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The State of the Union: Contemporary Interminority Attitudes in the United States

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**Abstract**

An emerging body of work examines relations among marginalized groups, presupposing that interminority interactions display increased levels of animosity or compassion as compared to majority-minority processes. The current paper compares interminority and majority-minority attitudes in a nationally-representative dataset, finding that racial, sexual, and gender minority groups express similar or more favorable attitudes and political support toward a minority outgroup. Experimental follow-ups explore conditions leading to more positive interminority interactions, finding that primes of similarity facilitate increased support toward a minority outgroup. A final minimal-pairs design explores the role of comparative disadvantage in these processes, suggesting that increased interminority support does not extend to a minority target group that is more privileged than the ingroup. Theoretical and empirical implications are addressed.

### The State of the Union: Contemporary Interminority Attitudes in the United States

Little is known about relations among marginalized groups, as the bulk of intergroup relations research has focused on a majority group and a minority counterpart, such as Whites and racial minorities in the United States or Jewish Israelis and Palestinians (Dovidio, Gaertner, & Saguy, 2009; Philip, Mahalingham, & Sellers, 2010; Simon, Aufderheide, & Kampmeier, 2001), or on artificial groups created by minimal pair criteria in a lab setting (see Tajfel & Turner, 1979). An emerging body of literature has acknowledged the lack of empirical work and theory on intergroup processes among minority groups, advocating for more research on this topic (Al Ramiah, Hewstone, Little, & Lang, 2013; Glasford & Calcagno, 2012; Hindriks, Verkuyten, & Coenders, 2014; Philip, Mahalingham, & Sellers, 2010; Richeson & Craig, 2011; White, Schmitt, & Langer, 2006). The study of multiple low status/low power social groups is essential to a comprehensive theoretical understanding of multigroup relations (Al Ramiah et al., 2013), as relations among multiple groups that are low in power or status may differ from majority-minority relations, in which one group is comparatively higher in power or status. Studies of multiple marginalized groups provide an opportunity to test existing theories about intergroup relations in a novel context (Hindriks et al., 2014). Furthermore, interminority relations are increasingly relevant. As the United States grows in diversity, more intergroup contact occurs among minority groups, making it important to understand processes among these groups (Richeson & Craig, 2011). Many countries, cities, and neighborhoods are experiencing demographic shifts toward a majority-minority composition, such that racial and ethnic minority groups cumulatively outnumber the majority group, making an understanding of multigroup processes beyond the Black-White dichotomy both relevant and timely (Al Ramiah et al., 2013; Hindriks et al., 2014). In addition to expanding the psychological literature, understanding

drivers of interminority conflict and solidarity will aid policy-makers interested in improving intergroup relations and activists and community groups interested in coalition building.

Faced with the lack of a theoretical framework, two competing predictions have developed to characterize interminority relations. As early as 1954, Allport articulated these contradictory hypotheses, stating that the experience of marginalization could lead minority groups to become hyper-prejudiced in an attempt to gain power and status, or, to the contrary, that the experience of marginalization could lead victims of prejudice to develop compassion for other oppressed groups (Allport, 1954). These conflicting predictions have reappeared more recently (Craig & Richeson, 2016; Moses, 1985) and have even played out in the popular media, as news sources detail accounts of strife between racial minority groups such as Blacks and Latinos (Cummings & Lambert, 1997), reinforcing the popular idea of intense discrimination between minority groups. Stories of interminority coalitions, however, such as that of Blacks and Jews during the American Civil Rights Movement, have also become salient (Vollhardt, 2015). Recent theory has speculated on drivers of discrimination and solidarity, highlighting the roles of similarity and common identities of stigma (see Craig & Richeson, 2016), but these proposed mechanisms have yet to be tested. Currently, it remains unclear whether, in the absence of experimental manipulations, interminority attitudes are characterized by increased prejudice or increased tolerance. In fact, there is no definitive consensus that interminority conflict differs from majority group conflict with minority groups.

The existing literature on interminority relations is comprised of studies across social science disciplines, drawing from a variety of theories with contradictory predictions about whether relations among marginalized groups are characterized by increased or decreased conflict. Evidence for increased interminority solidarity comes from frameworks of similarity

and shared identity. Theoretical work on collective victimization suggests that the experience of oppression can lead group members to form a shared victim identity with similarly victimized outgroups (Vollhardt, 2015). This idea is similar to the Common Ingroup Identity Model (CIIM), which suggests that providing a shared, superordinate identity leads to more favorable intergroup relations (Gaertner et al., 1993). This paradigm has been successfully applied to the interminority context (Glasford & Calcagno, 2012; Hindriks et al., 2014), and informs Craig's and Richeson's (2016) suggestion that a shared identity of stigma can lead to more favorable interminority relations. Interminority similarity appeared as a predictor of intergroup liking in survey research on immigrant groups in the Netherlands, which found that minority racial/ethnic groups felt more favorable towards a similar minority outgroup than a dissimilar one (Hindriks et al, 2014). In lab studies, Latinos reported increased solidarity with Blacks when given a shared ingroup identity of racial minority (Glasford & Calcagno, 2012), further suggesting the role of a common identity in generating favorable interminority attitudes. Similarly, Latino and Asian American participants who were primed with discrimination against their ingroup later expressed more positive views toward Black people, likely due to the perceived similarity in experiences of racial discrimination (Craig & Richeson, 2012). Notably, this work by Hindriks et al. (2014) and Glasford and Calcagno (2012) operationalized similarity as shared values and shared fate, while Craig and Richeson (2012) defined similarity beliefs as a spontaneous process that resulted from similar experiences with discrimination. The differential effects of these various conceptualizations of similarity are unknown.

Evidence for the opposite prediction of increased negativity among minority groups springs from frameworks of competition and threat. Competition for status and physical resources, such as jobs and housing, appears as a major predictor of interminority conflict in

sociological and political science frameworks (Alozie & Ramirez, 1999; Gay, 2006; Johnson & Oliver, 1989; Kauffmann, 2003; Sanchez, 2003), mapping onto the idea of realistic group conflict theory (Campbell, 1965; Sherif & Sherif, 1953), which suggests that competition over scarce resources leads to conflict. Gay (2006) nuanced the discussion of interminority competition, finding that Black respondents indicated antagonism toward Latinos only when relatively economically disadvantaged compared to Latino neighbors, suggesting the importance of relative deprivation (Merton & Kitt, 1950) in processes of interminority competition. Objective factors such as population size and demographic shifts alone were not enough to generate antagonism, but rather subjective feelings of disadvantage in comparison to an outgroup generated antipathy. In other words, intergroup competition over limited resources must be both present and salient in order to generate negative interminority attitudes. This conclusion is further supported by experimental evidence that minority group members treated each other more harshly when a majority outgroup member was present, in order to avoid or deflect the majority group's derogation (Shapiro & Neuberg, 2008). In such cases, interminority antagonism did not appear until competition for the majority group's approval was introduced to the situation.

Identity threat (Branscombe, Ellemers, Spears, & Doosje, 1999) has emerged as another predictor of interminority conflict. Experimental evidence has found that the threat resulting from a reminder of sexism caused White women to rate racial minorities more harshly (Craig, DeHart, Richeson, & Fiedorowicz, 2012), while reminding Black and Latino study participants of racial discrimination caused them to express more negative attitudes toward sexual minorities (Craig & Richeson, 2014). In these cases, when a minority group member felt that his/her identity was threatened, he/she reacted with increased antipathy toward a minority outgroup.

These findings suggest that threats to the minority ingroup's positive identity, in addition to outright competition, can trigger antipathy toward a minority outgroup.

The above findings are controversial, however, as related research has refuted the idea of increased antagonism stemming from competition among minority groups. Survey data from the late 1990s, for example, found that African Americans' racial prejudice toward Hispanic and Asian Americans did not differ from Anglo American racial prejudice toward these groups, despite frequent media reports of African American bias against other racial minority groups (Cummings & Lambert, 1997). Similarly, McClain and Tauber (1998) found no evidence for political competition and inconclusive evidence for economic competition among Black and Latinx people in urban areas with high populations of both groups. It is possible that the idea that minority groups are hyper-prejudiced springs from majority group members' expectation that members of marginalized groups should show increased tolerance toward another stigmatized group. This expectation led majority groups to judge minority appraisals harshly when they did not confirm to this expectation of increased tolerance (Fernández et al., 2014). Such a belief would make instances of interminority discrimination surprising, and therefore salient, to majority-group member observers.

### **Current Study**

Existing research has not compared minority-minority relations to minority-majority relations (see Cummings & Lambert, 1997 for one exception), leaving it ambiguous how interminority processes resemble or depart from better-understood minority-majority intergroup processes. Without an understanding of how interminority attitudes compare to majority attitudes toward a minority outgroup, it is difficult to contextualize existing findings. Information about the processes driving interminority relations is also scarce. Competition and similarity have



emerged as potential predictors of interminority attitudes, but it remains unclear which factor exerts a larger influence on interminority relations. Similarly, present theory does not account for contextual effects on these mechanisms. In the present study, we address these concerns by examining whether minority-minority appraisals differ from majority-minority appraisals in a nationally-representative sample, and if so, if they are characterized by increased or decreased bias. We further examine the roles of similarity perceptions in generating positive interminority attitudes. We delve into mechanisms that drive interminority relations, contrasting the effects of three different types of similarity on interminority appraisals in an experimental study. Finally, we examine the effect of disadvantage on competition and similarity perceptions, and how these factors interact to drive attitudes toward marginalized outgroups in a minimal pairs paradigm.

### **Study 1**

The goal of study 1 was to determine baseline interminority attitudes in the United States in order to address the question of whether interminority relations are characterized by increased strife or solidarity than majority-minority relations, in the absence of experimental manipulations. Using the General Social Survey, we examined the attitudes of racial minority groups, sexual minorities, and women towards each other. These groups appear most frequently in the interminority literature, and were available in our sample in sufficient numbers for analysis. We measured two types of attitudes toward a minority outgroup. First, we examined social distance, or the extent to which the respondent wishes to avoid contact with members of a specific outgroup (Bogardus, 1925). Social distance is a reliable and valid measure of ethnic attitudes, and has been applied to previous work on interminority relations (Hindriks et al, 2014; Verkuyten, Hagendoorn, & Masson, 1996). Attitudes toward an outgroup are not synonymous with actual treatment of this outgroup (Dovidio et al., 2010). In fact, there is ample evidence for

a “principle-implementation gap,” such that attitudes do not necessarily correlate with support for policies designed to aid an outgroup (Dixon, Durrheim, & Tredoux, 2007). In light of this gap, we examined not only attitudes, but also expressed support for policies to extend equality toward a minority outgroup.

## **Method**

**Data.** Data came from the 2014 General Social Survey (GSS; Smith, Marsden, Hout, & Kim, 2015) conducted by the National Opinion Research Center (NORC) at the University of Chicago. This biannual, nationally representative survey asked a variety of questions about social attitudes and behaviors. In-person interviews were administered to a randomly selected, nationally representative sample of approximately 4,000 Americans over the age of 17 (Taylor & Reyes, 2014). Each question was asked of a random subset of respondents in selected waves (Wodtke, 2012) such that every year, each outcome variable contained planned missing data. Details of the sampling plan are available in the General Social Surveys 1972-2014: Cumulative Codebook (Smith et al., 2015). Our sample included a total of 3842 respondents (demographics in Table 1).

**Measures.** We examined a total of six outcome variables, representing attitudes toward, and policy support for, Blacks, Hispanics, Asians, Women, and non-heterosexuals. Three outcome variables assessed social distance with the question of how the respondent would feel if a close relative married someone who was Black, Hispanic, or Asian. Responses were measured on a 5 point Likert-type scale ranging from 1 = *Strongly Opposed* to 5 = *Strongly in Favor*. A comparable item with Whites as the target group was included for reference (see Table 2). We also examined three variables assessing support for policies to benefit a minority group: affirmative action for Blacks, affirmative action for women, and marriage equality. All outcomes

were measured on a four item Likert-type scale, with responses ranging from 1 = *Strongly Oppose*, through 4 = *Strongly Support*.

Race (Black, Asian American, Hispanic, White), gender, and sexuality served as predictors of attitudes toward each target minority outgroup. Dummy coded variables were created to represent White ( $N = 2892$ ), Black ( $N = 584$ ), Asian ( $N = 109$ ), and Hispanic ( $N = 156$ ) racial groups. These values were determined by respondents' selection of their primary racial/ethnic identification. White, Black, and Hispanic were all options on the original survey. We use these labels here to refer to each respective racial/ethnic group to maintain consistency with the terms used in the survey script. The "Asian" group combined respondents who identified as East Asian, Southeast Asian, Indian, Hawaiian, and Pacific Islander. Remaining racial groups (Native American, Alaskan native, and Other) were grouped together in an "other race" variable, which was kept in our models to avoid any bias that would result from dropping it, but was not discussed due to its small membership and lack of conceptual clarity. Sexuality also served as a predictor variable. Respondents who identified as lesbian, gay, or bisexual were categorized into an "LGB" variable ( $N = 158$ ) as contrasted to those respondents who identified as heterosexual ( $N = 3401$ ). Respondents' sex was also included as a predictor variable ( $N = 2127$ , 55.4% female).

Attitudes toward a minority outgroup can stem from a host of factors other than minority group membership, including wealth, education level, political ideology, authoritarianism, and region of residence. Our goal was to understand as clearly as possible how minority groups evaluated each other in the real world. In keeping with our descriptive intent, we looked at our outcome variables using only group membership as a predictor, rather than adjusting for other factors. We did not expect minority group membership to explain all variation in attitudes toward

a minority outgroup. Rather, we examined how minority status was broadly associated with attitudes toward a minority outgroup, for the purposes of furthering a basic understanding of interminority relations in the United States. Following a similar logic, we did not exclude respondents who were members of multiple minority groups (i.e. Black women). Rather, we included these respondents in both predictor groups, as they are full members of both groups, and membership in one marginalized group does not preclude membership in another. We avoided the theoretical problem of double counting by comparing the group in question to only one majority outgroup at a time (ie all women are compared to all men, all Black respondents are compared to all White respondents, and Black women are not compared to White women; comparisons are within one category of race, gender, or sexual orientation).

**Analytic Plan.** We first ran basic descriptive analyses in SPSS on the mean attitudes of each predictor group. We then calculated the Hedge's  $g$  effect sizes of these mean differences. Hedge's  $g$  is a correction to the Cohen's  $d$  test for comparing groups of unequal size that uses pooled standard errors weighted by each group's sample size (Ellis, 2009; Lakens, 2013). We then conducted a linear regression on each outcome variable in Mplus to assess the associations between attitudes toward a minority outgroup and the binary predictors of being female as compared to male, being a sexual minority as compared to heterosexual, and being a racial minority (Black, Hispanic, or Asian) as compared to White. These regressions revealed how the attitudes of racial minorities differed from those of Whites, how women's attitudes differed from men's, and how LGB-identified respondents' attitudes differed from the attitudes of straight-identified respondents.

Each outcome variable contained planned missing data. We used the sampling weight provided in the GSS data set to account for planned missingness (Smith et al., 2015, Appendix

A). With the application of this weight, data generalize to be nationally-representative. We specified a Montecarlo integration algorithm in Mplus to address the predictor variables with missing data (Mplus FAQ, 2016; Muthén & Muthén, 2012). In addition to the planned missingness, some variables contained low levels (2-3%) of unplanned missing data. Because the levels of unplanned missingness were low, we addressed unplanned missing data with an MLR (maximum likelihood with robust standard errors) estimation method (Muthén & Muthén, 2012), which is used to obtain robust estimates with missing data (Muthén, 2012; Newsom, 2015).

## Results

Means and effect size information appears in Table 3. Similar to Cohen's  $d$ , a Hedge's  $g$  value of .2 can be considered a small effect, while .5 is a medium effect and .8 is a large effect (Lakens, 2013). Our basic descriptive information reveals that Blacks and Hispanics were more favorable than Whites toward a minority outgroup on all issues except for marriage equality, an issue on which they were slightly less positive. Asians and Whites expressed similar attitudes toward a minority outgroup, but Asians reported noticeably higher support than Whites for policies to support Blacks and women, and slightly higher support for marriage equality. Women were slightly more favorable than men toward a minority outgroup on all counts, while non-heterosexuals were slightly more favorable than heterosexuals toward a minority outgroup on all issues except for affirmative action for women, for which their expressed support was equal to that of the majority group.

Our regression results reinforced this descriptive pattern (Table 4). In discussing our regression results, we viewed Beta values of .05 or greater as interesting. Although small in the context of experimental data, given our large sample, these effect sizes were reliable. We view them as noteworthy given their appearance in simple survey data, with no prompts or

experimental manipulations to elicit these effects. Many factors can determine answers outside an experimental setting. The fact that group membership reliably influenced answers, if only to a small extent, is therefore interesting. Our research questions concerned both the existence and magnitude of attitude differences among minority groups. As such, we examined small but consistent intergroup differences, as they indicate a real world difference. We were equally interested in patterns of effects as in the effects themselves. An effect of .05, or 1/20<sup>th</sup> of a standard deviation from the mean reported attitude, was large enough to merit attention, with effect sizes of .10, or 1/10<sup>th</sup> of a standard deviation, being of particular interest.

Blacks displayed more positive responses than Whites to the question of how they would feel if a close relative married someone from a racial outgroup,  $\beta = .14$  for support of marrying a Hispanic person, and  $\beta = .16$  in support of marrying an Asian person. Blacks were more supportive than Whites of affirmative action for women,  $\beta = .25$ , but less supportive of gay marriage than Whites were,  $\beta = -.10$ . Hispanics also displayed more positive responses than Whites toward all minority outgroups in our sample, but to a lesser extent than Blacks did. As compared to Whites, Hispanics indicated slight increases in support for marrying a Black person,  $\beta = .09$  and for marrying an Asian person,  $\beta = .05$ , and increased support for affirmative action for Blacks,  $\beta = .09$  and for women,  $\beta = .14$ . Support for marriage equality did not differ from that of the majority group,  $\beta = -.02$ . Asians' attitudes toward a minority outgroup mirrored Whites' attitudes,  $\beta = -.01$  for support of marrying a Black person and  $\beta = -.01$  for support of marrying a Hispanic person, but Asians were somewhat more supportive than Whites of affirmative action for Blacks and for women,  $\beta = .06$  and  $\beta = .10$ , respectively. Support for marriage equality was similar to that of Whites,  $\beta = .03$ .

Women were more positive than men toward all racial minority groups in the sample,  $\beta = .08$  for support of marrying a Black person,  $\beta = .08$  for support of marrying a Hispanic person, and  $\beta = .07$  in support of marrying an Asian person. Women were slightly more positive than men toward marriage equality,  $\beta = .08$ , but did not indicate increased support for affirmative action for Black people,  $\beta = .02$ . Sexual minorities displayed similar but slightly more positive attitudes toward racial minority groups than heterosexuals did,  $\beta = .04$  for support of marrying a Black person,  $\beta = .05$  for support of marrying a Hispanic person, and  $\beta = .04$  in support of marrying an Asian person. Sexual minorities did not indicate increased support of affirmative action for Black people or women,  $\beta = .03$  and  $\beta = -.01$ , respectively.

### **Discussion**

In order to address the lack of empirical work in the field of interminority relations, we explored the longstanding question of whether minority groups treat minority outgroups with increased or decreased bias as compared to the majority outgroup. We examined relations among racial/ethnic minorities, sexual minorities, and women in a recent nationally-representative sample to contextualize past intergroup work by indicating how interminority relations differ from majority-minority relations. We found no evidence for the hypothesis that minority groups treat each other more harshly than the majority group does, and mixed evidence to support that minority groups treat each other more favorably. Racial minorities, sexual minorities, and women in our sample did not express more negative attitudes toward a minority outgroup than the majority group did. The one exception to this pattern was that Blacks and Hispanics expressed less support for gay marriage than Asians or their majority White counterpart did. These effects were small, however, and did not appear to be part of a larger pattern.

We found support for the hypothesis that minority groups express more favorable attitudes toward a minority outgroup than the majority group does. Blacks and Latinos showed more positive attitudes toward racial minority outgroups than the White majority group did, while Blacks, Hispanics, and Asians all showed more support for affirmative action for Blacks and women than the White majority group did. Sexual minorities displayed more positive attitudes toward racial minority outgroups and slightly increased levels of support for affirmative action for Blacks. Women were consistently more positive and supportive of racial and sexual minority groups, but these effects were quite small. Overall, these findings indicate that racial and sexual minorities and women displayed more favorable attitudes toward a racial minority outgroup, while racial minorities also expressed increased support for policies designed to benefit Blacks and women. Support for marriage equality was mixed, with Blacks and Hispanics showing slight decreases in support and Asians and women showing slightly elevated levels of support.

We did not find trends to differentiate attitudes from policy support, despite evidence that attitudes are often more favorable than policy support (Dixon, et al., 2007). For questions of both attitude and policy support, some minority groups were more positive than the majority group and some were equally positive, with no clear pattern to these differences. Due to constraints in our data, we were unable to assess attitudes as well as policy support toward women and sexual minorities. As a result, we cannot directly compare patterns of attitudes with patterns of policy support for all the groups in our sample. Overall, however, we do not find a meaningful difference in attitudinal liking and policy support.

Of interest is the finding that Blacks and Latinos showed the highest levels of support for racial minority outgroups. Blacks and Hispanics, arguably the groups in our sample that



experience the highest levels of racial and economic discrimination, and so face relative deprivation compared even to the other marginalized group in our sample, showed the most increased support for a marginalized outgroup. One possible explanation for increased positive attitudes comes from the suggestion that the most marginalized groups in a society most accurately perceive discrimination directed at themselves and at others (Sue et al., 2007). If these groups are indeed more aware of instances of prejudice, they may notice more of the prejudice directed at an outgroup, and this increased awareness may lead to more sympathy.

### **Study 2a**

Study 1 suggested that interminority attitudes are characterized by increased positivity as compared to majority/minority attitudes, but did not explore the mechanism for this discrepancy. As previously discussed, existing work points to similarity as the most likely mechanism (Craig & Richeson, 2016; Gaertner et al., 1993). Definitions of similarity have varied greatly in past studies, however. It has been defined as shared fate and shared values (Glasford & Calcagno, 2012; Hindriks et al., 2014), as an identity of shared stigma (Cortland et al., 2017; Craig & Richeson, 2016), or as an identity that forms spontaneously from reminders of discrimination experienced by the ingroup (Craig & Richeson, 2012). These different primes have not yet been compared within one study, leaving it ambiguous whether these different conceptualizations of similarity are equally effective at generating positive interminority appraisals. The comparative efficacy of these different primes has deep theoretical implications. Finding that similarity based on either an explicit prime of similarity based on stigma, or on an implicit reminder of past discrimination meant to elicit a shared identity of stigma, is most effective would lend support to recent theoretical work on the importance of stigma-based solidarity (Craig & Richeson, 2016). Alternatively, if a prime of similarity based on shared values is most successful, this finding

would indicate the presence of a common ingroup identity (ala Gaertner et al., 1993), and would call into question claims about the efficacy of a shared identity based on stigma specifically. A finding that a reminder of past experiences of discrimination leads to less positivity would support predictions of identity threat (Branscomb et al., 1999; Craig et al., 2012).

Study 2 sought to explore the role of similarity perceptions in building positive interminority relations by breaking similarity into three categories: similarity based on shared values (as in Glasford & Calcagno, 2012 and Hindriks et al, 2014), similarity based on shared experiences of stigma (as in Cortland et al., 2017 and Craig & Richeson, 2016), and similarity arising from reminders of discrimination faced by the ingroup (as in Craig & Richeson, 2012). Similarity based on shared values follows directly from the idea of a common ingroup identity (Gaertner et al., 1993), while similarity based on shared experiences of discrimination draws on theories of interminority relations and victimhood (Cortland et al., 2017; Craig & Richeson, 2016; Vollhardt, 2015). Reminders of experienced discrimination have had mixed results in the interminority domain. On the one hand, discrimination primes can evoke a common identity and feelings of similarity and empathy (see Craig & Richeson, 2012). On the other, they can spark identity threat that depresses outgroup support (Branscombe et al., 1999; Craig et al., 2012). Because of this potential for ironic effects of discrimination primes, we proposed that similarity based on both shared values and shared stigma would lead to greater increases in interminority solidarity than reminders of past discrimination. A prime of similarity based on past discrimination could also spark distinctiveness threat, but because this message explicitly references similarity, we predicted that it would be more effective than reminders of past discrimination, which suggest similarity only implicitly. As such, we categorized the first two

primes as explicit similarity conditions (shared values versus shared experience of prejudice) as opposed to the final condition, which provided a reminder of experienced discrimination.

### **Method**

Racial/ethnic minority respondents were recruited through Amazon Mechanical Turk to read an article about workplace discrimination and take a short survey about attitudes toward LGBT people. We chose to examine racial/ethnic minorities' appraisals of LGBT people in line with current paradigms in the field (see Craig & Richeson, 2014) and in order to address our incongruent finding from Study 1 in which Blacks and Hispanics were less supportive of LGBT rights. Participants then read one of three paragraphs about workplace discrimination (adapted from Major, Kaiser, O'Brien, & McCoy, 2007). These three paragraphs represented three different conditions, two focused on explicit reminders of similarity, and one with a reminder of past discrimination. The first similarity prime focused on shared values, and discussed shared workplace values between racial/ethnic minority and LGBT employees. The second similarity prime focused on stigma based similarity, discussing shared experiences of workplace discrimination among racial/ethnic minority and LGBT employees. The final prompt reminded participants of high levels of workplace discrimination experienced by their own group in an attempt to spark spontaneous feelings of similarity stigmatized outgroup (see Craig & Richeson 2012, 2014; Craig et al., 2012). Participants then responded to a battery of questions to indicate warmth, social distance, policy support, and perceived similarity toward LGBT people. After dropping participants who a) did not identify as heterosexual racial/ethnic minorities and b) failed attention checks about the experimental manipulation, we were left with 201 participants (32.3% female; 27.9% African American, 37.3% Asian American, 17.4% Latino, 6.5% multi-racial, and 11% other Person of Color; average Age = 32.45,  $SD = 9.16$ ).

**Measures.** Attitudes were measured with a feeling thermometer to rate how positively they felt about an outgroup on a scale of 0 (very negative) to 100 (very positive). This measure is common in intergroup and interminority research (Craig et al., 2012). A feeling thermometer difference score was also created by subtracting the feeling thermometer rating of LGBT people from the feeling thermometer rating of Racial/Ethnic minorities, the ingroup. This difference score represents a measure of intergroup bias, such that a score of zero represents an individual who rated his own group and the outgroup equally positively, while higher numbers represent more pronounced favoritism for the ingroup over the outgroup (Craig et al., 2012). Social distance was measured with a three item composite (example item: How would you feel about working on a project with a gay or lesbian boss),  $\alpha = .90$ , with responses ranging from 1 = *Very Uncomfortable* to 5 = *Very Comfortable*. Policy support for an outgroup was measured with a three item composite (example item: How much would you support hiring laws that protect job seekers from discrimination based on sexual orientation?),  $\alpha = .74$ , with responses ranging from 1 = *Strongly Oppose* to 5 = *Strongly Support*. Similarity perceptions were measured with the seven-point Inclusion of the Self in Others Scale (Aron, Aron, & Smollan, 1992), a paradigm which has been previously applied to measuring interminority similarity (Craig & Richeson, 2012).

## Results

Group means, standard deviations, and effect sizes key outcome variables are displayed in Table 5. Effect sizes corrected for attenuation (Borneman, 2012) are included as relevant. One-way ANOVAs on both feeling thermometer and feeling thermometer difference score suggested a small to medium effect of condition,  $\eta_p^2 = .022$  and  $\eta_p^2 = .038$  respectively, adjusting for participant gender, race, age, and religion. Participants in the two explicit similarity conditions

were more favorable toward LGBT people than in the experienced prejudice condition, Cohen's  $d = .36$  and Cohen's  $d = .17$ , respectively. This pattern was replicated in feeling thermometer difference scores, such that participants in the explicit similarity conditions displayed a smaller ingroup preference than participants in the experienced prejudice condition, Cohen's  $d = -.41$  for shared values and Cohen's  $d = -.43$  for shared prejudice. One-way ANOVAs adjusting for participant gender, race, age, and religion suggested that experimental condition explained only a small proportion of variation in policy support and social distance,  $\eta_p^2 = .01$  and  $\eta_p^2 = .008$ , respectively. While these models did not explain a large proportion of variance in outcome variables, effect sizes did suggest that social distance was lower (indicating more positive intergroup attitudes) in the two explicit similarity conditions as opposed to the experienced prejudice condition, Cohen's  $d = .21$  for shared values and Cohen's  $d = .22$  for shared prejudice. Inclusion of the Self in Others was associated with a medium amount of variance explained by condition,  $\eta_p^2 = .03$ . The similar values prime was associated with a small positive effect as compared to the experienced prejudice condition, Cohen's  $d = .19$ , while the similar experiences of prejudice prime was associated with a small negative effect as compared to the experienced prejudice condition, Cohen's  $d = -.20$ .

## **Discussion**

This study sought to explore the patterns of increased interminority solidarity indicated by the results of our secondary data analysis. In particular, we explored whether increased interminority solidarity stemmed from perceptions of similar values, similar experiences of discrimination, or reminders of experienced discrimination. Following Richardson (2011), we interpreted partial eta-squared values of .0099 as small, .0588 as medium, and .1379 as large. Partial-eta squared values indicated that explicit similarity primes versus reminders of

experienced discrimination did indeed explain a small to medium amount of variance in our major outcomes of feeling thermometer scores and difference scores and social distance.

Similarity based on shared values was comparable to, and sometimes slightly more successful than, similarity based on shared experiences of prejudice in generating positive outgroup opinions. Both explicit similarity primes were more successful at improving interminority appraisals than were reminders of discrimination experiences. Cohen's  $d$  values suggested that participants in the two explicit similarity conditions expressed lower social distance, more positive feeling thermometer ratings, and lower ingroup preferences than participants in the reminder of discrimination condition.

These findings could be driven by heightened positivity toward the outgroup in the similarity conditions, or by heightened ingroup preference in the reminder of prejudice condition. That is to say, feeling thermometer difference scores could result either from rating one's own group more favorably, or from rating the outgroup lower as a result of experimental condition. We suggest the later phenomenon for several reasons. First, condition effects in the feeling thermometer difference scores are more pronounced than effects in the feeling thermometer scores themselves, suggesting heightened ingroup ratings in the reminder of prejudice condition in addition to heightened outgroup ratings in the similarity conditions. Second, policy support, our only outcome variable that is concerned purely with the target outgroup, as opposed to addressing the relationship between ingroup and outgroup, is stable across all three conditions. This anomaly may indicate that group differences stem from changed feelings about the ingroup in the reminder of prejudice condition, rather than opinion change directed toward the outgroup in the similarity conditions. The lack of group differences in policy support may indicate that the group differences found in social distance and feeling thermometer scores are driven more by

self-aggrandizement in the reminder of prejudice condition than by increased support of the outgroup in the similarity conditions. The reminder of stigma in the experienced prejudice condition may have felt threatening to participants, causing them to respond with heightened positive appraisals of their own ingroup (see Branscombe et al., 1999). This account could also offer potential explanation for the finding that similarity perceptions, as measured by the Inclusion of the Self in the Other, were higher in the similar values and reminder of discrimination conditions than in the similarity based on stigma condition. The shared experience of prejudice condition may also have triggered distinctiveness threat, which could have exerted ironic effects by threatening group distinctiveness, thereby causing participants in this condition to rate themselves as less similar to the outgroup.

### **Study 2b**

In order to test this possibility of increased ingroup favoritism and to extend our findings to another population, we replicated study 2a, but this time asked White women to evaluate attitudes toward racial and ethnic minorities, another common paradigm in interminority research. (Craig et al., 2012). We also added a pure control condition in order to better assess the extent to which the three manipulations affected perceptions of similarity as represented by Inclusion of the Self in Others. Adding a control provides a baseline level of similarity and attitude scores, thereby enabling us to better interpret the effects of our manipulations on outgroup appraisals.

### **Method**

Similar to in Study 2a, 284 White women were recruited through Amazon Mechanical Turk to read an article about workplace discrimination and take a short survey about attitudes toward racial/ethnic minorities. Prompts were adapted from Study 2a to discuss sexism and

racism, as opposed to racism and anti-gay stigma. Additionally, a control prompt about workplace satisfaction was added. Participants then responded to the same battery of questions from Study 2a. After dropping participants who failed attention checks about the experimental manipulation, we were left with 284 White, female-identifying participants (average Age = 41.82,  $SD = 12.98$ ; 86.3% heterosexual, 8.8% bisexual, 4.2% gay/lesbian, .7% queer).

**Measures.** Measures were extended from Study 2a, with appropriate content modifications. Attitudes were measured with a feeling thermometer and feeling thermometer difference score as in study 2a. Social distance was again measured with a three item composite (example item: How would you feel about working on a project with a non-White boss),  $\alpha = .92$ . Response scale was changed from 1 = *Very Uncomfortable* to 7 = *Very Comfortable* in order to increase dispersion and combat possible ceiling effects. Support for an outgroup was measured with a three item composite (example item: How much would you support preferential hiring for racial/ethnic minority job seekers?),  $\alpha = .91$ , with response scale again extended from 1 = *Strongly Oppose* to 7 = *Strongly Support*. The Inclusion of the Self in Others remained the same as in Study 2a.

## Results

Group means and standard deviations of key outcome variables are displayed in Table 6. One-way ANOVAs adjusting for participant age, sexuality, and religion suggested that condition did not explain meaningful proportions of variance in feeling thermometer or feeling thermometer difference scores,  $\eta_p^2 = .003$  for both models. Despite this lack of predictive validity, group means of feeling thermometer difference scores suggest slightly lower ingroup preference in the shared values and experienced prejudice conditions, as compared to the control group, Cohen's  $d = -.09$  and Cohen's  $d = -.15$ , respectively, suggesting that the experimental



manipulations decreased ingroup favoritism. A one-way ANOVA adjusting for participant age, sexuality, and religion suggested a small to medium effect of condition on policy support,  $\eta_p^2 = .029$ . Mean support was higher in the shared prejudice and experienced prejudice conditions than in the control condition, Cohen's  $d = .55$  for shared prejudice and Cohen's  $d = .33$  for experienced prejudice. ANOVAs on social distance and Inclusion of the Self in Other indicated that condition did not explain meaningful proportions of explained variance,  $\eta_p^2 = .013$ , and  $\eta_p^2 = .009$ , respectively. Group differences did emerge for social distance in the similarity conditions, Cohen's  $d = -.31$  for shared values and Cohen's  $d = -.17$  for shared prejudice as compared to the control condition. Mean differences across groups suggested that Inclusion of the Self in Other was higher in the manipulations than in the control group, Cohen's  $d = .22$  for shared values, Cohen's  $d = 0.09$  for shared experience of prejudice, and Cohen's  $d = .17$  for experienced prejudice.

## **Discussion**

This study attempted to replicate and clarify findings from Study 2a that explicit similarity primes were more effective at increasing interminority positivity than reminders of past discrimination meant to target spontaneous judgments of similarity. Further, we added a control group to verify whether these results were due to increased ingroup favoritism among the experienced prejudice condition as opposed to increased positivity toward an outgroup in the similarity conditions. Presumably if ingroup favoritism were driving these effects, results among the experienced prejudice condition would differ from results among the control group, while if increased outgroup positivity drove the effects, the experienced prejudice group would resemble the control group, while the values among the similarity conditions would be higher than in the control group. Adding a control group provides context to interpret these results.

We replicated the findings of study 2a to a limited extent. Our analysis found that Inclusion of the Self in Other was lowest in the control group, suggesting that all three manipulations did indeed increase feelings of similarity to a minority outgroup. We were unable to clarify whether increased outgroup positivity or increased ingroup favoritism drove effects. Among White women, both similarity primes and the reminder of experienced prejudice increased policy support above levels in the control group. The same pattern appeared in analyses of the feeling thermometer and feeling thermometer difference scores, but with smaller effects. Puzzlingly, the similarity manipulations increased social distance over control levels. The reason for this discrepancy is unclear. Likely White women's evaluations of racial/ethnic minorities are simply not comparable to racial/ethnic minorities' evaluations of LGBT people, despite the popularity of both paradigms in the interminority research. Extant theory does not quantify criteria for inclusion in interminority research, and experimental work tends to use White women as a matter of convenience. It is possible that White women do not endorse a cohesive group identity, or do not endorse a minority or stigmatized identity to a great enough degree to self-categorize as a minority group. Stigma based on group identity membership may not be as salient among White women as among racial/ethnic minority respondents, and awareness of pervasive discrimination may be necessary to facilitate a shared minority identity. In light of earlier discussions of relative deprivation (Gay, 2006; Merton & Kitt, 1950), it is possible that a group must identify as relatively *more* disadvantaged in order to display higher levels of interminority similarity and, as a result, of support. This possibility begs the question of whether degree of disadvantage of the groups involved plays a role in interminority evaluations, a question we test in study 3.

### Study 3

Study 1 suggested that interminority attitudes are characterized by increased positivity as compared to majority/minority attitudes, and suggested that highly disadvantaged groups expressed the most positivity toward a minority outgroup. Studies 2a and b suggested that similarity perceptions, especially as triggered by explicit primes of shared values and shared experiences of stigma, play a key role in interminority relations, but failed to replicate from racial/ethnic minority respondents to White women. This discrepancy raised the question of the role of relative deprivation. In study 3, we explore the role of degree of disadvantage in order to determine if more disadvantage is predictive of more positive interminority relations. Building on the findings from our previous analyses, we proposed that more severe disadvantage would predict more positive attitudes toward a disadvantaged outgroup.

### **Method**

Participants were recruited through Amazon Mechanical Turk, ostensibly to play an online puzzle game. Participants were told that right answers on the puzzle task would earn points, and everyone who reached 100 points would be entered in a raffle for an Amazon gift card. They were then assigned to one of four teams, each of which was associated with a different number of starting points (red team = 10, yellow team = 20, green team = 30, blue team = 70 starting-points). Participants were informed of this point structure. We used this point system to manipulate degree of disadvantage. Participants saw several example puzzles, based on items drawn from Raven's Progressive Matrices (Raven, 1998). Participants were then asked to respond to questions before beginning game play, and were asked to rate social distance, support, competition, and similarity ratings toward a target outgroup team with a low starting point value (orange team = 20 starting-points). After dropping participants who failed an attention check

about which team they were on, we were left with 287 participants (34.3% female; 23.5% non-White; average Age = 34.59,  $SD = 10.41$ ).

**Measures.** Social distance was measured with a three item composite (example item: How would you feel about working with a member of this team on an unrelated task),  $\alpha = .60$ , with responses ranging from 1 = *Very Negative* to 5 = *Very Positive*, coded such that higher responses indicated more positive attitudes and lower social distance. Support for an outgroup was measured with a three item composite (example item: How much would you support giving an extra turn to members of this team),  $\alpha = .88$ , with responses ranging from 1 = *Strongly Oppose* to 5 = *Strongly Support*. Similarity perceptions were measured with two items (ex: How similar do you think you are to members of this team),  $r = .55$ , with responses ranging from 1 = *Very Different* to 5 = *Very Similar*. Competition perceptions were measured with two items (ex: To what extent do you feel you are "playing against" members of this team),  $r = .59$ , with responses ranging from 1 = *Not at All* to 5 = *Very Much*.

**Analytic Plan.** Means, Standard Deviations, and effect sizes were calculated for the support and social distance scores reported by each group. Results were also estimated with a general linear model univariate ANOVA in SPSS. Team memberships were treated as fixed factors to predict outgroup attitudes, measured by a social distance composite and a support composite. Helmert planned contrasts were calculated to determine the difference in means between each level of disadvantage and the following levels. Group means of similarity and competition were assessed in terms of effect size.

## Results

Group means and standard deviations of the outcome variables of social distance and support toward a disadvantaged outgroup are displayed in Table 7, along with descriptive

information on similarity and competition. A one-way ANOVA adjusting for participant gender, race, age, and SES suggested a medium effect of team membership on support,  $\eta_p^2 = .054$ . Mean support was higher in the 20 and 30 point groups than in the 10 and 70 point groups. The most disadvantaged group displayed the lowest levels of support for a disadvantaged outgroup, while the equally disadvantaged group and slightly less disadvantaged group reported higher levels of support than the advantaged outgroup. A one-way ANOVA on the effects of team membership on social distance, adjusting for participant gender, race, age, and SES, suggested a small effect of team membership,  $\eta_p^2 = .034$ . All three disadvantaged groups indicated greater distance than the advantaged group did. Descriptive information (Table 7) suggests that support scores reveal large mean differences, while the effects on social distance result from small mean differences and are driven primarily by small Standard Deviations.

Manipulation checks on ratings of similarity and competition revealed a small effect of team membership on similarity perceptions,  $\eta_p^2 = .04$ . As shown in Table 7, members of the three disadvantaged teams felt more similar to the orange 20 point target team than members of the advantaged team did. There was a small effect of group membership on perceptions of competition,  $\eta_p^2 = .013$ . All disadvantaged teams reported slightly more competition toward the target team than the advantaged comparison team did (Table 7).

## **Discussion**

We sought to elucidate the role of disadvantage in interminority relations through an experimental manipulation of disadvantage in a novel, web-based puzzle paradigm. We expected that teams with lower point values would express increased support and decreased social distance toward a low point outgroup, as compared to the privileged, high starting point outgroup. As expected, reports of similarity to a disadvantaged outgroup were higher among the

three disadvantaged groups than the advantaged group, in line with the CIIM and models of stigma-based solidarity (Craig & Richeson, 2016; Gaertner et al., 2003). Competition was also higher among the disadvantaged groups. Our prediction played out to some extent in reports of support, such that somewhat disadvantaged teams reported more support for the somewhat disadvantaged target group than the advantaged, high point value reference team did (Table 7). Unexpectedly, we found that the most disadvantaged group displayed the least support for the somewhat disadvantaged target group.

The spread of mean values for social distance was small, limiting our ability to make conclusions about differences among the teams. Social distance items are more usually applied to the real world context (see Bogardus, 1925; Hindriks et al, 2014), and may not apply as well to a minimal pairs setting. Despite this caveat, the most disadvantaged group did express the most social distance toward the target outgroup, mirroring the trend that emerged in our findings on support. Overall, our findings suggest that disadvantaged groups expressed more similarity and support, but also more competition and social distance than the majority outgroup. This pattern reversed, however, when the ingroup was definitively worse off than the target group, such that in this case, the severely disadvantaged group was less favorable than the advantaged group toward a disadvantaged outgroup. This outcome supports Gay's (2006) finding that comparative disadvantage is necessary in order for competition to generate interminority antipathy. When objectively more disadvantaged than a marginalized outgroup, the ingroup is likely to express negative attitudes.

### **General Discussion**

Taken together, the three studies presented above address open questions in the field of interminority relations, and suggest new areas for exploration. We conducted the field's first

explicit comparison of majority-minority and interminority relations in the US, finding that, when different, interminority relations are slightly more positive. Next, we explored the differential efficacy of common methodologies that had not previously been compared, demonstrating that similarity primes increased interminority positivity, and that explicit reminders of similarity were more effective than reminders of experienced discrimination. Finally, we applied the question of relative disadvantage to the interminority paradigm, and demonstrated the important role this construct plays in interminority appraisal processes.

The first major contribution of this study was to resolve competing predictions about interminority relations in the real world (see Allport, 1954; Craig & Richeson, 2016; Vollhardt, 2015). Assessing interminority attitudes in the absence of experimental manipulations is novel, and the identification of elevated levels of positive appraisals among minority groups suggested important context to situate interminority research within the field of intergroup relations. Our findings of increased positivity among minority groups in a nationally-representative dataset challenged media and lay reports of increased prejudice among marginalized groups (see Cummings & Lambert, 1997). We also provided evidence that, in the absence of experimental primes, interminority relations trend toward compassion rather than prejudice. These results refuted, or at least complicated, theories that predict increased strife among marginalized groups due to realistic group conflict (Alozie & Ramirez, 1999; Gay, 2006; Johnson & Oliver, 1989; Kauffmann, 2003; Sanchez, 2003) or competitive victimhood (Vollhardt, 2015). While these processes may continue to operate, our findings suggest that the combination of multiple processes at play leads to slightly increased positivity among minority groups. For example, our results indicated that perhaps the CIIM operates more prevalently, or outweighs competition in real-world settings. Results from study 3 furthered the argument that competition does not

necessarily lead to increased interminority strife. Rather, our results suggested that relative deprivation (Merton & Kitt, 1950) must be present and salient in order to bring about negative interminority appraisals.

Our finding that interminority appraisals differed only minimally from majority-minority appraisals troubles the longstanding assumption that interminority relations are inherently different from majority-minority relations. We suggest that the primary difference between majority-minority and interminority relations may be a difference in *process*, rather than a difference in *outcome*. That is to say, while study 1 indicated that interminority attitudes are similar to majority-minority relations, studies 2 and 3 showed that processes involving the recognition of disadvantage are particularly important for interminority outcomes. Study 2 reinforced the importance of the role of similarity in interminority processes, while study 3 proposed that feelings of relative deprivation can serve as a boundary condition to inhibit increased positivity. Examining only outcomes would lead us to miss the workings of these nuanced processes.

Our next major contribution clarified the role of different types of similarity perceptions in generating increased interminority positivity. Past research has argued for the importance of similarity (Glasford & Calcagno, 2012; Hindriks et al., 2014) and in particular a shared identity of stigma (Craig & Richeson, 2016), in inducing positive interminority attitudes. Tests of predictions about a common identity of stigma are limited, however (see Cortland et al., 2017 and Galanis & Jones, 1986 for exceptions). To date, the field has not compared the efficacy of different types of similarity primes, however, leaving it unclear which theoretical processes drive perceptions of similarity, and whether similarity perceptions leverage unique mechanisms in the interminority, as opposed to majority-minority, context. We directly tested the effects of



similarity based on stigma, and compared this manipulation to similarity based on shared values, and to a reminder of past discrimination experiences meant to implicitly trigger feelings of similarity (study 2a-b). Our findings revealed that reminders of discrimination were less effective than the two more explicit similarity primes, suggesting that reminders of experiences of discrimination did not automatically translate to support for an outgroup. This outcome calls into question findings from past studies that have used this paradigm, and provides evidence against the claim that a reminder of discrimination will trigger a shared identity of stigma.

Contrary to a major prediction of interminority relations theory (Craig & Richeson, 2016), our results indicated that similarity based on stigma, operationalized as similar past experiences with discrimination, was not more effective at increasing solidarity among marginalized groups than similarity based on other factors, such as shared culture. This finding suggests that the CIIM (Gaertner et al., 1991; Glasford & Calcagno, 2012) may in fact be more effective at generating solidarity among marginalized groups than stigma based solidarity models (Craig & Richeson, 2016). While multiple theoretical arguments suggest that similarity based on experiences of marginalization leads to solidarity (Allport, 1954; Craig & Richeson, 2016), there is little evidence for this supposition. Our results failed to find positive effects of such stigma-based common identities. Theoretically, an opposing argument suggests that these shared stigma-based identities minimize real group differences, such as the nature and history of discrimination experiences, thereby leading to intergroup strife (see Bilali & Mahmut, 2017). These identities therefore run the risk of generating competition and identity threat, and are possible only in the presence of certain objective historical and political similarities. Acknowledging how discrimination experiences are both similar and different may prove most effective, as such an approach highlights similarity while minimizing the risks of competition and identity threat. Our

findings suggested that channels other than similarity based on past discrimination may be more effective at generating interminority solidarity. More research is needed to examine these other possibilities, such as the role of focusing on a common enemy, such as a privileged group that harms multiple marginalized groups, or focusing on shared goals.

Our third major finding was the importance of relative disadvantage. In a novel experimental paradigm (study 3), we abstracted minority identity to comparative degree of disadvantage, an innovation not yet applied to the study of interminority relations. By removing existing identities from our research, we were able to present apoliticized identities that carried no pre-existing assumptions, and reduced identity solely to degree of disadvantage, thereby addressing one limitation that arises from relying on samples of White women, racial/ethnic minorities, and sexual minorities, as most past interminority research has done. Furthermore, this minimal pair paradigm allowed us to randomly assign participants to marginalized groups. Our findings revealed the importance of context on interminority similarity processes. We examined the role of similarity perceptions in combination with disadvantage and power, demonstrating that the positive effects of similarity beliefs did not hold in a context of relative disadvantage. In our study, perceptions of both similarity and competition were heightened among disadvantaged groups. Similarity itself was not enough to lead to universal support, however, as the objectively most disadvantaged group expressed harsh ratings for a less disadvantaged outgroup, despite high reports of similarity. This phenomenon suggested that when degree of disadvantage differs, this relative deprivation may prevent the more marginalized group from developing a positive stance toward a less marginalized outgroup. Past theory has not considered the nuances of power and disadvantage, or how these factors interplay with established drivers of interminority solidarity. We found that, rather than simple competition, relative deprivation is a key driver of

interminority relations. This factor is noticeably absent from existing literature on the topic (see Craig & Richeson, 2016). Our research suggests that attention to relative deprivation is necessary for future work in the field, as it can help explain situations in which common identities of stigma will backfire.

The suggestion that similarity perceptions will fail to generate positivity if one group is, or feels itself to be, more disadvantaged than another marginalized group fits with the theory of competitive victimhood, and explains one possible predictor of exclusive victim consciousness (Vollhardt, 2015). This finding allows for the possibility that similar levels of disadvantage may spark similarity perceptions and common identities, as shown in study 2. When degree of disadvantage differs objectively and obviously, however, this relative deprivation may override ideas of similarity and preclude the spontaneous development of a common identity. The role of relative disadvantage has not yet been considered in theoretical models, and must be incorporated to gain a full understanding of interminority processes. This theoretical addition could help explain the complex intergroup processes that occur in real-world interactions.

### **Limitations and future directions**

Our study provides an understanding of baseline levels of interminority attitudes in a nationally-representative sample of US respondents, and explores the complicated processes that drive interminority relations, examining different types of similarity perceptions and highlighting the importance of relative deprivation in interminority interactions. Several limitations are worth noting, however. First, the effect sizes associated with our survey data were small, but the consistent direction of our findings across multiple groups in a large dataset reassures us of their credibility. Another potential limitation is our failure to obtain a complete replication of study 2a with the results of study 2b, a discrepancy we attribute to the use of participant groups with

widely varied degrees of marginalized identity salience. Finally, the social distance measure in study 3 was perhaps inappropriate for our online context, leading to a lack of clear interpretation of this variable. Despite these limitations, our results provide important proof-of-concept findings to further the field.

Overall, we have identified and explored key issues in the area of interminority relations research. First, we suggested that baseline levels of interminority prejudice do not differ greatly from majority-minority appraisals, and, to the extent they do differ, are characterized by increased positivity. We then explored the role of several commonly applied similarity primes, finding that explicit reminders of similarity to a marginalized outgroup are more effective at generating positivity than reminders of one's own experience with discrimination. Furthermore, we called into question the benefits of a shared identity of stigma. Finally, we explored the role of relative disadvantage in interminority paradigms, suggesting that increased interminority positivity may not extend to a group that is advantaged compared to the ingroup. Taken together, these studies address key issues in interminority relations and create a map for future work.

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