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Cultural Change and Threat Perception: Causal Implications on White Nationalist Beliefs and Outgroup Restricting Policies

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Cultural Change and Threat Perception:

Causal Implications on White Nationalism Beliefs and Outgroup Restricting Policies

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Biography

The author was born in Burlington, Wisconsin on April 22, 1992. She graduated from Waterford Union High School in 2010. She received her Bachelor of Arts degree in Psychology with minors in Biology and Criminology from Marquette University in Milwaukee, Wisconsin in 2013. In 2019, she received her Master of Arts degree in Psychological Sciences from DePaul University in Chicago, Illinois. After graduating from the doctoral program, she will work as a Senior Data Scientist at Nielsen in Chicago, Illinois.

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Abstract

Cultural change is an inevitable aspect of life; however, how people react to cultural change can dramatically vary. Of particular interest to this analysis is how White Americans react to cultural changes occurring in the nation. Across three studies, I examined how White Americans may see cultural change, in the form of demographic change, as threatening and how these threat perceptions may influence their endorsement of White nationalism beliefs and support for outgroup restricting policies. This investigation found that White participants who read about real demographic changes occurring in the nation endorsed more threat perceptions (Study 1). Furthermore, there was tentative evidence that certain threat perceptions were positively related to endorsement of White nationalism beliefs and support for outgroup restricting policies. Although attempts to manipulate specific threat perceptions within the cultural change paradigm was relatively successful (Study 2a), none of these threat manipulations predicted endorsement of White nationalism beliefs nor support for outgroup restricting policies (Study 2b). Theoretical implications and avenues for future research are discussed.

Keywords: cultural inertia, threat perception, demographic change, intergroup relations, White nationalism, policy support

Cultural Change and Threat Perception: Causal Implications on White Nationalism Beliefs and Outgroup Restricting Policies

> Thanks to mass immigration, America has experienced greater demographic change in the last few decades than any other country in history has undergone during peacetime… Again and again, we are told these changes are entirely good… We must celebrate the fact that a nation that was overwhelmingly European, Christian, and English-speaking fifty years ago has become a place with no ethnic majority, immense religious pluralism, and no universally shared culture or language. (Carlson, 2018, p. 10)

Cultural change[1] is an inevitable aspect of life—social realities shift and with it personal, community, national, and global culture changes (Haferkamp, & Smelser, 1992). To some, these cultural changes indicate hope and progress; to others, like Tucker Carlson in the above quote, these cultural changes are an indication of a degrading society. Although the majority (60%) of Americans feel that changes in traditional ways of life will make the country's future better (Silver et al., 2021), it is clear that not all Americans feel this way. Whereas 29 – 33% of Black and Hispanic Americans are pessimistic about the future, 49% of White Americans are pessimistic about what the future may hold for the country (Parker et al., 2019). A PRRI and *The Atlantic* research report found that 68% of White working-class Americans felt that the United States was in danger of losing its culture and identity, with 48% of sampled working-class Whites

[1] This paper will utilize Varnum & Grossmann's definition of cultural change: "changes in ideas, norms, and behaviors of a group of people (or changes in the contents or themes of their products reflecting such changes), over time, typically on the scale of decades or centuries" (pp. 957, 2017).

saying that recent cultural changes make them feel like a stranger in the United States (Cox et al., 2017). Altogether, this suggests that a plurality of White Americans is fearful of what the future may hold for them as culture in the United States continues to change.

Although the United States was ostensibly founded as a nation of immigrants seeking freedom and tolerance; in reality, the United States has almost exclusively functioned as a White cultural hegemony. Within this White cultural hegemony, White folks' power and influence have been at the heart of directing the nations' laws since its very inception (e.g., who could vote or own property) as well as directing the cultural values of the nation (e.g., the Protestant work ethic). Consequently, cultural shifts away from this White hegemony can be met with staunch resistance by the White majority as they may feel like cultural change is in direct opposition to the very essence of their version of American cultural identity. Therefore, some Whites' fear of cultural change in the United States can lead to adverse outcomes and may explain why the nation has experienced a nearly 30% increase in White-committed hate crimes within the last 5 years (Southern Poverty Law Center, 2019; U.S. Department of Justice, 2020).

This proposal seeks to understand how White Americans perceive cultural change in the nation and how they react to these perceived changes. Specifically, this proposal will investigate reactions to cultural change through the presentation of real demographic changes occurring in the nation. This proposal will utilize cultural inertia theory as a framework by which to understand how cultural change may uniquely affect White threat perception. Furthermore, this proposal will utilize intergroup threat theory as a guide in understanding the theoretical underpinnings of threat and the operationalization of the construct. Although previous research has found overall support for the idea that White

Americans find demographic changes threatening, this proposal will extend prior research by measuring the perception of a wider variety of threats within a single study. Furthermore, this proposal will be one of the first to manipulate the presentation of threat information in conjunction to demographic changes to determine whether different threat perceptions have a causal influence on White participants' reaction to these cultural threats.

Cultural Change and Cultural Inertia Theory

Cultural change can be understood through an ecological approach grounded in ideas of behavioral ecology (Davies et al., 2012). This ecological view proposes that people acquire elements of culture that will increase their fitness (or likelihood to pass on genes, directly or indirectly) within their particular set of ecological conditions (Gangestad et al., 2006; Schaller & Murray, 2011; Thornhill & Fincher, 2014). Consequently, ecological dimensions such as resource scarcity and population density will influence cultural changes within a society (Grossmann & Varnum, 2015). This ecological approach is largely used to understand cultural changes at a societal level (e.g., understanding how national culture changes over decades of time; Grossmann &Varnum, 2015); however, it may also help to explain why cultural changes may not be experienced the same by subgroups of people within a society. For instance, people within a society will experience resource scarcity differently depending on their socioeconomic status; therefore, these people may react differently to cultural changes brought forth from this general scarcity of resources.

Cultural inertia theory (CIT) provides a detailed explanation for the different ways people can react to changes in social and cultural norms. Cultural inertia theory

posits that, similar to Sir Isaac Newton's first law of motion, a culture at rest will stay at rest, resisting change, and a culture in motion will continue in motion unless acted upon by an outside force (Zárate et al., 2009, 2012). Furthermore, as in the third law of motion, cultural inertia theory suggests that a culture met with unwanted change (either to promote movement or curtail it) will resist the unwanted change in an "equal and opposite" way (Zárate et al., 2019). In other words, cultural inertia theory describes the differential preference for cultural change as a function of a person's identification with the current cultural environment, the perception that they will need to change to accommodate another culture, and whether they believe the culture is already in motion (Zárate et al., 2012). Therefore, to the extent that a one aligns themself with the mainstream, dominant, culture they will resist changes to that culture. This is supported by the ecological view of cultural change which suggests that trajectories of cultural change are partially determined by the homogeneity of a society and the tolerance for deviations from accepted cultural norms (Gelfand et al., 2011; Uz, 2015; Varnum & Grossmann, 2017).

A Culture at Rest

A prime illustration of cultural inertia theory is the United States leading up to and during the Civil Rights Movement. The United States in the 1950s was defined by relative cultural stability and conformity (Dworkin, 2018; Riesman et al., 2001). More specifically, 1950s American culture was defined and governed by *White* American culture. To this very day, the American identity is often confounded with a *White* American identity (Devos, 2006; Devos & Banaji, 2005; Dovidio, 2010). Therefore, a White American identity is often perceived as a normative identity, especially for Whites

in the 1950s. Thus, Whites connected to the White American culture were generally invested in maintaining their majority culture; this is because highly identified group members are more devoted to maintaining the integrity of their group identity (Jetten et al., 2004; Lalonde, 2010).

Majority groups resist cultural inertia because minority group progress is often perceived as necessitating their ingroup's losses (i.e., zero-sum thinking; Bazerman et al., 2001; Eibach & Keegan, 2006; Pruitt & Carnevale, 1993; Thompson 1995). Therefore, cultural concessions to Black Americans in the 1950s would have been perceived by White Americans as a loss of ingroup status and power. In fact, researchers of the era argued that resistance to integration efforts was predicated on White's perception that Black Americans were threatening their advantaged position in society (Blalock, 1967; Blumer, 1958). In this view, allowing Black Americans access to the same resources and spaces as White Americans would threaten White's place in the United States because White Americans would be forced to relinquish their exclusive resources and power; in essence, White cultural stability would be forfeited to an unknown cultural variant.

Eibach and Keegan (2006) explored White's perceptions of racial progress in American society in a series of experiments. One experiment assigned participants to one of three conditions: the minority gain condition asked students to draw graphs depicting the percentage of non-White students admitted to universities in 1960 and the percentage of non-White students admitted today; the White loss condition asked participants to draw graphs showing the percentage of White students in 1960 and today; and the minority gain/White loss condition asked participants to draw graphs showing the percentage of White students and non-White students admitted to universities in 1960 and

today. Results demonstrated that when primed to think about minority gains *and* White losses, White participants exhibited more zero-sum thinking than when primed to think only about minority gains (Eibach & Keegan, 2006). In fact, mean levels of zero-sum thinking suggested that those in the minority gains condition did not endorse zero-sum thinking, while those in the minority gains/White losses conditions did endorse zero-sum thinking (Eibach & Keegan, 2006). Providing a potential explanation for these zero-sum results, Plaut and colleagues found that White participants were faster at matching multiculturism words with "exclusion" (vs. "inclusion") than were minority participants in an IAT task (2011), suggesting that White Americans do not perceive traditionally inclusive ideologies as being inclusive to them. Therefore, changes in cultural norms away from a traditional White hegemony would be perceived as changes that exclude White folks, causing resistance to this potential cultural change.

A Culture in Motion

Conversely, Black Americans of the 50s and 60s did not experience White cultural stability in the same way as White folk. The Civil Rights Movement was born from the fundamental need and struggle for equal rights within the United States (Carson, 2020). This struggle necessitated a cultural shift in the United States away from a stable, White cultural hegemony, towards a more inclusive culture. Black Americans tended to view this need for cultural change in fundamentally different ways than White Americans of the era. Whereas White Americans tend to see moves towards racial equality in terms of losses, unsurprisingly, Black Americans tend to view these moves as gains (Eibach & Keegan, 2006). In their aforementioned study, Eibach and Keegan (2006) found that non-White participants experienced no differences in their zero-sum thinking across

educational equity conditions (minority gains, White losses, or minority gains/White losses). In fact, mean levels of zero-sum thinking never passed the midpoint of the scale, suggesting that the minority participants never endorsed zero-sum thinking (Eibach & Keegan, 2006). Therefore, Black Americans in the 1950s did not perceive the cultural motion as necessitating White loss; rather, this cultural inertia was desirable as it was a way of bringing about parity for all U.S. citizens.

A Culture in Conflict

These starkly different perspectives on cultural change meant that White cultural stability came into direct conflict with the burgeoning Civil Rights Movement. Those in the White majority who enjoyed the cultural stability of the 1950s, actively resisted the civil rights movement (Carson, 2020; Library of Congress, n.d.), as the Civil Rights Movement was an unwanted change propelling their White American culture into motion. Cultural inertia theory suggests that a highly identified majority group member resists unwanted cultural changes because these cultural changes may require them to change their identity to meet the cultural momentum (Eibach & Keegan, 2006; Voci, 2006; Zárate & Shaw, 2010; Zárate et al., 2012). Zárate and colleagues (2012) tested this idea and found that when local Mexican American undergraduates (within a majority Mexican-American cultural context) were led to believe that their majority ingroup would need to change to accommodate an incoming population of military personnel to the area, these undergraduates felt more symbolic threat (i.e., the outgroup would undermine their local culture) and expressed more outgroup prejudice (i.e., hostilities towards and disapproval of the outgroup) compared to conditions where they were led to believe the military personnel would adopt the local culture (Zárate et al., 2012).

Herein lies an important distinction, cultural inertia theory predicts that cultural changes are only problematic to the majority group when there is the perceived pressure for the dominant group to *conform* to the cultural changes (Zárate et al., 2012). Consequently, Whites who live in diverse environments may not feel particularly threatened by the potential for new cultural changes as they have likely experienced cultural change already without adverse effects (Lee & Bean, 2010; Zárate & Shaw, 2010). This distinction is clearly demonstrated by the fact that not all White Americans in the 50s and 60s resisted the Civil Rights Movement. cultural inertia theory would predict that these White folk were either not highly identified with the majority White culture or believed there was space for new cultural perspectives alongside the dominant White culture. Therefore, White activists who supported the Civil Rights Movement likely did not perceive cultural changes away from the White majority to be threatening and thus they did not resist these changes.

Intergroup Threat Theory

As cultural changes can be threatening, it is important to understand what threat is and how it is provoked. Intergroup threat theory (ITT), the revised version of integrated threat theory (Stephan & Renfro, 2002; Stephan & Stephan, 2000), describes the causes, types, and consequences of perceived threats. The theory states that a group threat is experienced when a group member perceives that another group can cause their group harm (Stephan et al., 2015). Because human beings are social creatures who form close social connections within groups for survival (Baumeister & Leary, 1995; Brewer, 1997; Coon, 1946), they will act in the best interests of their ingroup's survival (Branscombe et al., 1999; Tajfel & Turner, 1986). As Cottrell and Neuberg (2005) explain, group

members are attuned to potential threats to their group because their group's protection confers their own personal protection and wellbeing. Therefore, group members are motivated to minimize any potential harms levied at the ingroup to maximize their chances to survive and thrive in society. Within this perspective, threats can be perceived from any situation which puts group resources, security, or integrity at risk (Alexander, 1974; Branscombe et al., 1999; Cottrell & Neuberg, 2005; Dunbar, 1988; Stephan et al., 2015). Therefore, threat perception stems from a potential unwanted change to the ingroup's status quo; desirable or neutral changes to the ingroup's status quo would not be perceived as threatening because it would not put the ingroup at risk.

Within intergroup threat theory, there are two general categories of group threat: realistic and symbolic threat. Realistic threats traditionally refer to tangible threats to ingroup welfare (Stephan et al., 2002, 2015). Threats to ingroup welfare can come in many different forms. For instance, realistic threats can refer to threats to ingroup power or ability to influence others and effectively wield resources, most often of which is through political power (Renfro et al., 2006; Stephan & Stephan, 2000) or economic power (Stephan et al., 1999). Realistic threats may also refer to threats to one's ability to provide for themselves financially through jobs or social services, especially during times of economic recession or high unemployment (Cottrell & Neuberg, 2005; Esses et al., 2016; Landmann et al., 2019; Renfro et al., 2006; Stupi et al., 2014). Realistic threats may also refer to threats to physical safety through criminal behaviors or violence (Cottrell & Neuberg, 2005; Cohrs et al., 2005; Hellmann et al., 2021; Landmann et al., 2019). Realistic threats to individual and group health can come in the form of disease—most notably through recent outbreaks of Ebola and Covid-19—which can adversely

impact the group's overall health or survival (Cottrell & Neuberg, 2005; Kachanoff et al., 2021; O'Leary et al., 2018; Pew Research Center, 2020). Finally, realistic threats may also refer to threats to relative societal status[2], or the relative amount of influence one group has over another (Stephan et al., 2000; Bai & Simon, 2020).

Symbolic threats generally refer to threats to the ingroup's sociocultural identity or worldview (Kachanoff et al., 2019; Stephan et al., 2002, 2015). Symbolic threats can refer to threats to the ingroups' moral beliefs through the belief that the outgroup has a different moral code or that the outgroup is altogether amoral (Brambilla & Butz, 2012; Cottrell & Neuberg, 2005; Stephan et al., 2002). Threats to ingroup values also may constitute a symbolic threat (i.e., Protestant work ethic, traditional familial structures; Cottrell & Neuberg, 2005; Esses et al., 1993; Renfro et al., 2006; Stephan et al., 1999). Symbolic threats may also involve threats to culture or traditions and ways of daily life (Landmann et al., 2019; Makashvili et al., 2017; Renfro et al., 2006; Spencer-Rodgers & McGovern, 2002). Finally, symbolic threats may include threats to prototypicality of the ingroup, or how much the ingroup represents the larger societal norm (Meeussen et al., 2013). Importantly, neither realistic nor symbolic threats need to be real; the simple *perception* of one of these threats is sufficient for reaction to the threat.

Different researchers have taken different tactics when categorizing and measuring these various realistic and symbolic threats. Traditional intergroup threat theory research tends to measure realistic and symbolic threat using two separate,

[2] Although status threat involves aspects of both realistic (e.g., threats to tangible resources; Jetten, et al., 2002) and symbolic (e.g., group esteem; Branscombe et al., 2002; Cameron et al., 2005) threats, typically the literature has classified status threats as realistic threats (for an example see Rios et al., 2018). Therefore, for the purpose of this dissertation, I will also classify status threat as a type of realistic threat.

overarching realistic and symbolic threat scales (e.g., Stephan et al., 2000; Stephan et al., 2002; Renfro et al., 2006). Realistic threats in these traditional scales are usually between 7 and 13 items and include items which tap into threats to political and economic power (e.g., Aberson et al., 2020; Guillermo et al., 2021; Stephan et al., 2000; Stephan et al., 2002; Renfro et al., 2006), and occasionally physical threats (e.g., Stephan et al., 2000; Renfro et al., 2006) and education threats (e.g., Aberson et al., 2020). Traditional symbolic threat measures vary from 7 to 13 items which usually measure threats to values and norms (e.g., Aberson et al., 2020; Guillermo et al., 2021; Renfro et al., 2006; Stephan et al., 2000; Stephan et al., 2002) and occasionally measure threats to culture (e.g., Guillermo et al., 2021; Renfro et al., 2006) and morality (e.g., Aberson et al., 2020; Renfro et al., 2006). Other researchers have adapted these traditional realistic and symbolic threat scales into more condensed 2 to 6 item measures tapping into specific realistic and/or symbolic threats believed to be pertinent to their research questions (e.g., Demirkol & Nalla, 2021; Velasco et al., 2008; Verkuyten, 2009). For instance, Velasco and colleagues (2008) measured Dutch citizens' threat perceptions of the Muslim minority group in the country. These researchers measured symbolic threat perception using an averaged three-item scale which assessed culture and value differences between the Dutch and Muslim groups; these researchers measured realistic threat perception using an averaged three-item scale focusing exclusively on the potential economic threats Muslim minorities can contribute to, specifically, making it difficult for the Dutch population to secure a job and housing (Velasco et al., 2008).

Potential Issues with Intergroup Threat Theory Measurement

Focusing on overarching categories of "realistic" and "symbolic" threats may be problematic. For example, qualitative analysis by Landmann and colleagues (2019) found that when German participants were asked about how refugees and migration may be potentially threatening to the German populous, participants' responses spanned six different subcategories of threat: concerns over cultural differences, economic strain, criminality, societal conflicts, prejudice, and caring for refugees. Consequently, some researchers have begun to suggest that using overarching "realistic" and "symbolic" threat categories may be obscuring critical, empirically distinct relationships between subcategories of threat. Numerous studies now suggest that safety threats (e.g., threats to physical safety and wellbeing or terrorism) are conceptually and empirically distinct from other realistic threats like economic stability or political power (Cottrell & Neuberg, 2005; Crawford, 2014; Hellman et al., 2021; Landmann et al., 2019; Nueberg & Cottrell, 2002). For instance, across three studies, Crawford (2014) tested whether realistic, symbolic, and safety threats mediated the effects between political ideology (IV) and political intolerance and prejudice (DVs). Crawford found that the three threats mediated these effects in different ways: symbolic threat perception was found to mediate prejudicial outcome variables for both left- and right-wing groups (for both feeling thermometers and social distancing measures) but had no effect on political intolerance; realistic threat mediated prejudice only for left-wing groups and political intolerance for only right-wing groups; and safety threat mediated the social distancing measure for both groups and mediated political intolerance for only left-wing groups (Crawford, 2014). Altogether, Crawford concluded that these findings suggest that there are important differences in the processes by which certain prejudicial attitudes and behaviors may

arise (2014)—not all threats are created equal. These results indicate that examining the individual subcategories of realistic and symbolic threats is important for fully understanding the antecedents and consequences of threat perceptions. If the aforementioned studies had only investigated subsuming categories of threats—namely, realistic and symbolic threats—the unique causes and correlates to perceptions of safety threat would have been obfuscated. Nuances like these will only be revealed when more studies investigate various subcategories of realistic and symbolic threats. Therefore, this proposal will investigate multiple different subcategories of both realistic and symbolic threats.

How Groups Perceive Threat

How a group perceives threat is dependent on the type of group they are. Traditionally, intergroup threat theory theoretical models posit that status differences serve as an antecedent to threat perceptions (Riek et al., 2006; Stephan et al., 1999; Stephan et al., 2000; Stephan et al., 2015), whereby low-status groups are more likely to *experience* threats to their group and high-status groups tend to react more strongly to threats when they are perceived (since they have more resources, power, and status to lose and have the resources necessary to respond to threats with force; Stephan et al., 2000; Stephan et al., 2015). In fact, research has found that the relationship between threat perception and prejudicial intergroup attitudes is stronger for high-status groups than it is for low-status groups (Johnson et al., 2005; Riek et al., 2006), suggesting that when high-status groups perceive threats, they may have a stronger response to those threats. This is particularly important when it comes to thinking about intergroup relations in the United States. High-status groups like Whites in the United States have

been responsible for increasingly more hate crimes over the last few years (Federal Bureau of Investigation, 2021; Nakamura, 2021); this trend is likely tied to White Americans experiencing threats to their status and lashing out in the previously predicted ways. Therefore, it is more important than ever to investigate how and when these threats are triggered in high-status groups like Whites in the United States.

Another important aspect of threat perception is the relative size of outgroups. Research suggests that groups are more likely to perceive an outgroup as threatening when they believe that the outgroup is larger in size (Campbell, 2006; Corneille, Yzerbyt, Rogier, & Buidin, 2001; McLaren, 2003; Nadeau et al., 1993; Quillian, 1995; Schaller & Abeysinghe, 2006). These findings are highlighted by the former Trump administration describing asylum-seeking migrants as an "invasion of illegals, [coming] through large caravans" which include "many gang members and some very bad people" (Trump, January 31, 2019; Trump, October 29, 2018); the rhetoric used to describe these asylum seekers exaggerated their relative size and their capacity to threaten American lives. In fact, researchers in Germany found that exclusionary attitudes towards immigrants were not predicted by the *actual* proportion of immigrants within the country, rather, they were predicted by the *perceived* proportion of immigrants (Semyonov et al., 2004). Therefore, the Trump administration's rhetoric about migrants was even more dangerous because the actual number of migrants would not have as much impact on attitudes towards the migrants as did the administration's exaggerations of their numbers. Furthermore, it may be the perception of relative competition that plays a critical role in threat perception. Some research argues that it is when high-powered groups, like White Americans, view relatively low-powered outgroups as being highly competitive for scarce resources that

they will perceive high levels of threat (Esses et al., 2001; Zárate et al., 2004). It is likely that an outgroup with relatively few members will not be perceived as threatening because they would not have the collective resources necessary to serve as true competition to the ingroup; whereas an outgroup believed to have more members may be able to amass the resources necessary to compete effectively against the ingroup—serving as a greater threat.

Altogether, this provides the "perfect storm" for White Americans to perceive racial and ethnic minorities as threats in the United States. White Americans are a high-powered group within the American context and therefore have a lot of resources at risk to outgroup members. Furthermore, real and embellished narratives of demographic changes within the United States are painting White Americans as a dwindling minority group (Frey, 2021; Vespa et al., 2020). These narratives can make racial and ethnic minorities appear to be a larger, homogenous outgroup that is more competitive against a White racial ingroup. For instance, this has fueled White supremacist and nationalist rhetoric regarding "The Great Replacement" theory—or the conspiracy theory that the White population is being systematically replaced by mass immigration and low White birthrates (Counter Extremism Project, n.d.; Hsu, 2009). In line with cultural inertia theory, these narratives are threatening to Whites as they portray a shift away from the established White majority, moving a stable cultural White hegemony into motion by a growing population of racial and ethnical minorities. Unfortunately, this rhetoric has dangerous outcomes as The Great Replacement rhetoric is believed to have largely contributed to the January 6th Capitol insurrection (Pape, 2021) and to terrorist attacks like the one recently committed in Buffalo, New York (Bowman et al., 2022). Although

this rhetoric was once believed to be an isolated and extreme viewpoint, it has gained mainstream traction in recent years (Daniels, 2009; Graham, 2016; Hartzell, 2018; Klein, 2012) and can contribute to adverse and sometimes deadly outcomes.

Reactance to Threats

Perceptions of threat can sometimes spur reactance to the threat. Psychological reactance literature proposes that people are motivated to restore threatened or actual losses of freedoms (Brehm, 1966; Miron & Brehm, 2006). In this view, threats can be thought of as perceived restrictions to one's choices or freedom. For example, an economic threat of immigration could be perceived as a restriction of ones' freedom or ability to pursue certain careers due to increased competition for jobs. The degree of reactance depends on the importance and magnitude of the threatened freedom (Brehm, 1966; Brehm & Brehm, 1981). This mirrors cultural inertia theory, which submits that perceived threats are met with "equal and opposite" reactions. Consequently, perceptions of both realistic and symbolic threats can lead to attitudinal and behavioral outcomes (Stephan & Stephan, 2000; Stephan et al., 2015), of particular importance to this proposal are blind resistance and the restriction to outgroup freedoms.

Blind Resistance. One potential reaction to perceived threat is blind resistance, or an abject refusal to engage in a prescribed attitude or behavior (Brehm, 1966; Brehm & Brehm, 1981). Blind resistance can result in what is termed *the boomerang effect*, or the adoption of beliefs, attitudes, or stances opposite of the perceived threat to freedom (Brehm & Brehm, 1981; Sensenig & Brehm, 1968). This can manifest in changing or strengthening negative attitudes towards an outgroup in order to psychologically distance the ingroup from the outgroup (Miron & Brehm, 2006). For instance, research has found

that perceptions that Black students were realistic and/or symbolic threats (that Black students were competition within the university and were changing the culture) was significantly related to White student's negative attitudes towards the group (e.g., beliefs that the Black students were undeserving) (Stephan et al., 2002). In effect, this helps to psychologically distance the White ingroup from the threatening outgroup by adopting beliefs which degrade the outgroup (that the outgroup was undeserving of resources) and (in)advertently bolster the ingroup (believing that White students are deserving of their place at the University). Furthermore, blind resistance to threat can manifest as intolerance or hatred towards and even dehumanization of the threatening outgroup (Shamir & SagivSchifter, 2006; Skitka, Bauman, & Mullen, 2004). Engaging in blind resistance towards the outgroup may serve an ingroup protecting function by psychologically distancing the ingroup from the outgroup through negative beliefs, attitudes, or stances about the outgroup. In essence, blind resistance towards the outgroup may help to restore ingroup esteem through the belief that the ingroup is good and deserving of their resources or power while asserting that the outgroup is bad and undeserving of the same resources or power (Lam & Seaton, 2016; Viki & Calitri, 2008).

Looking towards the intergroup threat theory literature, we can see that there is some debate about which types of threat perceptions may contribute to blind resistance in the form of negative or prejudicial attitudes about the outgroup. For instance, a meta-analysis of 95 research samples investigating this very question demonstrated that both realistic ($r = .42$, $p < .05$) and symbolic ($r = .45$, $p < .05$) threat perceptions led to increased negative attitudes about the threatening outgroup (Riek et al., 2006). On the other hand, Stephan and colleagues (2005) found that students who were told that

immigrants were either realistic *or* symbolic threats did not differ from the no-threat condition on their negative attitudes toward the immigrant outgroup; rather, this study found that it was the combined effect—informing student participants that immigrants were both realistic *and* symbolic threats—that significantly increased negative attitudes towards the immigrant outgroup. Similarly, studies utilizing a unified threat measure (including both realistic and symbolic threat items) found that perceptions that an outgroup was a general threat to the ingroup led to increased reports of negative attitudes about the outgroup (Atwell & Mastro, 2016; Oswald, 2005). Whereas the meta-analysis suggested that both realistic and symbolic threats have somewhat equivalent relationships to outgroup attitudes and other studies would suggest that it may be the combination of realistic and symbolic threats which influence outgroup attitudes, other studies suggest that one type of threat (realistic or symbolic) may be more influential than the other threat on outgroup attitudes. When tested simultaneously within an analysis, some studies find that realistic threats, but not symbolic threats, predict outgroup attitudes (Bizman & Yinon, 2001); however, other studies found that it was symbolic threat, but not realistic threat, that predicted outgroup attitudes (McLaren, 2003; Sniderman et al., 2004; Tausch et al., 2007; Velasco Gonzalez et al., 2010). Altogether, this literature suggests that threat perception likely increases negative outgroup attitudes; however, it is unclear whether realistic or symbolic threats have a greater effect on this outcome.

While studies on blind resistance to threats typically examine negative outgroup attitudes, few study increased belief in ingroup superiority and deservedness which may go hand-in-hand with blind resistance motivations. For instance, Eidelson and Eidelson (2003) posit that ingroup superiority and injustice beliefs are key belief domains which

help to shape perceptions of group conflicts—causing ingroups to judge outgroups more harshly, especially when those outgroups do not act in accordance with the ingroups' inflated self-image. In fact, Voci (2006) found that when ingroup value was threatened (hearing that the ingroup was characterized by negative traits), participants trusted the ingroup more and this led to increased ingroup evaluations *and* participants actively distrusting the outgroup, increasing their outgroup derogation. This pattern of results proposes that a threatened ingroup may take two courses of action: 1) reestablish ingroup status and 2) derogate and reduce the status of the outgroup. Furthermore, Jardina (2021) found that White Americans' presidential evaluations (who they would vote for and how positively the candidate was viewed) were driven in large part by attitudes towards racial outgroups *and* were also driven by positive White racial ingroup identification. In other words, political preferences, like who is viewed as capable of leading and protecting the nation, may be informed by both negative outgroup and positive ingroup beliefs and evaluations. Together these studies suggest that ingroup enhancement or positive ingroup evaluations may be an important factor to consider in response to group threat. Therefore, the current proposal will build upon this literature by examining White nationalism beliefs, or the belief that the White race is a superior racial group deserving of special treatment, in response to White ingroup threat perception.

Restriction of Outgroup Freedom. Another potential reaction to the perception of threat is the restriction of others' freedoms. In essence, restriction of a threatening outgroup's freedoms is an attempt to restore the ingroup's freedoms and social standing (Brehm & Brehm, 1981). This strategy attempts to alleviate reactance to threats through lashing out against other groups and restricting their freedoms. Research investigating

political and national conflicts finds that feeling victimized can promote conflict-exacerbating attitudes and behaviors towards an outgroup such as support for extreme conflict-inducing policies and militaristic interventions (Bar-Tal & Antebi, 1992; Maoz & Eidelson, 2007; Wohl & Branscombe, 2008). For example, the more Israeli-Jews saw their ingroup as being a vulnerable and victimized group, the more likely they were to support extreme policies against the outgroup such as removing Palestinians from the West Bank and Gaza Strip (Maoz & Eidelson, 2007). This may suggest that support for outgroup restricting policies (such as unilaterally deciding the fate of Palestinians) stems from feelings that the ingroup itself is vulnerable, restricted, or victimized. Therefore, the perception that an outgroup can pose a threat to the ingroup is alleviated through support for policies which make it more difficult for the outgroup to pose any threat to the ingroup.

Similar to blind resistance, the intergroup threat theory literature offers little consensus regarding which threats (realistic, symbolic, or both) are related to increased support for outgroup restricting policies. A study by Chiricos and colleagues (2014) found that both realistic and symbolic threat perceptions exerted a similar influence on support for stricter policies against undocumented immigration. However, a different segment of the literature has suggested that realistic threats have a greater influence on outgroup restriction than symbolic threats (Guillermo et al., 2021; Jetten et al., 2017; Jones et al., 2021; Pereira et al., 2010; Smeekes & Verkuyten, 2015; Wohl et al., 2010; Vala et al., 2006). For instance, the perceived threat of ingroup extinction (a realistic threat) has been shown to increase opposition to immigration (Jetten et al., 2017; Smeekes & Verkuyten, 2015; Wohl et al., 2010). Furthermore, studies like those done by

Pereira and colleagues (2010) found that across 21 European countries, realistic threat perception was a stronger mediator in the relationship between prejudice and opposition to immigration than was symbolic threat. Similarly, Vala and colleagues (2006) found that economic threat, followed by security threat, were the best predictors of opposition to immigration. Conversely, a separate segment of the literature suggests that symbolic threat perception has a greater influence on outgroup restriction when compared to realistic threats (Makashvili et al., 2018; Renfro et al., 2006; Rios et al., 2018; Quezada et al., 2011). For example, Rios and colleagues (2021) had participants read a vignette in which a coworker wanted to express their religious beliefs at work and then rated their potential response to the request; results indicated that participants were less likely to allow this religious expression when perceiving symbolic threat than when perceiving realistic threat. A recent metanalysis of 163 effect size estimates examining threat perceptions' impact on support for outgroup human rights and civil liberties found that combined measures of realistic and symbolic threats had stronger effects on outgroup restrictions than did realistic or symbolic threat measures alone (Carriere et al., 2022). Altogether, the current threat perception literature offers conflicting evidence regarding which threats are more related to outgroup restricting policy support. Thus, the current proposal will extend this literature by examining White Americans' support for outgroup restricting policies in light of various threat perceptions.

Threat Perception in the Wake of Cultural Change

Population, or demographic, changes are a hallmark of social and cultural change (Esses et al., 2001; Haferkamp, & Smelser, 1992). Consequently, as the racial makeup of the United States continues to change, with estimates that by midcentury Whites in the

United States will comprise less than 50% of the overall population (Frey, 2018; Vespa et al., 2020), some White Americans appear to feel threatened. This recent uptick in concern over demographic change is in-line with the same anxieties White Americans have held regarding demographic changes over the last century (McVeigh & Estep, 2019). In other words, demographic changes have served as a harbinger of new beliefs, ways of life, and cultural norms that may threaten the White majority's cultural control. Since perceived changes to cultural stability are threatening to dominant group members (e.g., White Americans; Wohl, et al., 2010) and since the American identity is often conflated with a *White* American identity (Devos, 2006; Devos & Banaji, 2005; Dovidio et al., 2010), it is unsurprising that some White Americans are threatened by the implications of demographic change.

Population Shifts as Cultural Inertia

Research has begun to examine White Americans' reactions to the recent demographic changes and projections in the United States. This literature typically uses the population shift (a.k.a. majority-minority shift) paradigm to prime participants with a cultural change in the form of demographic change (Craig & Richeson, 2014a, 2014b). The population shift paradigm typically shows participants one of two created news articles: the demographic shift article presents information about demographic changes occurring in the nation—usually providing real U.S. Census Bureau data showing that Whites in the U.S. will comprise less than 50% of the population by midcentury; whereas the control article typically presents information about population changes that are neutral to the White population—usually involving information about people moving to

suburbs without specifying demographic characteristics about the population (Craig & Richeson, 2014a, 2014b).

This paradigm is closely tied to the cultural change literature. Demographic changes typically bring about cultural changes as cultural change is driven by the group members participating in and influencing its course (Bachrach, 2014; Johnson-Hanks et al., 2011). Demographic changes may change culture through changing the electorate (Cilluffo & Cohn, 2019; Cohn & Caumont, 2016; Craig et al., 2018a), how people work (Cohn & Caumont, 2016), the composition of a household structure (Cilluffo & Cohn, 2019; Cohn & Caumont, 2016) or introducing or emphasizing new cultural traditions and values (Silver et al., 2021). In other words, as the general population changes—perhaps through different age groups or racial/ethnic groups—new ideas and worldviews are added to the cultural lexicon, making the culture flex to accommodate these new populations. Therefore, the population shift paradigm is a powerful instantiation of the larger cultural change and threat perception literatures. Because cultural change usually occurs over decades and centuries, it can be the *perception* of cultural change, not necessarily the reality of cultural change, that is potentially threatening. As a result, the population shift paradigm, serves as a relatively simple way of simulating real-world media coverage of demographic trends which naturally imply cultural changes away from the White majority.

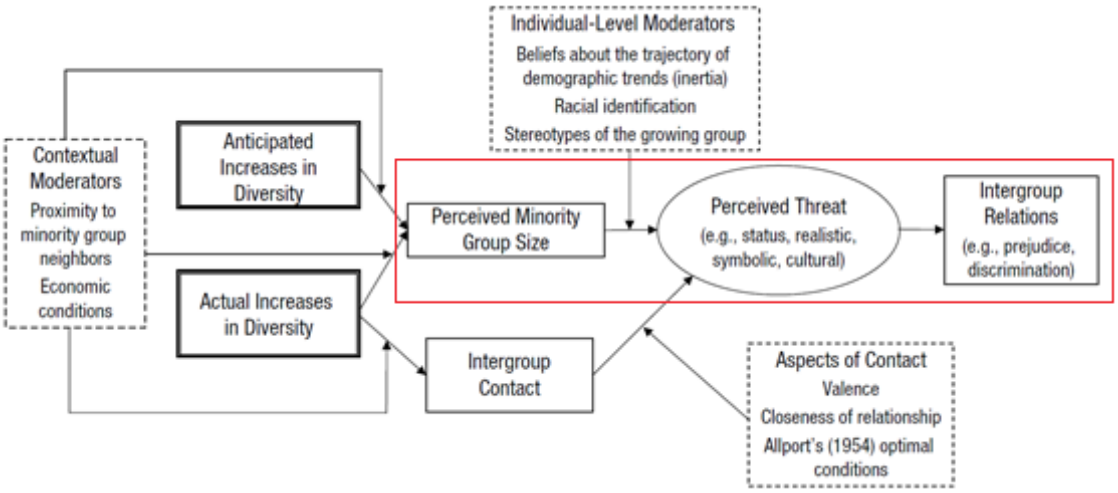
Population Shifts and Threat Perception

The intergroup threat theory literature tells us that dominant group members tend to be threatened by outgroups—potential change away from the ingroup is threatening (for a review see Stephan & Stephan, 2013). Therefore, shifts in national demographic

composition have the potential to threaten dominant group members like Whites in the United States. In their theoretical framework, Craig and colleagues propose that perceived threat is a mechanism by which increased diversity causes negative intergroup relations like prejudice and discrimination against an outgroup (see Figure 1; Craig et al., 2018b). Within this theoretical model, *perceived threat* encompasses all forms of threat in the intergroup threat theory framework, both overarching categories (e.g., realistic and symbolic threat) and subcategories (e.g., status and cultural threat). This proposal will focus on a portion of Craig and colleagues' theoretical model; namely, on the causal chain between increases in diversity (through demographic changes), perceived threat, and intergroup relations.

Figure 1

Theoretical Framework for How Increases in Racial Diversity Leads to Intergroup Relations, Proposed in Craig et al., 2018b.



Note. This paper focuses on only a portion of this overall framework. Specifically, the current project focuses on how minority group size impacts perceived threat and intergroup relations, highlighted in red.

Overarching Measurement of Threat Perception. Similar to the overall intergroup threat theory literature, the population shift literature has taken several different approaches to measuring White's overarching threat perception in the wake of demographic changes. Nadeau and colleagues (1993) measured threat perception across both realistic and symbolic threat dimensions (e.g., the outgroup receives preferential hiring, increases crime, pushes too fast for cultural change, etc.) to create a measure of overall threat. Whereas some research measured threat in the broadest sense, asking participants if they were "threatened by growing diversity" trends (Major et al., 2018; Outten et al., 2012; 2018). These studies found that increased threat perception in response to demographic changes predicted support for Donald Trump (Major et al., 2018), support for anti-immigration policies and behaviors (Major et al., 2018; Outten et al., 2018), negative intergroup emotions (Outten et al., 2012; 2018), and opposition to political correctness (Major et al., 2018). These studies demonstrate the base assertion that threat, in general, may be a mechanism by which increases in diversity propel Whites into adverse intergroup relations.

Other sections of the literature chose to break down general threat perception into realistic and/or symbolic threat perceptions. These studies measured realistic and symbolic threat with scales capturing different facets of realistic and symbolic threats. For instance, Danbold and Huo's measure of realistic threat included three items assessing whether the outgroup 1) was a potential tax burden, 2) drained social services, and 3) took jobs away from ingroup members (2015). Whereas Zou and Cheryan measured realistic threat by asking participants whether the outgroup would 1) outperform Whites academically, 2) surpass them financially, 3) become tax burdens, 4)

displace White workers from jobs, and 5) endanger the community (2021). Looking at symbolic threat measurement, Bai and Federico used three items in their symbolic threat scale, one assessing incompatible morals, one assessing incompatible work ethic, and another assessing whether outgroups undermine American culture (2021). Similarly, Danbold and Huo (2015) and Osborn and colleagues (2020) measured symbolic threat using items assessing whether outgroups threaten White Americans' core values.

These population shift studies using realistic and symbolic threat measures have found conflicting evidence for how these threat perceptions predict intergroup relations. For instance, Osborn and colleagues (2020) tested how interethnic ideologies (e.g., multiculturalism, polyculturalism) impacted threat perception. They found that participants perceived greater realistic, but not symbolic, threat in the population-shift condition (an abbreviated form of the classic population shift paradigm) compared to the control condition. Furthermore, they found a significant two-way interaction, such that within the population-shift condition, participants also exposed to multiculturalism ideas perceived more realistic threats than those in the control condition; the polyculturalism condition was nonsignificant (Osborn et al., 2020). These findings are supported by cultural inertia theory, as those in the multiculturalism condition likely felt the need to *accommodate* other cultural perspectives (Plaut et al., 2011), whereas polyculturalism stresses how cultures are dynamic and constantly being influenced by other groups over time (Rosenthal & Levy, 2012)—suggesting no accommodation was necessary thus no threat was perceived. In addition, Danbold and Huo (2015) used adapted intergroup threat theory measures of realistic and symbolic threat (as well as a newly introduced measure of prototypicality threat to be discussed in the following section) to test whether these

threat perceptions mediated the effect of perceived White American population decline on pro-assimilation attitudes. Results revealed that realistic threat perception, but not symbolic threat perception, mediated this relationship (Danbold & Huo, 2015). Similarly, Bai and Federico (2021) tested whether various threat perceptions (status, prototypicality, symbolic, and collective existential threat) mediated the effects of population shifts on intergroup relations. In contrast to the two previous studies, Bai and Federico (2021) found that when White participants were primed with black population growth, symbolic threat significantly mediated support for extreme right-wing groups and support for outgroup restricting policies. Together this literature suggests that realistic and symbolic threat perception may influence intergroup relations. However, similar to intergroup threat theory literature more generally, the current population shift literature offers conflicting evidence for the unique effects of realistic and symbolic threat perceptions on downstream intergroup relations.

Measurement of Threat Perception Subcategories. The population shift literature has also focused on various subcategories of threat perceptions in response to demographic changes. For instance, foundational studies on the topic by Craig and Richeson focused on Whites' perceptions of status threat (a uniquely mixed threat perception with elements of both realistic and symbolic threat) in response to demographic changes (2014a; 2014b). Many subsequent studies on the topic of demographic changes examined status threat as well (Bai & Federico, 2020; 2021; Schildkraut & Marotta, 2018; Willer et al., 2016; Zou & Cheryan, 2021). These studies found that increased perceptions of status threat in response to demographic changes predicted White participants' support for conservative politics and policies (Craig &

Richeson, 2014a; 2014b; Willer et al., 2016), expression of more pro-White racial bias (Craig & Richeson, 2014a), colder feelings towards racial/ethnic minorities (Craig & Richeson, 2014a; Schildkraut & Marotta, 2018), support for stricter immigration policies (Schildkraut & Marotta, 2018), and desire to move away from racially diverse neighborhoods (Zou & Cheryan, 2021). Somewhat surprisingly, Bai and Federico found that increased perception of status threat was significantly related to *reduced* support for extreme right-wing groups and *reduced* support for extreme outgroup restricting policies (2021). Altogether, it appears as though status threat does play a role in intergroup relations, even if there have been mixed findings around *how* status threat may influence these potentially harmful intergroup relations.

Beyond status threat, the population shifts literature has also measured other subcomponents of threat like prototypicality threat (Bai & Federico, 2021; Danbold & Huo, 2015; Zou & Cheryan, 2021), culture threat (Zou & Cheryan, 2021), and collective existential threat (Bai & Federico, 2020, 2021). Prototypicality threat typically refers to the potential loss of a group's standing as most representative of a superordinate category, like the White populous' prototypicality in the United States (Danbold & Huo, 2015). Studies measuring prototypicality threat in response to demographic shifts found that, even when measured alongside other realistic and symbolic threats, increased perceptions of prototypicality threat predicted pro-assimilation attitudes (Danbold & Huo, 2015), less endorsement of diversity measures (Danbold & Huo, 2015), and support for extreme outgroup restricting policies (Bai & Federico, 2021). Conversely, Zou and Cheryan did not find significant effects for prototypicality threat in predicting White Americans' desire to move from increasingly racially diverse neighborhoods (2021).

Cultural threat, on the other hand, refers to the potential replacement of the current, dominant, culture by an outgroup's culture (Zou & Cheryan, 2021). Across five studies, Zou and Cheryan found that above and beyond realistic and symbolic threat perceptions, cultural threat perception predicted White Americans' desire to avoid living in racially diverse neighborhoods (2021). Finally, collective existential threat refers to the potential that the ingroup will cease to exist (Hirschberger et al., 2016; Wohl et al., 2010). Studies measuring collective existential threat have found that, above and beyond other realistic and symbolic threats, collective existential threat predicted White participants' support for extreme right-wing groups and extreme outgroup restricting policies (Bai & Federico, 2020; 2021).

Together, these studies would suggest that it is important to examine the unique influence various subcategories of threat may have on the relationship between cultural changes and intergroup relations. In nearly all of the presented studies, the various subcategories of threat perception had unique effects above and beyond that of realistic and/or symbolic threat perceptions—indicating that realistic and symbolic threat may not be fully capturing or explaining what is causing these kinds of intergroup relations. Therefore, as a way of extending the current literature and testing the conceptual overlap between various threat perceptions, I will test the effects of various subcategories of threat perception within a single study. This will help to determine if certain threats are playing an outsized role in generating the instability White Americans are feeling in response to demographic change. Understanding the most important threats contributing to high-status group angst is important, particularly when it comes to intergroup relations

like White Americans' support for White nationalism beliefs and outgroup restricting policies.

Gaps in the Literature

The current literature has found that cultural change is threatening to White Americans and these threats—both realistic and symbolic—can lead to many negative intergroup relations. In fact, a relatively recent review of this literature succinctly concludes that there is "clear evidence that white Americans (i.e., the current racial majority) experience the impending "majority-minority" shift as a threat to their dominant (social, economic, political, and cultural) status" (Craig et al., 2018a, p. 206). Unfortunately, the current literature does not allow us to draw conclusions far beyond that threat, in general, is playing a role in various reactions to cultural change. The measurement of threat perceptions has been variable within the literature, operationalizations of various threats have differed and often led to conceptual overlaps between types of threat. Because of this, it is unclear if certain threats are playing an outsized role in generating negative intergroup relations.

Furthermore, most research investigating threat perceptions is largely correlational in nature or disproportionately focuses on some threats over others. For instance, Reik and colleagues' meta-analysis on 95 samples investigating intergroup threat theory found that there was a notable lack of experimental studies manipulating realistic and symbolic threat (2006). The few samples which did manipulate threat, rarely manipulated realistic threat (only three samples) (2006). A more recent analysis of the intergroup threat theory literature suggests that although the amount of experimental and quasi-experimental intergroup threat theory studies has increased, there is still ample

room to investigate the nuances in relationship between threat perceptions and intergroup relations (Rios et al., 2018). Looking more specifically at the literature investigating threat perception in response to cultural change, even fewer experimental or quasi-experimental studies are found.

Although correlational research can be extremely useful and beneficial for establishing base relationships between variables, experimental research is critical for demonstrating proposed causal relationships between variables (Spencer et al., 2005). Take, for instance, the proposed model that threat serves as a mediator in the relationship between demographic changes and negative outgroup relations (Craig & Richeson, 2018). Most studies testing this model manipulate demographic changes and then measure threat perception and outgroup relations (e.g., Craig & Richeson, 2014a). Within these studies, it is difficult to determine whether the demographic changes were increasing threat perception which, in turn, increased negative racial attitudes (proposed in Craig & Richeson, 2014a) or whether it may be the increase in negative racial attitudes which causes the increase in perceiving those outgroups as a threat. Craig and Richeson (2014b) did experimentally manipulate threat perception in one study by reassuring White participants that demographic shifts occurring in the nation were not going to affect their societal status, stating that "White Americans are expected to continue to have higher average incomes and wealth compared to members of other racial groups" (assuaged-threat condition, pp. 1193). Results from this threat manipulation indicated that those in the status-threat condition demonstrated greater support for conservative policies than those in the assuaged-threat condition or control (Craig & Richeson, 2014b). This finding supports Craig and Richeson's proposed causal model; however, it should be

tested under different conditions. With only the single study manipulating threat perception, we cannot be sure whether this means all threats mediate the relationship between demographic changes and outgroup relations or whether it is status threat and, in particular, how Craig and Richeson chose to operationalize status threat, which may serve as a mediator but not other forms of threat. This is critical to determine as it can help to guide intervention strategies. Knowing whether it is specific forms of threat which cause downstream negative intergroup relations or whether it is threat, in general, would help to determine which threats should be targeted for interventions; for instance, if economic threat (but not safety threat) was found to be a causal force, the government could prioritize campaigns to reassure the public that immigrants are not stealing American jobs or adversely effecting local economic conditions while not wasting funds on campaigns addressing less consequential threat perceptions.

Rationale

With the troubling increase in White hate groups and hate crimes committed over the past 6 years (Kunzelman & Galvan, 2019; Southern Poverty Law Center, 2019), there has been a flurry of research aimed at understanding what is fueling the growing animosity within some White Americans. The current literature can provide some answers. In line with cultural inertia theory, cultural changes—like the demographic changes in the U.S.—have increased perceptions of both realistic and symbolic threats in White Americans; demographic changes are propelling a stable White American culture into motion, a threatening notion for some White folk. These threat perceptions are not nominal, White nationalism is founded on a belief that Whites are deserving of greatness but that cultural forces are devaluing or eliminating White influence (Reyna et al., 2022);

therefore, Whites' threat response to cultural change may have dangerous downstream consequences in the form of support for White nationalism. In fact, these threat perceptions have been shown to increase support for extreme right-wing groups (like White nationalists) and support for extreme policies (Bai & Federico, 2021). Therefore, this potential shift in cultural stability, signaled through demographic changes, may be met with an "equal and opposite" reaction of bolstering an extreme version of ingroup White identity (White nationalism) and support for outgroup restrictions.

The existing literature has provided a foundation on which we can build a clearer understanding of how cultural change can threaten the White majority and cause negative intergroup relations. I believe there are two ways to improve the current literature: measure a multitude of threats simultaneously to determine their unique relationships to cultural change and its downstream consequences; and experimentally manipulated threat perception in light cultural change. More than ever, I believe we need to focus on understanding the unique causes of White hate. With the existing literature as a guide, we can begin to understand how presenting cultural change information to White Americans may or may not exacerbate perceptions of threat and reactions to those threats. In doing so, we will be able to craft more targeted interventions to stop the growing hate we are seeing in the country.

The Current Research

Outlined here is a three-study investigation of the various ways cultural change may cause threat perception and how this threat perception may relate to support for White nationalism beliefs and for outgroup restricting policies. Study 1 served several purposes. Study 1 pilot tested the threat items and determine the relationships between

cultural change, the different threat perceptions, and the dependent variables. This allowed for the more accurate manipulation of threat within Study 2a and Study 2b. After establishing the most critical threat variables, I experimentally manipulated the most important threat variables in conjunction with the cultural change information. Study 2a pilot tested the threat manipulations and Study 2b utilized the threat manipulations to determine whether causal relationships existed between threat perception and White nationalism beliefs and outgroup restricting policy support.

Study 1

Accumulating evidence indicates that cultural change increases threat perception in White Americans (e.g., Bai & Federico, 2021; Danbold & Huo, 2015). However, previous research has used different measures of threat perception and has found inconsistent results. Therefore, Study 1 utilized the population shift paradigm to replicate the causal relationship between cultural changes and threat perception found in previous research (e.g., Craig & Richeson, 2014a). Furthermore, Study 1 expanded the measurement of threat perception to include various subcategories of realistic and symbolic threat. Study 1 aimed to establish the baseline relationships between the cultural change manipulation, threat perception, and support for White nationalism beliefs and outgroup restricting policies.

Hypotheses

Hypothesis I

I predicted that the cultural change manipulation would have a positive relationship with threat perception, such that participants in the cultural change manipulation would endorse the threat measures more than those in the control condition.

Research Question

Research Question I

How do the subcategories of threats relate to White nationalism beliefs and outgroup restricting policies? For instance, do perceived threats to power and social status have a greater impact on support for White nationalism beliefs than perceived threats to economic opportunities? Due to the inconsistent findings within the previous literature, these analyses were exploratory and informed Study 2b's hypotheses.

Method

Participants

Participants were recruited through Prolific, an online crowdsourcing website created for academic, user, and market research. I requested a Prolific sample of self-identified White United States residents, at least 50% of which self-identified as conservative (as many of the study's critical variables are strongly correlated with political ideology). An a priori power analysis was conducted using the semPower package (Moshagen & Erdfelder, 2016) in R (R Core Team, 2021). Specifying an alpha of .05, power of .80, model degrees of freedom of 4, and the RMSEA effect measure with an effect of .07, an appropriate sample size would be 611 participants. Ultimately, however, sample size was determined based on procured funding which did not allow for the needed sample size. Funding allowed for the recruitment of 313 participants. After data cleaning, the final sample consisted of 290 participants (aged 18 - 92, M = 32.20, SD = 12.80; political ideology (-3 = very liberal to +3 = very conservative) M = 0.03, SD = 2.12; 47.6% female, 49.7% male, 2.8% nonbinary; income M = $65,900, SD = $42,500; 14.8% with a high school degree or less, 33.1% with some college or a 2-year degree,

26.2% with a bachelor's degree, and 24.8% with a graduate degree). Participants were paid $1.10 for their successful completion of the 10-minute survey.

Procedure

Prolific participants that met requirements (e.g., White, United States residents) viewed the study posting online. If they were interested in participating in the study, they could click into the Qualtrics survey and read the information sheet; the information sheet stated that the study would involve participants giving their opinions on a recent news article and about their general attitudes and opinions on recent political and social issues. The information sheet also detailed the participants' time commitment, compensation, anonymity, and potential risks and benefits of participating in the research. They either clicked that they agreed to participate in the survey, or they were redirected back to Prolific's website.

Participants who agreed to participate in the survey began by filling out a short demographics section (age, sex, race, income, education, and political identification) to ease them into participation. Next, participants were asked to read a recently published news article and answer questions afterwards about their opinions on the article. This article served as the study's cultural change manipulation (described below). The "Next" button was programmed to display after one minute on the article page so that participants could not immediately skip past the manipulation. After reading the article, participants answered a manipulation check question regarding their condition and then answered several opinion questions about the article to help confirm the cover story. After this section of the survey, participants were informed that they would now answer questions about their opinions and attitudes towards recent political and social issues in

the United States. These questions included threat measures (realistic and symbolic), a White nationalism measure, and policy questions about immigration and minority rights. Each participant saw the threat measures first and then saw the White nationalism and policy measures in a random order. Finally, participants read the debriefing sheet which informed them of the purpose of the study and were compensated for their participation (see Appendix F for the full survey).

Measures

Cultural Change Manipulation. The cultural change manipulation adapted openly available materials originally created to measure White Americans' reactions to demographic changes (Craig & Richeson, 2014a; 2014b; 2018). Participants were asked to read one of two articles—one detailed real demographic projections that racial minorities will constitute more than 50% of the population in the United States by 2042 (cultural change condition) and the other article detailed increasing geographic mobility of people in the United States (control condition) (see Appendix A for the complete articles). The cultural change condition was intended to prime White participants with a cultural change away from the White majority; the control condition was intended to be a neutral cultural change for the White participants.

Manipulation Check and Cover Story Items. One item assessed whether participants correctly identified their assigned condition, "Which of the following statements best describes the topic of the article you just read?". The responses included the following randomly ordered options: "Racial demographic changes are occurring in the U.S.", "Geographic mobility is increasing with people moving to suburbs", "The new

presidential administration has made economic policy changes", and "Solar, wind, and other clean energy sources are increasing in popularity".

Participants were then asked several questions to confirm the cover story of evaluating the article they read. Items included, "How interesting was the article you read?" and "How much do you trust the author of the article?". Both items were measured on a 7-point scale (0, Not interesting at all/Not at all - 6, Extremely interesting/Completely). Finally, there was one open-response question asking participants, "Think about the article you read. Do you think there will be consequences from the changes you read about? If so, what do you think those consequences will be? How would the U.S. change as a result? If not, why don't these changes matter?".

Realistic Threat. The realistic threat measure assessed participants' perception of various realistic threats. Some of the realistic threat items were adapted from previous threat measures (Bai & Federico, 2021; Craig & Richeson, 2014b; Lucassen & Lubbers, 2012; Maddux et al., 2008; Outten, et al., 2012; Stephan et al., 1999); other items were created to ensure that the measure equally addressed the various subcategories of realistic threat (e.g., power, job security, safety, etc). There were 3-4 items addressing each subcategory of realistic threat, for a total of 19 items. All items were modified to be about "racial/ethnic minorities" to standardize the outgroup within the items. All items were rated on a 7-point scale (-3, strongly disagree – +3, strongly agree). For an overview of all initial realistic threat items see Table 1.

Threat to Social Status & Power. The realistic threat items that assessed social status and power threat included: "If racial/ethnic minorities increase in numbers, it will lower the status of Whites in America"; "Racial/ethnic minorities have too much

influence in American society"; "Racial/ethnic minorities are gaining too much political power in the United States"; and "Whites hold too many positions of power in the United States" (reverse scored).

Threat to Economic Opportunities: The realistic threat items that assessed threats to economic opportunities included: "Racial/ethnic minorities are taking economic opportunities away from Whites in America (e.g., jobs, loans)"; "Racial/ethnic minorities are taking jobs away from Whites"; "Social services have become less available to White because of racial/ethnic minorities"; and "Racial/ethnic minorities have fewer economic opportunities in America compared to Whites" (reverse scored).

Threat to Safety: The realistic threat items that assessed threats to safety included: "I am fearful for my safety when I am near racial/ethnic minorities"; "Racial/ethnic minorities make communities less safe"; "Racial/ethnic minorities threaten law and order in the Unites States"; and "The vast majority of racial/ethnic minorities are law abiding citizens" (reverse scored).

Collective Existential Threat: The realistic threat items that assessed collective existential threat included: "It is likely that the White race won't exist in the future"; "The existence of the White race is in jeopardy"; and "Whites will remain the dominant group in America for a very long time" (reverse scored).

Threat to Education: The realistic threat items that assessed threats to educational attainment included: "Racial/ethnic minorities make it harder for White to get into good schools"; "Schools spend too many on their racial/ethnic minority students"; "The education system benefits racial/ethnic minorities more than Whites in America";

and “White students are given better educational opportunities compared to racial/ethnic minority students” (reverse scored).

Table 1

Complete List of Realistic Threat Items

Realistic Threat: *Potential threats to ingroup welfare.*	
	Social Status & Power Threat: *Threats to the ingroup's perceived esteem, reputation, or perceived control over societal resources and/or outcomes.*
1.	If racial/ethnic minorities increase in numbers, it will lower the status of Whites in America.
2.	Racial/ethnic minorities have too much influence in American society.
3.	Racial/ethnic minorities are gaining too much political power in the United States.
4.	*Whites hold too many positions of power in the United States.
	Economic Opportunity Threat: *Threats to the ingroup's perceived ability of attaining economic gains.*
1.	Racial/ethnic minorities are taking economic opportunities away from Whites in America (e.g., jobs, loans).
2.	Racial/ethnic minorities are taking jobs away from Whites.
3.	Social services have become less available to Whites because of racial/ethnic minorities.
4.	*Racial/ethnic minorities have fewer economic opportunities in America compared to Whites.
	Safety Threat: *Threats to one's physical safety and the safety of the ingroup's communal spaces.*
1.	I am fearful for my safety when I am near racial/ethnic minorities.
2.	Racial/ethnic minorities make communities less safe.
3.	Racial/ethnic minorities threaten law and order in the United States.
4.	*The vast majority of racial/ethnic minorities are law abiding citizens.
	Collective Existential Threat: *A perceived threat to the existence of the ingroup.*
1.	It is likely that the White race won't exist in the future.
2.	The existence of the White race is in jeopardy.
3.	*Whites will remain the dominant group in America for a very long time.
	Education Threat: *Threats to the ability of the ingroup to obtain and reap the benefits of a good education.*
1.	Racial/ethnic minorities make it harder for Whites to get into good schools.
2.	Schools spend too many resources on their racial/ethnic minority students.
3.	The education system benefits racial/ethnic minorities more than Whites in America.

Note: * indicates a reverse-scored item.

Symbolic Threat. The symbolic threat measure assessed participants' perceptions of various symbolic threats. Some of the symbolic threat items were adapted from previous threat measures (Bai & Federico, 2021; Lucassen & Lubbers, 2012; Stephan et al., 1999, 2002); other items were created to ensure that the measure equally addressed the various subcategories of symbolic threat (e.g., morality, culture, prototypicality). There were 4 items addressing each subcategory of symbolic threat, for a total of 12 items. All items were modified to be about "racial/ethnic minorities" to standardize the outgroup within the items. All items were rated on a 7-point scale (-3, strongly disagree – +3, strongly agree). For an overview of the initial symbolic threat items, see Table 2.

Threat to Prototypicality. The symbolic threat items that assessed threats to prototypicality included: "Racial/ethnic minorities pose a threat to what it means to be American"; "Racial/ethnic minorities do not represent the American identity"; "Due to demographic changes, I fear that in the future it won't be clear what it means to be American"; and "Racial/ethnic minorities make positive contributions to the American identity" (reverse scored).

Threat to Culture and Values. The symbolic threat items that assessed threats to culture and values included: "Racial/ethnic minorities do not have the same work ethic as most Americans"; "Racial/ethnic minorities don't respect American culture"; "Racial/ethnic minorities violate traditional American family values"; and "Cultural diversity makes the United States stronger" (reverse scored).

Threat to Moral Standards. The symbolic threat items that assessed threats to moral standards included: "Racial/ethnic minorities contribute to the moral decline in American society" "Racial/ethnic minorities do not adhere to American moral standards";

"Racial/ethnic minorities have lower moral standards than Whites in America"; and "Racial/ethnic minorities live by the same moral standards as Whites in America" (reverse scored).

Table 2

Complete List of Symbolic Threat Items

Symbolic Threat: *Perceived differences and incompatibilities between the ingroup and the outgroup's worldview.*
Prototypicality Threat: *Threat to the ingroup's perception of their prototypicality for the nation.*
1. Racial/ethnic minorities pose a threat to what it means to be American.
2. Racial/ethnic minorities do not represent the American identity.
3. Due to demographic changes, I fear that in the future it won't be clear what it means to be American.
4. *Racial/ethnic minorities make positive contributions to the American identity.
Culture and Value Threat: *Threats to the ingroup's perceived dominance over American culture and perception that the ingroup holds superior values compared to the outgroup.*
1. Racial/ethnic minorities do not have the same work ethic as most Americans.
2. Racial/ethnic minorities don't respect American culture.
3. Racial/ethnic minorities violate traditional American family values.
4. *Cultural diversity makes the United States stronger.
Moral Standards Threat: *Perceptions that the ingroup holds superior moral standards that are being undermined by the outgroup.*
1. Racial/ethnic minorities contribute to the moral decline in American society.
2. Racial/ethnic minorities do not adhere to American moral standards.
3. Racial/ethnic minorities have lower moral standards than Whites in America.
4. *Racial/ethnic minorities live by the same moral standards as Whites in America.

Note: * indicates a reverse-scored item.

White Nationalism. Support for White nationalism beliefs was measured using a 5-item measure (Bellovary & Reyna, 2020). Items included: "Multiculturalism is the biggest threat to White America"; "I am sympathetic to organizations/groups that bring attention to White concerns"; "White American culture is what makes this country great";

"One of the problems with America is the decline of Whiteness"; and "In order to maintain White status, it is sometimes necessary to use violence towards racial/ethnic minority groups". All items were rated on a 7-point scale (-3, strongly disagree – +3, strongly agree). The measure has demonstrated good internal consistency across several previous studies: White MTurk sample 1: $\alpha = .92$, $\omega = .92$ (Harris, et al., 2021); White MTurk sample 2: $\alpha = .87$, $\omega = .87$ (Bellovary & Reyna, 2020); White Dynata sample: $\alpha = .86$, $\omega = .86$ (Reyna, 2021).

Outgroup Restricting Policies. Support for outgroup restricting policies was measured using 12 items; half of these items were about immigrant restrictions and the other half were about minority group restrictions. Some of these policies were taken from existing work (Craig & Richeson, 2014b). All items were rated on a 7-point scale (-3, strongly disagree – +3, strongly agree). For an overview of the outgroup restricting items see Table 3.

Immigration Policies. The six items oriented towards immigrant group restrictions included: "In order to deter illegal immigration, the government should separate immigrant children from their parents"; "The U.S. government should unconditionally ban immigrants from countries deemed dangerous"; "Immigrants to the United States should be required to speak English"; "The amount of foreign immigration from Europe to the United States should be increased"; "Legal immigrants should have full access to jobs and resources (e.g., education, healthcare) when they arrive in the United States" (reverse scored); and "The amount of foreign immigration from Latin American to the United States should be increased" (reverse scored).

Minority Policies. The six items oriented towards minority group restrictions included: “Increasing police patrols in racial/ethnic minority communities is necessary to lower crime”; “The government does not owe any special treatment to racial/ethnic minorities for discrimination their racial group experienced in the past”; “The government should use the military to control rallies/protests that promote racial/ethnic minority causes (e.g., Black Lives Matter)”; “Employers should take extra steps to diversify their employees when making hiring and promotion decisions” (reverse scored); “Schools should teach the history of racial/ethnic minority groups in America to the same degree as White history” (reverse scored); and “The government should spend more money on schools in racial/ethnic minority neighborhoods” (reverse scored).

Table 3

Complete List of Outgroup Restricting Policy Items

	Outgroup Restricting Policies:
	Immigration:
1.	In order to deter illegal immigration, the government should separate immigrant children from their parents.
2.	The U.S. government should unconditionally ban immigrants from countries deemed dangerous.
3.	Immigrants to the United States should be required to speak English.
4.	The amount of foreign immigration from Europe to the United States should be increased.
5.	*Legal immigrants should have full access to jobs and resources (e.g., education, healthcare) when they arrive in the United States.
6.	*The amount of foreign immigration from Latin America to the United States should be increased.
	Racial/ethnic minority:
1.	Increasing police patrols in racial/ethnic minority communities is necessary to lower crime.
2.	The government does not owe any special treatment to racial/ethnic minorities for discrimination their racial group experienced in the past.
3.	The government should use the military to control rallies/protests that promote racial/ethnic minority causes (e.g., Black Lives Matter).
4.	*Employers should take extra steps to diversify their employees when making hiring and promotion decisions.
5.	*Schools should teach the history of racial/ethnic minority groups in America to the same degree as White history.
6.	*The government should spend more money on schools in racial/ethnic minority neighborhoods.

Note: * indicates a reverse-scored item.

Attention Check. There was one attention check item included in the survey: "In America, please select 'Somewhat agree' if you are paying attention". Participants needed to select the requested response to be considered "attentive".

Results

Data Cleaning

Each participant response was checked for noncompliance and ineligibility. Participants who failed the attention check were removed from the analysis (N = 13). People who incorrectly identified their condition via the manipulation check item were removed from the analysis (N = 5). Finally, people who identified as nonwhite were removed from analysis (N = 5)[3]. After removing these ineligible or noncompliant participants, the final sample size was 290.

Data missingness did not exceed 10% (missingness was 0.22%). In fact, 92% of the sample was not missing any data. Therefore, missing data was imputed using mean imputation.

Scale Construction

To determine the factor structure of the proposed measures, confirmatory factor analyses (CFA) were conducted for all measures using full information maximum likelihood. A CFA was considered a good fit if it met the fit criteria for at least 3 of the following fit indices: CFI, TLI, SRMR, and RMSEA[4]. If the fit was poor, a follow-up exploratory factor analysis (EFA) was conducted to determine the best factor structure for the items. Follow-up EFAs were conducted using principal axis factoring with oblimin rotation and retained Eigenvalues greater than one.

Threat Scales Construction. A confirmatory factor analysis was conducted on all threat items using an eight-factor solution based on the theoretically proposed factor structure (see Appendix B, Table B1). The CFA results indicated a poor fit (CFI = 0.89,

[3] Participants on Prolific may identify as multiple races within their prescreening survey; this prescreening survey dictates which Prolific participants are allowed to enter prescreened surveys. These participants were likely multiracial and were more closely identifying with their nonwhite racial identity at the time of participation.

[4] CFI ≥ 0.90, TLI ≥ 0.95, SRMR < 0.08, RMSEA < 0.08

TLI = 0.88, SRMR = 0.07, RMSEA = 0.08 [0.08, 0.09]). Since the CFA only met criteria for the SRMR fit index, a follow-up EFA was conducted. The follow-up EFA resulted in an unbalanced and theoretically inconsistent two-factor structure (see Appendix B, Table B2). All but 6 threat items loaded onto a single factor, four of the remaining threat items loaded onto a second factor, and two existential threat items remained unloaded onto either factor. These two CFA and EFA factor structures were unsatisfactory.

A reevaluation of the initial eight-factor CFA revealed that the lowest loadings on each factor were the reverse-scored items. Research finds that reverse-scored items are problematic in scale construction, leading to worse model fit and unreliably estimates (Dueber et al., 2021; Zhang et al., 2016). In light of these findings, a second eight-factor CFA was conducted on the threat items with the reverse-scored threat items excluded from the analysis (see Table 4). This second eight-factor CFA resulted in a good fit (CFI = 0.97, TLI = 0.97, SRMR = 0.03, RMSEA = 0.05 [0.04, 0.06]) and was used to create the final threat scales. Appropriate threat items were averaged together to create each subscale. Generally, the final threat subscales maintained good internal reliability (see Table 5), except for the two-item existential threat scale ($\alpha = .60$, $\omega = .60$). The two-item existential threat scale was retained, despite this poor internal reliability, because of its excellent face validity.

Table 4

Eight-Factor CFA on Threat Items, Excluding Reverse-Scored Items

Factor	Item	Estimate	Standard Error	p-value
Status & Power Threat	Status_1	1.14	0.09	< .001
	Status_2	1.40	0.08	< .001
	Status_3	1.40	0.08	< .001
Economic Threat	Economic_1	1.48	0.07	< .001
	Economic_2	1.49	0.07	< .001
	Economic_3	1.33	0.08	< .001
Safety Threat	Safety_1	1.16	0.07	< .001
	Safety_2	1.47	0.08	< .001
	Safety_3	1.51	0.08	< .001
Existential Threat	Existential_1	0.65	0.11	< .001
	Existential_2	1.81	0.16	< .001
Education Threat	Education_1	1.33	0.08	< .001
	Education_2	1.38	0.08	< .001
	Education_3	1.36	0.09	< .001
Prototypicality Threat	Prototypicality_1	1.50	0.08	< .001
	Prototypicality_2	1.36	0.08	< .001
	Prototypicality_3	1.45	0.09	< .001
Culture & Value Threat	Culture_1	1.33	0.09	< .001
	Culture_2	1.35	0.08	< .001
	Culture_3	1.46	0.08	< .001
Moral Standards Threat	Moral_1	1.51	0.08	< .001
	Moral_2	1.40	0.08	< .001
	Moral_3	1.45	0.08	< .001

Table 5

Threat Subscale Internal Reliabilities

Subscale	Cronbach's α	McDonald's ω
Status & Power Threat	.83	.84
Economic Threat	.92	.92
Safety Threat	.89	.89
Existential Threat	.60	.61
Education Threat	.86	.86
Prototypicality Threat	.86	.87
Culture & Value Threat	.85	.86
Moral Standards Threat	.89	.90

White Nationalism Scale Construction. A one-factor CFA was conducted on the five White nationalism items (see Appendix B, Table B3). CFA results indicated a poor fit (CFI = 0.96, TLI = 0.92, SRMR = 0.04, RMSEA = 0.14 [0.10, 0.19]). However, a follow-up EFA supported a one-factor solution (see Table 6); therefore, a one-factor structure was retained. Items were averaged together to create the final White nationalism scale ($\alpha = .87$, $\omega = .87$).

Table 6

Follow-Up Exploratory Factor Analysis on all White Nationalism Items

Item	Factor 1	Uniqueness
WN_4	0.904	0.184
WN_1	0.838	0.298
WN_3	0.772	0.405
WN_5	0.651	0.577
WN_2	0.619	0.617

Outgroup Restricting Policy Scale Construction. A two-factor CFA was conducted on the 12 policy items, designating an immigration policy factor and a racial policy factor (see Appendix B, Table B4). Results indicated a poor fit (CFI = 0.84, TLI = 0.80, SRMR = 0.07, RMSEA = 0.12 [0.11, 0.14]); therefore, a follow-up EFA was conducted. The EFA suggested a one-factor solution (see Appendix B, Table B5); however, the model was still questionable due to an item that did not load onto the single factor and some of the reverse-scored items having weak estimates. As in the construction of the threat subscales, a secondary CFA was conducted with the reverse-scored items as well as the unloaded immigration policy item removed (see Table 7). The one-factor CFA resulted in a good fit (CFI = 0.98, TLI = 0.97, SRMR = 0.03, RMSEA = 0.07 [0.03, 0.11]). When averaged together, the scale had good internal reliability ($\alpha = .87$, $\omega = .87$).

Table 7

One-Factor CFA on Policy Items, Excluding Reverse-Scored and Unloaded Items

Factor	Item	Estimate	Standard Error	p-value
Outgroup Restricting Policies	ImmPolicy_1	0.956	0.09	< .001
	ImmPolicy_2	1.428	0.10	< .001
	ImmPolicy_3	1.498	0.11	< .001
	RacePolicy_1	1.487	0.10	< .001
	RacePolicy_2	1.412	0.11	< .001
	RacePolicy_3	1.375	0.10	< .001

Initial Analyses

Basic descriptive statistics for all threat measures, dependent variables, and political orientation are presented in Table 8. In addition, Table 9 displays the by-condition descriptive statistics. On average, people did not endorse threat perception items, nor the dependent variables. To understand how the measured variables related to one another, bivariate correlations were calculated for all of the variables and displayed in Table 10. Consistent with prior research, political orientation was positively correlated to threat perception and the dependent variables. Furthermore, most subcategories of threat were strongly correlated with one another, except for existential threat which was moderately correlated with the other threat variables. Finally, as predicted, all threats were positively related to the dependent variables.

Table 8.

Descriptive Statistics for All Study 1 Variables

Variables	*M* (*SD*)
Status Threat	-1.20 (1.43)
Economic Threat	-1.36 (1.49)
Safety Threat	-1.50 (1.46)
Existential Threat	-1.31 (1.40)
Education Threat	-1.25 (1.47)
Prototypicality Threat	-1.35 (1.54)
Culture Threat	-1.27 (1.50)
Morality Threat	-1.34 (1.54)
White Nationalism Beliefs	-1.46 (1.32)
Outgroup Restricting Policies	-0.59 (1.46)
Political Orientation	0.03 (2.12)

Note. The scales ranged from -3 (strongly disagree) to +3 (strongly agree). For political orientation, the scale ranged from -3 (extremely liberal) to +3 (extremely conservative).

Table 9.

Descriptive Statistics for All Study 1 Variables by Cultural Change Manipulation

Variables	Cultural Change Manipulation	Geographic Mobility Control
Status Threat	-1.02 (1.44)	-1.38 (1.40)
Economic Threat	-1.17 (1.55)	-1.56 (1.41)
Safety Threat	-1.43 (1.43)	-1.57 (1.49)
Existential Threat	-1.11 (1.46)	-1.53 (1.31)
Education Threat	-1.09 (1.50)	-1.41 (1.43)
Prototypicality Threat	-1.18 (1.63)	-1.53 (1.44)
Culture Threat	-1.13 (1.51)	-1.42 (1.47)
Morality Threat	-1.27 (1.48)	-1.42 (1.60)
White Nationalism Beliefs	-1.40 (1.35)	-1.52 (1.29)
Outgroup Restricting Policies	-0.56 (1.45)	-0.63 (1.48)
Political Orientation	0.03 (2.08)	0.03 (2.17)

Note. The scales ranged from -3 (strongly disagree) to +3 (strongly agree). For political orientation, the scale ranged from -3 (extremely liberal) to +3 (extremely conservative).

Table 10.

Pairwise Bivariate Correlations for All Study 1 Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Status Threat	—										
2. Economic Threat	0.79***	—									
3. Safety Threat	0.82***	0.78***	—								
4. Existential Threat	0.54***	0.46***	0.51***	—							
5. Education Threat	0.72***	0.81***	0.65***	0.42***	—						
6. Prototypicality Threat	0.82***	0.77***	0.86***	0.57***	0.69***	—					
7. Culture Threat	0.80***	0.76***	0.85***	0.48***	0.70***	0.87***	—				
8. Morality Threat	0.81***	0.77***	0.88***	0.46***	0.70***	0.87***	0.88*	—			
9. White Nationalism Beliefs	0.77***	0.69***	0.76***	0.47***	0.65***	0.77***	0.73*	0.76***	—		
10. Outgroup Restricting Policies	0.70***	0.73***	0.70***	0.38***	0.74***	0.69***	0.71*	0.70***	0.73***	—	
11. Political Orientation	0.42***	0.47***	0.46***	0.19**	0.50***	0.45***	0.43*	0.43***	0.42***	0.67***	—

Path Analysis

Two initial path analyses were conducted, with each path analysis testing one of the two dependent variables. These path analyses used the demographic shift condition as the indicator variable, coded so that the demographic shift manipulation was compared to the mobility control condition. The indicator was allowed to have direct effects on all subcategories of threat and one of the dependent variables (White nationalism beliefs in Model 1 and the combined outgroup restricting policy measure in Model 2). The threat mediators were allowed to have direct effects on the dependent variable within the model. Both models controlled for political orientation. Direct effects were calculated for all pathways and indirect effects were calculated for all significant pathways connecting the indicator and the dependent variables (see Figures 2 and 3).

Figure 2

Model 1 Testing Effects of Cultural Change Manipulation on Threat and White Nationalism.

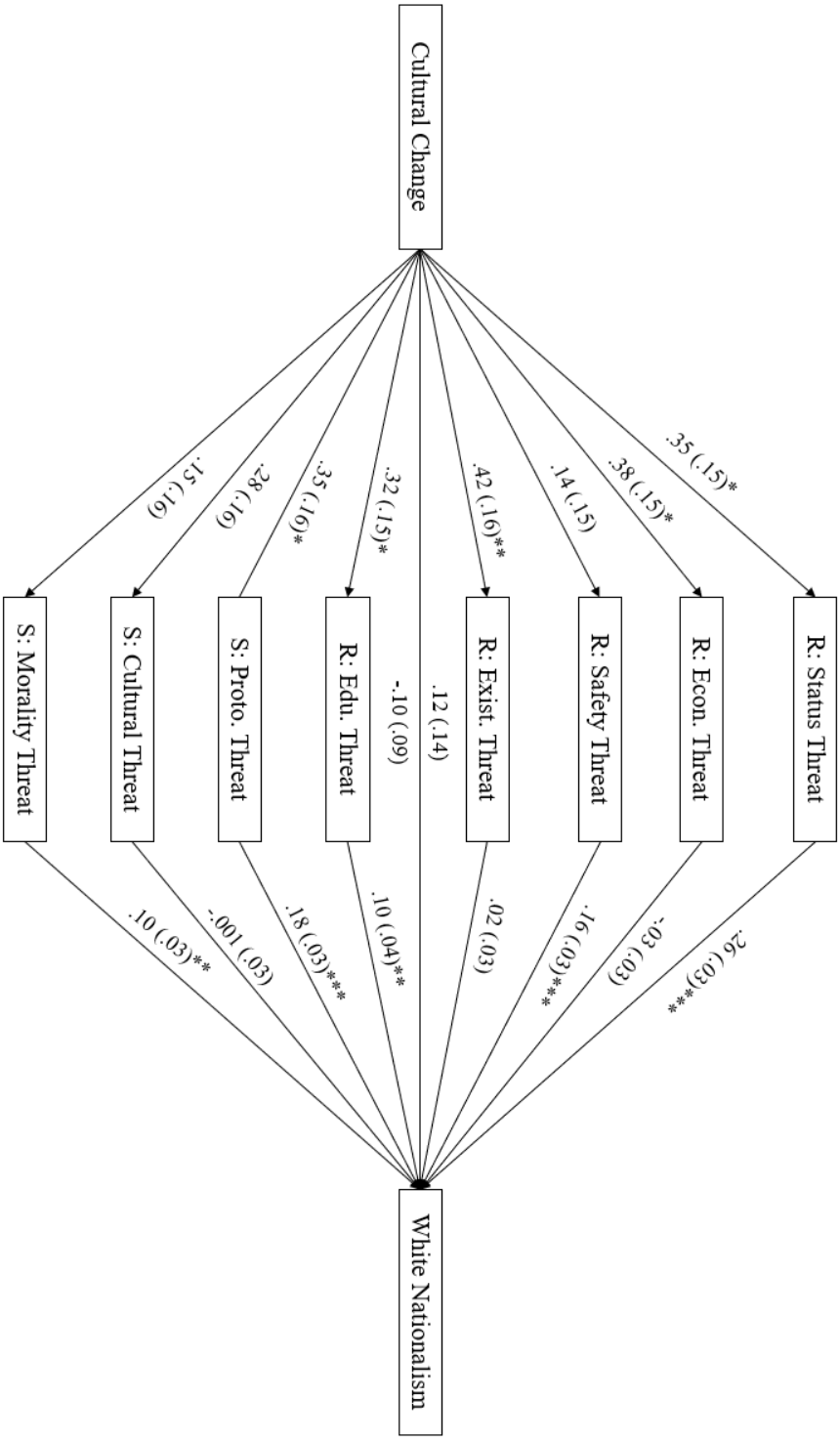
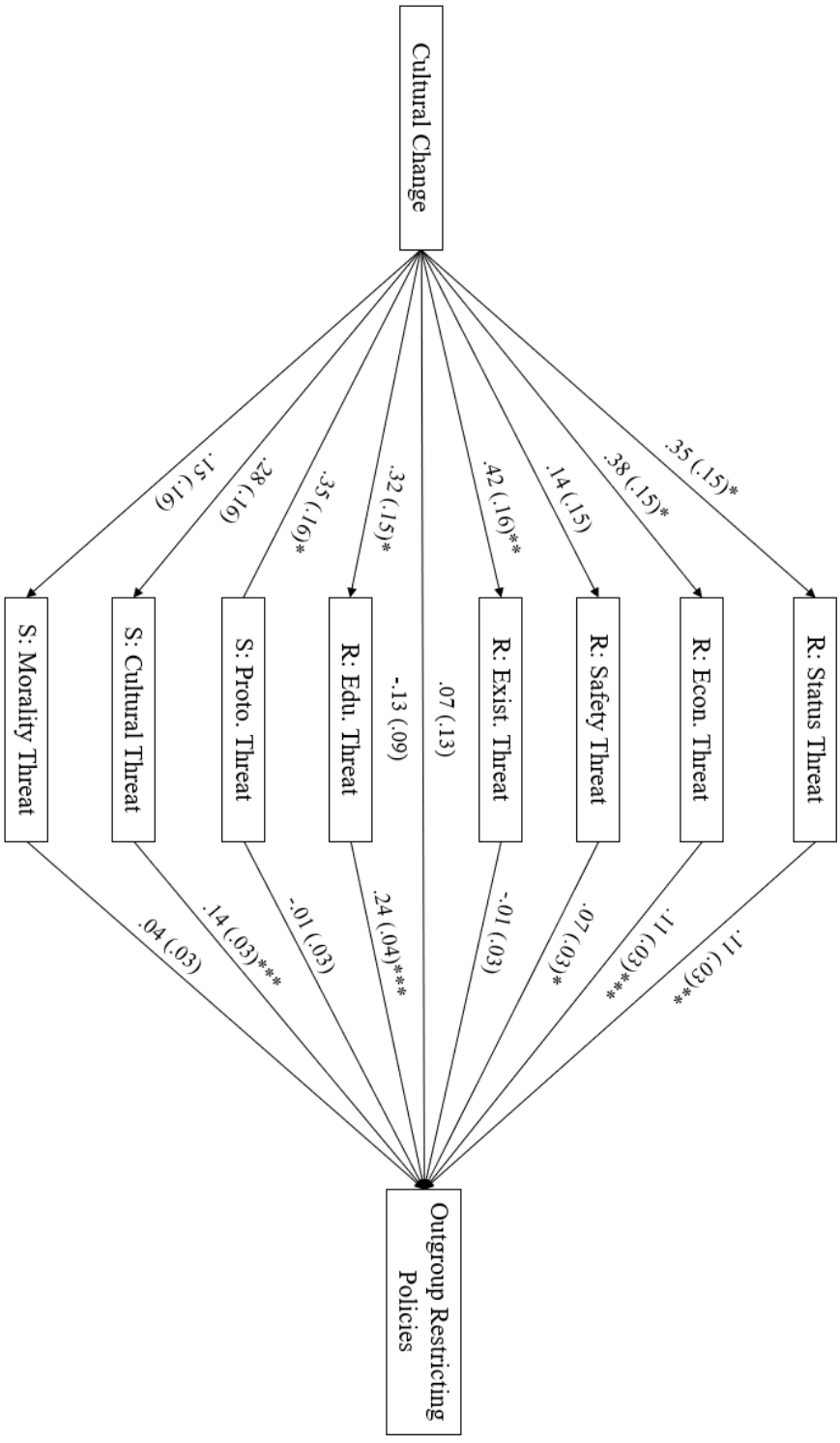


Figure 3

Model 2 Testing Effects of Cultural Change Manipulation on Threat and Outgroup Restricting Policies.



Contrary to Hypothesis 1, the demographic change condition did not significantly increase all threat perceptions, though all estimates were in the hypothesized direction. Specifically, status, economic, existential, education, and prototypicality threat all significantly increased in response to the cultural change manipulation; however, safety, cultural, and morality threat perception did not significantly differ between conditions. Within Models 1 and 2, not all subcategories of threat had significant relationships with the dependent variables. In Model 1, status, safety, education, prototypicality, and morality threat perception had significant positive direct pathways with White nationalism beliefs. In Model 2, status, economic, safety, education, and cultural threat perception all had significant positive direct pathways with outgroup restricting policies. These results suggested that the different realistic and symbolic threats may elicit different responses, whether it is through bolstering ingroup identity through White nationalism beliefs or through outgroup restricting policy support.

Unfortunately, no significant indirect effects resulted from either model. This is likely due to the path analyses removing the common variance between each subcategory of threat--namely, removing the common variance of threat itself. Hayes (2013) states that using parallel mediators that are too highly correlated to one another may create a multicollinearity which affects the estimation of their partial relationships to the outcome variable. Therefore, variance inflation factors (VIFs) were calculated to test for potential multicollinearity. A VIF greater than five may indicate multicollinearity concerns, especially within smaller sample sizes (Gareth et al., 2017; Johnston et al., 2018; Menard, 2001). Table 11 displays the VIFs for Models 1 and 2. Half of the VIFs in both models exceeded the common threshold of five, suggesting that multicollinearity was a concern

within both models. Consequently, the combined models likely obfuscated potential important differences between the different types of threat; therefore, these results were followed up with individual mediation analyses to determine the unique impact that the cultural change manipulation had on the two dependent variables through various threat perceptions.

Table 11

VIFs for Models 1 and 2

Variables	VIF for Model 1	VIF for Model 2
Status Threat	4.34	4.32
Economic Threat	4.52	4.51
Safety Threat	6.15	6.17
Existential Threat	1.57	1.56
Education Threat	3.21	3.20
Prototypicality Threat	6.30	6.28
Culture Threat	5.85	5.83
Morality Threat	6.82	6.83

Follow-up Mediation Analyses

Focusing first the White nationalism measure, I examined eight different mediation models each of which included the article manipulation as the indicator variable, a different threat perception as mediator, and the White nationalism measure as the dependent variable while controlling for political ideology. Results indicated that safety threat (B = .09, SE = .10, p = .36), cultural threat (B = .17, SE = .10, p = .07), and morality threat (B = .09, SE = .10, p = .37) all had nonsignificant indirect effects. Conversely, status threat (B = .24, SE = .10, p = .02), economic threat (B = .22, SE = .09, p = .01), existential threat (B = .16, SE = .06, p = .01), education threat (B = .17, SE = .08,

p = .03), and prototypicality threat (*B* = .22, *SE* = .10, *p* = .03) all had significant indirect effects (see Appendix B, Table B6 for a complete table of mediation effects).

Turning towards the outgroup restricting policies measure, I examined eight different mediation models each of which included the article manipulation as the indicator variable, a different threat perception as mediator, and the outgroup restricting policy measure as the dependent variable while controlling for political ideology. Similar to White nationalism beliefs, results indicated that safety threat (*B* = .07, *SE* = .08, *p* = .36), cultural threat (*B* = .14, *SE* = .08, *p* = .07), and morality threat (*B* = .07, *SE* = .08, *p* = .37) all had nonsignificant indirect effects. However, results indicated that status threat (*B* = .18, *SE* = .08, *p* = .02), economic threat (*B* = .20, *SE* = .08, *p* = .01), existential threat (*B* = .11, *SE* = .05, *p* = .02), education threat (*B* = .17, *SE* = .08, *p* = .03), and prototypicality threat (*B* = .16, *SE* = .08, *p* = .03) all had significant indirect effects (see Appendix B, Table B7 for a complete table of mediation effects). These results suggested that status, economic, existential, education, and prototypicality threats may be important threat perceptions in the relationship between White participants' reactions to cultural changes occurring in the United States.

Discussion

The current study built upon previous research investigating White Americans' responses to cultural changes occurring in the United States. Specifically, it investigated how White Americans may perceive changing demographics as threatening their current or future standing in the United States and how these threat perceptions may influence their attitudes about ingroup and outgroup members. This study was one of the first to examine such a broad range of threat perceptions in response to a cultural change

manipulation. Furthermore, this study is the first to examine how these threat perceptions may relate to support for White nationalism beliefs (as opposed to support for White nationalist groups). Together, this study is an important step towards understanding what may be contributing to the rise in White hate in the United States.

Results indicated that, in general, the cultural change manipulation did increase perceptions of various types of threat; however, in only partial support of Hypothesis I, the cultural change manipulation did not increase *all* threat perceptions. Turning towards the research question, results indicated that threat perceptions did relate to support for White nationalism beliefs and outgroup restricting policies. In fact, indirect effects of the cultural change manipulation on the dependent variables showed the same five threat perceptions as being significant mediators—status, economic, existential, education, and prototypicality threat. These significant indirect effects may suggest that these five threat perceptions play a key role in support for White nationalism beliefs and outgroup restricting policies. These findings are consistent with some previous findings in the literature. For instance, Craig and Richeson (2014a) found that the demographic shift manipulation increased perceptions of status threat in White participants and increased expressions of pro-White racial bias.

Although this study found evidence for changes in intergroup relations in response to several threat perceptions, there were several limitations to the study. The present study consisted of 50% conservatives. However, it may be beneficial to *oversample* conservatives, rather than sample in a representative fashion, as I set out to examine relatively extreme attitudinal changes, namely, support for White nationalism beliefs. Because White nationalism beliefs are highly correlated with conservatism,

oversampling conservatives may be a more effective way of utilizing my finite funding resources opposed to sampling from populations negatively correlated with the outcome variables (i.e., liberals). Another limitation was that Study 1 was underpowered. Due to limited funding resources, I could not recruit enough participants to properly power the complex path analyses. Because the study was underpowered, the results of the analyses must be interpreted with care. Study 2b improves upon these limitations by oversampling conservative, simplifying analyses, and recruiting enough participants to provide sufficient power to detect main effects.

Study 2a

Study 1 aimed to establish the base relationships between cultural change, threat perceptions, and support for White nationalism beliefs and outgroup restricting policies. Although the results of Study 1 provided tentative evidence for which threat perceptions may play an important role in mediating cultural change and intergroup relations, the study measured rather than manipulated the threat mediators. Therefore, Studies 2a and 2b aimed to extend Study 1 by manipulating the threat perceptions involved in demographic changes. To do this, Study 2a served as a pilot study to establish how to effectively manipulate the threat perceptions shown to be more critical in Study 1. Study 2b then utilized these threat manipulations to determine whether there was a causal relationship between certain threat perceptions and the dependent variables of interest.

Hypotheses

Hypothesis II

I predicted that participants in a given threat condition would report greater threat corresponding to their condition compared to the other threat conditions.

Hypothesis III

I predicted that participants in the assuaged threat condition would perceive significantly less threat than participants in all other threat conditions.

Method

Participants

Participants were recruited through Prolific. I requested a Prolific sample of self-identified White United States residents. An a priori power analysis was conducted using GPower 3.1.9.2 for an ANOVA specifying six groups, an effect size of f = .20, an alpha = .05, and power = .80. The power analysis suggested a sample size of 330 participants to sufficiently power main effects. I recruited 340 participants to account for potential noncompliance. Since the original education manipulation was unsuccessful (see Appendix C for original education manipulation results), an extra 50 participants were recruited to test an altered education manipulation. These samples were recruited from the same source, using the same procedure, with relatively little time elapsing between recruitment phases (less than a month). Because of this, there was no reason to expect that these samples would systematically vary and therefore, both samples were combined. The final sample consisted of 379 participants after data cleaning procedures (aged 18 – 79, *M* = 40.6, *SD* = 14.2; political ideology *M* = -0.89, *SD* = 1.77; 46.7% female, 50.9% male, 2.3% other; income *M* = $69,400, *SD* = $42,900; 13.0% with a high school degree or less, 32.8% with some college or a 2-year degree, 38.4% with a bachelor's degree, and 15.8% with a graduate degree). Participants were paid $0.60 for 5 minutes of participation in the pilot study.

Procedure

Prolific participants that met requirements (e.g., White, United States residents) viewed the study posting online. If they were interested in participating in the study, they could click into the Qualtrics survey and read the information sheet; the information sheet stated that participants would read and answer questions about a recent news article. The information sheet also detailed the participants' time commitment, compensation, anonymity, and potential risks and benefits of participating in the research. They either clicked that they agreed to participate in the survey, or they were redirected back to Prolific's website.

Participants who agreed to participate in the survey filled out a short demographics section (age, sex, race, income, education, and political identification) to ease them into participation. Next, participants were asked to read a recently published news article and answer questions afterwards about the article. This article was an adapted version of the demographic change article used in Study 1 and tested the various threat manipulations (described below). Participants were randomly assigned to read one of six articles manipulating threat perception. The "Next" button was programmed to display after one minute on the article page so that participants could not immediately skip past the manipulation. After reading the article, participants answered questions about the potential threat described in the article. Finally, participants read the debriefing sheet and were compensated for their participation (see Appendix G for complete survey).

Measures

Threat Perception Manipulation. Threat perception was manipulated using adapted versions of the cultural change manipulation from Study 1. These threat

manipulations were based on the findings from Study 1, namely, several different cultural change articles were created to manipulate status, economic, existential, education, and prototypicality threat as these five threats were shown to partially mediate the relationship between cultural change and endorsement of White nationalism beliefs and support for outgroup restricting policies. Since Study 1 demonstrated that the base demographic change manipulation was threatening to participants (it significantly increased threat perception of status, economic, existential, education, and prototypicality threats compared to the control condition), I also included an assuaged threat condition in which participants were specifically told that there was no threat present (similar to the assuaged threat condition utilized in Craig & Richeson, 2014b). The assuaged threat condition was included to more accurately gauge participants' nonthreatened baseline.

All articles were identical to the cultural change manipulation used in Study 1 besides the addition of a paragraph at the end of the article which specified the threat manipulation and two bullet points in the beginning of the article highlighting key points. The threat conditions were intended to prime White participants with the specified threat discussed within the threat passages (see Table 12 for an overview of how the threat manipulation passages differed by condition). In addition to the threat manipulation passages, two bullet points were added to the beginning of each article. These bullet points were intended to simulate recent trends in online news articles in which journalists highlight key takeaway points from their articles. The first of these bullet points always highlighted the demographic shift, stating: "By 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites". The second bullet point highlighted a key

sentence from the threat manipulation paragraph, in an attempt to make the threat manipulation more salient. See Appendix D for the complete articles, including the original education threat manipulation; the new education threat manipulation differed from the original manipulation only in its addition of the word “elite” before colleges and universities.

Table 12

Study 2a Threat Manipulation Passages

Threat	Manipulation Text
Status Threat	These shifts in demographic make-up will likely change the relative status of different racial groups in the United States. Experts following these trends agree that racial minorities will soon exceed their White counterparts' social status due to their increasing levels of political and societal influence. As these demographic shifts continue, these status gains are likely to continue for racial minorities.
Economic Threat	These shifts in demographic make-up will likely change the relative economic prosperity of different racial groups in the United States. Experts following these trends agree that racial minorities will soon exceed their White counterparts' yearly earnings due to increasing competition for jobs and loans. As these demographic shifts continue, these economic gains are likely to continue for racial minorities.
Existential Threat	These shifts in demographic make-up will likely have effects on the existence of different racial groups in the United States. Experts following these trends agree that declining birth rates among Whites, coupled with increased minority birth rates and interracial relationships will eventually cause the White racial category to disappear and be replaced by multiracial identities.
Education Threat	These shifts in demographic make-up will likely change the relative educational attainment of different racial groups in the United States. Experts following these trends agree that racial minorities will soon exceed their White counterparts' educational attainment due to increasing competition for admission to elite colleges and universities. As these demographic shifts continue, these educational gains are likely to continue for racial minorities.
Prototypicality Threat	These shifts in demographic make-up will likely change the image of who is an American. Experts following these trends agree that racial minorities will soon surpass their White counterparts in becoming the typical American due to their increasing representation in the population. As these demographic shifts continue, racial minorities are likely to represent the American identity.
Assuaged Threat	These shifts in demographic make-up will likely not change the overall status of White Americans in the United States. Experts following these trends agree that White Americans are expected to continue to have higher average levels of education, income, and political and social power compared to members of other racial groups. Despite the numerical shift, racial groups' relative positions in society are likely to remain the same as they are now.

Threat Items. Participants answered five questions regarding the threats potentially present within the article they were assigned. Before answering the items, participants were informed to "Please answer the following questions based on the article you just read". Participants were asked "To what extent did the article suggest that minorities threaten…": "White Americans' status in the United States"; "White Americans' economic prosperity"; "White Americans' existence as a racial category"; "White Americans' access to top quality education"; and "White Americans being seen as the typical American". All items were rated on a 5-point scale (0, not at all; 3, somewhat; 5, extremely) and were presented in a random order.

Results

Data Cleaning

Each participant response was checked for ineligibility and noncompliance. No participants were ineligible—all met the eligibility criteria. No participants failed the manipulation check. The average completion time was 241.16 seconds (around 4 minutes), participants who exceeded a completion time of 615.96 seconds (10 minutes, 27 seconds; two standard deviations above the average) were removed from the analysis (N = 12). After removing these participants, the final sample size was 379.

Data missingness did not exceed 10% (missingness was 0.23%). Therefore, missing data was imputed using mean imputation.

ANOVAs

Repeated measures ANOVAs were conducted for each threat manipulation condition with the five threat assessment questions serving as repeated measures factors. To minimize the examined contrasts, these analyses focused only on the contrasts as they

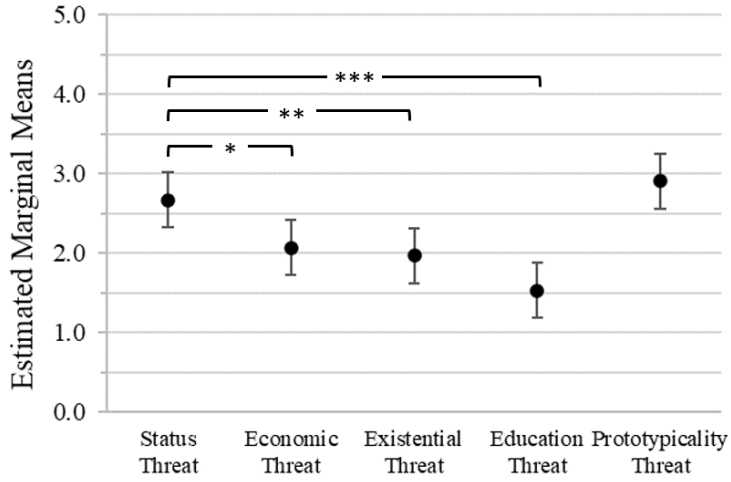
related to the specific threat being manipulated. In other words, contrasts were only examined for the target threat as it related to each other threat; difference between non-target threats and each other threat were not examined since they had no bearing on whether the manipulation was successful. I used Bonferroni's post-hoc test correction as I specified a set of planned comparisons.

Contrary to Hypothesis II, prototypicality threat appeared to play a leading role in all threat manipulation conditions. Specifically, prototypicality threat was consistently one of the highest rated threats within all six conditions. Furthermore, prototypicality threat was not significantly different from the target threats in the status, economic, and education conditions, and was rated significantly higher than all other threats in the assuaged threat condition (see Figures 4 – 9). This consistent appearance across conditions could suggest that prototypicality threat was triggered from the base assertions within the demographic change article. Due to the consistency of prototypicality threat across all conditions, I continued to examine the other contrasts within conditions as prototypicality threat did not appear to have an undue effect on a single condition.

Turning first to the status threat condition, the repeated measures ANOVA indicated a significant difference in threat assessments, $F(4, 216) = 18.50$, $p < .001$, $\eta^2 = .13$. A post-hoc Bonferroni test showed that participants in the status threat condition rated the status threat item ($M = 2.67$, $SD = 1.47$) significantly higher than the economic ($M = 2.07$, $SD = 1.29$), existential ($M = 1.97$, $SD = 1.30$), and education threat ($M = 1.53$, $SD = 1.09$; see Figure 4) items. These results suggested that the status threat manipulation successfully manipulated the perception of status threat.

Figure 4

Status Threat Manipulation Repeated Measures ANOVA

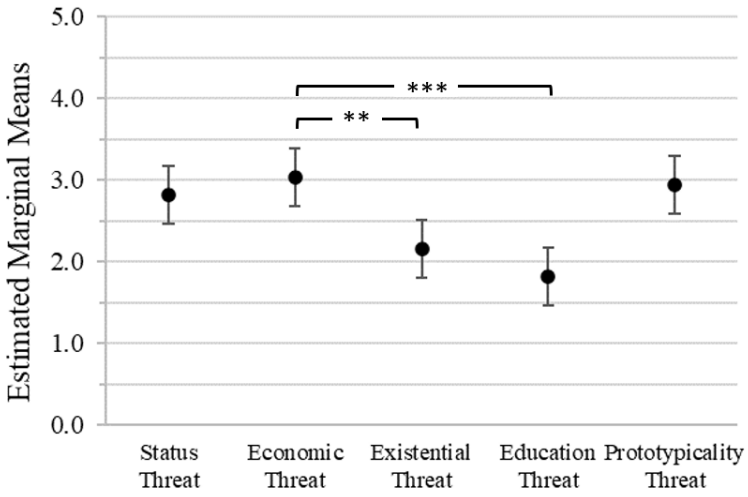


Note. $p < .05$*; $p < .01$**; $p < .001$***; error bars display 95% CI

In the economic threat condition, repeated measures ANOVA indicated a significant difference in threat assessments, $F(4, 220) = 18.30$, $p < .001$, $\eta^2 = .12$. A post-hoc Bonferroni test showed that participants in the economic threat condition rated the economic threat item ($M = 3.04$, $SD = 1.37$) significantly higher than the existential ($M = 2.16$, $SD = 1.28$) and education threat ($M = 1.82$, $SD = 1.15$; see Figure 5) items. Notably, the economic threat item did not significantly differ from status threat ($M = 2.82$, $SD = 1.38$) item, though this may be explained by the conceptual interconnections between economics and status (to be discussed in the discussion section). Results suggested that the economic threat manipulation was relatively successful at manipulating the perception of economic threat.

Figure 5

Economic Threat Manipulation Repeated Measures ANOVA

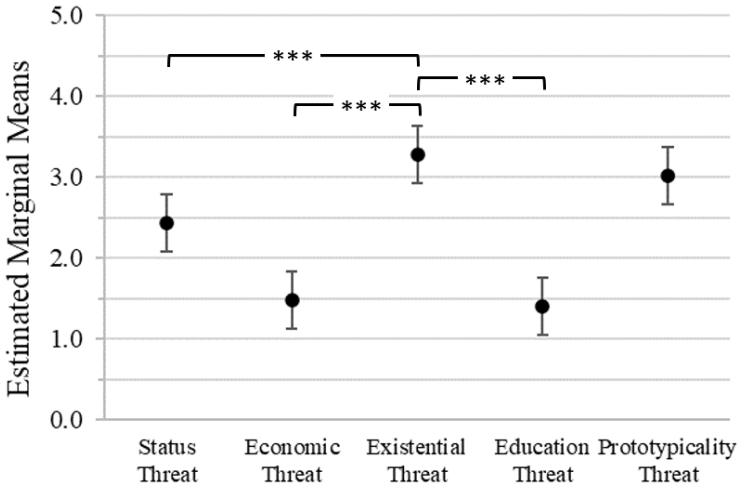


Note. $p < .05$*; $p < .01$**; $p < .001$***; error bars display 95% CI

In the existential threat condition, repeated measures ANOVA indicated a significant difference in threat assessments, $F(4, 212) = 34.50$, $p < .001$, $\eta^2 = .26$. A post-hoc Bonferroni test showed that participants in the existential threat condition rated the existential threat item ($M = 3.28$, $SD = 1.63$) significantly higher than the status ($M = 2.43$, $SD = 1.55$), economic ($M = 1.48$, $SD = .97$), and education threat ($M = 1.40$, $SD = .90$; see Figure 6) items. These results suggested that the existential threat manipulation successfully manipulated the perception of existential threat.

Figure 6

Existential Threat Manipulation Repeated Measures ANOVA

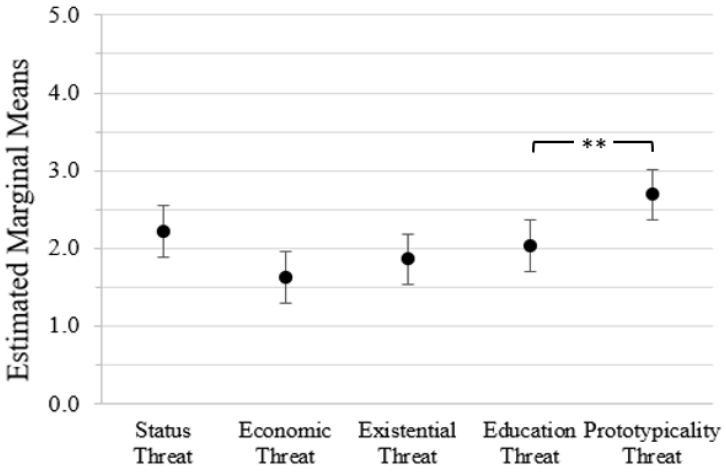


Note. $p < .05$*; $p < .01$**; $p < .001$***; error bars display 95% CI

In the education threat condition, repeated measures ANOVA indicated a significant difference in threat assessments, $F(4, 192) = 9.63$, $p < .001$, $\eta^2 = .09$. A post-hoc Bonferroni test showed that participants in the education threat condition rated the education threat item ($M = 2.04$, $SD = 1.12$) significantly lower than the prototypicality threat item ($M = 2.65$, $SD = 1.33$; see Figure 7), no other threats significantly differed from education threat. These results suggested that the education threat manipulation did not successfully manipulate education threat.

Figure 7

Education Threat Manipulation Repeated Measures ANOVA

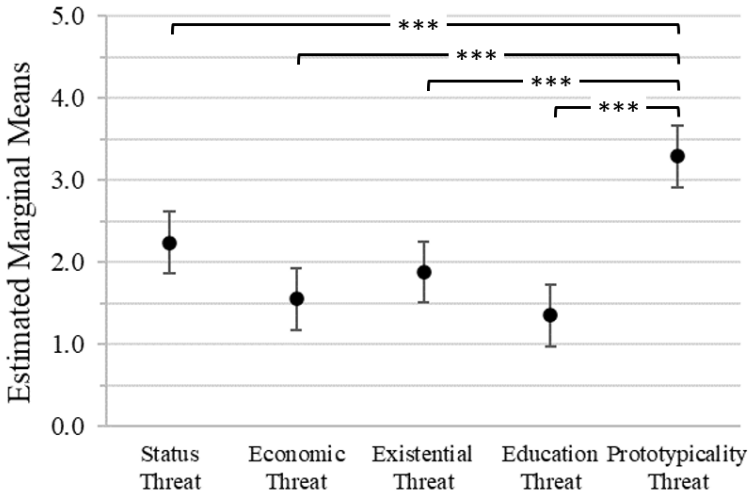


Note. $p < .05$*; $p < .01$**; $p < .001$***; error bars display 95% CI

In the prototypicality threat condition, repeated measures ANOVA indicated a significant difference in threat assessments, $F(4, 220) = 37.10$, $p < .001$, $\eta^2 = .25$. A post-hoc Bonferroni test showed that participants in the prototypicality threat condition rated the prototypicality threat item ($M = 3.27$, $SD = 1.36$) significantly higher than the status ($M = 2.21$, $SD = 1.37$), economic ($M = 1.54$, $SD = 1.04$), existential threat ($M = 1.87$, $SD = 1.18$), and education threat ($M = 1.35$, $SD = .88$; see Figure 8) items. These results suggested that the prototypicality threat manipulation successfully manipulated the perception of prototypicality threat.

Figure 8

Prototypicality Threat Manipulation Repeated Measures ANOVA

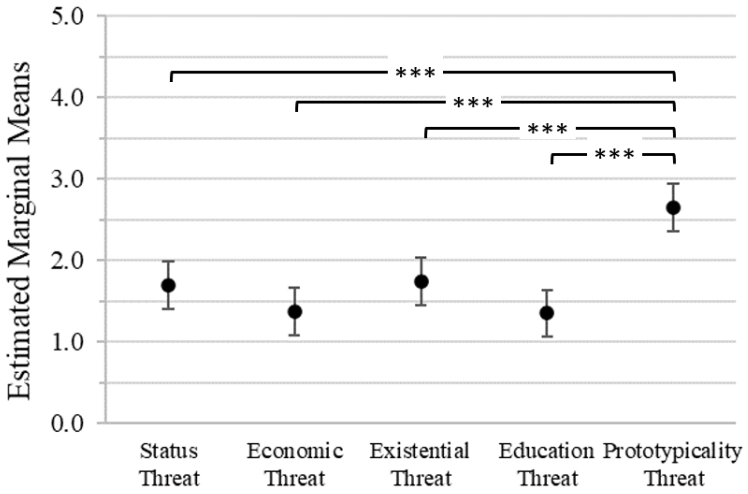


Note. $p < .05$*; $p < .01$**; $p < .001$***; error bars display 95% CI

In the assuaged threat condition, repeated measures ANOVA indicated a significant difference in threat assessments, $F(4, 212) = 27.10$, $p < .001$, $\eta^2 = .17$. A post-hoc Bonferroni test showed that participants in the assuaged threat condition rated the prototypicality threat item ($M = 2.65$, $SD = 1.26$) significantly higher than the status ($M = 1.69$, $SD = 1.13$), economic ($M = 1.37$, $SD = .90$), existential ($M = 1.74$, $SD = 1.15$), and education threat ($M = 1.35$, $SD = .87$; see Figure 9) items.

Figure 9

Assuaged Threat Manipulation Repeated Measures ANOVA



Note. $p < .05$*; $p < .01$**; $p < .001$***

Since these results casted some doubt as to whether the assuaged threat condition was reducing threat perception, I ran a follow-up independent samples *t*-test comparing the threat ratings of participants in the assuaged threat condition to participants in all other conditions. Results from the independent samples *t*-test demonstrated that the assuaged threat condition significantly reduced ratings of all five threats (see Table 13), confirming Hypothesis III. In context with the threat assessment item anchors, the means of the threat conditions (status, economic, existential, education, and prototypicality) fell closer to 2 (the article somewhat threatened) and 3 (the article moderately threatened) on the scale; while the means of the assuaged condition dropped closer to 1 (the article slightly threatened) and 2 (the article somewhat threatened).

Table 13

Study 2a Follow-up Independent Samples t-Test Comparing Participants in Assuaged Threat Condition to Participants in All Other Conditions Using Welch's t.

	Assuaged Threat Manipulation		All Other Manipulations			
	M	*SD*	*M*	*SD*	*t*	*p*
Status Threat	1.69	1.13	2.47	1.40	-4.47	<.001
Economic Threat	1.37	0.90	1.96	1.27	-4.06	<.001
Existential Threat	1.74	1.15	2.24	1.42	-2.76	.003
Education Threat	1.35	0.87	1.62	1.05	-2.00	.024
Prototypicality Threat	2.65	1.26	2.97	1.36	-1.67	.049

Discussion

This study built upon the previous study by taking potentially important threat perceptions for influencing White Americans' reactions to cultural change and using them to create new experimental materials. This study was unique in that it aimed to manipulate threat perceptions rather than measuring them. As previously mentioned, there is a notable lack of experimental studies manipulating threat in the intergroup threat and cultural change literatures, especially the manipulation of both realistic and symbolic threat perceptions (Craig & Richeson, 2014b; Reik et al., 2006; Rios et al., 2018). Therefore, this study was an important step towards validating new methods to manipulate threat and test its effects.

Generally, the threat manipulations successfully manipulated the threats they aimed to manipulate. Specifically, status, economic, existential, and prototypicality threat conditions all appeared to function in ways appropriate for their condition, partially

supporting Hypothesis II. Interestingly, there were asymmetric results between status and economic threat items found in the status and economic threat conditions—such that the status threat item was rated significantly higher than the economic threat item within the status threat condition (as hypothesized in Hypothesis II), but status threat and economic threat did not significantly differ within the economic threat condition (counter to Hypothesis II). This may have occurred due to societal representations of status. For instance, accumulation of wealth through economic opportunities tends to signal social status (Bourdieu, 1984; Mandel et al., 2006); however, social status can often be gained through more than just economic prosperity, such as through outstanding moral character or knowledge (Hyman, 1942). Therefore, I proceeded to use the status and economic threat manipulations even though results of the economic threat condition did not confirm hypotheses.

Contrary to Hypotheses II and III, neither form of the education threat manipulation successfully manipulated education threat. Furthermore, although education is often thought to be a critical aspect of status (Hollingshead, 1975), results demonstrated that status threat assessment did not significantly differ from education threat assessment in the education condition. This would suggest that the education threat condition was not activating potentially related measured constructs either. Even though the education threat manipulation was not effective, it was still used as one of the conditions in Study 2b to determine whether these null results would replicate.

One of the most surprising findings of Study 2a was prototypicality's strong presence within all manipulations. Prototypicality's presence within all conditions would suggest that its effects were driven by the base article itself—the demographic changes

occurring in the United States. These findings were surprising since prototypicality threat is not often examined in the cultural change literature (Danbold & Huo, 2015; Meeussen et al., 2013), although the literature which does examine prototypicality has found that it is a unique predictor of numerous negative intergroup attitudes and policies (as discussed on page 29 of the introduction). These results may suggest that prototypicality plays a more central role in threat responses to cultural change than previously thought and should be examined more closely within future research.

Finally, although prototypicality threat assessment was still high in the assuaged threat condition, the follow-up *t*-test suggested that this assessment was significantly reduced within the assuaged threat condition. In fact, the *t*-test determined that all threat assessments were significantly reduced within the assuaged threat condition, confirming Hypothesis III. These results suggest that simply telling someone that, in light of changes occurring around them, their lived experience will likely not change may be a simple and effective way of allaying their potential threat responses.

Study 2b

Using the materials developed and tested in Study 2a, Study 2b manipulated threat perception in the wake of demographic changes to determine its causal impact on support for White nationalism beliefs and outgroup restricting policies. Given the current uncertainty within the intergroup threat theory and cultural change literatures regarding threat perceptions' impact on intergroup relations, it is important to test these causal relationships while examining multiple different kinds of threat perceptions. Due to the conflicting literature, this study tested two competing hypotheses around threat perceptions' impact on intergroup relations—a prediction that all five threat

manipulations would increase endorsement of both dependent variables and the prediction that threat manipulations would have a different impact on the two dependent variables.

Hypotheses

Hypothesis IV

Based on the consistency of the indirect effects found in Study 1 for both dependent variables, the first competing hypothesis was that participants would more highly endorse White nationalism beliefs and outgroup restricting policies in the five threat conditions compared to the assuaged threat condition.

Hypothesis V

Based on direct effects in Study 1 and on White nationalism literature, the second competing hypothesis was that there would be differential endorsement of both dependent measures based on the threat condition:

a. Participants would endorse White nationalism beliefs significantly more when within the status, existential, and prototypicality threat conditions compared to the economic and education threat conditions. White nationalism is strongly rooted in beliefs that Whites are superior and more deserving than other races (Brown, 2009), should have their own special ethnostate (Re-Branding White Supremacy, 2016), and that Whites are in danger of no longer existing (Anti-Defamation League, n.d.). These key beliefs are more closely aligned with status, existential, and prototypicality threats. Furthermore, there is also evidence that although White supremacists leverage job and education competition to attract supporters, it is not critical to their core beliefs or rhetoric (Blessing & Roberts, 2018).

b. Participants would endorse outgroup restricting policies significantly more when in the economic and education threat conditions compared to the status, existential, and prototypicality threat conditions. Restriction of others' freedoms may be closely tied to insecurities around the ingroups' ability to compete for and acquire access to scarce resources (Landmann et al., 2019; Renfro et al., 2006), closely aligning to restriction of the outgroup through policy changes.

Method

Participants

Participants were recruited through Prolific. I requested a Prolific sample of self-identified White United States residents. I recruited a sample of 70% conservative participants. A power analysis using GPower 3.1.9.2 determined that an adequate sample size to detect main effects for this experiment would be 327 participants. This was based on a one-way ANCOVA specifying six groups, one covariate, an effect size of f = .20, an alpha = .05, and a power = .80. Based on these estimates, I collected 400 participants to account for potential participant removal. After data cleaning, the final sample consisted of 372 participants (age M = 42.80, SD = 15.40; political ideology M = 0.90, SD = 1.87; 47.8% female, 50.0% male, 2.1% nonbinary; income M = $74,200, SD = $43,900; 11.9% with a high school degree or less, 33.7% with some college or a 2-year degree, 35.8% with a bachelor's degree, and 18.6% with a graduate degree). Participants were paid $1.70 for their successful completion of the 10-minute survey.

Procedure

Prolific participants that met requirements (e.g., White, U.S. residents) viewed the study posting online. If they were interested in participating in the study, they clicked into

the Qualtrics survey and read the information sheet. The information sheet explained that participants would provide their opinions of a recent news article and their general attitudes and opinions of recent political and social issues. The information sheet also detailed the participants' time commitment, compensation, anonymity, and potential risks and benefits of participating in the research. They either clicked that they agreed to participate in the survey, or they were redirected back to Prolific's website.

Participants who agreed to participate in the survey began by filling out a short demographics section (age, sex, race, income, education, and political identification). Next, participants were randomly assigned to read one of six news articles (from Study 2a) and answered questions about the article. These articles served as the study's threat manipulation, indicating demographic changes threaten status, economic opportunities, existential existence, education opportunities, prototypicality, or serve as no threat at all to the White population. The "Next" button was programmed to display after one minute on the article page so that participants could not immediately skip past the manipulation. Participants then answered a manipulation check question and two other questions about their interest in the article and their trust in the author. As in Study 1, participants were told they would then answer questions about their opinions and attitudes towards recent political and social issues in the United States. These questions included the five threat measures pertinent to the manipulations, the White nationalism measure, and the outgroup restricting policy measures used in Study 1. The threat measures were presented first and then the White nationalism and policy measures were presented in random order. All measures were presented in their entirety, including both positively and negatively worded items, to provide a more balanced experience for the participants. Finally,

participants read the debriefing sheet which informed them of the purpose of the study and were compensated for their participation (see Appendix F for the complete survey).

Measures

Threat Perception Manipulation. The threat perception manipulations developed in Study 2a were used in Study 2b. This threat perception manipulation involved six conditions: status, economic, existential, education, prototypicality, and assuaged threat. Participants were randomly assigned to read one of the six articles.

Manipulation Check and Cover Story Items. Participants were asked several questions to confirm the cover story of evaluating the article they read and to serve as a manipulation check. The first item was, "Which of the following statements best describes the topic of the article you just read?". Other items included, "How interesting was the article you read?" and "How much do you trust the author of the article?". Both items were measured on a 7-point scale (0, Not at all – 6, Very much).

Threat Perception. The threat perception measures assessed participants' perceptions of the five threats deemed important in Study 1: status, economic, existential, education, and prototypicality. These threat measures included all threat items used in Study 1 for these subcategories of threat. All threat items were included to present a more balanced experience for participants; however, items were scaled in the same way as in Study 1 to maintain consistency between studies (scale reliability was checked). All items were be rated on a 7-point scale (-3, strongly disagree – +3, strongly agree). For an overview of all threat subscales and items see Table 14.

Table 14

Complete List of Threat Items in Study 2b

Realistic Threat: *Potential threats to ingroup welfare.*	
	Social Status & Power Threat: *Threats to the ingroup's perceived esteem, reputation, or perceived control over societal resources and/or outcomes.*
1.	If racial/ethnic minorities increase in numbers, it will lower the status of Whites in America.
2.	Racial/ethnic minorities have too much influence in American society.
3.	Racial/ethnic minorities are gaining too much political power in the United States.
4.	*Whites hold too many positions of power in the United States.
	Economic Opportunity Threat: *Threats to the ingroup's perceived ability of attaining economic gains.*
1.	Racial/ethnic minorities are taking economic opportunities away from Whites in America (e.g., jobs, loans).
2.	Racial/ethnic minorities are taking jobs away from Whites.
3.	Social services have become less available to Whites because of racial/ethnic minorities.
4.	*Racial/ethnic minorities have fewer economic opportunities in America compared to Whites.
	Collective Existential Threat: *A perceived threat to the existence of the ingroup.*
1.	It is likely that the White race won't exist in the future.
2.	The existence of the White race is in jeopardy.
3.	*Whites will remain the dominant group in America for a very long time.
	Education Threat: *Threats to the ability of the ingroup to obtain and reap the benefits of a good education.*
1.	Racial/ethnic minorities make it harder for Whites to get into good schools.
2.	Schools spend too many resources on their racial/ethnic minority students.
3.	The education system benefits racial/ethnic minorities more than Whites in America.
Symbolic Threat: *Perceived differences and incompatibilities between the ingroup and the outgroup's worldview.*	
	Prototypicality Threat: *Threat to the ingroup's perception of their prototypicality for the nation.*
1.	Racial/ethnic minorities pose a threat to what it means to be American.
2.	Racial/ethnic minorities do not represent the American identity.
3.	Due to demographic changes, I fear that in the future it won't be clear what it means to be American.
4.	*Racial/ethnic minorities make positive contributions to the American identity.

Note: * indicates a reverse-scored item.

White Nationalism. Support for White nationalism beliefs was measured using the same 5-item measure used in Study 1. Items included: “Multiculturalism is the biggest threat to White America”; “I am sympathetic to organizations/groups that bring attention to White concerns”; “White American culture is what makes this country great”; “One of the problems with America is the decline of Whiteness”; and “In order to maintain White status, it is sometimes necessary to use violence towards racial/ethnic minority groups”. All items were rated on a 7-point scale (-3, strongly disagree – +3, strongly agree).

Outgroup Restricting Policies. Support for outgroup restricting policies was measured using the same policy items used in Study 1. All policy items were included to present a more balanced experience for participants; however, items were scaled in the same way as in Study 1 to maintain consistency between studies (scale reliability was checked). All items were rated on a 7-point scale (-3, strongly disagree – +3, strongly agree). For an overview of the outgroup restricting policy items see Table 15.

Table 15

Complete List of Outgroup Restricting Policy Items in Study 2b

	Outgroup Restricting Policies:
	Immigration:
1.	In order to deter illegal immigration, the government should separate immigrant children from their parents.
2.	The U.S. government should unconditionally ban immigrants from countries deemed dangerous.
3.	Immigrants to the United States should be required to speak English.
4.	The amount of foreign immigration from Europe to the United States should be increased.
5.	*Legal immigrants should have full access to jobs and resources (e.g., education, healthcare) when they arrive in the United States.
6.	*The amount of foreign immigration from Latin America to the United States should be increased.
	Racial/ethnic minority:
1.	Increasing police patrols in racial/ethnic minority communities is necessary to lower crime.
2.	The government does not owe any special treatment to racial/ethnic minorities for discrimination their racial group experienced in the past.
3.	The government should use the military to control rallies/protests that promote racial/ethnic minority causes (e.g., Black Lives Matter).
4.	*Employers should take extra steps to diversify their employees when making hiring and promotion decisions.
5.	*Schools should teach the history of racial/ethnic minority groups in America to the same degree as White history.
6.	*The government should spend more money on schools in racial/ethnic minority neighborhoods.

Note: * indicates a reverse-scored item.

Attention Check. There was one attention check item included in the survey. This item appeared amongst the final few threat perception items. The attention check item stated, “In America, please select ‘Somewhat agree’ if you are paying attention”. Participants needed to select the requested response to be considered “attentive”.

Results

Data Cleaning

Each participant response was checked for ineligibility and noncompliance. Participants who identified as nonwhite or multiracial were removed from analysis (N = 8). Participants who failed the attention check (N = 2) or who incorrectly identified the article they read via the manipulation check (N = 1) were removed from the analysis. Finally, the average completion time was 545.86 seconds (around 9 minutes), participants who exceeded a completion time of 1,238.70 seconds (around 20 minutes or two standard deviations above the average) were removed from the analysis (N = 17). After removing these participants, the final sample size was 372.

Data missingness did not exceed 10% (missingness was 0.32%). Therefore, missing data was imputed using mean imputation.

Data Reduction Procedures

Scales were constructed based on the CFA and EFA results from Study 1. All appropriate items were averaged together to create the scales. Scale reliability was tested for each scale. If the scale reliabilities were poor, follow-up factor analysis would have been conducted to determine an appropriate factor structure.

Threat items were averaged together in accordance with the final scales created in Study 1 (see Table 16 for complete list of items included in each threat scale). Each threat scale maintained good internal reliability (see Table 17). Next, all five White nationalism items were averaged together. The scale resulted in good internal reliability ($\alpha = .88$, $\omega = .89$). Finally, the outgroup restricting policy items were averaged together based on the final scale created in Study 1 (see Table 18 for a complete list of items included in the scale). The scale resulted in good internal reliability ($\alpha = .88$, $\omega = .88$).

Table 16

Threat Items Included in Each Threat Scale in Study 2b

Threat Subscale	Items
Social Status & Power	1. If racial/ethnic minorities increase in numbers, it will lower the status of Whites in America. 2. Racial/ethnic minorities have too much influence in American society. 3. Racial/ethnic minorities are gaining too much political power in the United States.
Economic	1. Racial/ethnic minorities are taking economic opportunities away from Whites in America (e.g., jobs, loans). 2. Racial/ethnic minorities are taking jobs away from Whites. 3. Social services have become less available to Whites because of racial/ethnic minorities.
Existential	1. It is likely that the White race won't exist in the future. 2. The existence of the White race is in jeopardy.
Education	1. Racial/ethnic minorities make it harder for Whites to get into good schools. 2. Schools spend too many resources on their racial/ethnic minority students. 3. The education system benefits racial/ethnic minorities more than Whites in America.
Prototypicality	1. Racial/ethnic minorities pose a threat to what it means to be American. 2. Racial/ethnic minorities do not represent the American identity. 3. Due to demographic changes, I fear that in the future it won't be clear what it means to be American.

Table 17

Threat Subscale Internal Reliabilities for Study 2b

Subscale	Cronbach's α	McDonald's ω
Status Threat	.89	.90
Economic Threat	.92	.92
Existential Threat	.77	.78
Education Threat	.87	.87
Prototypicality Threat	.90	.91

Table 18

Outgroup Restricting Policy Items Included in the Scale for Study 2b

	Outgroup Restricting Policy Items
1.	In order to deter illegal immigration, the government should separate immigrant children from their parents.
2.	The U.S. government should unconditionally ban immigrants from countries deemed dangerous.
3.	Immigrants to the United States should be required to speak English.
4.	Increasing police patrols in racial/ethnic minority communities is necessary to lower crime.
5.	The government does not owe any special treatment to racial/ethnic minorities for discrimination their racial group experienced in the past.
6.	The government should use the military to control rallies/protests that promote racial/ethnic minority causes (e.g., Black Lives Matter).

Initial Analyses

Basic descriptive statistics for all threat measures and dependent variables are presented in Table 19. On average, participants did not endorse the threat perception measures, with no average crossing the midpoint of the scale. Likewise, on average, participants did not endorse the White nationalism belief scale, nor did they strongly endorse the outgroup restricting policy scale, with the average just crossing the scale's midpoint.

Bivariate correlations for all variables are displayed in Table 20. Consistent with Study 1, political orientation was positively correlated to threat perceptions and the dependent variables. Also consistent with Study 1, all subcategories of threat were strongly correlated with one another, besides existential threat which was moderately correlated with all other threats. Finally, all threat perceptions were positively correlated with the two dependent variables.

Table 19

Descriptive Statistics for Study 2b

Variables	*M* (*SD*)
Status Threat	-.68 (1.69)
Economic Threat	-.69 (1.72)
Existential Threat	-1.17 (1.62)
Education Threat	-.48 (1.72)
Prototypicality Threat	-1.05 (1.68)
White Nationalism Beliefs	-1.13 (1.43)
Outgroup Restricting Policies	.01 (1.55)

Table 20

Pairwise Bivariate Correlations for All Variables in Study 2b

	1.	2.	3.	4.	5.	6.	7.	8.
1. Status Threat	—							
2. Economic Threat	0.85***	—						
3. Existential Threat	0.57***	0.55***	—					
4. Education Threat	0.80***	0.83***	0.45***	—				
5. Prototypicality Threat	0.84***	0.80***	0.51***	0.73***	—			
6. White Nationalism Beliefs	0.83***	0.78***	0.54***	0.73***	0.83***	—		
7. Outgroup Restricting Policies	0.76***	0.72***	0.41***	0.76***	0.72***	0.78***	—	
8. Political Orientation	0.52***	0.53***	0.27***	0.57**	0.50***	0.56***	0.74***	—

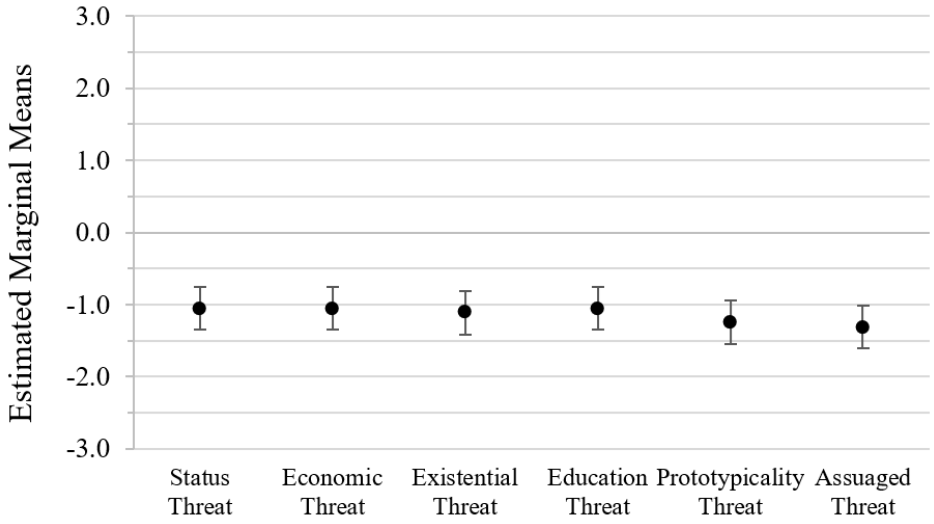
ANCOVAs

Two ANCOVAs were conducted to test competing Hypotheses IV and V. The article conditions served as the grouping variable, the White nationalism measure and outgroup restricting policies measure served as the two different dependent variables, and both analyses controlled for political ideology. I utilized Tukey's post hoc test correction as I was interested in comparing effects across all conditions.

Contrary to either competing hypothesis, neither the White nationalism ANCOVA ($F(5, 365) = 0.56$, $p = .73$, $\eta^2 = .005$) nor the outgroup restricting policy ANCOVA ($F(5, 365) = 1.07$, $p = .38$, $\eta^2 = .007$) indicated significant differences between conditions (see Figures 10 and 11). In fact, follow-up Bayesian analysis of the ANCOVAs (using default priors specified by jamovi; Morey & Rouder, 2018; Rouder et al., 2012) found a BF_{01} of 265.66 and 152.93 for the White nationalism and outgroup restricting policy ANCOVAs, respectively. Based on traditional cut-offs for Bayesian analysis[5], these results would suggest *decisive* support for the null hypothesis (no effect of the threat manipulation) for both analyses. Detailed results of the Bayesian analyses can be found in Appendix E.

Figure 10

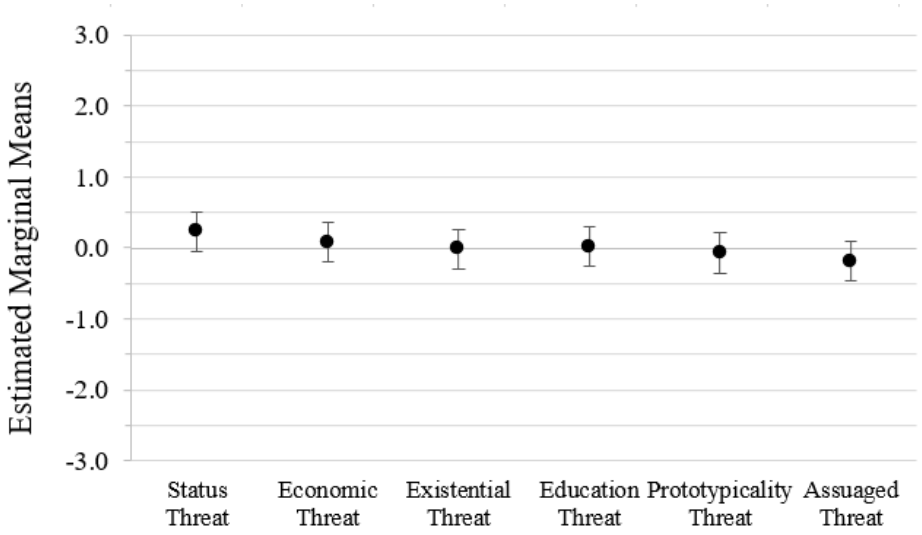
ANCOVA with Threat Condition Predicting White Nationalism Beliefs



[5] *BF* 1–3: anecdotal support for the model; *BF* 3–10: substantial support for the model; *BF* 10–30: strong support for the model; *BF* 30–100: very strong support for the model; and *BF* >100: decisive support for the model (Jeffreys, 1961).

Figure 11

ANCOVA with Threat Condition Predicting Outgroup Restricting Policy Support



Exploratory Analyses

Follow-Up ANCOVAs. Due to the null findings, I explored whether participants' trust in the author of the article had an impact of the ANCOVA analyses. It may have been the case that some participants in Study 2b did not believe or were skeptical of the content of the article, therefore they may not have been threatened by it. I added the trust item ("How much do you trust the author of the article?") as an additional covariate in the ANCOVA analyses. Results demonstrated that trust in the author of the article was not a significant covariate in the White nationalism ANCOVA ($F(1, 364) = .41$, $p = .52$, $\eta^2 = .001$). Results further demonstrated that although the trust item was a significant covariate in the outgroup restricting policies ANCOVA ($F(1, 364) = 8.82$, $p = .003$, $\eta^2 = .01$), the article condition remained nonsignificant ($F(5, 364) = 1.13$, $p = .34$, $\eta^2 = .007$).

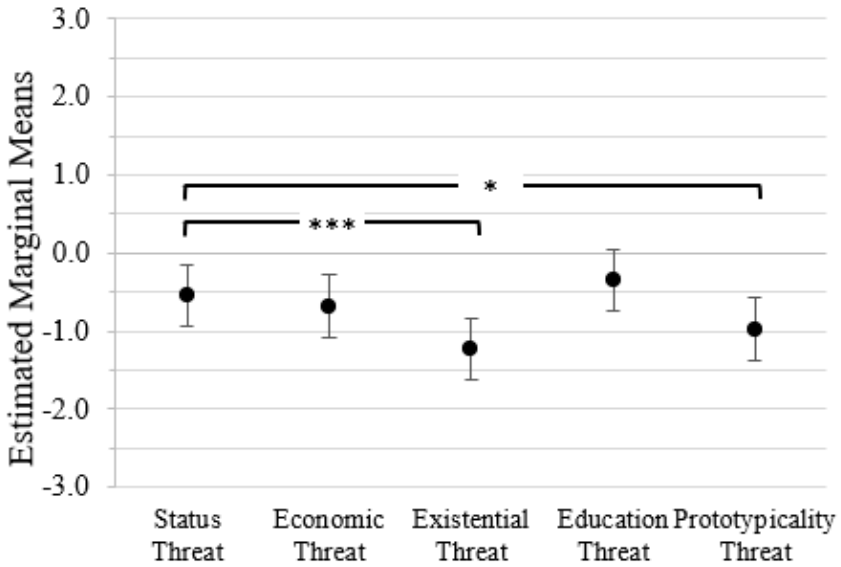
Exploratory Repeated Measures ANOVAs. Finally, I explored whether participants responded to the article manipulations in ways we would have expected based on the pilot test findings. To do this, I conducted repeated measures ANOVAs for

each threat manipulation condition with the threat measures as the repeated factor. As in Study 2a, contrasts were only examined for the target threat as it related to each other threat.

In the status threat condition, repeated measures ANOVA indicated a significant difference in threat perceptions, $F(4, 236) = 11.30$, $p < .001$, $\eta^2 = .03$. A post-hoc Bonferroni test showed that participants in the status threat condition rated status threat ($M = -.54$, $SD = 1.59$) significantly higher than existential threat ($M = -1.26$, $SD = 1.71$) and prototypicality threat ($M = -.98$, $SD = 1.73$; see Figure 12). These results differed from the pattern of results in Study 2a. Notably, in this study, status threat was more strongly endorsed than prototypicality threat and did not significantly differ from ratings of economic or education threat.

Figure 12

Status Threat Manipulation Repeated Measures ANOVA

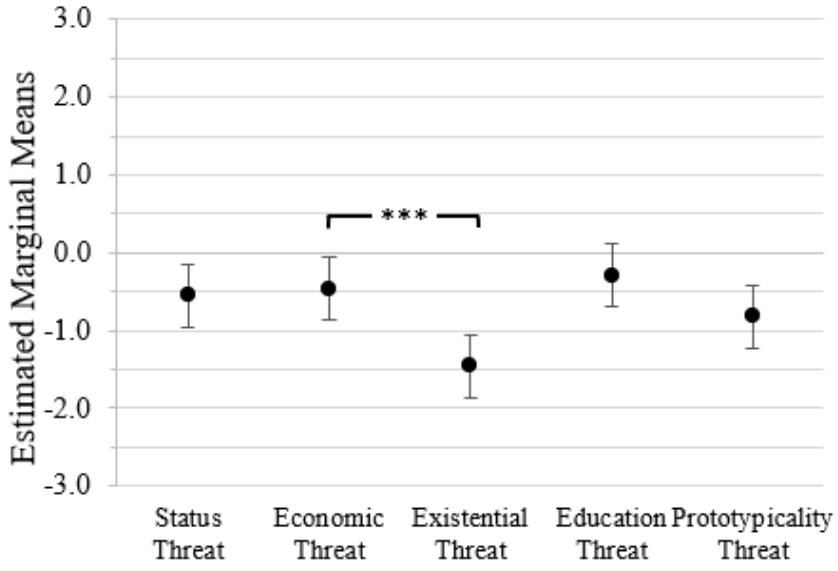


Note. $p < .05$*; $p < .01$**; $p < .001$***; error bars display 95% CI

In the economic threat condition, repeated measures ANOVA indicated a significant difference in threat perceptions, $F(4, 248) = 16.30$, $p < .001$, $\eta^2 = .05$. A post-hoc Bonferroni test showed that participants in the economic threat condition rated economic threat ($M = -.46$, $SD = 1.85$) significantly higher than existential threat ($M = -1.46$, $SD = 1.51$; see Figure 13). Unlike in Study 2a, in this study, economic threat did not significantly differ from education threat, only from existential threat.

Figure 13

Economic Threat Manipulation Repeated Measures ANOVA

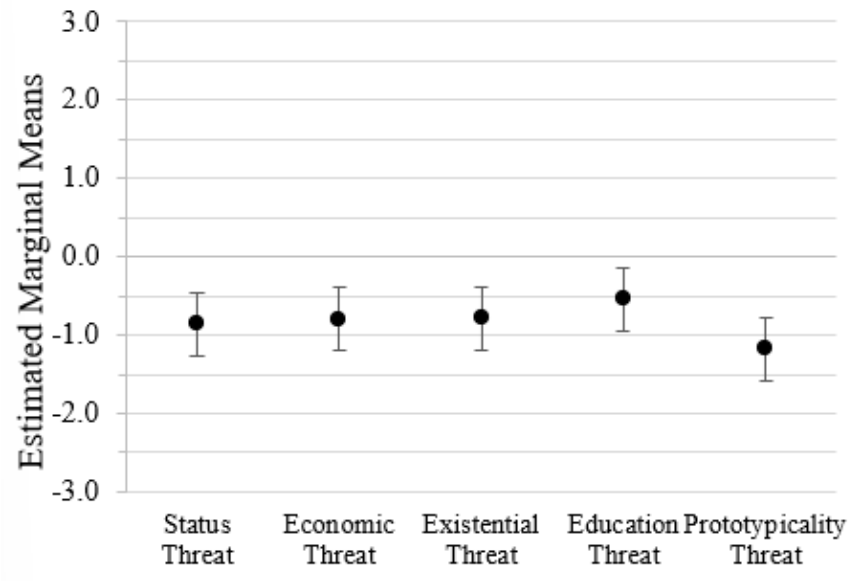


Note. $p < .05$*; $p < .01$**; $p < .001$***; error bars display 95% CI

In the existential threat condition, repeated measures ANOVA indicated a significant difference in threat perceptions, $F(4, 244) = 3.89$, $p = .004$, $\eta^2 = .02$. A post-hoc Bonferroni test showed that although there was significant differences between threat perceptions, none of those differences related to existential threat (see Figure 14). Unlike in Study 2a, existential threat did not significantly differ from any other threat perception.

Figure 14

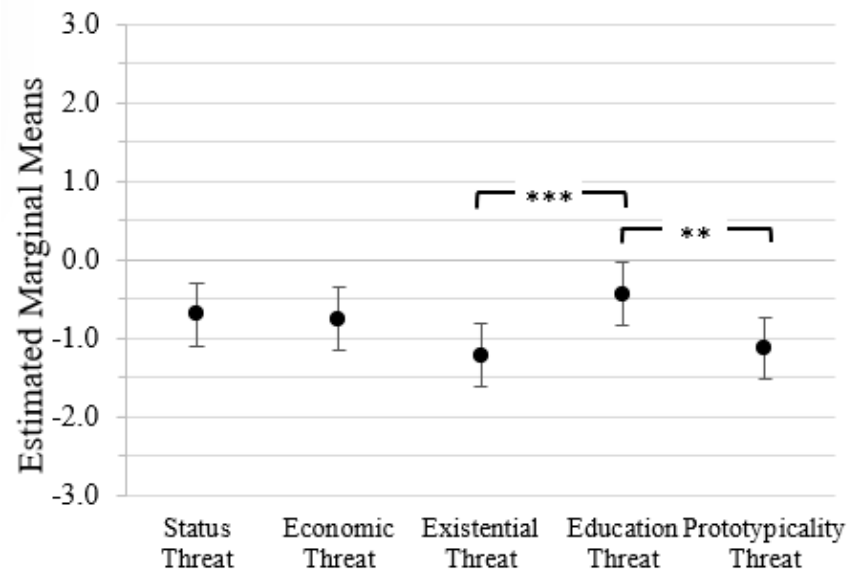
Existential Threat Manipulation Repeated Measures ANOVA



In the education threat condition, repeated measures ANOVA indicated a significant difference in threat perceptions, $F(4, 256) = 5.91$, $p < .001$, $\eta^2 = .03$. A post-hoc Bonferroni test showed that participants in the education threat condition rated education threat ($M = -.44$, $SD = 1.83$) significantly higher than existential threat ($M = -1.22$, $SD = 1.71$) and prototypicality threat ($M = -1.13$, $SD = 1.60$; see Figure 15). Unlike in Study 2a, in this study, education threat was rated significantly higher than prototypicality threat (rather than lower) and existential threat (rather than no difference).

Figure 15

Education Threat Manipulation Repeated Measures ANOVA

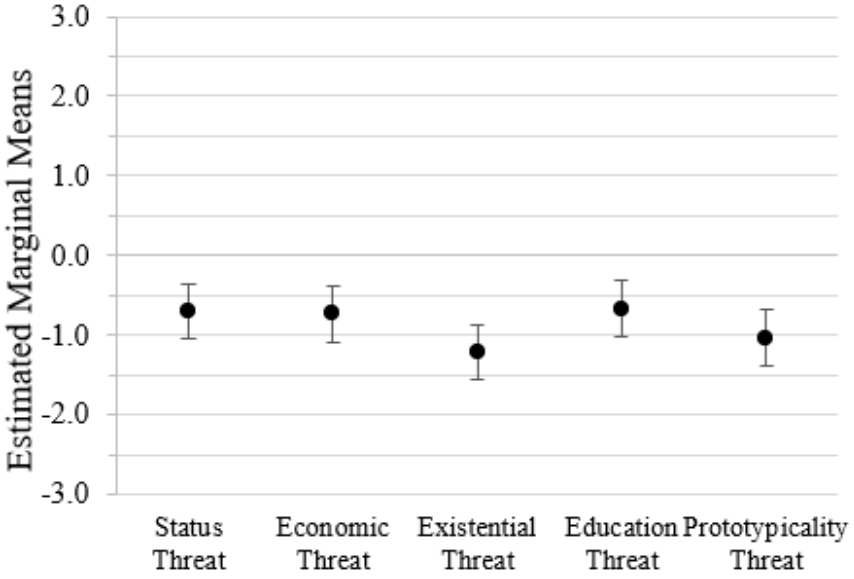


Note. $p < .05$*; $p < .01$**; $p < .001$***; error bars display 95% CI

In the prototypicality threat condition, repeated measures ANOVA indicated a significant difference in threat perceptions, $F(4, 232) = 4.17$, $p = .003$, $\eta^2 = .02$. A post-hoc Bonferroni test showed that although there were significant differences between threat perceptions, none of those differences related to prototypicality threat (see Figure 16). In stark contrast to Study 2a, prototypicality threat demonstrated no significant differences from any other threat perceptions.

Figure 16

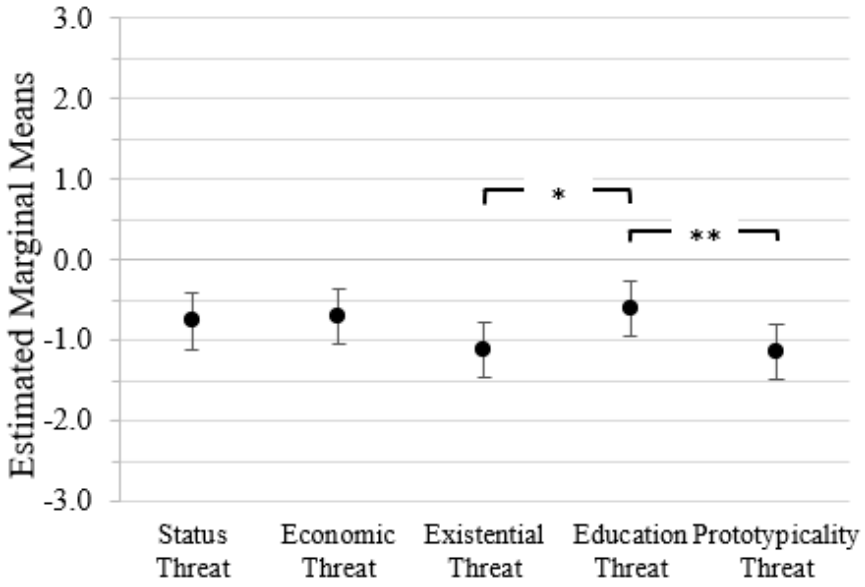
Prototypicality Threat Manipulation Repeated Measures ANOVA



In the assuaged threat condition, repeated measures ANOVA indicated a significant difference in threat perceptions, $F(4, 240) = 4.74$, $p = .001$, $\eta^2 = .02$. A post-hoc Bonferroni test showed that participants in the assuaged threat condition rated education threat ($M = -.59$, $SD = 1.67$) significantly higher than existential threat ($M = -1.11$, $SD = 1.66$) and prototypicality threat ($M = -1.14$, $SD = 1.60$; see Figure 17). Unlike in Study 2a, in this study, prototypicality threat was not rated significantly higher than all other threats, rather, it was rated significantly lower than education threat.

Figure 17

Assuaged Threat Manipulation Repeated Measures ANOVA



Note. $p < .05$*; $p < .01$**; $p < .001$***; error bars display 95% CI

Discussion

This study served as the culmination of the previous studies. It leveraged the variable relationships found in Study 1 and utilized the tested manipulations from Study 2a to experimentally test threat perceptions' causal impact on White nationalism beliefs and support for outgroup restricting policies. Although Study 2b was carefully built upon findings within the literature and from the previous two studies, in total, results suggested that the threats manipulated within the article conditions had no effect on participants' endorsement of White nationalism beliefs or in outgroup restricting policy support, supporting neither Hypothesis IV nor Hypothesis V. These results did not change when controlling for trust in the author of the articles. Furthermore, the assuaged threat condition did not significantly lower endorsement of White nationalism beliefs or outgroup restricting policies.

Crucially, exploratory repeated measures ANOVAs suggested that the article manipulations were not manipulating threat in the same way suggested by the pilot study. First, the results showed divergent threat response patterns from the pilot study. Threats were endorsed differently under certain threat manipulations than they were in the pilot study. Furthermore, the results from the exploratory analyses showed that none of the marginal means for any of the analyses passed the midpoint of the scale. This is important to note because responses beneath the midpoint of the threat scale demonstrate *disagreement* with the items—suggesting that participants did not perceive those threats. Social identities, like political or racial identity, can guide and solidify how a person perceives group threats and how they choose to respond to them (Ellemers et al., 2002; Haslam et al., 2010; Hornung et al., 2019; Reicher et al., 2010; Tajfel & Turner, 1986), especially when the identity is salient (Unsworth & Fielding, 2014) or when the ingroup is threatened (Wilson, 2001). Since the article manipulations did not threaten participants in Study 2b, participants did not need to react in ways to protect their ingroup—like increasing support for belief systems that bolster ingroup identity and status or policies that protect their ingroup and restrict or harm the outgroup. Therefore, the null findings for White nationalism and outgroup restricting policy support align with the exploratory analyses finding that participants were not threatened by the articles they read.

These unexpected results could have been driven by the different ways of assessing threat between the two studies. Whereas Study 2a directly asked participants to assess the extent to which each threat was present in the article they read, Study 2b asked participants to respond to entire threat scales. Considering the results of both Study 2a and 2b, it may be fair to conclude that while participants could somewhat accurately

identify various potential threats in the Study 2a articles, it does not necessarily mean that those threats were internalized by the participants. Future studies should explore both threat assessment and threat perception in response to these threat manipulations within a single study. Examining both ways of assessing threat within a single study would be able to determine if the divergent findings found within this analysis were due to sampling differences or due to the manipulations not engaging threat perceptions.

Beyond difference in measurement of threat assessment or perceptions, it may also be the case that the dependent variables were too extreme to be influenced by such a mild manipulation. Though we have seen a steep rise in support for White nationalism over the last decade, White nationalism remains a categorically extreme belief system (Blee, 2008; Kruglanski et al., 2017). Because of this, it would be difficult for a single article to exert much influence on these extreme beliefs. The null results found in this study may actually provide some heartening evidence that articles, like the ones the threat manipulations were based off, may not have a large effect on the general public (explored at greater length in the General Discussion).

Finally, it may also be the case that these demographic changes may no longer be surprising to participants who read about them. New and surprising events or information capture attention (Kunda et al., 1990; Meyer et al., 1997) and can cause people to seek out new information to understand the surprising occurrence (Maguire et al. 2011). When these manipulations were first used in 2014, these population shifts were newly announced in media. In other words, when these manipulations were first used, these populations shifts were likely surprising to those reading about them. This surprise likely caused participants to seek out information within the articles to understand it better,

likely taking in more of the potentially threatening content. However, using these manipulations eight years later may not have the same effect on participants as it did before. Demographic changes occurring in the United States are not as surprising at they were nearly a decade ago. Therefore, the low threat rating reported in Study 2b may be a product of changing perceptions of demographic change in the United States.

General Discussion

This research sought to expand upon the current literature examining cultural changes' influence on White Americans' perceptions of threat and their endorsement of negative intergroup attitudes and beliefs such as support for White nationalism beliefs and outgroup restricting policies. This research is critical as the United States has experienced a consistent and considerable rise in White hate crimes and terrorism in the past decade (Federal Bureau of Investigation, 2021; Nakamura, 2021; Southern Poverty Law Center, 2019; U.S. Department of Justice, 2020). Unfortunately, these terrorists have often cited The Great Replacement Theory as a motivating factor for their crimes (Beirich, 2019; Bowman et al., 2022). The Great Replacement conspiracy theory is intimately connected to fears of real (and imagined) demographic changes occurring around the world (Duke, 2012; Durso & Jacobs, 2013; Stormfront, 2013). Finding reasons for why some White folk can see these demographic changes as harmless and others can use it as a reason to commit murder and terrorism is of real significance to our lives.

The literature has shown that demographic changes are often seen as a harbinger of change—they can signal shifts in political power and changing cultural norms and values (Cilluffo & Cohn, 2019; Cohn & Caumont, 2016; McVeigh & Estep, 2019).

Previous literature has documented that majority groups, like Whites in the United States, have a lot to lose during cultural shifts and therefore can be the most fervently against these threats to their status quo (Durso & Jacobs, 2013; Gilliard-Matthews, 2011; Stephan et al., 2015; Zárate et al., 2019). These threats can come in many different forms but are often classified into two broad categories of realistic and symbolic threats (Stephan et al., 2002, 2015). The previous threat literature has shown ample evidence that realistic and symbolic threats are associated with many adverse intergroup outcomes, such as prejudice and support for restrictive outgroup actions (e.g., Cottrell & Neuberg, 2005; Cohrs et al., 2005; Landmann et al., 2019; Pereira et al., 2010; Rios et al., 2018). Yet little is known about which threat perceptions are more likely to *lead* to these adverse outcomes, especially as it relates to the examination of a diverse array of threat perceptions.

The current research sought to extend our understanding of cultural changes' influence on perceptions of threat and threats' influence on negative intergroup relations. In an initial, mostly exploratory study, I sought to determine the causal influence cultural change has on a variety of threat perceptions and how these threat perceptions related to endorsement of White nationalism beliefs and outgroup restricting policies (Study 1). The next study designed new manipulations which integrated threat perceptions into the cultural change paradigm (Study 2a). Finally, these new manipulations were tested to determine whether framing cultural changes within certain threat perceptions may be more likely to cause endorsement of the negative intergroup beliefs (Study 2b). The following section interprets and contextualizes the collective evidence for the hypotheses and research questions driving this research.

Evaluating the Hypotheses and Research Question

Hypothesis I

Hypothesis I predicted that the cultural change manipulation would increase threat perceptions of all threat measures compared to the control condition (Study 1). There was partial support found for Hypothesis I. Five of the eight subcategories of threat were found to significantly increase in the demographic change condition compared to the control condition. Though it is important to note that all paths leading to the other three threats were in the hypothesized, positive direction. The five significant threat pathways were consistent with previous literature which found that cultural change can increase perceptions of threat (e.g., Major et al., 2018; Outten et al., 2018; Zárate et al., 2012).

Hypothesis II

Hypothesis II predicted that participants within a given threat condition would report greater threat corresponding to their condition (Study 2a). Hypothesis II was partially supported. Unfortunately, the education threat manipulation was unable to appropriately manipulate perceptions of education threat. Furthermore, results for existential, economic, and status threat conditions all indicated that prototypicality threat was also present within the condition. These conditions were considered successful due to the consistency by which prototypicality threat emerged within every condition; these conditions were still able to appropriately manipulate their respective threat perceptions in addition to the active prototypicality threat. In evaluating evidence from Study 2b, however, it may be the case that these overlaps in prototypicality across conditions and the close relationship between the threat perceptions within conditions may have

contributed to the null findings in Study 2b. It is possible that the article conditions had too much conceptual overlap or that the manipulations were too minor to offer a clean and clearcut manipulation of threat.

Hypothesis III

Hypothesis III predicted that the assuaged threat condition would reduce threat perceptions compared to all other threat conditions (Study 2a). Hypothesis III was supported. Though prototypicality threat was still rated significantly higher than all other threat perceptions in the assuaged threat condition, a follow-up *t*-test revealed that all threat perceptions in the assuaged condition were rated significantly lower than in the other threat conditions. This finding was consistent with pervious literature which found that telling participants that their lived experience would remain consistent in the face of cultural changes can allay their threat perception and concerns (Craig & Richeson, 2014b).

Hypothesis IV & V

Hypotheses IV and V posed competing hypotheses around threat perceptions' impact on intergroup relations—that all threat manipulations would increase endorsement of both dependent variables (Hypothesis IV) and that the threat manipulations would have a different impact on the dependent variables (Hypothesis V; Study 2b). Neither hypothesis was supported. Analyses found no differences between threat conditions in predicting support for White nationalism beliefs or outgroup restricting policies. In addition, these threat perceptions did not significantly differ from the assuaged threat condition. Even when an additional covariate was included in the analyses (trust in the

author of the article) results remained nonsignificant. Exploratory analyses revealed that these null findings may have resulted because participants did not find these manipulations particularly threatening.

Research Question I

Research Question I sought to understand how the various subcategories of threat related to the endorsement of White nationalism beliefs and outgroup restricting policies (Study 1). Correlational analyses from Study 1 and Study 2b showed that both dependent variables had moderate to strong positive relationships with all threat perceptions measured in the studies. Examining the results displayed in Figures 2 and 3 from Study 1 revealed that the various threat perceptions had different direct relationships with the two dependent variables. Status, safety, education, prototypicality, and morality threat all showed significant positive relationships with White nationalism beliefs, whereas, status, economic, safety, education, and cultural threat all showed significant positive relationships with outgroup restricting policies. Together these results found that the various threat perceptions and the dependent variables shared positive relationships with one another—endorsement of White nationalism beliefs and outgroup restricting policy support was positively related to perceptions of threat. Unfortunately, these studies were unable to provide consistent support for whether certain threat perceptions were more related to certain outcomes or whether there was a causal link between threat perceptions and the two dependent variables. Therefore, more research is needed to fully understand how different threat perceptions relate to these two variables.

Evaluation and Implications of the Model

The current series of studies focused on examining the proposed causal chain between cultural change (through demographic changes), perceived threat, and intergroup relations. Evaluation of the evidence for the model relies heavily on what researchers would consider positive support for the theory. In other words, is causing an attitudinal position to shift from strong disagreement to less strong disagreement considered evidence for demographic change causing threat perception? Shifts to less disagreement with extreme ideological positions may signal the beginning stages of radicalization (discussed more below). Or is the evidence rooted in the shift from disagreement with a position to agreement with a position? The shift to agreement with extreme ideological positions may signal a later stage of radicalization. Currently, the literature has considered the former to be evidence in support of the model.

Abiding by this current assessment of support for the model, Study 1 did provide support for the first causal chain in the model—that cultural change (minority groups growing in size) causes increases in threat perception. Study 1 found that the cultural change article caused some threat perceptions to positively shift compared to the control condition. However, Study 2b did not provide evidence in support of the causal chain between perceived threat and intergroup relations (in these analyses, White nationalism beliefs and outgroup restricting policy support). Although patterns were inconsistent between Study 2a and 2b, the various article conditions *did* find unique patterns in threat. For instance, patterns of threat assessment and perceptions in the existential threat condition looked different from the patterns found in the status threat condition. This would suggest that people were viewing and responding to threat conditions in different ways. So, although Study 2b found null and inconclusive results, I contend that there are

likely critical differences between these various subcategories of threat that could influence how people respond to them. The key will be to develop manipulations that are able to engage threat perceptions so that we can more accurately assess the causal relationship between threat perception and potential downstream consequences.

Despite the current literature assessing any shift in threat response and resulting attitudes as support for the model, I argue that it is critical for researchers to assess the shifts that break the wall between disagreement and agreement with the perception or sentiment being measured. For instance, the attitudinal shift between strongly disagreeing with the government using the military to control lawful protests and slightly disagreeing with that statement is meaningful and may compound over time if the person encounters more sentiments that continue to move their position. However, the shift between disagreeing with the sentiment that it is sometimes necessary to use violence towards minority groups to maintain White status, to actively agreeing with that sentiment is key in understanding what *causes* changes to intergroup relations, especially as it relates to the process of radicalizing into extremist groups like White nationalists.

The null findings in Study 2b could suggest something quite heartening—that news articles reporting on cultural changes may not be enough, on their own, to greatly influence the general public. Rather, influencing public perceptions on White nationalism belief systems, specifically, may involve the more targeted rhetoric and propaganda used by far-right groups to truly sway endorsement for this extremity. Wiktorowicz (2004) proposed a process by which people radicalize into Islamic extremism (though I believe that this applies to most radicalization into extremist groups). This process begins with a "cognitive opening" or a stressor that makes a person question their current position or

worldview. Next comes a seeking stage by which a person searches for a new worldview to make sense of what previously destabilized them. Finally, the person socializes these beliefs and finds others with which to share their newfound ideology. Often, White nationalists will target vulnerable people, who they deem as more easily persuadable, with their rhetoric (Anglin, 2016; D'Anastasio, 2021; Robinson & Whittaker, 2020). Therefore, threat manipulations, like the ones used in this dissertation, may be most successful at influencing White nationalism beliefs when people are undergoing the seeking and socialization phases of radicalization; when they are searching for information to affirm their new fledgling worldview. In other words, there needs to be an established wrong or cognitive opening for someone to be further persuaded into an extreme belief system like White nationalism. Without this background providing an entry way for radicalization, people are likely able to dismiss the information displayed within the manipulation as not confirming their already held notions of the world (confirmation bias; Klayman, 1995). If researchers want to fully understand the processes people undergo when discovering White nationalism ideologies, we need to capture the phase in which this threatening rhetoric becomes particularly influential.

Limitations and Next Steps

The current studies had several limitations that should be addressed in future research. Nonetheless, the current studies built additional foundations on which future research can expand and grow our knowledge on these important issues. To begin, due to funding constraints Study 1 was underpowered to detect main effects and Studies 2a and 2b were sufficiently powered to detect main effects only. Therefore, although these studies can provide some initial evidence for certain relationships between the variables,

these studies cannot provide any definitive answers to the hypotheses. These studies would benefit from future examination with appropriately powered analyses.

The current studies were also limited by the demographic change paradigm and the dependent variables chosen in response to the paradigm. I believe that the demographic change paradigm can be an effective way of manipulating perceptions of cultural change; however, this paradigm is subtle and may be more appropriate for testing more subtle attitudinal changes rather than the more extreme dependent variables tested within this dissertation. This is especially true given the Prolific samples used in these analyses. Although Prolific currently provides higher quality data and less biased responding than MTurk samples (Eyal et al., 2021), it is still a convenience sample and does not fully represent the general public nor the extremist segments of the population (Prolific, 2022). Although I used filters to select White, mostly conservative, United States residents, the sample distribution leaned more towards "slightly" conservative rather than "extremely" conservative and I do not know the geographic distribution of these participants. Future research should examine the current cultural change paradigm within a more representative sample of the White United States residents of interest. Furthermore, it would be informative for future research using this paradigm to target samples recruited from forums or message boards which are open to or support more extreme right rhetoric; this targeted sampling strategy may be able to capture the processes by which people are entering into ideological radicalization and how this may affect threat perceptions and its downstream consequences.

Another valuable avenue for future research would be to explore how people react to organically occurring demographic changes within their neighborhoods. As

exemplified in the opening quote from Tucker Carlson, people experiencing swift demographic changes may feel more threatened than a person being told of an amorphous demographic threat that they are not currently experiencing. Experimental or quasi-experimental research could test threat perceptions and its downstream consequences in areas currently experiencing noticeable demographic changes compared to those living within stable demographic conditions. For instance, Zou & Cheryan (2021) examined the General Social Survey and found correlational evidence that those more threatened by demographic changes also showed less willingness to live in racially diverse neighborhoods. Researchers could extend this line of research by using timeseries analysis with national surveys or localized surveys focusing on those geographic areas experiencing demographic changes to determine a potential causal, instead of correlational, relationship in areas experiencing an uptick in diversity. Furthermore, this could also be evaluated using creative experiments that simulate real demographic changes. For instance, Enos (2014) simulated demographic changes in a homogenously White community by hiring Hispanic actors to start riding commuter trains with the local population. These actors were instructed to speak in Spanish with one another on the train platform and while commuting on the trains every day for two weeks. A pre- and post-test survey of the local commuters on those train platforms found that the commuters held more exclusionary attitudes towards Hispanic immigrants after the two weeks of simulated demographic changes compared to their pre-test levels. These experimental and quas-experimental analyses may be able to capture authentic responses to naturalistic cultural change.

Cultural change occurs in a multitude of different ways, demographic changes are just one way to signal real changes occurring in the nation and across the world. Beyond the cultural change paradigm utilized in the current analysis and other analyses assessing demographic changes, future studies should explore other potentially threatening cultural changes to dominant groups like Whites in the United States. For instance, future studies could explore the effects of changes occurring to traditional conceptions of family structures, increased age in which people start families, or increased percentage of people who never marry. These are all changes occurring in cultural norms over the past several decades (Pew Research Center, 2015) which could potentially threaten those embracing these once culturally stable traditions, like White nationalists.

Conclusion

With more support for White extremism and more instances of terrorism committed on behalf of White extremist causes, such as the recent attack in Buffalo (Bowman et al., 2022), it is exceedingly important for researchers to understand how a changing nation can threaten White folk and lead to violent outcomes. Although the current research was unable to support several of its hypotheses, it has opened avenues of research that could provide valuable insight to this line of research. Threat in not uniform and therefore should be examined for all of its complexities. I believe that understanding threat perception in the wake of cultural change is the best way for us to fully understand White hate and create pointed interventions to prevent its continuing rise.

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Appendix A: Demographic and Control Articles for Study 1

In a Generation, Racial Minorities May Be the U.S. Majority

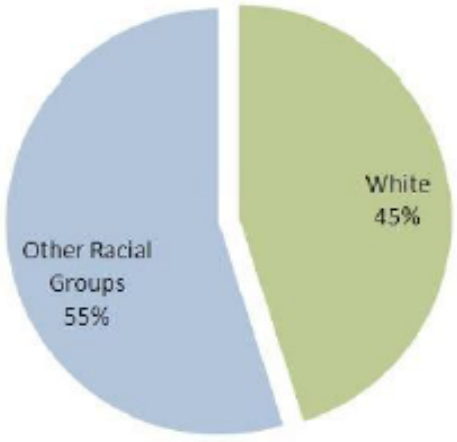
By: S. Roberts

A new analysis of 2010 U.S. Census Bureau data suggests that America might become a White-minority nation faster than once predicted. The nation's racial minority population is steadily rising and currently makes up 35 percent of the United States. This advances an unmistakable trend that could make racial minorities the new American majority by midcentury, a transformation that is occurring much faster than anticipated just a few years ago.

Demographers calculate that by 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites. Four years ago, officials had projected the shift would come in 2050. This shift can already be seen in several U.S. states; currently, four states as well as the District of Columbia have minority populations that exceed 50 percent.

The main reasons for the accelerating change are rapid immigration growth and significantly higher birthrates among racial and ethnic minorities. As White baby boomers age past their childbearing years, younger Hispanic parents are having children – and driving U.S. population growth. New estimates show minorities increased to 107.2 million people in 2009, largely boosted by a surge in Hispanic births. During this time, the White population remained flat, making up roughly 199.9 million, or 65 percent, of the country. The group predicted to post the most dramatic gain, Hispanics, is projected to nearly triple in size by 2050. There are now roughly 9 births for every 1 death among Hispanics, compared to a roughly one-to-one ratio for Whites.

A Majority-minority US in 2042



Source: US Census Bureau

The Census Bureau projects that ethnic and racial minorities will constitute a majority of the nation's children under 18 by 2023 and of working-age Americans by 2039. Indeed, about 49.6 percent of babies born in 2011 were White, compared to about 50.4 percent who were racial minorities.

The latest figures are predicated on current and historical trends, which demographers say can be reasonably expected to continue.

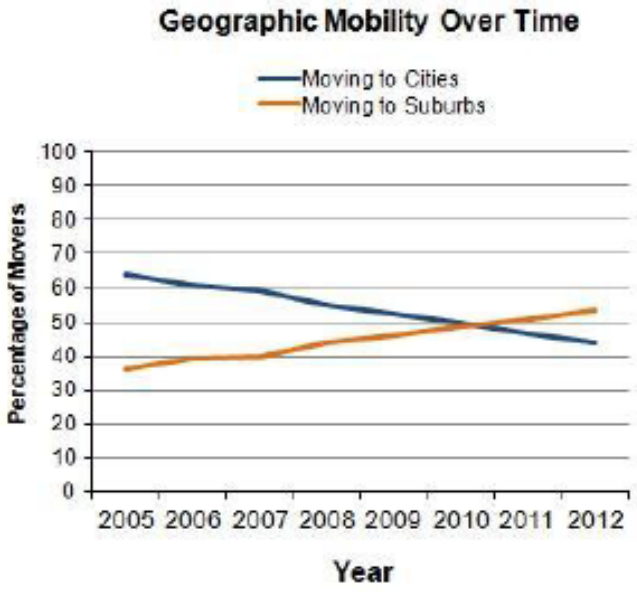
"What's happening now in terms of increasing diversity is unprecedented," said Campbell Gibson, a census demographer.

U. S. Census Bureau Reports Residents Now Move at a Higher Rate

By: S. Roberts

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

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



The new estimates also reveal that many of the nation's fastest-growing communities are suburbs. Specifically, principal cities within metropolitan areas experienced a net loss of 2.1 million movers, while the suburban areas had a net gain of 2.4 million movers. For those who moved to a different county or state, the reasons for moving varied considerably depending on the length of their move. Overall, four out of 10 (43.7 percent) moved due to housing-related reasons, such as the desire to live in a new or better home or apartment.

These geographic mobility data are used to determine the extent of mobility of the U. S. population and the resulting redistribution. Migration data are collected as a part of the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS). How populations change has implications for federal, state, and local governments, as well as for private industry. The latest figures are predicated on current and historical trends, which can be thrown awry by several variables, including prospective overhauls to public and economic policy.

Appendix B: Supplemental Factor Analyses for Study 1

Table B1

Eight-Factor Confirmatory Factor Analysis Including All Threat Items

Factor	Item	Estimate	Standard Error	p-value
Status & Power Threat	Status_1	1.12	0.09	< .001
	Status_2	1.40	0.08	< .001
	Status_3	1.38	0.08	< .001
	Status_4_R	0.90	0.11	< .001
Economic Threat	Economic_1	1.48	0.07	< .001
	Economic_2	1.48	0.07	< .001
	Economic_3	1.33	0.08	< .001
	Economic_4_R	0.85	0.11	< .001
Safety Threat	Safety_1	1.15	0.07	< .001
	Safety_2	1.47	0.08	< .001
	Safety_3	1.51	0.08	< .001
	Safety_4_R	1.03	0.07	< .001
Existential Threat	Existential_1	-0.63	0.11	< .001
	Existential_2	-1.88	0.18	< .001
	Existential_3_R	0.01	0.08	< .001
Education Threat	Education_1	1.32	0.08	< .001
	Education_2	1.38	0.08	< .001
	Education_3	1.40	0.09	< .001
	Education_4_R	0.95	0.11	< .001
Prototypicality Threat	Prototypicality_1	1.51	0.08	< .001
	Prototypicality_2	1.35	0.08	< .001
	Prototypicality_3	1.44	0.09	< .001
	Prototypicality_4_R	0.98	0.07	< .001
Culture & Value Threat	Culture_1	1.31	0.09	< .001
	Culture_2	1.35	0.08	< .001
	Culture_3	1.45	0.08	< .001
	Culture_4_R	1.05	0.08	< .001
Moral Standards Threat	Moral_1	1.51	0.08	< .001
	Moral_2	1.39	0.08	< .001
	Moral_3	1.45	0.08	< .001
	Moral_4_R	0.75	0.09	< .001

Table B2

Follow-Up Exploratory Factor Analysis Including All Threat Items

Item	Factor 1	Factor 2	Uniqueness
Moral_3	0.907		0.256
Prototypicality_1	0.903		0.197
Safety_2	0.895		0.236
Safety_3	0.886		0.237
Culture_3	0.871		0.259
Moral_2	0.862		0.289
Moral_1	0.845		0.268
Prototypicality_2	0.843		0.354
Safety_1	0.833		0.388
Culture_1	0.818		0.404
Status_3	0.810		0.298
Status_2	0.777		0.298
Culture_2	0.758		0.350
Economic_2	0.752		0.311
Economic_1	0.745		0.262
Safety_4_R	0.741		0.481
Prototypicality_3	0.721		0.402
Existential_2	0.707		0.507
Status_1	0.699		0.561
Prototypicality_4	0.690		0.448
Economic_3	0.658		0.395
Culture_4_R	0.652		0.515
Education_2	0.612		0.363
Education_1	0.565		0.467
Moral_4_R	0.469		0.790
Education_4_R		0.921	0.200
Economic_4_R		0.786	0.354
Status_4_R		0.733	0.368
Education_3		0.517	0.382
Existential_3_R	-	-	0.925
Existential_1	-	-	0.941

Table B3

One-Factor Confirmatory Factor Analysis on All White Nationalism Items

Factor	Variable	Estimate	Standard Error	p-value
White Nationalism Beliefs	WN_1	1.32	0.08	< .001
	WN_2	1.08	0.10	< .001
	WN_3	1.45	0.10	< .001
	WN_4	1.43	0.07	< .001
	WN_5	0.86	0.07	< .001

Table B4

Two-Factor Confirmatory Factor Analysis on All Policy Items

Factor	Item	Estimate	Standard Error	p-value
Immigration Policies	ImmPolicy_1	0.93	0.08	< .001
	ImmPolicy_2	1.40	0.10	< .001
	ImmPolicy_3	1.47	0.11	< .001
	ImmPolicy_4	-0.41	0.08	< .001
	ImmPolicy_5_R	0.67	0.08	< .001
	ImmPolicy_6_R	0.84	0.80	< .001
Racial Policies	RacePolicy_1	1.38	0.10	< .001
	RacePolicy_2	1.61	0.10	< .001
	RacePolicy_3	1.40	0.10	< .001
	RacePolicy_4_R	1.12	0.10	< .001
	RacePolicy_5_R	0.82	0.07	< .001
	RacePolicy_6_R	1.14	0.09	< .001

Table B5

Follow-Up Exploratory Factor Analysis Including All Policy Items

Item	Factor 1	Uniqueness
RacePolicy_2	0.801	0.358
RacePolicy_1	0.731	0.466
RacePolicy_3	0.728	0.470
ImmPolicy_3	0.688	0.527
RacePolicy_6_R	0.685	0.531
ImmPolicy_2	0.677	0.541
RacePolicy_5_R	0.654	0.572
ImmPolicy_6_R	0.608	0.630
RacePolicy_4_R	0.595	0.646
ImmPolicy_1	0.578	0.666
ImmPolicy_5_R	0.441	0.806
ImmPolicy_4	-	0.891

Table B6

Mediation Effects for Cultural Change Manipulation on White Nationalism through Threat Perceptions

Type	Effect	*B*	SE	95% CI	*p*
Component	Cultural Change → Status Threat	.35	.15	[.06, .65]	.02
	Status Threat → White Nationalism	.67	.04	[.59, .74]	< .001
Direct	Cultural Change → White Nationalism	-.12	.10	[-.31, .08]	.24
Total	Cultural Change → White Nationalism	.12	.14	[-.16, .39]	.40
Component	Cultural Change → Economic Threat	.38	.15	[.08, .68]	.01
	Economic Threat → White Nationalism	.56	.04	[.48, .65]	< .001
Direct	Cultural Change → White Nationalism	-.10	.11	[-.32, .12]	.38
Total	Cultural Change → White Nationalism	.12	.14	[-.16, .39]	.40
Component	Cultural Change → Safety Threat	.14	.15	[-.16, .44]	.34
	Safety Threat → White Nationalism	.65	.04	[.57, .72]	< .001
Direct	Cultural Change → White Nationalism	.03	.10	[-.17, .22]	.78
Total	Cultural Change → White Nationalism	.12	.14	[-.16, .39]	.40
Component	Cultural Change → Existential Threat	.42	.16	[.11, .73]	.008
	Existential Threat → White Nationalism	.39	.05	[.29, .48]	< .001
Direct	Cultural Change → White Nationalism	-.04	.13	[-.29, .21]	.73
Total	Cultural Change → White Nationalism	.12	.14	[-.16, .39]	.40
Component	Cultural Change → Education Threat	.32	.15	[.03, .61]	.03
	Education Threat → White Nationalism	.53	.05	[.44, .62]	< .001
Direct	Cultural Change → White Nationalism	-.05	.12	[-.28, .18]	.67
Total	Cultural Change → White Nationalism	.12	.14	[-.16, .39]	.40

Component	Cultural Change → Prototypicality Threat	.35	.16	[.03, .66]	.03
	Prototypicality Threat → White Nationalism	.62	.04	[.55, .69]	< .001
Direct	Cultural Change → White Nationalism	-.10	.10	[-.29, .10]	.33
Total	Cultural Change → White Nationalism	.12	.14	[-.16, .39]	.40
Component	Cultural Change → Cultural Threat	.28	.16	[-.03, .59]	.07
	Cultural Threat → White Nationalism	.60	.04	[.52, .68]	< .001
Direct	Cultural Change → White Nationalism	-.05	.10	[-.26, .15]	.62
Total	Cultural Change → White Nationalism	.12	.14	[-.16, .39]	.40
Component	Cultural Change → Moral Threat	.15	.16	[-.17, .47]	.37
	Moral Threat → White Nationalism	.61	.04	[.54, .68]	< .001
Direct	Cultural Change → White Nationalism	.03	.10	[-.17, .23]	.77
Total	Cultural Change → White Nationalism	.12	.14	[-.16, .39]	.40

Table B7

Mediation Effects for Cultural Change Manipulation on Outgroup Restricting Policies through Threat Perceptions

Type	Effect	*B*	SE	95% CI	*p*
Component	Cultural Change → Status Threat	.35	.15	[.03, .34]	.02
	Status Threat → Restricting Policies	.52	.04	[.45, .60]	< .001
Direct	Cultural Change → Restricting Policies	-.11	.10	[-.31, .09]	.27
Total	Cultural Change → Restricting Policies	.07	.13	[-.18, .32]	.57
Component	Cultural Change → Economic Threat	.38	.15	[.08, .68]	.01
	Economic Threat → Restricting Policies	.53	.04	[.45, .60]	< .001
Direct	Cultural Change → Restricting Policies	-.13	.10	[-.33, .07]	.19
Total	Cultural Change → Restricting Policies	.07	.13	[-.18, .32]	.57
Component	Cultural Change → Safety Threat	.14	.15	[-.16, .44]	.36
	Safety Threat → Restricting Policies	.50	.04	[.42, .58]	< .001
Direct	Cultural Change → Restricting Policies	.00	.10	[-.20, .21]	.98
Total	Cultural Change → Restricting Policies	.07	.13	[-.18, .32]	.57
Component	Cultural Change → Existential Threat	.42	.16	[.11, .73]	.008
	Existential Threat → Restricting Policies	.27	.04	[.18, .36]	< .001
Direct	Cultural Change → Restricting Policies	-.04	.12	[-.28, .20]	.73
Total	Cultural Change → Restricting Policies	.07	.13	[-.18, .32]	.57
Component	Cultural Change → Education Threat	.32	.15	[.03, .61]	.03
	Education Threat → Restricting Policies	.54	.04	[.46, .61]	< .001
Direct	Cultural Change → Restricting Policies	-.10	.10	[-.30, .10]	.32
Total	Cultural Change → Restricting Policies	.07	.13	[-.18, .32]	.57

Component	Cultural Change → Prototypicality Threat	.35	.16	[.03, .66]	.03
	Prototypicality Threat → Restricting Policies	.47	.04	[.39, .54]	< .001
Direct	Cultural Change → Restricting Policies	-.09	.10	[-.29, .12]	.39
Total	Cultural Change → Restricting Policies	.07	.13	[-.18, .32]	.57
Component	Cultural Change → Cultural Threat	.28	.16	[-.03, .59]	.07
	Cultural Threat → Restricting Policies	.50	.04	[.43, .58]	< .001
Direct	Cultural Change → Restricting Policies	-.07	.10	[-.27, .13]	.48
Total	Cultural Change → Restricting Policies	.07	.13	[-.18, .32]	.57
Component	Cultural Change → Moral Threat	.15	.16	[-.17, .47]	.37
	Moral Threat → Restricting Policies	.48	.04	[.41, .55]	< .001
Direct	Cultural Change → Restricting Policies	.00	.10	[-.20, .20]	.99
Total	Cultural Change → Restricting Policies	.07	.13	[-.18, .32]	.57

Appendix C: Original Education Repeated Measures ANOVA Results for Study 2a

Table C1

Repeated Measures ANOVA for Original Education Threat Condition Predicting Threat Assessment

	Sum of Squares	df	Mean Square	*F*	*p*	η^2
RM Factor	29.4	4	7.35	8.26	< .001	.06
Residual	195.9	220	.89			

Table C2

Post Hoc Tests for Repeated Measures ANOVA for Original Education Threat Condition

Comparison		Mean Difference	SE	df	*t*	$P_{bonferroni}$
Status	- Education	.05	.18	220	.30	1.00
Economic	- Education	-.35	.18	220	-1.98	.50
Existential	- Education	-.30	.18	220	-1.70	.90
Education	- Prototypicality	-.55	.18	220	-3.10	.02

Note. Table only displays post hoc relationships as they relate to the education threat condition

Appendix D: Threat Manipulation Article for Studies 2a and 2b

Status Threat Manipulation

In a Generation, Racial Minorities May Be the U.S. Majority

- By 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites.
- Experts following these trends agree that racial minorities will soon exceed their White counterparts' social status due to their increasing levels of political and societal influence.

By S. Roberts

A new analysis of 2020 U.S. Census Bureau data suggests that America might become a White-minority nation faster than once predicted. The nation's racial minority population is steadily rising and currently makes up almost 40 percent of the United States. This advances an unmistakable trend that could make racial minorities the new American majority by midcentury, a transformation that is occurring much faster than anticipated just a few years ago.

Demographers calculate that by 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites. Four years ago, officials had projected the shift would come in 2050. This shift can already by seen in several U.S. states; currently, six states as well as the District of Columbia have minority populations that exceed 50 percent.

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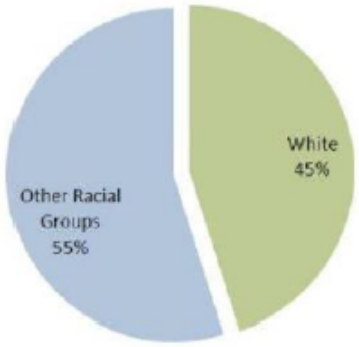
A Majority-minority US in 2042



Source: US Census Bureau

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The latest figures are predicated on current and historical trends, which demographers say can be reasonably expected to continue.

"What's happening now in terms of increasing diversity is unprecedented," said Campbell Gibson, a census demographer.

These shifts in demographic make-up will likely change the relative status of different racial groups in the United States. Experts following these trends agree that racial minorities will soon exceed their White counterparts' social status due to their increasing levels of political and societal influence. As these demographic shifts continue, these social gains are likely to continue for racial minorities.

Economic Threat Manipulation

In a Generation, Racial Minorities May Be the U.S. Majority

- By 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites.
- Experts following these trends agree that racial minorities will soon exceed their White counterparts' yearly earnings due to increasing competition for jobs and loans.

By S. Roberts

A new analysis of 2020 U.S. Census Bureau data suggests that America might become a White-minority nation faster than once predicted. The nation's racial minority population is steadily rising and currently makes up almost 40 percent of the United States. This advances an unmistakable trend that could make racial minorities the new American majority by midcentury, a transformation that is occurring much faster than anticipated just a few years ago.

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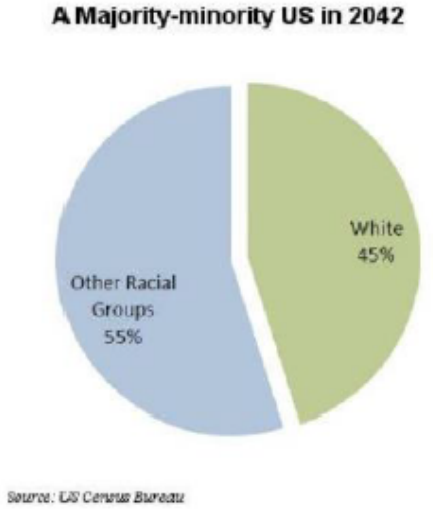

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These shifts in demographic make-up will likely change the relative economic statuses of different racial groups in the United States. Experts following these trends agree that racial minorities will soon exceed their White counterparts' yearly earnings due to increasing competition for jobs and loans. As these demographic shifts continue, these economic gains are likely to continue for racial minorities.

Existential Threat Manipulation

In a Generation, Racial Minorities May Be the U.S. Majority

- By 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites.
- Experts following these trends agree that declining birth rates among Whites, coupled with increased minority birth rates and interracial relationships will eventually cause the White race to disappear and be replaced by multiracial identities.

By S. Roberts

A new analysis of 2020 U.S. Census Bureau data suggests that America might become a White-minority nation faster than once predicted. The nation's racial minority population is steadily rising and currently makes up almost 40 percent of the United States. This advances an unmistakable trend that could make racial minorities the new American majority by midcentury, a transformation that is occurring much faster than anticipated just a few years ago.

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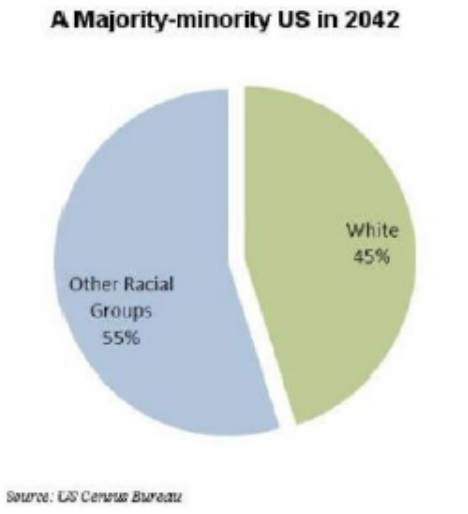

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Original Education Threat Manipulation

In a Generation, Racial Minorities May Be the U.S. Majority

- By 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites.
- Experts following these trends agree that racial minorities will soon exceed their White counterparts' educational attainment due to increasing competition for admission to colleges and universities.

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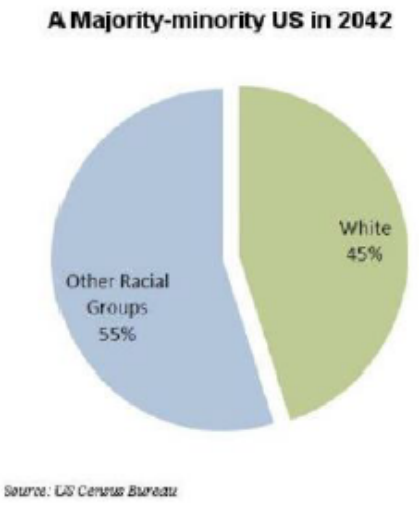

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These shifts in demographic make-up will likely change the relative educational attainment of different racial groups in the United States. Experts following these trends agree that racial minorities will soon exceed their White counterparts' educational attainment due to increasing competition for admission to colleges and universities. As these demographic shifts continue, these educational gains are likely to continue for racial minorities.

Final Education Threat Manipulation

In a Generation, Racial Minorities May Be the U.S. Majority

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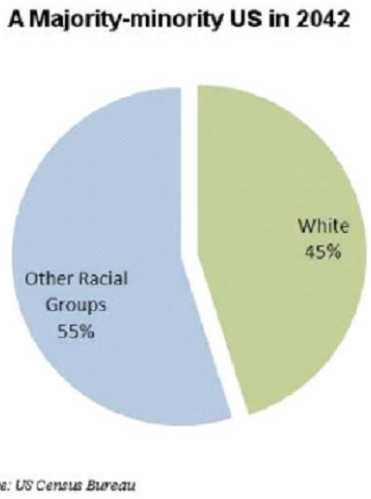

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Prototypicality Threat Manipulation

In a Generation, Racial Minorities May Be the U.S. Majority

- By 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites.
- Experts following these trends agree that racial minorities will soon surpass their White counterparts in becoming the prototypical, or model, American due to their increasing representation in the population.

By S. Roberts

A new analysis of 2020 U.S. Census Bureau data suggests that America might become a White-minority nation faster than once predicted. The nation's racial minority population is steadily rising and currently makes up almost 40 percent of the United States. This advances an unmistakable trend that could make racial minorities the new American majority by midcentury, a transformation that is occurring much faster than anticipated just a few years ago.

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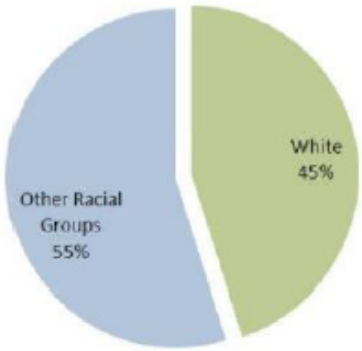
A Majority-minority US in 2042



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The latest figures are predicated on current and historical trends, which demographers say can be reasonably expected to continue.

"What's happening now in terms of increasing diversity is unprecedented," said Campbell Gibson, a census demographer.

These shifts in demographic make-up will likely change the image of who is an American. Experts following these trends agree that racial minorities will soon surpass their White counterparts in becoming the prototypical, or model, American due to their increasing representation in the population. As these demographic shifts continue, racial minorities are more likely to represent the American identity.

Assuaged Threat Manipulation

In a Generation, Racial Minorities May Be the U.S. Majority

- By 2042, Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites.
- Experts following these trends agree that White Americans are expected to continue to have higher average levels of education, income, and political and social power compared to members of other racial groups.

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A new analysis of 2020 U.S. Census Bureau data suggests that America might become a White-minority nation faster than once predicted. The nation's racial minority population is steadily rising and currently makes up almost 40 percent of the United States. This advances an unmistakable trend that could make racial minorities the new American majority by midcentury, a transformation that is occurring much faster than anticipated just a few years ago.

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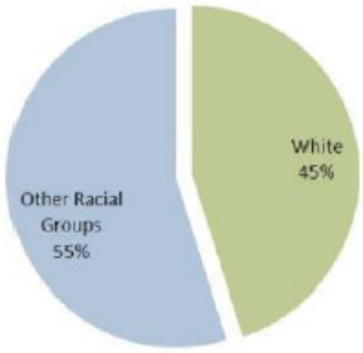

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The latest figures are predicated on current and historical trends, which demographers say can be reasonably expected to continue.

"What's happening now in terms of increasing diversity is unprecedented," said Campbell Gibson, a census demographer.

These shifts in demographic make-up will likely not change the overall status of White Americans in the United States. Experts following these trends agree that White Americans are expected to continue to have higher average levels of education, income, and political and social power compared to members of other racial groups. Despite the numerical shift, racial groups' relative positions in society are likely to remain the same as they are now

Appendix E: Bayesian Analyses Conducted for Study 2b

Table E1

Bayesian ANCOVA of Threat Condition and Political Identity Predicting White Nationalism Beliefs in Study 2b.

Models	P(M)	P(M|data)	BF_M	BF_{01}	Error %
Null Model	.25	1.34e-29	4.02e-29	1.00	
Condition	.25	.99	309.36	1.35e-29	.01
Political ID	.25	5.04e-32	1.51e-31	265.66	.10
Condition + Political ID	.25	.01	.03	1.39e-27	.81

Table E2

Bayesian ANCOVA of Threat Condition and Political Identity Predicting Outgroup Restricting Policy Support in Study 2b.

Models	P(M)	P(M|data)	BF_M	BF_{01}	Error %
Null Model	.25	1.05e-61	3.15e-61	1.00	
Condition	.25	6.87e-64	2.06e-63	152.93	.08
Political ID	.25	.97	109.63	1.08e-61	.01
Condition + Political ID	.25	.03	.08	3.94e-60	1.58

Appendix F: Study 1 and 2b Materials

Recruitment

Study Name: Social and Political Change Survey

Study Description: This research study investigates people's attitudes and opinions regarding recent social and political issues in the United States. Your participation will involve completing a survey regarding your attitudes and opinions about a recent news article, racial issues, government policy, cultural change, and demographic information about yourself (e.g., gender, race/ethnicity, age).

Informed consent process

Statement of Consent from the Subject:

I have read the above information. I have had all my questions and concerns answered. By completing the survey you are indicating your consent to be in the research.

Click 'I agree to participate' if you wish to continue to the survey.

- ○ I agree to participate
- ○ I do not wish to participate

Page capturing Prolific ID

Before you start, please remove or turn off any possible distractions so you can focus on this study. Thank you!

Please enter your Prolific ID:

_____

Demographics section

What is your age (i.e., 37)?

_____

Which of the following do you identify with most?

- ○ Female
- ○ Male
- ○ Non Binary

- ○ Not listed (specify): _____

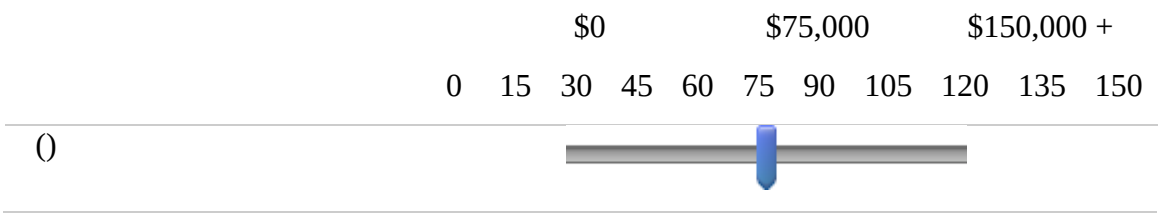
Which of the following best describes you?

- ○ Alaskan Native / American Indian / Indigenous
- ○ Black/African
- ○ East Asian
- ○ Hispanic / LatinX
- ○ Middle Eastern / North African
- ○ Native Hawaiian / Pacific Islander
- ○ South Asian / Southeast Asian
- ○ White
- ○ Not listed (specify): _____

How important is your race to your identity?

- ○ Not at all important
- ○ Slightly important
- ○ Moderately important
- ○ Very important
- ○ Extremely important

What is your household's annual income?
The slider represents $1,000 increments (e.g., "23" = $23,000). Move the slider until the number in the box best represents your annual income in 2020 **in thousands of dollars**. If above $150,000, just select "150".



What is the highest level of education you have achieved?

- ○ Less than a high school degree
- ○ High school degree of GED
- ○ Some college
- ○ 2 year degree / Associates degree / Trade school or license
- ○ 4 year degree (BA or BS)
- ○ Masters degree or Professional degree
- ○ Doctorate (e.g., MD, PhD)

How would you characterize your political views overall?

- ○ Very liberal
- ○ Liberal
- ○ Slightly liberal
- ○ Centrist / moderate
- ○ Slightly conservative
- ○ Conservative
- ○ Very conservative

Article Manipulation

- **Study 1:** Demographic shift vs control
- **Study 2b**:
  - Status Manipulation
  - Economic Manipulation
  - Existential Manipulation
  - Education Manipulation
  - Prototypicality Manipulation
  - Assuaged Manipulation

Please answer the following questions about the article you just read.

Which of the following statements best describes the topic of the article you just read?

- ○ Racial demographic changes are occurring in the U.S.
- ○ Geographic mobility is increasing with people moving to suburbs

- ○ The new presidential administration has made economic policy changes
- ○ Solar, wind, and other clean energy sources are increasing in popularity

How interesting was the article you read?

- ○ Not interesting at all
- ○ Slightly interesting
- ○ Moderately interesting
- ○ Very interesting
- ○ Extremely interesting

How much do you trust the author of the article?

- ○ Not at all
- ○ A little bit
- ○ A moderate amount
- ○ A lot
- ○ Completely

[only included in Study 1] Think about the article you read.
Do you think there will be consequences from the changes you read about?
If so, what do you think those consequences will be? How would the U.S. change as a result?
If not, why won't these changes matter?

Start of Block: Threats

You will now be asked questions regarding your opinions and attitudes towards recent political and social issues and commentaries in the United States.

Please give your honest opinion on these recent political and social issues and commentaries. (-3, *strongly disagree* — 0, *neither disagree nor agree* — +3, *strongly agree*)

1. If racial/ethnic minorities increase in numbers, it will lower the status of Whites in America.
2. Racial/ethnic minorities have too much influence in American society.
3. Racial/ethnic minorities are gaining too much political power in the United States.
4. Whites hold too many positions of power in the United States.
5. Racial/ethnic minorities are taking economic opportunities away from Whites in America (e.g., jobs, loans).
6. Racial/ethnic minorities are taking jobs away from Whites.
7. Racial/ethnic minorities have fewer economic opportunities in America compared to Whites.
8. Social services have become less available to Whites because of racial/ethnic minorities.

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9. I am fearful for my safety when I am near racial/ethnic minorities.
10. The vast majority of racial/ethnic minorities are law abiding citizens.
11. Racial/ethnic minorities make communities less safe.
12. Racial/ethnic minorities threaten law and order in the United States.
13. Whites will remain the dominant group in America for a very long time.
14. It is likely that the White race won't exist in the future.
15. The existence of the White race is in jeopardy.

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16. Racial/ethnic minorities make it harder for Whites to get into good schools.
17. Schools spend too many resources on their racial/ethnic minority students.
18. White students are given better educational opportunities compared to racial/ethnic minority students.
19. The education system benefits racial/ethnic minorities more than Whites in America.
20. Racial/ethnic minorities pose a threat to what it means to be American.
21. Racial/ethnic minorities do not represent the American identity.
22. Racial/ethnic minorities make positive contributions to the American identity.
23. Due to demographic changes, I fear that in the future it won't be clear what it means to be American.
24. Racial/ethnic minorities do not have the same work ethic as most Americans.
25. Racial/ethnic minorities don't respect American culture.
26. Racial/ethnic minorities violate traditional American family values.
27. Cultural diversity makes the United States stronger.

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28. Racial/ethnic minorities contribute to the moral decline in American society.
29. Racial/ethnic minorities do not adhere to American moral standards.
30. Racial/ethnic minorities have lower moral standards than Whites in America.
31. Racial/ethnic minorities live by the same moral standards as Whites in America.
32. In America, please select 'Somewhat agree' if you are paying attention.

Start of Block: White Nationalism

1. Multiculturalism is the biggest threat to White America.
2. I am sympathetic to organizations/groups that bring attention to White concerns.
3. White American culture is what makes this country great.
4. One of the problems with America is the decline of Whiteness.
5. In order to maintain White status, it is sometimes necessary to use violence towards racial/ethnic minority groups.

Start of Block: Policies

1. In order to deter illegal immigration, the government should separate immigrant children from their parents.
2. The U.S. government should unconditionally ban immigrants from countries deemed dangerous.
3. The amount of foreign immigration from Latin America to the United States should be increased.
4. The amount of foreign immigration from Europe to the United States should be increased.
5. Legal immigrants should have full access to jobs and resources (e.g., education, healthcare) when they arrive in the United States.
6. Immigrants to the United States should be required to speak English.
7. Increasing police patrols in racial/ethnic minority communities is necessary to lower crime.
8. The government should spend more money on schools in racial/ethnic minority neighborhoods.
9. The government should use the military to control rallies/protests that promote racial/ethnic minority causes (e.g., Black Lives Matter).
10. Employers should take extra steps to diversify their employees when making hiring and promotion decisions.

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11. Schools should teach the history of racial/ethnic minority groups in America to the same degree as White history.
12. The government does not owe special treatment to racial/ethnic minorities for discrimination their racial group experienced in the past.

Appendix G: Study 2a Survey

Recruitment

Study Name: Social and Political Change Survey

Study Description: This research study investigates people's opinions regarding recent social and political issues in the United States. Your participation will involve completing a survey regarding your opinions about a recent news article and demographic information about yourself (e.g., gender, race/ethnicity, age).

Informed consent process

Statement of Consent from the Subject:

I have read the above information. I have had all my questions and concerns answered. By completing the survey you are indicating your consent to be in the research.

Click 'I agree to participate' if you wish to continue to the survey.

- ○ I agree to participate
- ○ I do not wish to participate

Page capturing Prolific ID

Before you start, please remove or turn off any possible distractions so you can focus on this study. Thank you!

Please enter your Prolific ID:

_____

Demographics section

What is your age (i.e., 37)?

_____

Which of the following do you identify with most?

- ○ Female
- ○ Male
- ○ Non Binary

- ○ Not listed (specify): _____

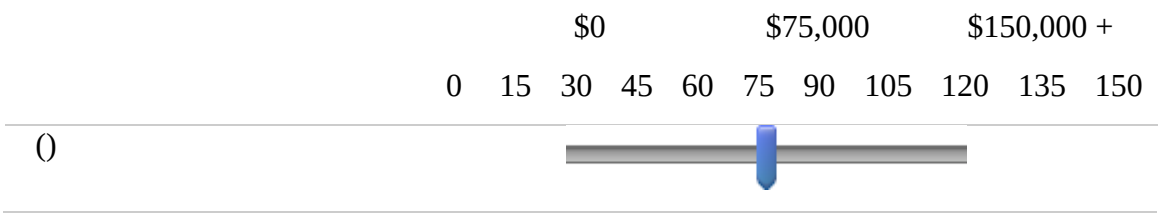
Which of the following best describes you?

- ○ Alaskan Native / American Indian / Indigenous
- ○ Black/African
- ○ East Asian
- ○ Hispanic / LatinX
- ○ Middle Eastern / North African
- ○ Native Hawaiian / Pacific Islander
- ○ South Asian / Southeast Asian
- ○ White
- ○ Not listed (specify): _____

How important is your race to your identity?

- ○ Not at all important
- ○ Slightly important
- ○ Moderately important
- ○ Very important
- ○ Extremely important

What is your household's annual income?
The slider represents $1,000 increments (e.g., "23" = $23,000). Move the slider until the number in the box best represents your annual income in 2021 **in thousands of dollars**. If above $150,000, just select "150".



What is the highest level of education you have achieved?

- ○ Less than a high school degree
- ○ High school degree of GED
- ○ Some college
- ○ 2 year degree / Associates degree / Trade school or license
- ○ 4 year degree (BA or BS)
- ○ Masters degree or Professional degree
- ○ Doctorate (e.g., MD, PhD)

How would you characterize your political views overall?

- ○ Very liberal
- ○ Liberal
- ○ Slightly liberal
- ○ Centrist / moderate
- ○ Slightly conservative
- ○ Conservative
- ○ Very conservative

Manipulations (one of these six are presented):

- **Status Manipulation**
- **Economic Manipulation**
- **Existential Manipulation**
- **Education Manipulation**
- **Prototypicality Manipulation**
- **Assuaged Manipulation**

Please answer the following questions about the article you just read.

Which of the following statements best describes the topic of the article you just read?

- ○ Racial demographic changes are occurring in the U.S.
- ○ Geographic mobility is increasing with people moving to suburbs

- ○ The new presidential administration has made economic policy changes
- ○ Solar, wind, and other clean energy sources are increasing in popularity

How interesting was the article you read?

- ○ Not interesting at all
- ○ Slightly interesting
- ○ Moderately interesting
- ○ Very interesting
- ○ Extremely interesting

To what extent did the article suggest that minorities threaten... (0, *not at all — 4*, *Extremely*)

1. ...White Americans' status in the United States
2. ...White Americans' economic prosperity
3. ...White Americans' existence as a racial category
4. ...White Americans' access to top quality education
5. ...White Americans being seen as the typical American