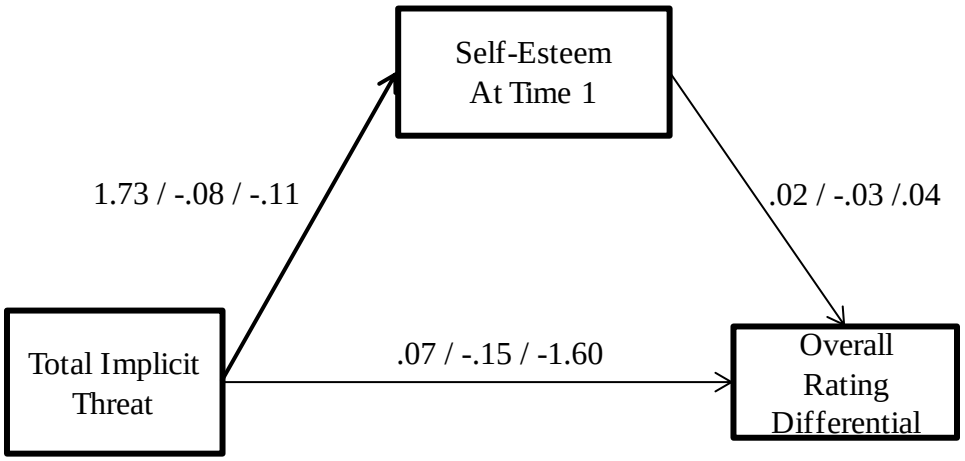

Figure 13. The mediating role of self-esteem at Time 1 in the relation between total implicit threat and job applicant rating differentials for each of the three racism groups.
Note. Coefficients are unstandardized; first coefficient represents Explicit Racists; second coefficient represents Aversive Racists; third coefficient represents True Egalitarians. Analyses control for political orientation, socioeconomic status, racial contact, and gender.

Hypothesis 8

Hypothesis 8 sought to examine whether specific types of intergroup threat would be more strongly related to some types of specific intergroup emotions than other intergroup emotions. Multiple regression analyses were conducted to examine the extent to which specific types of intergroup threat can be predicted by specific intergroup emotions. In the first step, political orientation, socioeconomic status, racial contact, and gender were entered as control

variables. In the second step, each of the of the five retained intergroup affect variables (anger, fear, envy, disgust, worry) were entered simultaneously as predictors. Separate regression analyses were examined for each of the three intergroup threat subscales (realistic, symbolic, intergroup anxiety). Results of the regression analyses are presented in Table 13. All interactions with the sample were not statistically significant; therefore, all results below are presented for the combined sample.

Hypothesis 8a. It was predicted that realistic threat would correlate strongest with anger and fear. Controlling for the other intergroup affect variables, anger statistically predicted realistic threat, such that participants who felt more anger reported more realistic threat. None of the other intergroup affect variables uniquely predicted realistic threat. Thus, Hypothesis 8a was only partially supported.

Hypothesis 8b. It was also predicted that symbolic threat would correlate strongest with anger, and additionally with envy and disgust. Controlling for the other intergroup affect variables, both anger and disgust uniquely predicted symbolic threat, such that participants who felt more anger or more disgust reported more symbolic threat. None of the other intergroup affect variables uniquely predicted symbolic threat. Thus, Hypothesis 8b was also partially supported.

Hypothesis 8c. Finally, it was predicted that intergroup anxiety would correlate strongest with worry. Controlling for the other intergroup affect variables, worry and fear both significantly predicted intergroup anxiety, such that participants who felt more worry and more fear reported more intergroup anxiety. None of the other intergroup affect variables significantly predicted intergroup anxiety. Thus, Hypothesis 8c was partially supported.

Table 13

Regression results predicting intergroup threat with intergroup affect.

	Realistic Threat					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.26					
Political Orientation		.20 (.43)***	.02		.18 (.39)***	.02
Socioeconomic Status		.04 (.05)	.04		.02 (.02)	.04
Racial Contact		-.40 (-.20)***	.09		-.38 (-.19)***	.09
Gender		-.08 (-.05)	.07		-.09 (-.06)	.07
Step 2				.09		
Anger					.29 (.18)**	.12
Fear					-.09 (-.07)	.09
Envy					.12 (.05)	.14
Disgust					.25 (.12)	.14
Worry					.06 (.06)	.07
Total R^2				.34		
	Symbolic Threat					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.14					
Political Orientation		.11 (.26)***	.02		.09 (.22)***	.02
Socioeconomic Status		.04 (.06)	.04		.02 (.03)	.04
Racial Contact		-.40 (-.22)***	.09		-.39 (-.21)***	.09
Gender		-.11 (-.08)	.07		-.12 (-.08)	.06
Step 2				.11		
Anger					.26 (.17)*	.12
Fear					-.09 (-.07)	.09
Envy					.02 (.01)	.14
Disgust					.32 (.17)*	.14
Worry					.10 (.10)	.07
Total R^2				.25		
	Intergroup Anxiety					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.11					
Political Orientation		.03(09)	.02		.02 (.06)	.01
Socioeconomic Status		.01 (.02)	.03		-.01 (-.01)	.03
Racial Contact		-.40 (-.30)***	.07		-.39 (-.29)***	.06
Gender		-.09 (-.09)	.05		-.10 (-.10)	.05
Step 2				.16		

Table 13 (cont'd)

Anger		.08 (.07)	.08
Fear		.15 (.18)*	.06
Envy		-.06 (-.04)	.10
Disgust		.15 (.11)	.10
Worry		.10 (.14)*	.05
Total R^2	.27		

Note. R^2 values do not sum to total R^2 because of rounding.
*** $p < .001$. ** $p < .01$ * $p < .05$.

Hypothesis 9

Hypothesis 9 sought to examine whether specific types of intergroup threat and specific types intergroup emotions would more strongly predict discriminatory backlash behaviors.

Hypothesis 9a. First, it was predicted that perceptions of realistic threat would be the strongest predictor (compared to symbolic threat and intergroup anxiety) of job applicant rating differentials. To test this hypothesis, multiple regression analyses were conducted. In the first step, political orientation, socioeconomic status, racial contact, and gender were entered as control variables. In the second step, the three intergroup threat subscales (realistic, symbolic, intergroup anxiety) were simultaneously entered as predictors. Separate regression analyses were examined for each of the job applicant rating differentials (overall, competence, social skills, likelihood to be hired). The regression results are presented in Table 14. All interactions with the sample were not statistically significant; therefore, all results below are presented for the combined sample.

As can be seen in the table, controlling for the other types of intergroup threat, none of the intergroup threat subscales uniquely predicted any of the different job applicant rating differentials. Thus, Hypothesis 9a was not supported, as intergroup threat did not predict job applicant rating differentials.

Table 14

Regression results predicting applicant rating differentials with realistic threat, symbolic threat, and intergroup anxiety.

	Overall Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.00					
Political Orientation		-.00 (-.01)	.02		-.02 (-.05)	.02
Socioeconomic Status		.01 (.01)	.04		.00 (.01)	.04
Racial Contact		-.05 (-.03)	.09		-.01 (-.00)	.10
Gender		-.06 (-.04)	.07		-.05 (-.04)	.07
Step 2				.01		
Realistic Threat					.07 (.08)	.08
Symbolic Threat					.01 (.01)	.09
Intergroup Anxiety					.04 (.03)	.09
Total R^2				.01		
	Competence Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.00					
Political Orientation		.00 (.01)	.02		-.01 (-.02)	.02
Socioeconomic Status		.01 (.02)	.04		.01 (.01)	.04
Racial Contact		-.02 (-.01)	.09		.03 (.02)	.10
Gender		-.08 (-.06)	.07		-.06 (-.05)	.07
Step 2				.01		
Realistic Threat					.02 (.02)	.08
Symbolic Threat					.03 (.03)	.09
Intergroup Anxiety					.09 (.07)	.08
Total R^2				.01		
	Social Skills Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.00					
Political Orientation		.00 (.00)	.02		-.02 (-.05)	.02
Socioeconomic Status		.00 (.00)	.04		-.01 (-.01)	.04
Racial Contact		-.03 (-.02)	.09		.00 (.00)	.10
Gender		-.01 (-.01)	.07		-.01 (-.01)	.07
Step 2				.01		
Realistic Threat					.10 (.12)	.08
Symbolic Threat					-.04 (-.05)	.09
Intergroup Anxiety					.03 (.02)	.08
Total R^2				.01		

Table 14 (cont'd)

	Likelihood to be Hired Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.00					
Political Orientation		-.02 (-.02)	.03		-.04 (-.06)	.04
Socioeconomic Status		.01 (.01)	.06		.01 (.01)	.06
Racial Contact		-.11 (-.04)	.14		-.05 (-.02)	.15
Gender		-.08 (-.04)	.10		-.07 (-.03)	.10
Step 2				.01		
Realistic Threat					.09 (.07)	.13
Symbolic Threat					.04 (.03)	.13
Intergroup Anxiety					.01 (.00)	.13
Total R^2				.01		

Note. R^2 values do not sum to total R^2 because of rounding.
*** $p < .001$. ** $p < .01$ * $p < .05$.

Hypothesis 9b. Next, it was predicted that anger would be the strongest predictor (compared to other types of intergroup emotions) of job applicant rating differentials. To test this hypothesis, a similar multiple regression analysis was conducted. In the first step, political orientation, socioeconomic status, racial contact, and gender were entered as control variables. In the second step, the five intergroup affect subscales (anger, fear, envy, disgust, worry) were simultaneously entered as predictor variables. Separate regression analyses were examined for each of the job applicant rating differentials (overall, competence, social skills, likelihood to be hired). The regression results are presented in Table 15. All interactions with the sample were not statistically significant; therefore, all results below are presented for the combined sample.

As can be seen in the table, controlling for the other intergroup affect variables, none of the intergroup affect subscales uniquely predicted any of the different job applicant rating differentials. Thus, Hypothesis 9b was not supported, as intergroup affect did not predict job applicant rating differentials.

Table 15

Regression results predicting applicant rating differentials with intergroup affect.

	Overall Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.00					
Political Orientation		.00 (.01)	.04		.00 (-.01)	.02
Socioeconomic Status		.01 (.01)	.04		.00 (.01)	.04
Racial Contact		-.05 (-.03)	.09		-.06 (-.03)	.09
Gender		-.06 (-.04)	.07		-.06 (-.04)	.07
Step 2				.02		
Anger					.03 (.02)	.12
Fear					-.04 (-.03)	.09
Envy					-.21 (-.10)	.14
Disgust					.20 (.11)	.15
Worry					.12(.12)	.07
Total R^2				.03		
	Social Skills Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.00					
Political Orientation		.00 (.00)	.02		-.01 (-.04)	.02
Socioeconomic Status		.03 (.04)	.04		-.01 (-.01)	.04
Racial Contact		-.03 (-.02)	.09		-.04 (-.02)	.09
Gender		-.01 (-.01)	.07		-.02 (-.01)	.07
Step 2				.03		
Anger					-.03 (-.02)	.12
Fear					.06 (.05)	.09
Envy					-.20 (-.10)	.14
Disgust					.15 (.09)	.15
Worry					.13 (.13)	.07
Total R^2				.03		
	Competence Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	ΔR^2	*b (β)*	*SE*
Step 1:	.00					
Political Orientation		.00 (.01)	.02		.00 (.01)	.04
Socioeconomic Status		.01 (.02)	.04		.01 (.01)	.04
Racial Contact		-.02 (-.01)	.09		-.03 (-.02)	.09
Gender		-.08 (-.06)	.07		-.07 (-.06)	.07

Table 15 (cont'd)

Step 2				.02		
Anger					-.01 (-.01)	.12
Fear					-.04 (-.04)	.09
Envy					-.22 (-.11)	.14
Disgust					.28 (.16)	.15
Worry					.09 (.09)	.07
Total R^2				.03		

	Likelihood to be Hired Applicant Rating Differential					
	Step 1			*Step 2*		
	ΔR^2	*b (β)*	*SE*	*ΔR^2*	*b (β)*	*SE*
fe	.00					
Political Orientation		-.02 (-.02)	.03		-.02 (-.03)	.03
Socioeconomic Status		.01 (.01)	.06		.01 (.01)	.06
Racial Contact		-.11 (-.04)	.14		-.11 (-.04)	.14
Gender		-.08 (-.04)	.10		-.08 (-.04)	.10
Step 2				.01		
Anger					.12 (.06)	.19
Fear					-.12 (-.07)	.14
Envy					-.20 (-.07)	.22
Disgust					.16 (.06)	.23
Worry					.14 (.09)	.11
Total R^2				.02		

Note. R^2 values do not sum to total R^2 because of rounding.
*** $p < .001$. ** $p < .01$ * $p < .05$.

Discussion

The current time period presents a unique opportunity to study how shifts in the demographics of a population affect intergroup relations. Soon, White people will no longer hold the position of the numerical majority in the United States (U.S. Census Bureau, 2008). Previous studies have shown that knowledge of these demographic changes can trigger feelings of threat and negative emotional reactions in Whites (Outten et al., 2012). In the current study, I sought to replicate and extend the literature on reactions to demographic changes by: 1) examining whether feelings of threat would emerge when measured implicitly rather than explicitly, 2) identifying several important moderators of the relationship between demographic changes and feelings of intergroup threat, 3) testing a Social Identity Theory explanation for feelings of threat, and 4) looking at behavioral manifestations of identity threat in response to the changes in the form of discriminatory backlash.

My analyses examined how reading about demographic changes is related to reports of implicit and explicit identity threat and how those reports of threat are related to discriminatory backlash behaviors, specifically ratings of White and Black job applicants. These analyses also examined the moderating role of several important attitudinal constructs, including racial identification, status-legitimizing ideology, motivation to respond without prejudice, and egalitarian beliefs. Following from tenets of Social Identity Theory, my analyses also examined how identity threat in response to reading about demographic changes is related to discriminatory backlash behaviors via decreased self-esteem, and how engaging in backlash restored self-esteem. Furthermore, my analyses examined how the congruency between implicit and explicit measures of threat could predict backlash behaviors. Thus, my theory links Whites' negative reactions to changing demographics through threats to the positive distinctiveness of

their White racial group (Branscombe et al., 1999; Tajfel & Turner, 1979; Tuner, 1982), and posits that discriminatory backlash behaviors are attempts to restore the positivity of one's social group and re-establish social dominance (Branscombe & Wann, 1994; Parks-Stamm et al., 1988, 2000; Spencer et al., 1998). Overall, the results of my analyses were not supportive of my predictions. These results and possible explanations for the lack of significant findings are discussed below.

In the first hypothesis, I predicted that participants' feelings of implicit and explicit threat would be specific to changes within their own social group (the United States), and they would not be affected by reading about demographic changes in an unfamiliar African country. According to Social Identity Theory, the reason people would experience threat in response to an event like shrinking numerical majority is that this event would signal a potential harm to the positive distinctiveness of their social group (Turner, 1982). Because people derive personal self-esteem from membership in positively valued social groups, anything that threatens the positivity of the social group is also perceived as personally threatening as well (Bobo, 1983). Thus, if the demographic changes represent a social identity threat, they should only be threatening when they occur within a group of which one is a member. However, the results of my analyses did not support this prediction. There was no difference in the level of implicit threat between participants who read about demographic changes in the U.S. and those who read about changes in Eritrea, and evaluations of the demographic changes were actually more negative among those who read about changes in Eritrea (opposite of what was predicted). These results were further verified by comparisons between the two Eritrea conditions showing that overall explicit threat, negative intergroup affect, and negative evaluations were higher among people who read about changes in Eritrea than people who read about stability in Eritrea. Popular media often portrays

interethnic relationships in North African and Middle Eastern countries as wrought with violent conflict and social turmoil. For example, Rwanda is infamous for recent large demographic changes as the result of interethnic genocide. It is possible that participants associated demographic changes in a foreign country with general civil unrest and found the changes to be more alarming and troubling than when they thought of the comparatively peaceful relationships among interracial groups in the United States. These results call into question Social Identity Theory explanations for threat in reaction to demographic changes. Specifically, these findings imply that feelings of threat reported by participants in the U.S. conditions may not reflect social identity threats, but rather feelings of general threat. Thus, demographic changes may not induce threat because they signal potential negative outcomes for one's social group, but instead because population changes signal instability and conflict.

My second hypothesis was that reading about demographic changes (as opposed to no changes) would result in implicit and explicit threats to the social identity. This prediction was only supported for some of the threat variables, namely in the threat condition, participants in the HPR sample, but not the MTurk sample, reported greater physical implicit threat, and participants in the Mturk, but not the HPR sample, reported greater overall explicit threat. Means for the other threat variables showed differences in the predicted direction; however, they did not reach statistical significance. Thus, overall, I failed to replicate the effects for explicit threat found by Outten et al. (2012), and also did not observe differences in the implicit measure of threat that was unique to this study.

The most obvious explanation for these results is that the manipulation simply failed to induce threat in participants. For dominant group members, simply reading about changes in the relative amount of people in different groups may not be enough to induce feelings of threat. As

discussed previously, in several pilot studies, participants also did not report explicit threat in response to changes in relative group size. The current study indicates that demographic changes also do not affect participant's reports of implicit threat. Given the observation of null effects across several well-powered studies, there is reason to conclude that participants really may not perceive the changes to be troubling or particularly alarming.

Participants may have psychologically minimized the impact that the demographic changes would have on their social dominance and instead concentrated on other sources of power which might remain unaffected by their numerical status, such as their continued overrepresentation in positions of authority or control over resources (Vescio et al., 2009). Studies on Whiteness in countries where whites are not the numerical majority provide some insight into how Whites may maintain their power and privilege without numerical dominance. For example, Steyn (2005) describes how, although Whites in South Africa have never held numerical power, they have relied on political, economic, and cultural influence to maintain their dominant social status (Steyn). Additionally, Steyn suggests that Whites in South Africa psychologically identify with their European and American counterparts, creating a diaspora of whiteness and enabling them to draw upon the social capital of Whites internationally.

Especially for dominant group members who are not directly observing or experiencing the demographic changes, such as those who live in highly racially segregated areas, the numerical changes may not be perceived as personally impactful. However, the pilot studies attempted to make the changes more personally relevant for the target sample (college students) by changing the context in which the demographic changes were taking place. For example, in one version participants were told that the CEOs of large corporations were increasingly minority group members rather than white people. Yet another version indicated that more

minority students than white students were obtaining entry-level jobs after graduating from college. Participants did not report statistically significant more explicit threat in response to either of these manipulations. However, it is also possible that although the changes are an on-going constant process, the fact that the actual tipping point is still several decades in the future may minimize the immediate threatening nature of the changes.

Another possible explanation for the lack of significant differences may be found in issues with the measurement of both implicit and explicit threat. Comparisons to the original Outten et al. (2012) study provide insight into some potential measurement problems with the explicit measures. First, the threat subscale of evaluations of the changes that was excluded from the current analyses due to poor factor structure and reliability were the same items that Outten et al. used to measure evaluative threat in their study. Because we were unable to analyze these items in our sample, direct comparisons are not appropriate; however, the necessary exclusion of this measure highlights potential problems with the validity and reliability of the authors' measures.

Second, Outten et al. (2012) also measured intergroup affect as I did in the current study. Two of the five intergroup affect variables included in my intergroup affect measure were also used in the Outten et al. study, fear and anger. Across two studies, Outten et al. observed significantly more fear (d = .40 and .44) and anger (d = .34 and .73) toward ethnic minorities after reading about future demographic changes. Immediately, the large difference in effect sizes for anger between the two studies indicates that the measure may be unreliable and sensitive to sample characteristics. Post hoc power analysis indicated that my study was sufficiently powered to detect Outten et al.'s lowest effect size; however, I was unable to replicate their results, likely because of poor measurement. Examination of those affect subscales in the current study

demonstrated that in the threat condition participants reported significantly more fear, $F(1, 192) = 3.82$, $MSE = .35$, $p = .05$, $d = .31$, but not significantly more anger, $F(1, 192) = 1.47$, $MSE = .23$, $p = 23$, $d = .21$. Thus, despite strong Cronbach's alpha for both measures, the fear subscale appears to be more robust than the anger subscale. Confirmatory factor analysis of the affect variables is necessary to determine if each affect subscale has sufficient structural validity; however, a minimum of four items are necessary to assess dimensionality and each affect subscale only contains three items each. Confirmatory factor analysis of all of the intergroup affect variables combined in the current study did confirm a unidimensional negative affect factor.

Third, examination of the distribution of scores on the explicit threat measures reveals a positive skew and potential floor effects. Although scores for overall explicit threat ranged from 1 to 4.05 on a 5-point Likert scale, the middle 50 percent of scores fell between 1.43 and 1.59. Thus, this restriction in variance of scores likely prevented observation of significant differences between threat conditions.

Fourth, a closer look at sample characteristics in all three of the studies may highlight the importance of the social context in determining how much threat participants report. Specifically, the amount of interracial contact participants have had may moderate the degree to which they express anger at demographic changes. In the current study, in both the MTurk and HPR samples, the amount of interracial contact was very low. In Outten et al.'s first study, the sample consisted of undergraduates from a large Midwestern university very similar in size and demographics to that of the HPR sample in the current sample. Accordingly, the effect sizes in these two samples for anger were comparable ($d = .34$ and .21, respectively). However, in Outten et al.'s (2012) second study, their sample was drawn from a university in Vancouver, Canada,

where rapid diversification is much more pronounced and Whites already account for less than 60% of the population. Thus, their shrinking majority may be much more directly evident and salient to these participants. Accordingly, the anger effect size was much larger in this sample (*d* = .73). Therefore, explicit identity threat reactions may depend on the degree to which participants have direct interactions with the increasing ethnic minority.

Although these results for explicit threat are consistent with my inability to induce explicit threat in the pilot studies, the lack of significant differences for implicit threat are more surprising. However, again, exploration of potential measurement issues may explain some of these results. The particular measure of implicit threat that I used was chosen for its ability to be easily programmed into the software program that enabled me to use Mturk to collect a community sample and its demonstrated use in measuring implicit social threat (Mathews et al., 1989). However, there are several features of the measure that may have limited its ability to validly measure participants' implicit threat. The procedure for the word-completion task was altered slightly from the Mathews et al. study. In the Mathews et al. study, participants completed an encoding task using the target words before they were asked to do the word-completion task. In my study, participants were not exposed to the target words before engaging in the word-completion task. The encoding task was eliminated to streamline the study and also to ensure that word-completions were true reflections of threat accessibility rather than measures of participants' recall. However, this method may have caused the measure to be less sensitive to participants' level of implicit threat. A wider range of word completions was possible, resulting in lower frequency of codes for any given completion (threatening or nonthreatening). Indeed, although scores on the implicit threat measures were more normally distributed than the explicit threat measures, the distribution revealed a restriction of range. On a scale from 0-1, despite the

scores for total implicit threat ranging from 0 to .38, the middle 50 percent of scores fell between .08 and .13. Again, this lack of variance may have prohibited examination of differences between threat conditions.

Furthermore, it is possible that this implicit measure may not have been entirely implicit. It is possible that participants who were concerned with appearing prejudiced may have been able to ascertain the purpose of the word-completion task, and then controlled their answers to avoid indications of racist attitudes. Further studies are necessary to clarify whether participants actually provide the first word that comes to mind or engage in self-editing to appear less biased. For example, the speed of participants' responses could indicate how much contemplation they engaged in before providing a word completion. Future studies should also consider using a measure of implicit threat that is less subjective and more robust to participants' attempts to appear non-prejudiced, such as an Implicit Association Test pairing words related to demographic changes and stability with threatening and nonthreatening words (de Hullu, de Jong, Sportel, & Nauta, 2011). Because these measures of implicit and explicit threat were integral to many of my hypotheses, discussion of the remaining predictions is predicated on these potential measurement issues. However, other possible explanations for the results are also discussed.

In the first hypothesis, I also predicted that the relationship between threat condition and both explicit and implicit threat would be moderated by the degree to which participants considered race to be an important aspect of their identity and the degree to which participants believed that their loss of power and privilege were legitimate. Further, I predicted that participants' motivation to respond without prejudice would moderate the relationship between threat condition and explicit, but not implicit threat. Both racial identification and motivation to

respond without prejudice did not moderate this relationship for either explicit or implicit threat. The lack of significant findings for racial identification may reflect a lack of awareness and clarity among Whites about their own racial identity (Knowles & Marshburn, 2010). Although I did not predict motivation to respond without prejudice to impact implicit threat reports, it was expected to affect reports of explicit threat. This lack of moderation is likely related to the restricted range of scores for explicit threat. All explicit threat scores were fairly low, making it difficult to detect significant differences for people who were higher or lower in motivation to respond without prejudice. However, again, it is also possible that the manipulations may not have actually been perceived as threatening, and therefore, there was no prejudicial threat to be controlled.

However, status-legitimizing ideology did moderate the relationship between threat condition and negative intergroup affect, such that stronger support for the status quo was related to more negative intergroup affect in the U.S. threat condition, but not in the U.S. control condition. This finding that changes in the status quo are most upsetting when the status quo is perceived to be fair and legitimate is consistent with previous research on system-justification showing that lower status groups sometimes support social systems that do not benefit them if they believe that those systems are legitimate (Jost et al., 2002; Kay et al., 2007). This result demonstrates that high status groups may also be less bothered by changes that negatively impact their dominance if they perceive their higher social status to be unfair or undeserved.

The goal of Hypothesis 3 and Hypothesis 5 was to examine whether the negative affect and evaluative identity threat reactions that people may have in response to reading about demographic changes would extend to intergroup behavior. Specifically, I predicted that people who read about demographic changes (as opposed to no changes) and people who reported more

implicit and explicit threat would engage in more discriminatory backlash behaviors, as indicated by more favorable ratings of a White job applicant than a Black job applicant. For most of the applicant ratings, there were no significant differences in the differential between the two applicants' ratings between the U.S. threat condition and U.S. control condition. However, there was a significant difference in the rating differential of competence, such that participants who read about demographic changes actually rated the Black applicant as more competent than the White applicant. Although this difference was surprising, it is consistent with previous research that demonstrates that people use numerical size as indicators of a group's status and power (Blalock, 1967; Blumer, 1999; Bobo, 1983; Frankenberg, 2001; Kamans et al., 2011). Additionally, groups with higher status and power are often perceived to be more competent, but not necessarily warm (Fiske, Cuddy, Glick, & Xu, 2002). Thus, people may have attributed the growing numerical majority to the ethnic minority's competence, resulting in higher applicant ratings.

Although the threat manipulation did not succeed in differentially inducing implicit or explicit threat in participants, to the extent that participants did feel more explicit threat, they engaged in more backlash behavior, rating White job applicants as more competent, socially skilled, and likely to be hired than Black applicants. This finding is consistent with previous findings that demonstrated that people sometimes engage in discrimination as a form of backlash as an attempt to maintain self-esteem in the face of threats to the ingroup's self-worth (Parks-Stamm et al., 2008; Tesser, 1988, 2000). Additionally, negative affect, such as that incorporated in explicit threat, may be alleviated by engaging in discrimination. Future studies should measure affect both before and after the opportunity to engage in backlash to determine if backlash reduces negative affect. However, it is surprising that implicit threat did not predict

discriminatory backlash given previous evidence that suggests implicit measures are often better predictors of behavior than explicit measures (Fazio & Olson, 2003). However, the aforementioned restriction of range and other problems with measurement of implicit threat, may account for the inability of the implicit measure to predict discriminatory backlash behaviors.

In Hypotheses 4 and 6, I predicted that self-esteem would mediate the relationships between reading about demographic changes and reports of explicit and implicit threat and discriminatory backlash behaviors. Specifically, I predicted that reading about demographic changes or experiencing explicit or implicit threat would lead to a decrease in self-esteem, and that decrease in self-esteem would motivate people to give the White applicant higher ratings than the Black applicant. Again, results for these hypotheses were mixed. Neither threat condition nor explicit or implicit threat significantly predicted participants' level of self-esteem, and overall self-esteem did not predict applicant rating differentials. However, the pattern of means was in the predicted direction. Furthermore, the indirect effect for self-esteem was not significant in any of the tested models.

Overall, these results contradict Social Identity Theory's hypothesis that threats to one's social group also represent threats to the self-esteem that an individual derives from membership in that social group (Tajfel & Turner, 1979). Caution should be taken in drawing theoretical conclusions from these results given the aforementioned measurement problems and the manipulation's inability to induce threat. However, other evidence exists to suggest that the self-esteem hypothesis of Social Identity Theory should be qualified. For example, self-esteem may not motivate discrimination, but discrimination may heighten self-esteem (Rubin & Hewstone, 1998). Other researchers emphasize the importance of distinguishing between personal and collective self-esteem, arguing that collective self-esteem is what motivates intergroup behavior

(Crocker & Luhtanen, 1990). Although, my self-esteem measure combined personal and collective self-esteem measures, neither of the scales on their own mediated the relationships either. Still other researchers suggest that other motivations may be more consequential, such as the need for a coherent self-concept (Abrams & Hogg, 1988). Future studies should explore the cognitive dissonance self-image processes that may occur in reaction to reading about demographic changes, and whether these better predict intergroup behavior.

I also predicted that egalitarian beliefs would moderate the relationship between self-esteem and backlash behaviors and the relationship between explicit threat and backlash behaviors. Specifically, I predicted that participants with higher egalitarian beliefs would be less likely to let their feelings of increased threat and lower self-esteem affect their ratings of the job applicants. Analyses did not support these predictions. In different samples, different moderation patterns were observed. In the Mturk sample, when participants were high in egalitarian beliefs higher self-esteem was related to a greater preference for White job applicants over Black job applicants. In the HPR sample, when participants were high in egalitarian beliefs was more explicit threat was related to a great preference for White job applicants over Black job applicants. Thus, more egalitarian beliefs exacerbated, rather than alleviated discrimination against minority group members. One possible explanation for this surprising result is that in the wake of reading about demographic changes participants perceived reverse discrimination against Whites (Johnson, 1980; Matheson et al., 2000; Flores & Rodriguez, 2006). In accordance with their preference for equality, participants who held strong egalitarian beliefs, attempted to correct this perceived inequality by preferentially rating the White job applicant. It is also possible that these people are more similar to the aversive racists in that they reported explicit egalitarian beliefs because it is the more socially acceptable belief, but implicitly hold negative

attitudes toward minority group members. Future research could examine both explicit and implicit egalitarian beliefs to determine which better predicts moderation of backlash behaviors.

Hypothesis 7 predicted that the relationship between threat and discriminatory backlash behaviors would depend on the congruency between participant's implicit and explicit threat ratings. Specifically, I predicted that explicit racists (those who score high on both measures of implicit and explicit threat) and aversive racists (those who score high on measures of implicit, but low on measures of explicit threat) would show more backlash behavior than egalitarians (those who score low on both measures of implicit and explicit threat), and that mediation by self-esteem would occur for explicit and aversive racists, but not true egalitarians. My analyses did not support either of these hypotheses. Although this finding would appear to contradict theories of aversive racism and implicit biases that argue that it matters less what people say outwardly and more what they feel inwardly for intergroup attitudes and behavior (Gaertner & Dovidio, 1986; Fazio & Olson, 2003; Nosek et al., 2002; Rudman et al., 2002), these results are qualified by measurement problems. For example, restricted range of scores made this hypothesis difficult to fully examine. The lack of variance in the overall group left even less variance in the median split groups. Furthermore, the largest number of participants actually scored high on measures of explicit threat, but low on measures of implicit threat (i.e., confused racists). There is little reason to expect people to be overtly prejudicial, while privately holding egalitarian views. In general society, the social norm is to appear non-prejudiced (Gaertner & Dovidio). Thus, problems with the measurement of implicit and explicit threat likely prevented a valid investigation of group differences.

A secondary aim of the study was to use an Intergroup Threat framework to more thoroughly explore the nature of intergroup threat reported by Whites in response to

demographic changes (Stephan & Stephan, 1996). Specifically, I sought to examine the specific type of intergroup threat that the demographic changes induced (symbolic, realistic, or intergroup anxiety) and how they related to specific types of intergroup emotions (fear, anger, envy, disgust, worry). Furthermore, I sought to examine which specific types of threat and specific emotions best predicted negative intergroup behavior. My analyses explored the relationship between the three types of threat and the five intergroup emotions, and also the relationship between the three types of threat and the five intergroup emotions and discriminatory backlash behaviors. The results of my analyses indicated mixed support for my predictions and are discussed below.

Hypothesis 8 predicted that anger and fear would be the strongest predictors of realistic threat; anger, envy, and disgust would be the strongest predictors of symbolic threat; and worry would be the strongest predictor of intergroup anxiety. Overall, these predictions were largely supported. Anger, but not fear, predicted realistic threat. Anger and disgust, but not envy predicted symbolic threat. Worry, in addition to fear, predicted intergroup anxiety. These results are consistent with Neuberg and Cottrell's (2002) and Stephan and Renfro's (2002) theories of emotional reactions to intergroup threat. Different emotional reactions are experienced depending on whether changing demographics are perceived to be threatening because they may negatively impact a group's resources (realistic threat) or integrity (symbolic threat), or because they may result in more anxiety-invoking interracial contact (intergroup anxiety).

Theories on the goal relevance of emotions posit that emotions are functional in two main ways. First, emotions aid in the appraisal of social situations by signaling the presence of potential obstacles or assistance for achieving important goals (Carver & Scheier, 1990; Ekman & Davison, 1994; Higgins, 1987, Simon, 1967). Second, emotions organize the multiple psychological reactions one may have to a goal-relevant social situation, in order to enable

effective and efficient behavioral responding (Cosmides & Tooby, 2000; Ekman, 1999; Nesse, 1990; Plutchik, 1980, 2003; Tooby & Cosmides, 1990). Thus, emotional specificity is essential to accurately perceiving social situations and effectively responding to goal-relevant events. Using this perspective, Neuberg and Cottrell (2002) argued that discrete emotions are experienced in response to specific types of threatening events because they motivate adaptive behavioral reactions to eliminate or minimize the threat. Mackie et al. (2000) posit that these same appraisal processes that occur when evaluating threats to the self occur when appraising threats to one's social group. The results of the current study extend this theory by demonstrating that discrete emotions are associated with discrete appraisals of demographic changes. Different emotions were experienced depending on whether the demographic changes signaled realistic, symbolic, or intergroup anxiety threat. However, in the current study, I only examined one type of behavioral reaction. Future studies could examine whether different emotional reactions to demographic changes predict specific types of behavioral reactions (i.e., aggression, avoidance, prosociality, etc.).

Hypothesis 9 predicted that realistic threat and anger, compared to the other types of intergroup threat and intergroup affect, would more strongly predict discriminatory backlash behaviors. My analyses did not support this prediction. None of the intergroup threat variables or intergroup affect variables uniquely predicted job applicant rating differentials. One possible explanation for this lack of significant findings is that my measure of intergroup behavior did not adequately capture the type of behavior that may be expected to occur. As outlined previously, realistic threat and anger are theorized to lead to aggressive behaviors toward the outgroup (Mackie et al., 2000; Neuberg & Cottrell, 2002). It is possible that rating job applicants was too passive to capture the aggressive behavior that would be expected. Similarly, other types of

intergroup threat and intergroup affect are theorized to initiate withdrawal or avoidance behaviors (Neuberg & Cottrell; Mackie et al.; Stephan & Stephan, 2000), constructs which are not captured by rating job applicants. Future studies could examine other types of intergroup behavior, such as exclusion, avoidance, and aggression.

Although, my results overall did not strongly demonstrate threat responses to demographic changes, they do provide more insight on the relationship between intergroup threat perceptions, affect, and behavior. My results replicate and extend previous research linking specific emotions to specific appraisals of threat, by demonstrating that people have different emotional reactions to demographic changes depending on how they think these changes will affect their group. Changes perceived to be threatening the group's resources elicit different emotional reactions than when the changes are perceived to threaten the group's values. Still different emotional reactions are experienced when the changes elicit intergroup anxiety. Distinguishing these discrete emotions is important because different emotions predict different kinds of intergroup behavior. In the current study, when participants did explicitly report feeling threatened, including more generally negative intergroup affect, they engaged in more discriminatory backlash behavior against minority group members. Although, specific intergroup emotions and specific threat appraisals did not uniquely predict this backlash behavior, they may be able to predict other specific types of intergroup behavior, such as avoidance, distancing, or more overt forms of aggression.

Furthermore, the current study identified an important factor that moderates relationships between intergroup threat and intergroup emotional experiences. Specifically, my results demonstrated that when people believe the social system is fair and legitimate and support the status quo, they experience more negative affect in response to threats to this social system.

Thus, my results demonstrate that appraisals of threats to the positivity of social groups are not the only determining factor of intergroup emotions. Rather, appraisals of the fairness or legitimacy of those threats are also important.

Limitations and Future Directions

One of the biggest limitations of the present study is the previously discussed problems with the measurement of implicit and explicit threat. Because valid and reliable measurement is a necessary perquisite to being able to observe relationships between variables, this limitation greatly limited my ability to confidently test my hypotheses. As discussed, future studies should consider using a different measure of implicit threat, such as the Implicit Association Test, that is less open-ended and less affected by participants' controlled responding. My study also highlights the need for the development of a valid and reliable self-report measure of identity threat. In the current study, it is unclear whether the lack of significant effects was caused by these measurement problems, or whether Whites really are unaffected by the loss of their numerical majority. Additionally, the use of a consistent measure would allow comparisons of effects across different samples and establishment of external validity of identity threat findings.

Although hypotheses were tested using both a student sample (HPR) and community sample (MTurk) increasing the representativeness of the samples and bolstering the generalizability of the findings, there may still be limitations of this sampling method. Mturk relies on self-selection of individuals into studies and is not a true random sample of the general American population. Furthermore, some early research on MTurk samples indicates that although they tend to be more representative of the general population than student samples, they may not still be completely representative on some important variables, such as age, gender, and income (Ross, Zaldivar, Irani, Tomlinson, & Silberman, 2010). One key finding is that Mturk

samples may be slightly more politically liberal than the general public (Berinsky, Huber, & Lenz, 2012). In the current study, political orientation was correlated with many of the main study variables, indicating that sample representativeness on this variable may be especially consequential when studying identity threat. Future studies might consider collecting a stratified random sample to increase the diversity of political orientation and examine the impact of this variable on identity threat in response to demographic changes.

Another limitation related to the study methodology is that a large number of participants reported some degree of suspicion about the study's true purpose. Although participants who correctly linked the first portion of the study to the second portion of the study were excluded from analyses, almost 69% of all of the sampled participants reported suspicions that the study was investigating race in some way. Thus, demand characteristics are a concern for the current study. It is possible that participants purposefully altered their answers so as to appear unbiased. However, including many of the attitudinal measures in the pre-survey helped to minimize the impact that the manipulation would have on these reports.

Another limitation of the current study is that the manipulation was intentionally vague in describing which ethnic group was driving the demographic changes. That is, the insert simply said that Whites would no longer be the majority; it did not specify which group would be the new numerical majority. It is possible that participants may have different reactions towards different groups becoming the new majority. For example, if participants think that there will be more biracial people in the future, they may not perceive themselves to be as excluded and threatened as if the new majority consists of Black Americans or Latino/a Americans. However, in the current study I did not assess which group participants thought were driving the changes. Furthermore, the backlash measure only measured differences between White and Black

applicants. More backlash may be observed if the minority candidate is of the same ethnic group as the one participants believe to be directly threatening their identity. Thus, future studies should further explore participant's beliefs about the demographic changes and their perceptions of the reasons for the changes, including asking which group they think will be the new majority. For example, given recent and ongoing political debates over immigration reform, participants may perceive Latinos to be the most rapidly growing minority group. Alternatively, given their status as the model minority and strong representation in prestigious careers, Asians may be viewed as the primary source of minority threat to Whites' resources and status. Additionally, more diverse applicants should be included to examine whether some ethnic groups are more likely to experience negative intergroup behavior than others. Specifically, the minority group that is perceived to be the biggest cause of demographic changes may receive the most backlash. Additionally, if demographic changes in different groups induce different types of intergroup threat, different types of backlash may be observed. For example, if Asians are perceived to be rapidly growing and threatening the jobs and economic resource of Whites, they may experience the type of behaviors that are proposed to result from feelings of realistic threat, such as aggression.

A final limitation of the current study is a statistical limitation. To completely explain potential identity threat phenomenon, I included many potential moderating variables, examined many subscales of each main variable, and tested many potential relationships. Although this allowed for a thorough examination of identity threat, as the number of significance tests performed increases the probability of committing a Type I error increases. Thus, some of the few significant differences may not reflect actual population differences, and may instead capitalize on chance. Thus, further studies are needed to test how replicable the current findings

are before general conclusions about the relationship between demographic changes and identity threat can be drawn.

Conclusion

In summary, the results of the current study did not support the prediction that simply reading about being the future numerical minority was enough to make Whites feel that their dominant social status was threatened. This replicates previous studies conducted by the author that also failed to find intergroup threat in response to demographic changes, indicating that perhaps simply reading about demographic changes is not threatening to Whites and does not motivate them to engage in prejudicial or discriminatory behavior. However, this conclusion is tempered by questions about the validity and reliability of the measurement of identity threat. Although this finding may indicate that White people feel confident that their social power is not directly tied to their numerical majority, more research is needed to determine if the lack of significant findings truly reflects a lack of identity threat in the general White population.

A major strength of the current study was the inclusion of a behavioral indication of identity threat. Although, reading about the future numerical minority did not lead White people to try to reassert their social dominance by preferentially rating White job applicants over Black job applicants, to the extent that White people did feel threatened, they did engage in this negative intergroup behavior. Thus, these results indicate that although the manipulations may not have been strong enough to differentially induce threat, people who do feel that their social status is threatened may be motivated to engage in discriminatory backlash behaviors.

Combined with previous research, these findings demonstrate that perceptions of a group's numerical size and perceptions of how size signals power and social status have important implications for the study of intergroup relations. Social consensus is a powerful

persuasion tool (Kelley, 1967; Ziegler, Diehl, Zigon, & Fett, 2004). If these effects are indeed true reflections of Whites' sentiments, they could be used to qualm alarmist reactions to increasing interracial marriage or immigration by demonstrating that most White people actually welcome increasing diversity, thereby setting a social norm of tolerance and multiculturalism. However, these results also demonstrate that making Whites feel included in multiculturalism is important for group harmony. If Whites do feel threatened, they may engage in more discrimination. People responsible for efforts to increase diversity, such as in schools or workplaces, should take precaution to avoid making White people feel that their social status is threatened by the organization's diversity efforts.

APPENDICES

APPENDIX A

Experimenter's Introduction to HPR Participants

Ok, we're ready to get started. I'm ___ and I'm going to tell you about what we're doing here today. In general in this lab we are interested in how different ways of presenting information affects how much people understand that information and how they react to the information. In today's session you will complete two separate studies. You will be asked to view information presented in different ways and then give your opinions about those presentations. In the first study, you will be evaluating a textbook insert. In the second study, you will be evaluating job applications. All of the materials and instructions, as well as all of your responses will be given online, but I'll be here in case you run into any problems or have any questions. We do ask that any cell phones or other electronic devises be turned off during the session. When you're ready you can read through the consent form that is currently on the screen in front of you. Once you click agree, the experiment will start. Just follow the instructions on the screen and call me over if you need anything.

Instructions Shown to Both Mturk and HPR Participants

Part One

In general, the research in this lab looks at the different ways that information is presented and how it affects readers' comprehension and understanding of the information. Today's session will consist of two parts. In both parts of the study, you will be given information presented in different ways. Your task is to evaluate how easy the information was to understand and how the style of the presentation affected this understanding.

In the first part of the session, we are interested in the best way to visually present facts to students in textbooks. We will show you examples of inserts or sidebars, such as those found in

textbooks to provide extra information, and then ask you some questions about your personal opinion of the way the information was presented and how easy it was to learn.

Part Two

You are now finished with the first part of the session. In this second part of the session, we are still interested in your opinion of how information is presented, but we will look at a different kind of information. We will ask you to evaluate a job application. We will give you a short description of a job opening for a financial advisor. We will then show you copies of applications that have been received for that job. Your task is to evaluate each applicant based on the information presented in the application. You will also be asked questions about the style of the application itself and how it helped or impaired your ability to evaluate the job applicants.

APPENDIX B

Demographic Change Condition Manipulations

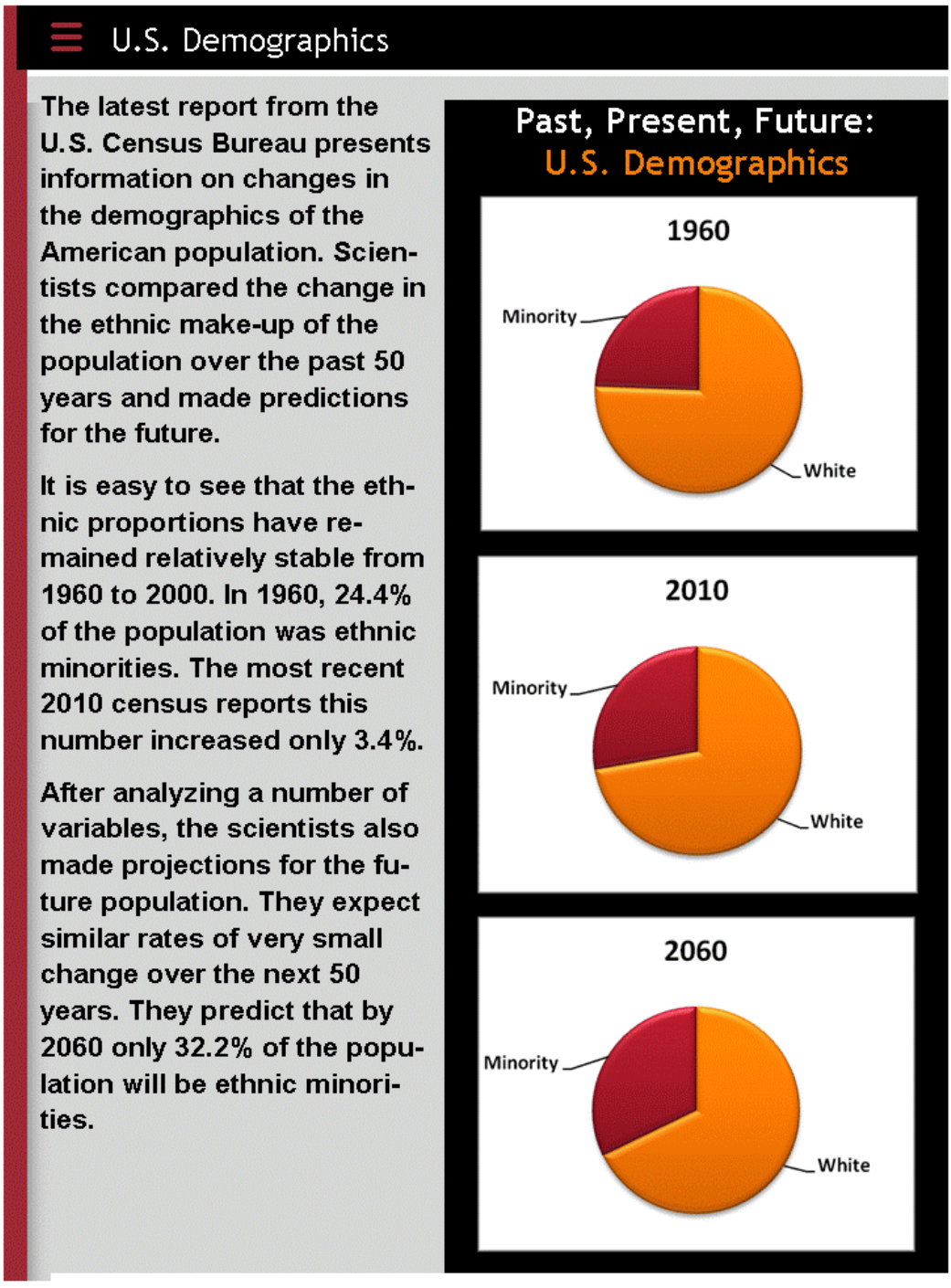

Figure 14. U.S. control condition manipulation.

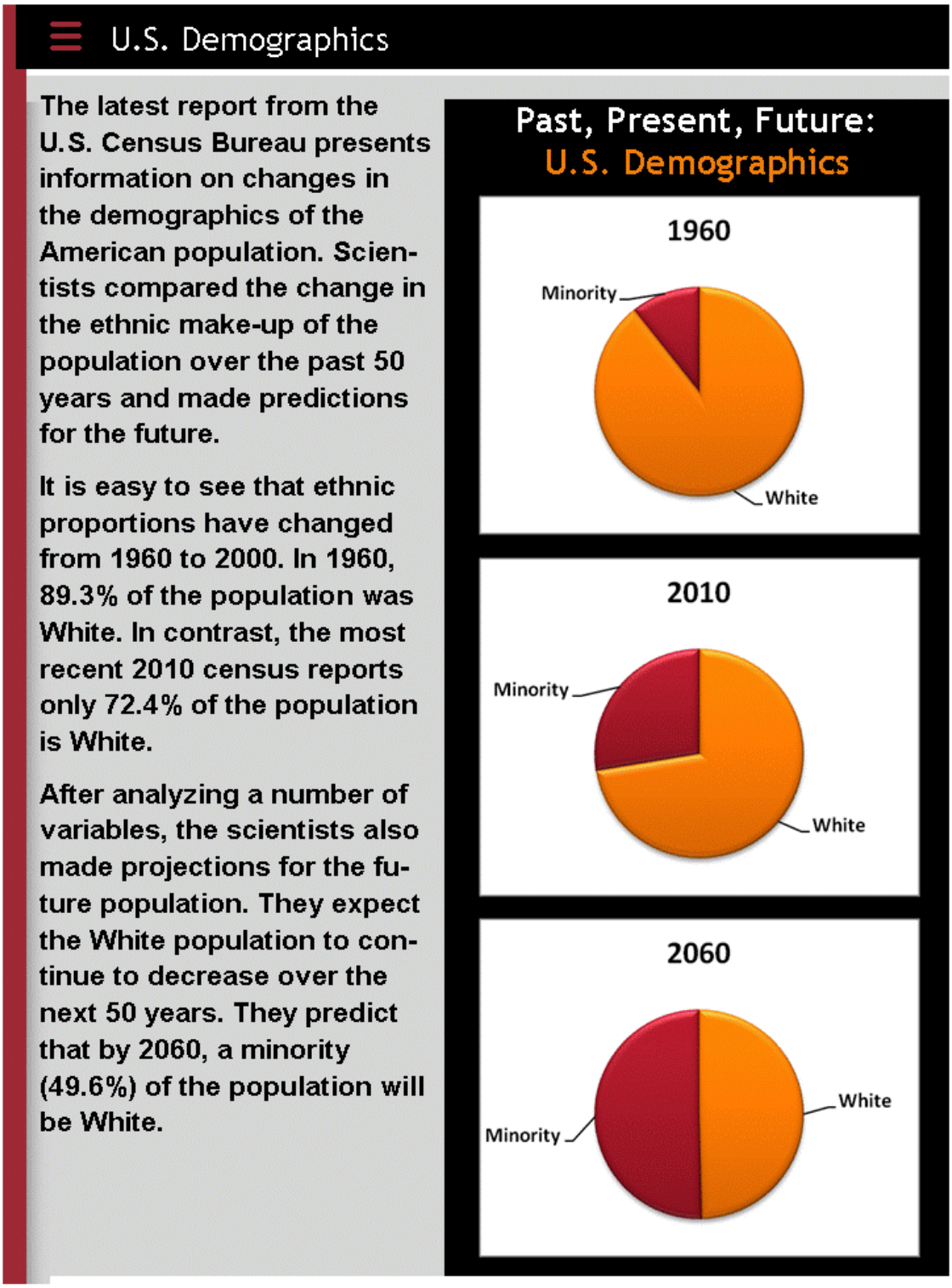

Figure15. U.S. threat condition manipulation.

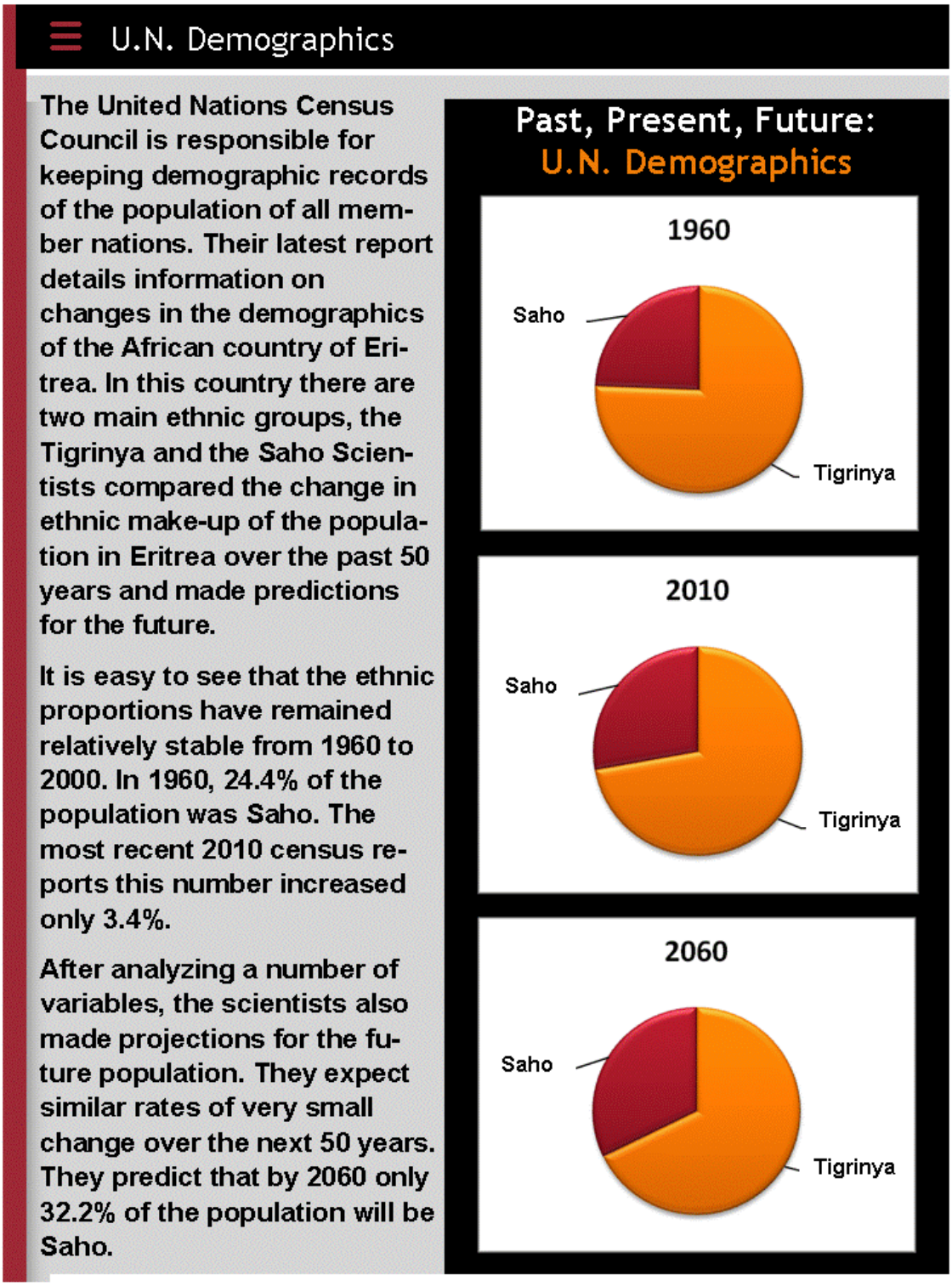

Figure 16. Eritrea control condition manipulation.

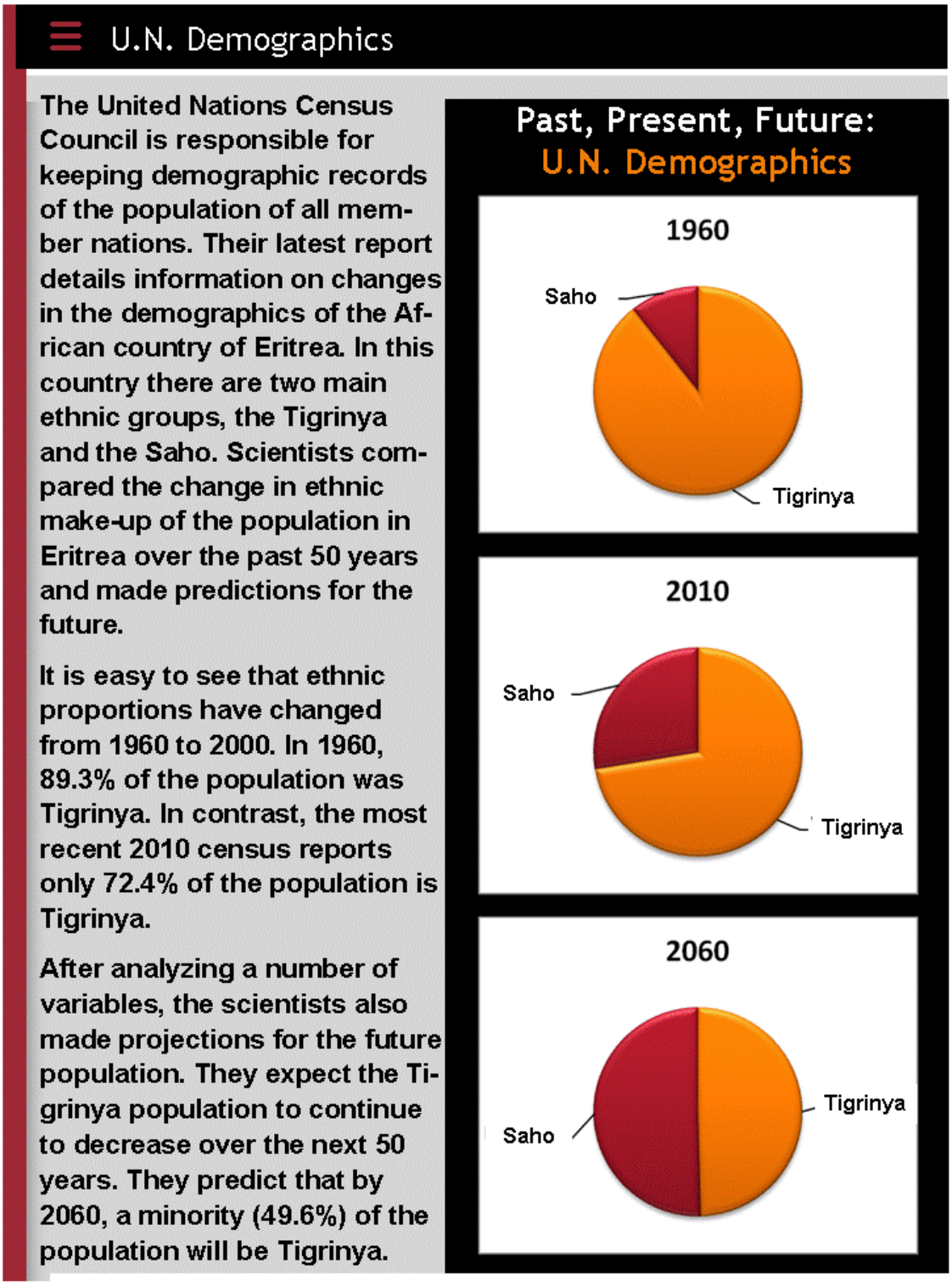

Figure 17. Eritrea threat condition manipulation.

APPENDIX C

Job Description

Position: Financial Advisor

Job Description: This is a steadily growing company within the financial services industry. We promote a teamwork atmosphere and have an exceptional reputation for excellent customer service and integrity. We are now hiring an experienced and highly motivated financial advisor to join our team. You will have an opportunity to work alongside established experts to help build your business portfolio and a team underneath you. The position has a competitive salary plus a generous commission structure. Employees receive benefits after 90 days and a 401K plan after 180 days. There are lots of opportunities for unlimited growth and advancement within the company based on performance. Many of our financial advisors very quickly have the opportunity to build their own team and open their own branch. We provide excellent leads, strong networks and business relationships, proven techniques, a reputable name, an excellent support staff, and all the materials you will need to have unlimited success.

Requirements:

- Bachelor's Degree, preferably in a business related field
- 2 years of relevant experience
- Comprehensive knowledge of the financial industry
- Excellent communication skills, verbal and written
- Strong time management and multi-tasking ability
- Demonstrate strong leadership abilities
- Strong commitment to teamwork and continuous learning

Responsibilities:

- Build a portfolio of clients through calling, prospecting, referrals, and business relationships
- Complete executive presentations to secure business
- Learn and practice effective techniques to sell financial products to prospective clients
- Build extensive networks and contribute to the overall growth of the company
- Work cooperatively with a team and support staff, contribute to weekly sales meetings
- Help lead and train new advisors
- Complete business with honesty and integrity

APPENDIX D

Dear Sir or Madam:

I am a career-driven individual, seeking the perfect-fit job for both myself and the company. In previous career experience I have been used as an integral part of the company, allowing the company to count on me as both a team player and individual worker. When working by myself, I am able to set obtainable goals and seek to complete the goals in a timely fashion. When working as part of a team, I can be any member of the team that is needed; I am very versatile. I am looking for a fast paced atmosphere in which I can demonstrate my hardworking skills while helping to bring in revenue for the company. My previous experience of 4 years at LPL Financial brought me the opportunity to work for a diverse group of people, allowing me to take into account each individual's needs.

I would love the opportunity to have an interview and express how passionate I am for both the career opening and your company.

Fondly,

Blake Sisson

APPLICATION FOR EMPLOYMENT

Please type or print.

PERSONAL INFORMATION **TODAY'S DATE:** 11-28-12

Name:	Sisson	Blake	Peter
	Last	**First**	**Middle**

Address:	8549 Fox Point Ct	Apt #7	San Diego, CA	92121
	Street	**(Apt.)**	**City, State**	**Zip**

Figure 18. White applicant.

Figure 18 (cont'd)

Contact information: (858) 763-0908 (858) 634-9698 sissonbl@gmail.com

Home phone **Mobile phone** **Email**

Are you legally eligible for employment in the U.S.? ☒Yes ☐No

---

For company purpose only (to analyze diversity of applicants), answers will not affect qualifications for employment:

Gender: ☒Male ☐Female ☐Prefer not to say

Race: ☒White/Caucasian ☐Black/African American
☐Hispanic/Latino/a ☐Asian/Asian American
☐Native American ☐Arab/Arab American
☐Prefer not to say

EDUCATION

	Name and Location	**Graduate? List degree earned**	**Major/Specialization**	**GPA**
Business or Trade school				

Figure 18 (cont'd)

College or University	University of California – San Diego	Bachelor's	Economics	3.55
Graduate school				

WORK EXPERIENCE

Employer Name	**Job title**	**Employer address and phone**	**Date (mo/yr)**
LPL Financial	Direct Business Specialist	9785 Towne Center Dr. San Diego, CA 92121	**From:** May 2009
		(858) 450-9606	**To:** August 2012
LPL Financial	Intern	9785 Towne Center Dr. San Diego, CA 92121	**From:** September 2008
		(858)450-9606	**To:** May 2009
Rock Bottom Restaurant & Brewery	Waiter	401 G St, San Diego, CA 92101	**From:** April 2006
		(619)231-7000	**To:** August 2008
			From:
			To:

Please list areas of proficiency, special skills, or other items that may contribute to your abilities in performing this position.

Strong verbal communication skills and proficient in Microsoft Office. Also familiar with Mac computers.

To Whom It May Concern:

I am a highly motivated individual, seeking a new and exciting opportunity to grow and succeed by working at your company as an Account Manager, taking on a new and innovative perspective to gather and enhance the client's relationship with your company. As you can see, I worked diligently at Boston University, earning a Bachelor's Degree in Finance in 2010. I applied the skills I learned in college while working as an intern at CIRAS. Since then, I have excelled as a business broker at BayState Business Brokers. There, I acquired many skills useful to your company including the necessary skills in communication and technology. I am very capable of establishing relationships with clientele and my personal drive will make sure I am always improving upon my own work and, as a team player, the work of others around me.

I would like to thank you most sincerely for your consideration and hope to be hearing from you shortly.

Kindest Regards,

Ryan Williams

APPLICATION FOR EMPLOYMENT

Please type or print.

PERSONAL INFORMATION **TODAY'S DATE:** 11-2-2012

Name:	Williams	Ryan	David
	Last	**First**	**Middle**

Address:	5672 Honeywell Lake Dr.	#174	Boston, MA	02136
	Street	**(Apt.)**	**City, State**	**Zip**

Figure 19. Black applicant.

Figure 19 (cont'd)

Contact information: (617) 544-0936 (670) 366-6424 rwilliams@netscape.net

Home phone **Mobile phone** **Email**

Are you legally eligible for employment in the U.S.? ☒Yes ☐No

---

For company purpose only (to analyze diversity of applicants), answers will not affect qualifications for employment:

Gender: ☒Male ☐Female ☐Prefer not to say

Race: ☐White/Caucasian ☒Black/African American

☐Hispanic/Latino/a ☐Asian/Asian American

☐Native American ☐Arab/Arab American

☐Prefer not to say

EDUCATION

	Name and Location	**Graduate? List degree earned**	**Major/Specialization**	**GPA**
Business or Trade school				
College or University	Boston University	Bachelor's degree	Marketing	3.6
Graduate school				

Figure 19 (cont'd)

WORK EXPERIENCE

Employer Name	**Job title**	**Employer address and phone**	**Date (mo/yr)**
BayState Businses Brokers	Business Broker	60 Birmingham Parkway, Suite 200 Boston, MA 02135	**From:** 2010
		617-562-5700	**To:** 2012
CIRAS	Intern	2500 North Loop Dr., Framingham, MA 01702	**From:** 2009
			To: 2010
Max and Erma's	Waiter	3030 Lakecrest Cir, Lexington, KY	**From:** 2007
		(859) 224-3440	**To:** 2009
			From:
			To:

Please list areas of proficiency, special skills, or other items that may contribute to your abilities in performing this position.

Proficient use of Microsoft Office (Word, Excel, Powerpoint, Outlook, etc.) and telecommunications technologies. Strong leadership abilities and great communication skills.

APPENDIX E

Attitudes toward Minorities (modified from Brigham, 1993)

Please indicate the extent to which you agree or disagree with the following statements.

1	2	3	4	5
Strongly agree		*Moderately*		*Strongly disagree*

1. Generally, racial minority group members are not as smart as White people.
2. I enjoy a funny racial joke, even if some people might find it offensive.
3. If a racial minority group member were put in charge of me, I would not mind taking advice and directions from him or her.
4. I worry that in the next few years I may be denied my application for a job or a promotion because of preferential treatment given to minority group members.
5. Racial integration (of schools, businesses, residences, etc.) has benefited both Whites and racial minorities.
6. I would not mind at all if a racial minority family with about the same income and education as me moved in next door.
7. I favor open housing laws that allow more racial integration of neighborhoods.
8. Some racial minority group members are so touchy about race that is difficult to get along with them.
9. Racial minorities are demanding too much too fast in their push for equal rights.
10. Interracial marriage should be discouraged to avoid the "who-am-I" confusion, which the children feel.

APPENDIX F

Color-Blind Racial Attitudes Scale (Neville, Lilly, Duran, Lee, & Browne, 2000)

Please indicate the extent to which you agree or disagree with the following statements.

1	2	3	4	5
Strongly agree		*Moderately*		*Strongly disagree*

Racial Privilege Subscale

1. White people in the U.S. have certain advantages because of the color of their skin. (R)
2. Race is very important in determining who is successful and who is not. (R)
3. Racial and ethnic minorities do not have the same opportunities as white people in the U.S. (R)
4. Everyone who works hard, no matter what race they are, has an equal chance to become rich.
5. White people are more to blame for racial discrimination than racial and ethnic minorities. (R)

Institutional Discrimination Subscale

1. Social policies, such as affirmative action, discriminate unfairly against White people.
2. White people in the U.S. are discriminated against because of the color of their skin.
3. Due to racial discrimination, programs such as affirmative action are necessary to help create equality. (R)
4. Racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin.
5. It is important that people begin to think of themselves as American and not African American, Mexican American, or Italian American.

Blatant Racial Issues Subscale

1. Racial problems in the U.S. are rare, isolated situations.
2. Talking about racial issues causes unnecessary tension.
3. Racism is a major problem in the U.S. (R)
4. Racism may have been a problem in the past, but it is not an important problem today.

APPENDIX G

Social Dominance Orientation (Pratto, Siddanius, Stallworth, & Malle, 1994)

To what extent do you agree with each of the following statements?

1 2 3 4 5

Strongly disagree *Moderately* *Strongly agree*

1. Some groups of people are just more worthy than others.
2. In getting what your group wants, it is sometimes necessary to use force against other groups.
3. Superior groups should dominate inferior groups.
4. To get ahead in life, it is sometimes necessary to step on other groups.
5. If certain groups stayed in their place, we would have fewer problems.
6. It's probably a good thing that certain groups are at the top and other groups at the bottom.
7. Inferior groups should stay in their place.
8. Sometimes other groups must be kept in their place.
9. It would be good if all groups could be equal. (R)
10. Group equality should be our ideal. (R)
11. All groups should be given an equal chance in life. (R)
12. We should do what we can to equalize conditions for different groups. (R)
13. We should strive for increased social equality. (R)
14. We would have fewer problems if we treated different groups more equally. (R)
15. We should strive to make incomes more equal. (R)
16. No one group should dominate in society. (R)

APPENDIX H

White Guilt (Swim & Miller, 1999)

To what extent do you agree or disagree with the following statements about yourself?

1 2 3 4 5

Strongly disagree *Moderately* *Strongly agree*

1. Although I feel that my behavior is typically nondiscriminatory toward racial minorities, I still feel guilt due to my association with the White race.
2. I feel guilty about the past and present social inequality of racial minorities (i.e., slavery, poverty).
3. I do not feel guilty about social inequality between White and racial minorities.
4. When I learn about racism, I feel guilt due to my association with the White race.
5. I feel guilty about the benefits and privileges that I receive as a White American.

APPNEDIX I

Diffuse System Justification (Kay & Jost, 2003)

Please indicate the extent to which you agree or disagree with the following statements using the scale provided.

1	2	3	4	5
Strongly disagree		*Moderately*		*Strongly agree*

1. In general, I find society to be fair.
2. In general, the political system operates as it should.
3. American society needs to be radically restructured. (R)
4. The United States is the best country in the world to live in.
5. Most policies serve the greater good.
6. Everyone has a fair shot at wealth and happiness.
7. Our society is getting worse every year. (R)
8. Society is set up so that people usually get what they deserve.

APPENDIX J

Multidimensional Inventory of Racial Identity (centrality subscale, modified from Sellers et. al, 2007)

To what extent do you agree or disagree with the following statements about yourself?

1	2	3	4	5
Strongly disagree		*Moderately*		*Strongly agree*

1. In general, being a member of my racial group is an important part of my self-image.
2. I have a strong sense of belonging to members of my race.
3. Being a member of my racial group is an important reflection of who I am.
4. I have a strong attachment to other members of my racial group.

APPENDIX K

Motivation to Control Prejudiced Reactions (Dunton & Fazio, 1997)

To what extent do you agree with each of the following statements?

1 2 3 4 5

Strongly disagree *Moderately* *Strongly agree*

1. In today's society it is important that one not be perceived as prejudiced in any manner.
2. I always express my thoughts and feelings, regardless of how controversial they might be.
3. I get angry with myself when I have a thought or feeling that might be considered prejudice.
4. If I were participating in a class discussion and a Black student expressed an opinion with which I disagreed, I would be hesitant to express my own viewpoint.
5. Going through life worrying about whether you might offend someone is just more trouble than it's worth.
6. It's important to me that other people not think I'm prejudiced.
7. I feel it's important to behave according to society's standards.
8. I'm careful not to offend my friends, but I don't worry about offending people I don't know or don't like.
9. I think that it is important to speak one's mind rather than to worry about offending someone.
10. It's never acceptable to express one's prejudices.
11. I feel guilty when I have a negative thought or feeling about a Black person.

12. When speaking to a Black person, it's important to me that he/she not think I'm prejudiced.
13. It bothers me a great deal when I think I've offended someone, so I'm always careful to consider other people's feelings.
14. If I have a prejudiced thought or feeling, I keep it to myself.
15. I would never tell jokes that might offend others.
16. I'm not afraid to tell others what I think, even when I know they disagree with me.
17. If someone who made me uncomfortable sat next to me on a bus, I would not hesitate to move to another seat.

APPENDIX L

Manipulation Check and Cover Story Filler Questions

Please answer the following questions about the *appearance and style* of the insert you just read:

1. The font size was:
    a. Too small
    b. Just right
    c. Too big
2. Which font do you think is easiest to read?
    a. Times New Roman
    b. Calibri
    c. Arial
    d. Courier New
    e. Verdana
    f. Trebuchet MS
3. When reading about proportions I find it easier to understand the information if it is presented as:
    a. Ratios, *example: 1:10 or 1 ethnic minority members for every 10 white people*
    b. Percentages, *example: 10% of all people are ethnic minorities*
    c. Actual numbers, *example: 10 of the group are ethnic minorities*
4. Did you find the text or the graphs to be more useful in demonstrating the information:
    a. Text
    b. Graphs
5. Which color stood out the most to you in the article?

a. Red

b. Gray

c. White

d. Black

e. Orange

6. Which color did you think was the most appealing?

a. Red

b. Gray

c. White

d. Black

e. Orange

To what extent do you agree or disagree with the following statements about the insert you just read?

1	2	3	4	5
Strongly disagree		*Moderately*		*Strongly agree*

a) Overall, the insert was interesting.

b) Overall, the insert was boring.

c) Overall, the information was easy to understand.

d) Overall, the information was presented clearly.

e) The insert was visually pleasing.

f) The insert was visually exciting.

g) The insert was too long.

h) I would pay attention to this insert if it was in a text book.

i) The bar graph helped me to understand the information better.

j) The bar graph was the best kind of graph that could have been presented.

k) The picture was distracting.

l) The picture made the insert more interesting.

m) The colors used were appealing.

Now, please answer these questions about the *information* that was presented in the insert:

7. In a complete sentence, please explain the main point of the insert.
8. What did the article say about the demographics of the U.S.?
    a. The number of ethnic minorities is increasing.
    b. The number of ethnic minorities is decreasing.
    c. The number of white people is increasing.
    d. The number of white people is decreasing.
    e. The demographics are staying the same.
9. How much of an increase/decrease was there in the number of minority Americans?
10. How much of an increase/decrease was there in the number of White Americans?

APPENDIX M

Table 16

Implicit Threat Words (adapted from Mathews, Mogg, May, & Eysenck, 1989)

Nonthreatening	**Physically Threatening**	**Socially Threatening**
Set A		
Cruise	Attack	Despised
Emblem	Cancer	Fail
Fountain	Collapse	Hostile
Fringe	Funeral	Insult
Inactive	Incurable	Lonely
Leaf	Mutilated	Pathetic
Scarf	Stab	Persecuted
Wardrobe	Victim	Unloved
Set B		
Carpet	Ambulance	Immature
Cherry	Assault	Inept
Gravy	Coronary	Intimidated
Opera	Disease	Mistake
Pear	Fatal	Offended
Surplus	Fracture	Scorn
Terrace	Harm	Stupid
Violet	Suffocate	Useless
Set C		
Bath	Accident	Criticism
Emerge	Casualty	Foolish
Marble	Coffin	Humiliated
Predict	Lethal	Indecisive
Purchase	Pain	Inferior
Shampoo	Paralysis	Ridicule
Shower	Strangled	Silly
Threshold	Tumour	Worthless

Note. Adapted from Mathews, Mogg, May, & Eysenck, 1989.

APPENDIX N

Intergroup Affect (adapted from Mackie, Devos, & Smith, 2000; Cottrell & Neuberg, 2005; and Watson & Clark, 1991)

To what extent do you *currently* feel each of the following emotions toward ethnic minorities?

1	2	3	4	5
Very slightly		*Moderately*		Extremely or not at all

Anger Subscale

1. Angry
2. Irritated
3. Furious

Fear Subscale

4. Afraid
5. Fearful
6. Intimidated

Worry Subscale

7. Worried
8. Anxious
9. Concerned

Pity Subscale

10. Pity
11. Compassion
12. Sympathy

Envy Subscale

13. Envious

14. Jealous

15. Resentful

Disgust Subscale

16. Disgusted

17. Repelled

18. Sick

APPENDIX O

Evaluation of Changes (modified from Davies, Steele, & Markus, 2008; and Outten, Schmitt, Miller, & Garcia, 2012)

To what extent do you agree or disagree with the following statements about the information presented in the insert

1	2	3	4	5
Strongly disagree		*Moderately*		*Strongly agree*

Positive Subscale

1. I think the demographic changes are hopeful.
2. I think the demographic changes are encouraging.
3. I think the demographic changes are promising.
4. I think the demographic changes are fair.

Negative Subscale

5. I think the demographic changes are troubling.
6. I think the demographic changes are disturbing.
7. I think the demographic changes are alarming.

Threat Subscale

8. Changes in the demographics of the U.S. means that White people are losing power and social status in the United States.
9. Changes in the demographics of the U.S. means that ethnic minorities are gaining power and social status in the United States.
10. The information presented in the article is accurate.

11. My ethnic group should be threatened by the demographic changes.

12. My ethnic group will benefit from the demographic changes.

13. How much influence will ethnic minorities have over American society in the future?

14. How much influence will White Americans have over American society in the future?

APPENDIX P

Intergroup Threat Perceptions (Stephan & Stephan, 1996)

To what extent do you agree with each of the following statements about?

1	2	3	4	5
Strongly disagree		*Moderately*		*Strongly agree*

Realistic Threat Subscale

1. Racial minorities hold too many positions of power and responsibility in this country.
2. Racial minorities dominate American politics more than they should.
3. When racial minorities are in positions of authority, they discriminate against Whites when making hiring decisions.
4. Too much money is spent on educational programs that benefit racial minorities.
5. Racial minorities have more economic power than they deserve in this country.
6. Racial minorities receive too much of the money spend on healthcare and childcare.
7. Too much money per student is spent on education for racial minoritites.
8. The tax system favors racial minorities.
9. Many companies hire less qualified racial minorities over more qualified Whites.
10. Racial minorities have more political power than they deserve in this country.
11. Public service agencies favor racial minorities over Whites.
12. The legal system is more lenient on racial minorities on Whites.

Symbolic Threat Subscale

13. Whites and racial minorities have very different values.
14. Racial minorities have no right to think they have better values than Whites.

15. Racial minorities want their rights to be put ahead of the rights of Whites.
16. Racial minorities don't understand the way Whites view the world.
17. Racial minorities do not value the rights granted by the Constitution (life, liberty, and the pursuit of happiness) as much as Whites do.
18. Racial minorities and Whites have different family values.
19. Racial minorities don't value the traditions of their group as much as Whites do.
20. Racial minorities regard themselves as morally superior to Whites.
21. The values of racial minorities regarding work are different from those of Whites.
22. Most racial minorities will never understand what Whites are like.
23. Racial minorities should not try to impose their values on Whites.
24. Whites do not get as much respect from racial minorities as they deserve.

Interracial Anxiety Subscale

For each of the items listed below, indicate how you feel when interacting with racial minorities.

1	2	3	4	5
Not at all		*Moderately*		*Extremely*

25. Nervous
26. Friendly
27. Uncertain
28. Comfortable
29. Worried
30. Trusting
31. Threatened
32. Confident

33. Awkward

34. Safe

35. Anxious

36. At ease

APPENDIX Q

Collective Self-Esteem (Luhtanen & Crocker, 1992)

To what extent do you agree with each of the following statements about yourself *right now*?

1	2	3	4	5
Strongly disagree		*Moderately*		*Strongly agree*

1. I often regret that I belong to some of the social groups I do.
2. In general, I'm glad to be a member of the social groups I belong to.
3. Overall, I often feel that the social groups of which I am a member are not worthwhile.
4. I feel good about the social groups I belong to.

APPENDIX R

Personal Self-Esteem (Rosenberg, 1979)

To what extent do you agree with each of the following statements about yourself *right now*?

1	2	3	4	5
Strongly disagree		*Moderately*		*Strongly agree*

1. I feel that I am a person of worth, at least on an equal plan with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure. (R)
4. I am able to do things as well as most other people.
5. I feel that I do not have much to be proud of. (R)
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself. (R)
9. I certainly feel useless at times. (R)
10. At times I think I am no good at all. (R)

APPENDIX S

Applicant Ratings (adapted from Rudman & Glick, 1999; & Heilman, Block, & Lucas, 1992)

Please answer each question about the applicant with the provided scale.

Competence Subscale

1. How competently do you expect this individual to perform this job (1-*very incompetently* to 5-*very competently*)?
2. How effective do you think this individual will be at doing the work (1-*very ineffective* to 5-*very effective*)?

How well does each of the following adjectives describe the applicant (1-*not very well* to 5-*very well*):

3. Competent
4. Independent
5. Confident
6. Determined
7. Computer-skilled
8. Analytical
9. Ambitious
10. Competitive
11. Works well under pressure
12. Hardworking
13. Persistent
14. Energetic

15. Strong
16. Forceful
17. Tough

Social Skills Subscale

1. Would you characterize this person as someone you want to get to know better (1-*definitely not* to 5-*definitely*)?
2. Did the applicant strike you as likeable (1-*definitely not* to 5-*definitely*)?
3. How likely is that the applicant is willing to listen to and support others in this job (1-*very unlikely* to 5-*very likely*)?
4. How well does each of the following adjectives describe the applicant (1-*not very well* to 5-*very well*):
5. Kind
6. Supportive
7. Warm
8. Sincere
9. Helpful
10. Likeable
11. Friendly
12. Popular
13. Good listener
14. Responsible
15. Cooperative
16. Trustworthy

Likelihood of Hiring Subscale

1. Would you choose to interview the applicant for the job (1-*definitely not* to 5-*definitely*)?
2. Would you hire the applicant for the job (1-*definitely not* to 5-*definitely*)?

Cover Story

1. What was the highest level of education that this applicant completed?
    a. High school
    b. Business or trade school
    c. College or university
    d. Graduate school
2. Who was their most recent employer?
3. The application contained
    a. Too much information to make a hiring decision
    b. Just enough information to make a hiring decision
    c. Too little information to make a hiring decision
4. The application would be better in:
    a. Black and white
    b. Color
5. The applications was (1-*not very* to 5-*very*)
    a. Confusing (R)
    b. Easy to read
    c. Informative
    d. Visually appealing
    e. Attention grabbing

f. Simple

g. Boring (R)

APPENDIX T

Demographic Information

We are interested in some information about who you are. Please answer the following questions.

1. What is your gender? _____ Female _____ Male
2. What is your age? _____
3. What year are you in school *(HPR participants only)*?

   _____ 1st year _____ 2nd year_____ 3rd year

   _____ 4th year _____ 5th year _____ 6th year or higher
4. What is your major/field of study (*HPR participants only)*?

   _____
5. Were you born in the U.S.? _____ Yes _____ No
   a. If no, where were you born? _____
   b. At what age did you come to the U.S.? _____years of age
6. Your current zip code: _____
7. What is your racial group?

   _____ White / Caucasian

   _____ Black / African American

   _____ Asian or Pacific Islander

   _____ Hispanic / Latino / Latina

   _____ Native American / American Indian

   _____ Multiracial / Multiethnic (please describe) _____

   _____ Other (please describe) _____

8. How important would you say your religion is in your life (*circle one*)?

1	2	3	4	5	6	7
Not at all Important						*Extremely Important*

9. How would you describe your political views *(circle one)?*

1	2	3	4	5	6	7
Very Liberal						*Very Conservative*

10. Are you currently employed? _____ Yes _____ No

11. How would you describe your economic resources?

<u>When you were growing up:</u>	<u>Currently:</u>
_____ Very poor, not enough to get by	_____ Very poor, not enough to get by
_____ Barely enough to get by	_____ Barely enough to get by
_____ Had enough to get by but no extras	_____ Had enough to get by but no extras
_____ Had more than enough to get by	_____ Had more than enough to get by
_____ Well to do	_____ Well to do
_____ Extremely well to do	_____ Extremely well to do

12. What is the highest level of education attained by your _____?

<u>Mother:</u>	<u>Father:</u>
_____ Less than high school	_____ Less than high school
_____ High school/GED	_____ High school/GED
_____ Some college	_____ Some college
_____ 2-year college degree (Associate's)	_____ 2-year college degree (Associate's)

_____ 4-year college degree (BA, BS)

_____ Master's degree

_____ Doctoral degree

_____ Professional degree (JD, MD)

_____ 4-year college degree (BA, BS)

_____ Master's degree

_____ Doctoral degree

_____ Professional degree (JD, MD)

Racial contact:

13. How many close friends do you have who are white/black/another race?

_____ 0

_____ 1-2

_____ 3-4

_____ 5 or more

14. How many acquaintances (people you are friendly with but don't spend a lot of time with) do you have who are white/black/another race?

_____ 0

_____ 1-2

_____ 3-4

_____ 5 or more

15. In high school, how many times a month did you visit the home of a friend who was white/black/another race?

_____ 0

_____ 1-2

_____ 3-4

_____ 5 or more

16. How many people have you casually dated (spend time together but openly date other people) who are white/black/another race?

_____ 0

_____ 1-2

_____ 3-4

_____ 5 or more

17. How many people have you seriously dated (dated for at least 1 month and do not date other people) who are white/black/another race?

_____ 0

_____ 1-2

_____ 3-4

_____ 5 or more

18. How would you describe the racial composition of your classes related to your major?

_____ I am not currently in school

_____ All or mostly African Americans/Blacks

_____ All or mostly Whites

_____ All or mostly made up of another racial group

_____ Racially integrated or mixed

19. How would you describe the racial composition of your current workplace?

_____ I am not currently working

_____ All or mostly African Americans/Blacks

_____ All or mostly Whites

_____ All or mostly made up of another racial group

_____ Racially integrated or mixed

20. How would you describe the racial composition of your current neighborhood or dormitory?

_____ All or mostly African Americans/Blacks

_____ All or mostly Whites

_____ All or mostly made up of another racial group

_____ Racially integrated or mixed

21. How would you describe the racial composition of the neighborhood you grew up in?

_____ All or mostly African Americans/Blacks

_____ All or mostly Whites

_____ All or mostly made up of another racial group

_____ Racially integrated or mixed

APPENDIX U

Social Desirability Scale (short form of Marlowe-Crowne Social Desirability Scale)

developed by Ballard, 1992)

Please indicate the extent to which you agree with each of the following statements about *yourself*?

1 2 3 4 5

Strongly disagree *Moderately* *Strongly agree*

1. I sometimes feel resentful when I don't get my way.
2. On a few occasions, I have given up doing something because I thought too little of my ability.
3. There have been times when I felt like rebelling against people in authority even though I knew they were right.
4. No matter who I'm talk to, I'm always a good listener.
5. I can remember "playing sick" to get out of something.
6. There have been occasions when I took advantage of someone.
7. I'm always willing to admit when I make a mistake.
8. I sometimes try to get even rather than forgive and forget.
9. When I don't know something I don't at all mind admitting it.
10. I am sometimes irritated by people who ask favors of me.
11. I have never deliberately said something that hurt someone's feelings.

REFERENCES

REFERENCES

Abrams, D., & Hogg, M.A. (1988). Comments on the motivational status of self-esteem in social identity and intergroup discrimination. *European Journal of Social Psychology, 18,* 317-334.

Allport, G.W. (1954). *The Nature of Prejudice.* Cambridge, MA: Addison-Wesley Publishing Company, Inc.

Allport, G.W. (1966). Religious context of prejudice. *Journal for the Scientific Study, 5*, 447-457.

Ancis, J.R., & Szymanski, D.M. (2001). Awareness of white privilege among white counseling trainees. *The Counseling Psychologist, 29,* 548-569.

Ashmore, R.D., & Del Boca, F.K. (1981). Conceptual approaches to stereotypes and stereotyping. In D.L. Hamilton (Ed.), *Cognitive processes in stereotyping and intergroup behavior* (pp. 1-35). Hillsdale, NJ: Erlbaum.

Ballard, R. (1992). Short forms of the Marlowe-Crowne social desirability scale. *Psychological Reports, 71,* 1155-1160.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51,* 1173-1182.

Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis, 20,* 351-368.

Bettencourt, B., Charlton, K., Dorr, N., & Hume, D. L. (2001). Status differences and ingroup bias: a meta-analytic examination of the effects of status stability, status legitimacy, and group permeability. *Psychological bulletin*, *127*, 520-542.

Bierly, M. M. (1985). Prejudice toward contemporary outgroups as a generalized attitude. *Journal of Applied Social Psychology, 15,* 189-199.

Biernat, M., Vescio, T.K., & Theno, S.A. (1996). Violating American values: A "value-congruence" approach to understanding outgroup attitudes. *Journal of Experimental Social Psychology, 32*, 387-410.

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

Blumer, H. (1999). Race prejudice as a sense of group position. In C.A. Gallagher (Ed.), *Rethinking the color line: Readings in race and ethnicity* (pp. 99-105). Mountain View, CA: Mayfield.

Bobo, L. (1983). Whites' opposition to busing: Symbolic racism or realistic group conflict? *Journal of Personality and Social Psychology, 45,* 1196-1210.

Branscombe, N.R., Schmitt, M.T., & Harvey, R.D. (1999). Perceiving pervasive discrimination among African Americas: Implications for group identification and well-being. *Journal of Personality and Social Psychology, 77,* 135-149.

Branscombe, N.R., Schmitt, M.T., & Schiffhauer, K. (2007). Racial attitudes in response to thoughts of white privilege. *European Journal of Social Psychology, 37,* 203-215.

Branscombe, N.R., Spears, R., Ellemers, N., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers & R. Spears (Eds.), *Social identity: Contexts, commitment, content* (pp. 35-59). Oxford, UK: Blackwell Science.

Branscombe, N.R., Spears, R., Ellemers, N., & Doosje, B. (2002). Intragroup and intergroup evaluation effects on group behavior. *Personality and Social Psychology Bulletin, 28,* 744-753.

Branscombe, N.R., & Wan, D.L. (1994). Collective self-esteem consequences of outgroup derogation when a valued social identity is on trial. *European Journal of Social Psychology, 24,* 641-657.

Brewer, M.B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin, 17,* 475-482.

Brewer, M. B. (2003). Optimal distinctiveness, social identity, and the self. *Handbook of self and identity*, 480-491.

Brewer, M.B., & Campbell, D.T. (1976). *Ethnocentrism and intergroup attitudes: East Africane evidence.* New York, NY: Sage.

Brewer, M.B., & Gardner, W. (1996). Who is this "we"? Levels of collective identity and self representations. *Journal of Personality and Social Psychology, 71,* 83-93.

Brigham, J.C. (1993). College students' racial attitudes. *Journal of Applied Social Psychology, 23,* 1933-1967.

Brown, R., & Hewstone, M. (2005). An integrative theory of intergroup contact. *Advances in Experimental Social Psychology, 37,* 255-343.

Brown, R., Maras, P., Masser, B., Vivian, J., & Hewstone, M. (2001). Life on the ocean wave: Testing some intergroup hypotheses in a naturalistic setting. *Group Processes and Intergroup Relations, 4,* 81-97.

Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review, 97,* 19-35.

Case, K. A. (2012). Discovering the privilege of whiteness: White women's reflections on anti-racist identity and ally behavior. *Journal of Social Issues, 68,* 78-96.

Case, C. E., Greeley, A. M., & Fuchs, S. (1989). Social determinants of racial prejudice. *Sociological Perspectives, 32,* 469-483.

Cottrell, C.A., & Neuberg, S.L. (2005). Different emotional reactions to different groups: A sociofunctional threat-based approach to "prejudice." *Interpersonal relations and group processes, 88,* 770-789.

Crandall, C. S., & Beasley, R. K. (2001). A perceptual theory of legitimacy: Politics, prejudice, social institutions, and moral value. In J.T. Jost and B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations* (pp. 77-102). Cambridge, UK: Cambridge University Press.

Crocker, J., & Luhtanen, R. (1990). Collective self-esteem and ingroup bias. *Journal of Personality and Social Psychoogy, 58,* 60-67.

Crocker, J., Thompson, L., McGraw, K., & Ingerman, C. (1987). Downward comparison, prejudice, and evaluation of others: Effects of self-esteem and threat. *Journal of Personality and Social Psychology, 42,* 907-916.

Crosby, F.J. (1997). Confessions of an affirmative action mama. In M. Fine, L. Weis, L.C. Powell, & L. MunWong (Eds.), *Off White: Readings on race, power, and society* (pp. 179-186). London, UK: Routledge.

Crosby, F.J., Iyer, A., Clayton, S., & Downing, R. (2003). Affirmative action: Psychological data and the policy debates. *American Psychologist, 58,* 93-115.

Davies, P. G., Steele, C. M., & Markus, H. R. (2008). A nation challenged: The impact of foreign threat on America's tolerance for diversity. *Journal of personality and social psychology, 95,* 308-318.

de Hullu, E., de Jong, P. J., Sportel, B. E., Nauta, M. H. (2011). Threat-related automatic associations in socially anxious adolescents. *Behavior Research and Therapy, 49,* 518-522.

Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Attitudes and Social Cognition, 56,* 5-18.

Dunbar, E., Saiz, J.L., Stela, K., & Saez, R. (2000). Personality and social group value determinants of outgroup bias: A cross-national comparison of Gough's Pr/To Scale. *Journal of Cross-Cultural Psychology, 31,* 267-275.

Dunton, B.C., & Fazio, R.H. (1997). An individual difference measuer of motivation to control prejudiced reactions. *Personality and Social Psychology Bulletin, 23,* 316-326.

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review, 109,* 573.

Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods, 12*(1), 1-22.

Ekman, P. (1999). Basic emotions. In T. Dalgleish & M. Power (Eds.), *The handbook of cognition and emotion* (pp. 45-60). Sussex, England: Wiley.

Ekman, P., & Davidson, R. J. (1994). *The nature of emotion: Fundamental questions.* New York: Oxford University Press.

Eibach, R. P., & Keegan, T. (2006). Free at last? Social dominance, loss aversion, and White and Black Americans' differing assessments of racial progress. *Journal of personality and social psychology, 90,* 453-467.

Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their meaning and use. *Annual Review of Psychology, 54,* 297-327.

Festinger, L. (1957). *A theory of cognitive dissonance* (Vol. 2). Palo Alto, CA: Stanford University Press.

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.

Flores, A., & Rodriguez, C. M. (2006). University faculty attitudes on affirmative action principles toward faculty and students. *Equity & Excellence in Education, 39,* 303-312.

Frable, D. E., Blackstone, T., & Scherbaum, C. (1990). Marginal and mindful: Deviants in social interactions. *Journal of Personality and Social Psychology, 59,* 140.

Frable, D. E. S., Wortman, C., & Joseph, J. (1997). Distress in a cohort of gay men: The importance of cultural stigma, personal visibility, community networks, and positive identity. *Journal of Personality, 65,* 599-624.

Frankenberg, R. (2001). The mirage of an unmarked whiteness. In B.B. Rasmussen, E. Klineberg, I. Nexica, & M. Wray (Eds.), *The making and unmaking of whiteness* (pp. 72-86). Durham, NC: Duke University Press.

Gaertner, S.L., & Dovidio, J.F. (1986). The aversive form of racism. In J.F. Dovidio & S.L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 61-89). Orlando, FL: Academic Press.

Gallagher, C.A. (2003). Miscounting race: Explaining Whites' misperceptions of racial group size. *Sociological Perspectives, 46,* 381-396.

Giroux, H. A. (1997). Rewriting the discourse of racial identity: Towards a pedagogy and politics of whiteness. *Harvard Educational Review, 67,* 285-320.

Gonsalkorale, K., Carlisle, K., & Von Hippel, W. (2007). Intergroup threat increases implicit stereotyping. *International Journal of Psychology and Psychological Therapy, 7,* 189-200.

Gould, S. J. (1981). *The mismeasure of man.* New York: Norton.

Grover, B. K. (1997). Growing up White in America? In R. Delgado & J. Stefancic (Eds.), *Critical white studies: Looking behind the mirror* (pp. 34-35). Philadelphia: Temple University Press.

Guthrie, R. V. (2004). *Even the rat was white: A historical view of psychology (2nd ed.).* Upper Saddle River, NJ: Pearson Education.

Hafer, C. L., & Begue, L. (2005). Experimental research on just-world theory: Problems, developments, and future challenges. *Psychological bulletin, 131*, 128-167.

Heilman, M. E., Block, C. J., & Lucas, J. A. (1992). Presumed incompetent? Stigmatization and affirmative action efforts. *Journal of Applied Psychology*, *77*, 536-544.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 319-340.

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.

Hogg, M.A. (2006). Social identity theory. In P.J. Burke (Ed.), *Contemporary social psychological theories* (pp. 111-136). Palo Alto, CA: Stanford University Press.

Hogg, M. A., & Sunderland, J. (1991). Self-esteem and intergroup discrimination in the minimal group paradigm. *British Journal of Social Psychology*, *30*, 51-62.

Hurtado, A., & Stewart, A. J. (1997). Through the looking glass: Implications of studying whiteness for feminist methods. In M. Fine, L. Weis, L.C. Powell, & L.M. Wong (Eds.), *Off white: Readings on race, power, and society* (pp. 297-311). London, UK: Routledge.

Iyer, A., Leach, C. W., & Crosby, F. J. (2003). White guilt and racial compensation: The benefits and limits of self-focus. *Personality and Social Psychology Bulletin*, *29*, 117-129.

Jackson, R. L. (1999). White space, white privilege: Mapping discursive inquiry into the self. *Quarterly Journal of Speech, 85,* 38-54.

Jetten, J., Schmitt, M. T., Branscombe, N. R., Garza, A. A., & Mewse, A. J. (2011). Group commitment in the face of discrimination: The role of legitimacy appraisals. *European Journal of Social Psychology, 41*, 116-126.

Johnson, S.D. (1980). Reverse discrimination and aggressive behavior. *The Journal of Psychology, 104*, 11-19.

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., Pelham, B. W., & Carvallo, M. R. (2002). Non-conscious forms of system justification: Implicit and behavioral preferences for higher status groups. *Journal of Experimental Social Psychology, 38*, 586-602.

Jost, J. T., & Thompson, E. P. (2000). Group-based dominance and opposition to equality as independent predictors of self-esteem, ethnocentrism, and social policy attitudes among African Americans and European Americans. *Journal of Experimental Social Psychology*, *36*, 209-232.

Jussim, L., Cain, T.R., Crawford, J.T., Harber, K., & Cohen, F. (2009). The unbearable accuracy of stereotypes. In T.D. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 199-227). New York, NY: Taylor & Francis Group.

Kahneman, D., & Tversky, A. (Eds.). (2000). *Choices, values, and frames*. Cambridge, UK: Cambridge University Press.

Kaiser, C. R., Dyrenforth, P. S., & Hagiwara, N. (2006). Why are attributions to discrimination interpersonally costly? A test of system-and group-justifying motivations. *Personality and Social Psychology Bulletin*, *32*, 1423-1536.

Kamans, E., Otten, S., & Gordijn, E.H. (2011). Power and threat in intergroup conflict: How emotional and behavioral responses depend on the amount and content of threat. *Group Processes & Intergroup Relations, 14,* 293-310.

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.

Kay, A. C., Jost, J. T., Mandisodza, A. N., Sherman, S. J., Petrocelli, J. V., & Johnson, A. L. (2007). Panglossian ideology in the service of system justification: How complementary stereotypes help us to rationalize inequality. *.Advances in Experimental Social Psychology*, *39*, 305-358.

Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.) *Nebraska symposium on motivation* (pp. 192-238). Lincoln: University of Nebraska Press.

Kinder, D.R., & Sears, D.O. (1981). Prejudice and politics: Symbolic racism versus racial threats to the good life. *Journal of Personality and Social Psychology, 40,* 414-431.

Knowles, E. D., & Marshburn, C. K. (2010). Understanding white identity politics will be crucial to diversity science. *Psychological Inquiry, 21,* 134-139.

Kruglanski, A. (2004). *The psychology of closed mindedness*. East Sussex, UK: Psychology Press.

Langer, E. J. (1975). The illusion of control. *Journal of personality and social psychology*, *32*, 311-328.

Leach, C.W., Spears, R., Branscombe, N.R., & Doosje, B. (2003). Malicious pleasure: Schadenfreude at the suffering of another group. *Journal of Personality and Social Psychology, 84,* 932-943.

Lerner, M. J. (1980). *The belief in a just world: A fundamental delusion*. New York, NY: Plenum Press.

Lipsitz, G. (1998). *The possessive investment in whiteness: How white people profit from identity politics.* Philadelphia: Temple University Press.

Luguri, J. B., Napier, J. L., & Dovidio, J. F. (2012). Reconstruing intolerance abstract thinking reduces conservatives' prejudice against nonnormative groups. *Psychological Science, 23,* 756-763,

Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin, 18,* 302-318.

Lowery, B. S., Knowles, E. D., & Unzueta, M. M. (2007). Framing inequity safely: Whites' motivated perceptions of racial privilege. *Personality and Social Psychology Bulletin, 33,* 1237-1250.

Lowery, B. S., Unzueta, M. M., Knowles, E. D., & Goff, P. A. (2006). Concern for the ingroup and opposition to affirmative action. *Journal of Personality and Social Psychology, 90,* 961.

Maass, A., Cadinu, M., Guarnieri, G., & Grasselli, A. (2003). Sexual harassment under social identity threat: the computer harassment paradigm. *Journal of Personality and Social Psychology, 85,* 853-870.

Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: explaining offensive action tendencies in an intergroup context. *Journal of personality and social psychology, 79,* 602-616.

Mackie, D. M., & Smith, E. R. (Eds.). (2002). *From prejudice to intergroup emotions: Differentiated reactions to social groups.* New York: Psychology Press.

Matheson, K. J., Warren, K. L., Foster, M. D., & Painter, C. (2000). Reactions to affirmative action: Seeking the bases for resistance. *Journal of Applied Social Psychology, 30,* 1013-1038.

Mathews, A., Mogg, K., May, J., & Eysenck, M. (1989). Implicit and explicit memory bias in anxiety. *Journal of Abnormal Psychology, 98,* 236-240.

McConahay, J.B. (1982). Self-interest versus racial attitudes as correlates of anti-busing attitudes in Louisville: Is it the buses or the blacks? *Journal of Politics, 44,* 692-720.

McCoy, S. K., & Major, B. (2003). Group identification moderates emotional responses to perceived prejudice. *Personality and Social Psychology Bulletin, 29,* 1005-1017.

McIntosh, P. (1988). White privilege: Unpacking the invisible knapsack. In P.S. Rothenberg (Ed.), *Race, class, and gender in the United States: An integrated study* (pp. 165-169). New York, NY: Worth.

McKinney, K. D. (2008). Confronting young people's perceptions of whiteness: Privilege or liability. *Sociology Compass, 2,* 1303-1330.

Mills, J. K., McGrath, D., Sobkoviak, P. Stupec, S., & Welsh, S. (1995). Differences in expressed racial prejudice and acceptance of others. *The Journal of Psychology, 129,* 357-359.

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

Nesse, R. M. (1990). Evolutionary explanations of emotions. *Human nature, 1*, 261-289.

Neuberg, S.L., & Cottrell, C.A. (2002). Intergroup emotions: A biocultural approach. In D. Mackie & E. Smith (Eds.), *From prejudice to intergroup emotions: Differentiated reactions to social groups* (pp. 265-283). New York, NY: Psychology Press.

Neville, H. A., Lilly, R. L., Duran, G., Lee, R. M., & Browne, L. (2000). Construction and initial validation of the Color-Blind Racial Attitudes Scale (CoBRAS). *Journal of Counseling Psychology, 47,* 59-70.

Norton, M. I., & Sommers, S. R. (2011). Whites see racism as a zero-sum game that they are now losing. *Perspectives on Psychological Science, 6,* 215-218.

Nosek, B. A., Banaji, M., & Greenwald, A. G. (2002). Harvesting implicit group attitudes and beliefs from a demonstration web site. *Group Dynamics: Theory, Research, and Practice, 6,* 101-115.

Oakes, P.J. (1987). The salience of social categories. In J.C. Turner, M.A. Hogg, P.J. Oakes, S.D. Reicher, & M.S. Wetherell (Eds.). *Rediscovering the social group: A self-categorization theory* (pp. 175-210). San Diego, CA: Academic Press.

O'Brien, L. T., & Major, B. (2005). System-justifying beliefs and psychological well-being: The roles of group status and identity. *Personality and Social Psychology Bulletin, 31,* 1718-1729.

Oliver, J.E., & Wong, J. (2003). Intergroup prejudice in multiethnic settings. *American Journal of Political Science, 47,* 567-582.

Ostrander, S. (1984). *Women of the upper class.* Philadelphia, PA: Temple University Press.

Outten, Schmitt, Miller, & Garcia (2012). Feeling threatened about the future: Whites' emotional reactions to anticipated ethnic demographic changes. *Personality and Social Psychology Bulletin, 38,* 14-25.

Parks-Stamm, E. J., Heilman, M. E., & Hearns, K. A. (2008). Motivated to penalize: Women's strategic rejection of successful women. *Personality and Social Psychology Bulletin, 34,* 237-247.

Pavlak, T. J. (1973). Social class, ethnicity, and racial prejudice. *The Public Opinion Quarterly, 37,* 225-231.

Phelan, J.E., & Rudman, L.A. (2010). Reactions to ethnic deviance: The role of backlash in racial stereotype maintenance. *Journal of Personality and Social Psychology, 99,* 265-281.

Phelps, E.A., O'Connor, K.J., Cunningham, W.A., Gatenby, J.C., Funayama, E.S., Gore, J.C., & Banaji, M.R. (2000). Amygdala activation predicts performance on indirect measures of racial bias. *Journal of Cognitive Neuroscience, 12,* 729-738.

Plaks, J. E., Grant, H., & Dweck, C. S. (2005). Violations of implicit theories and the sense of prediction and control: implications for motivated person perception. *Journal of Personality and Social Psychology, 88,* 245-262.

Plant, A.E., & Devine, P.G. (2003). The antecedents and implications of interracial anxiety. *Personality and Social Psychology, 67,* 741-763.

Plaut, V. C., Garnett, F. G., Buffardi, L. E., & Sanchez-Burks, J. (2011). "What about me?" Perceptions of exclusion and Whites' reactions to multiculturalism. *Journal of Personality and Social Psychology, 101,* 337-353.

Plutchik, R. (1980). *Emotion: A psychoevolutionary synthesis.* New York: Harper & Row.

Plutchik, R. (2003). *Emotions and life: Perspective from psychology, biology, and evolution.* Washington, DC: American Psychological Association.

Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology, 67,* 741-763.

Preacher, K. J., & Hayes, A. F. (2007). Assessing mediation in communication research. In A.F. Hayes, M.D. Slater, & L.B. Snyder (Eds.), *The sage sourcebook of advanced data analysis methods for communication research* (pp. 13-54). Thousand Oaks, CA: Sage.

Prezza, M., Zampatti, E., Pacilli, M. G., & Paoliello, A. (2008). Territorial sense of community, ethnic prejudice and political orientation. *Journal of Community & Applied Social Psychology, 18,* 315-332.

Prislin, R., Limbert, W. M., & Bauer, E. (2000). From majority to minority and vice versa: The asymmetrical effects of losing and gaining majority position within a group. *Journal of Personality and Social Psychology, 79,* 385-397.

Qualls, R. C., Cox, M. B., & Schehr, T. L. (1992). Racial attitudes on campus: Are there gender differences? *Journal of College Student Development, 33,* 524-530.

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

Riek, B.M., Mania, E.W., & Gaertner, S.L. (2006). Intergroup threat and outgroup attitudes: A meta-analytic review. *Personality and Social Psychology Review, 10,* 336-353.

Roediger, D.R. (1991). *The wages of whiteness.* New York, NY: Verso.

Rosenberg, M. (1979). *Conceiving the self.* New York, NY: Basic Books.

Ross, J., Zaldivar, A., Irani, L., Tomlinson, B., Silberman, M. S. (2010, August). Paper presented at the 28th ACM Conference on Human Factors in Computing Systems, Atlanta, GA. Paper retrieved from http://delivery.acm.org/10.1145/1760000/1753873/p2863-ross.pdf?ip=35.10.152.193&id=1753873&acc=ACTIVE%20SERVICE&key=C2716FEBFA981EF16B5540ABA7506E55713C06D93B9F76B9&CFID=235836828&CFTOKEN=99064846&__acm__=1374780525_a52439203b48aa8ed87b6e6eea648483

Rubin, M., & Hewstone, M. (1998). Social identity theory's self-esteem hypothesis: A review and some suggestions for clarification. *Personality and Social Psychology Review, 2*, 40-62.

Rudman, L.A., Ashmore, R.D., & Gary, M.I. (2001). "Unlearning" automatic biases: The malleability of implicit stereotypes and prejudice. *Journal of Personality and Social Psychology, 81,* 856-868.

Rudman, L. A., & Fairchild, K. (2004). Reactions to counterstereotypic behavior: The role of backlash in cultural stereotype maintenance. *Journal of Personality and Social Psychology*, *87*, 157-176.

Rudman, L.A., Feinberg, J.M., & Fairchild, K. (2002). Minority members' implicit attitudes: Ingroup bias as a function of group status. *Social Cognition, 20,* 294-320.

Rudman, L. A., & Glick, P. (2002). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of social issues*, *57*, 743-762.

Rudman, L. A., & Goodwin, S. A. (2004). Gender differences in automatic ingroup bias: Why do women like women more than men like men? *Journal of Personality and Social Psychology*, *87*, 494-509.

Rudman, L. A., & Phelan, J. E. (2008). Backlash effects for disconfirming gender stereotypes in organizations. *Research in Organizational Behavior*, *28*, 61-79.

Schlueter, E. & Scheepers, P. (2010). The relationship between outgroup size and anti-outgroup attitudes: A theoretical synthesis and empirical test of group threat – and contact theory. *Social Science Research, 39,* 285-295.

Schuman, H., Steeh, C., Bobo, L., & Krysan, M. (1997). *Racial attitudes in America: Trends and interpretations.* Cambridge, MA: Harvard University Press.

Sedikides, C., & Strube, M.J. (1997). Self-evaluation: To thine own self be better. In M.P. Zanna (Ed.), *Advances in Experimental Social Psychology* (pp. 209-96). New York, NY: Academic Press.

Sellers, R. M., Rowley, S. A., Chavous, T. M., Shelton, J. N., & Smith, M. A. (1997). Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology, 73,* 805-815.

Sherif, M., & Sherif, C.W. (1969). Ingroup and intergroup relations: Experimental analysis. In M. Sherif & C.W. Sherif (Eds.), *Social Psychology* (pp. 221-266). New York, NY: Harper & Row.

Sidanius, J., & Pratoo, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York, NY: Cambridge University Press.

Sidanius, J., & Pratto, F. (2001). *Social dominance: An intergroup theory of social hierarchy and oppression*. Cambridge, UK: Cambridge University Press.

Smith, E. R. (1993). Social identity and social emotions: Toward new conceptualizations of prejudice. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition, and stereotyping: Interactive processes in group perception* (pp. 297-315). San Diego, CA: Academic Press.

Spencer, S. J., Fein, S., Wolfe, C. T., Fong, C., & Duinn, M. A. (1998). Automatic activation of stereotypes: The role of self-image threat. *Personality and Social Psychology Bulletin*, *24*, 1139-1152.

Stephan, W.G., Boniecki, K.A., Ybarra, O., Bettencourt, A., Ervin, K.S., Jackson, L.A., et al. (2002). The role of threats in the racial attitudes of Blacks and Whites. *Personality and Social Psychology Bulletin, 28,* 1242-1254.

Stephan, W.G., & Renfro, C.L. (2002). The role of threat in intergroup relations. In D. Mackie & E. Smith (Eds.), *From prejudice to intergroup emotions: Differentiated reactions to social groups* (pp. 265-283). New York: Psychology Press.

Stephan, W.G., & Stephan, C.W. (1985). Intergroup anxiety. *Journal of Social Issues, 41,* 157-175.

Stephan, W.G., & Stephan, C.W. (1996). Predicting prejudice. *International Journal of Intercultural Relations, 20,* 409-426.

Stephan, W.G., & Stephan, C.W. (2000). An integrated theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination: The Claremont Symposium on applied social psychology* (pp. 23-45). Mahwah, NJ: Lawrence Erlbaum Associates.

Steyn, M. (2005). "White talk": White South Africans and the management of diasporic whiteness. In A. J. Lopez (Ed.), *Postcolonial whiteness: A critical reader on race and empire* (pp. 119-135). Albany, NY: State University of New York Press.

Swim, J. K., & Miller, D. L. (1999). White guilt: Its antecedents and consequences for attitudes toward affirmative action. *Personality and Social Psychology Bulletin, 25*, 500-514.

Tajfel, H. (1972). Social categorization. English manuscript of "La categorization sociale." In S. Moscovici (Ed.), *Introduction á la Psychologie Sociale* (pp. 272-302). Paris, France: Larousee.

Tajfel, H., & Turner, J.C. (1979). An integrative theory of intergroup conflict. In W.G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.

Tajfel, H., & Turner, J.C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W.G. Austin (Eds.). *Psychology of intergroup relations* (2nd ed., pp. 7-24). Chicago, IL: Nelson-Hall.

Taylor, M. C. (1998). How White attitudes vary with the racial composition of local populations: Numbers count. *American Sociological Review, 63,* 512-535.

Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. *Advances in Experimental Social Psychology, 21,* 181-228.

Tesser, A. (2000). On the confluence of self-esteem maintenance mechanisms. *Personality and Social Psychology Review, 4,* 290-299.

Thompson, C. E., & Neville, H. A. (1999). Racism, mental health, and mental health practice. *The Counseling Psychologist, 27,* 155-223.

Tooby, J., & Cosmides, L. (1990). The past explains the present: Emotional adaptations and the structure of ancestral environments. *Ethology and Sociobiology, 11,* 375-424.

Turner, J.C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.). *Social identity and intergroup relations* (pp. 15-40). Cambridge, UK: Cambridge University Press.

Turner, J.C. (1999). Some current issues in research on social identity and self-categorization theories. In N. Ellemers, R. Spears, and B. Doosje (Eds.), *Social identity* (pp. 6-34). Oxford, UK: Blackwell.

Turner, J.C., Oakes, P.J., Haslam, S.A., & McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin, 20,* 454-463.

U.S. Census Bureau. (2008). *Projected population by single year of age, sex, race, and Hispanic origin for the United States: July 1, 2000 to July 1, 2050* (Catalogue No. NP-2008-D1). Washington, DC: Population Division.

Vescio, T.K., Gervais, S.J., Heiphetz, L., & Bloodhart, B. (2009). Stereotypic behaviors of the powerful and their effect on the relatively powerless. In T.D. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 247-265). New York, NY: Taylor & Francis Group.

Watson, D., & Clark, L.A. (1991). Self- versus peer-ratings of specific emotional traits: Evidence of convergent and discriminant validity. *Journal of Personality and Social Psychology, 60,* 927-940.

Ziegler, R., Diehl, M., Zigon, R,. & Fett., T. (2004). Source consistency, distinctiveness, and consensus: The three dimensions of the Kelley ANOVA model in persuasion. *Personality and Social Psychology Bulletin, 30,* 352-364.