

## ABSTRACT

Title of Thesis: LESBIAN, GAY, AND BISEXUAL  
PEOPLE'S SUPPORT FOR TRANSGENDER  
AND BLACK PEOPLE: EFFECTS OF  
PERCEIVED SOCIETAL SEXUAL  
ORIENTATION (IN)EQUITY

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This experiment examined how societal treatment of marginalized groups may influence relations among them. The 310 cisgender White lesbian, gay, and bisexual (LGB) participants were assigned to conditions varying in LGB (in)equity salience (discrimination, affirmation, control) and in outgroup identity (transgender, Black), and completed a survey assessing intergroup relations with the target outgroup. Anti-LGB discrimination was expected to improve intergroup relations with transgender people (i.e., a group readily sharing a superordinate identity with LGB people) but worsen relations with Black people (i.e., a group not readily sharing a superordinate identity). No direct effects of discrimination were found, but effects mediated through affect emerged. Discrimination indirectly improved relations with both transgender and Black people when tasks required consideration of injustices toward the outgroup. For other tasks, discrimination indirectly improved relations with transgender people only. LGB affirmation reduced empathic anger in support of transgender and Black people but had no other effects.

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TRANSGENDER AND BLACK PEOPLE: EFFECTS OF PERCEIVED  
SOCIETAL SEXUAL ORIENTATION (IN)EQUITY

by

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## Chapter 1: Introduction

Intergroup relations research has largely focused on members of privileged groups and marginalized groups along the same identity dimension (e.g., men and women, racial minorities and racial majorities). However, in response to ever diversifying societies such as the U.S., researchers have started to extend the field to relations among different marginalized groups (i.e., intra-minority intergroup relations; Richeson & Craig, 2011). Historically, different marginalized groups have come together and formed coalitions, whereas others have conflicted with one another. Black-Jewish relations in the U.S. is one example (Greenberg, 2010). What factors influence the extent to which members of one stigmatized group will view other stigmatized groups in positive light? A few studies suggest that one such factor is perceived discrimination against one's own group. As summarized by Craig and Richeson (2014), these studies indicate that the effects of perceived discrimination are not uniform but rather depend on whether the groups are defined by the same dimension of identity (e.g., race) or different dimensions (e.g., race and gender).

This study was designed to contribute to this small but growing literature in three ways. First, the study replicated aspects of these studies using a configuration of ingroup (cisgender White lesbian, gay, and bisexual [LGB] people) and target marginalized outgroups (transgender people, Black people) that differs from previous work in concealability of the stigmatized characteristics and in the history of access to

legal protections. Moreover, the study examined a greater range of intergroup outcomes than has been investigated in previous work. Second, the study investigated the extent to which effects of perceived ingroup discrimination are shaped by target groups' conceptual and historical relatedness to the ingroup. Finally, the current study extended the focus of previous research on perceived discrimination by considering the effects of perceived societal affirmation. Although the effects of legal protections and social respect may be the opposite of those of social discrimination, some theory and research, discussed below, suggests this may not always be true.

### **Group Discrimination and Intergroup Relations**

Perceived discrimination and prejudice can impact not only health and well-being but also the way people process social information. Depending on social contexts, perceptions of discrimination against one's own marginalized group may lead some to empathize with people in other marginalized groups while making others denigrate other marginalized individuals to a greater extent (e.g., Craig, DeHart, Richeson, and Fiedorowicz, 2012; Craig & Richeson, 2014; Kleiman, Spanierman, & Smith, 2015). Different theories have been used to identify possible mechanisms behind such different expectations of the effect of group discrimination on intergroup relations across marginalized groups, including the common ingroup identity model (CIIM; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993) and social identity threat theory (SIT; Branscombe, Ellemers, Spears, & Doosje, 1999).

The CIIM posits that people's mental representation of social categories and group boundaries are important determinants of intergroup relations (Gaertner et al., 1993). A basic proposition of the CIIM—one that has received empirical support—is that recategorizing ingroup and outgroup members into one common ingroup at the superordinate level (e.g., both groups as the oppressed) reduces intergroup bias such as ingroup favoritism and facilitates positive intergroup relations (Gaertner et al., 2000). Researchers have argued that perceived discrimination of one's own marginalized group can improve people's relations with other marginalized groups through its effect on recategorization since discriminatory experiences may induce a sense of common fate across different marginalized groups (Richeson & Craig, 2011). Evidence supports the notion that ingroup discrimination salience improves intergroup relations when the concerned marginalized groups share the same dimensions of identity or at least closely related ones if not the same (e.g., race/ethnicity). For instance, it has been found that Asian and Hispanic Americans expressed more favorable attitudes towards Black Americans when perceptions of racial discrimination toward their specific racial groups became salient (Craig & Richeson, 2014).

The same logic may apply to people in marginalized groups defined by different identity dimensions (e.g., race and sex/sexual orientation) may respond similarly to perceived group discrimination. However, research suggests that any tendency for discrimination to elicit awareness of a shared experience of

stigmatization may be overridden by other factors, such as differences in experiences related to oppression, lack of intergroup contact, and historic intergroup tensions (Craig & Richeson, 2016). For example, experimentally increasing the salience of ingroup discrimination increased negative attitudes toward racial/ethnic minorities among White women (Craig et al., 2012) and negative attitudes towards sexual minorities among heterosexual racial/ethnic minorities (Craig & Richeson, 2014). Perceptions of threat from the marginalized target group may explain this differing patterns of results, as suggested by SIT theory (Branscombe et al., 1999; Richeson & Craig, 2011). As noted above, historical tensions between the groups and perceived discrimination from an oppressed outgroup may impede members of one group from identifying with those of the other group through a common oppressed identity. Consistent with this view, no significant correlation was found between perceived racial discrimination and perceived closeness with Black Americans among Latina/os (Study 1a; Craig & Richeson, 2012); similarly, heightened salience of perceived heterosexism had no effect on White gay men's empathy toward Black people (Kleiman et al., 2015).

In sum, perceived discrimination against one's own group may elicit a sense of commonality with members of other marginalized groups, which, in turn, can positively impact the intergroup relations. This appears to be especially likely to occur when people can easily draw on representations of the marginalized groups as

sharing a common fate. When such representations are not accessible, group members may be more likely to view the other marginalized group in negative terms.

### **Group Affirmation and Intergroup Relations**

The regular occurrence of social discrimination justifies the continuing study of prejudice and bias. However, as has been made clear by a variety of social movements for human rights and equality, people in historically marginalized groups have also received increasing affirmation and recognition. Since a lack of discrimination and devaluation is not the same as affirmation and supportive valuing, the effect of group affirmation on intergroup relations may also be distinct. Compared to group discrimination, group affirmation has been less examined with respect to intergroup relations. Few conceptual frameworks directly address links between societal affirmation of one's marginalized group and perceptions of other groups. However, as discussed below, the integrative model of respect (Huo & Binning, 2008) as well as perspectives informed by research on positive affect (Bodenhausen, Todd, & Becker, 2007; Fredrickson, 2001) offer perspectives on these links.

The integrative model of respect argues that being treated fairly by other group members enhances a person's identification with and engagement in the group through an enhanced sense of worthiness (Huo & Binning, 2008). This hypothesis has been supported in both correlational (e.g., Boeckmann & Tyler, 2002; Huo, Binning, & Molina, 2010) and experimental studies (e.g., Branscombe, Spears, Ellemers, & Doosje, 2002; Renger & Simon, 2011). Applying this model to the context of

intergroup relations, Huo and Molina (2006) postulated that respectful treatment of one's own group by outgroup members (including respecting the achievement, opinions, and way of living of members of the group) may motivate people to identify and engage with both the collective at the superordinate level as well as subgroups within it.

Correlational research supports the hypothesized positive relations of perceived respect for one's ingroup with positive perceptions of various outgroups as well as with overall social engagement. For instance, in studies of racial/ethnic minority people in the U.S., perceived respect for one's own racial/ethnic minority group was negatively associated with ingroup favoritism and positively associated with positive attitudes towards other racial/ethnic groups and toward Americans in general (Huo & Molina, 2006; Huo, Molina, Binning, & Funge, 2010). Similarly, in a sample of lesbian and gay non-Muslim German nationals, greater recognition of equality and perceived respect from society at large was linked with reduced negative attitudes toward Muslim immigrants (Simon & Grabow, 2014). Experimental evidence also suggests that group respect may facilitate the process of recategorization (e.g., perceiving subgroups under one common ingroup; Simon, Mommert, & Renger, 2015). In other words, it is possible that group respect may promote positive intergroup relations by enhancing one's identification to a superordinate group identity, such as one's national identity, which is even more

encompassing than the more restrictive sense of common ingroup such as “the oppressed”.

Besides experiences of respect, group affirmation may also elicit a range of positive affective states that could potentially influence intergroup relations. The broaden hypothesis embedded in Fredrickson’s (2001) broaden-and-build theory of positive emotions proposes that, compared to negative and neutral affective states, positive affect may expand people’s perceptions and cognitions. Research has shown that positive affective states can broaden people’s social cognitions both at the interpersonal and intergroup levels. At the interpersonal level, positive affective states encouraged altruistic behavior (George, 1991), perspective-taking and interpersonal connection (Nelson, 2009; Waugh & Fredrickson, 2006), and trust (Dunn & Schweitzer, 2005). These broadening effects of positive affect were pronounced in the context of unfamiliar social relationships (Dunn & Schweitzer, 2005; Nelson, 2009). Further, at the intergroup level, the induction of positive affect enhanced association of non-typical categories with positive characteristics (Isen, Niedenthal, & Cantor, 1992; Rust, 1995), increased the formation of inclusive social categories (Dovidio, Gaertner, Isen, & Lowrance, 1995; Ong, Burrow, & Fuller-Rowell, 2012), and reduced the salience of intergroup bias (Dovidio, Gaertner, Isen, Rust, and Guerra 1998; Johnson & Fredrickson, 2005), which are important indicators of positive intergroup relations (Dovidio, Gaertner, & Saguy, 2009).

Despite evidence supporting the broadening hypothesis with respect to intergroup relations, other lines of research suggest that such broadening effects could be blunted by other effects of positive affect. Bodenhausen, Todd, and Becker (2007) reviewed research on the role of affect in stereotyping, and found evidence that happiness in particular may increase a person's tendency to rely on heuristics and to liberally apply stereotypes onto others (e.g., Bodenhausen, Kramer, & Süsser, 1994; Park & Banaji, 2000). They interpreted such findings from a feelings-as-information perspective, wherein a happy mood indicates that "all is well, and one can go with one's dominant, initial reactions" (p. 141; Bodenhausen et al., 2007). From this perspective, the broadening impact of positive affect on intergroup perceptions could be muted if the dominant stereotypes about a target group are negative.

In sum, the integrative model of respect suggests that the perceived respect for one's group associated with affirmation will increase positive evaluation of all outgroups; this effect may be due to increased identification with superordinate categories (e.g., national identity). In contrast, research on positive affect suggests that positivity may improve perceptions of groups as a whole (particularly group members with whom one is unfamiliar) but that such effects of positive affect on intergroup relations may be dampened if the dominant stereotypes about the target groups are negative.

### **Present Study**

The current study was designed to examine how perceived ingroup discrimination and affirmation impact the attitudes and behaviors that cisgender White LGB people express toward transgender and Black people. I experimentally manipulated the salience of LGB (in)equity (discrimination, affirmation, and control conditions) and the target marginalized outgroup (transgender people and Black people conditions). I separated the two outgroup identities to focus the study on the unique characteristics of these single group identities in relation to the ingroup, e.g., unique historical relations of White LGB people with transgender people as a whole and Black people as a whole. However, it is important to acknowledge the limitations of this approach, as well as the value of defining outgroups using a more intersectional perspective (e.g., transgender Black people, cisgender Black people).

The goals of this study were fourfold: (a) to evaluate the generalizability of Craig and colleagues' findings on group discrimination (for a review, see Craig & Richeson, 2016) by adapting their study protocol to a different population and extending the outcomes of interest from intergroup attitudes to other types of intergroup perceptions and behaviors, (b) to formally test the potential moderating effect of commonality between the ingroup and target group, (c) to explore the effect of group affirmation on intra-minority intergroup relations, and (d) to investigate possible mechanisms underlying the hypothesized effects of LGB (in)equity on intergroup outcomes.

First, this study aimed to replicate previous research using a different configuration of identity groups and a broader set of intergroup outcomes. The identity groups featured in this study differ from those in previous research in ways that are not expected to influence results but that will help test the limits of generalizability. For example, in previous research, the ingroup members have all had stigmatized characteristics that are typically viewed as visible. In contrast, the ingroup featured in the proposed study—LGB people—has a concealable stigma. Also, the ingroup in the present study has only recently received some of the legal recognition and protections afforded ingroups featured in previous research. The current study also goes beyond the focus on intergroup attitudes in previous research to examine people’s empathic response to outgroup injustice and ally behaviors.

Second, this study was designed to provide what may be the first test of the notion that the effect of ingroup discrimination on attitudes toward the target group may be moderated by the degree of tension and difference between the ingroup and outgroup (Craig & Richeson, 2012; Craig et al., 2012; 2014). This study aimed to investigate this hypothesized interaction effect by examining target outgroups that differ in their historical relationship with LGB people. In the U.S., transgender people are often viewed as being members of a larger collective that includes lesbian, gay, and bisexual (LGB) people and shares a common goal of challenging gender norms (Moradi et al., 2009). In contrast, racial status as Black is often viewed as separate from—and sometimes at odds with—status as LGB. In fact, writings on the

intersection of Black identity and LGB identity often emphasize challenges faced by Black LGB people because of racism expressed in LGB communities and heterosexism expressed in Black communities (Sarno, Mohr, Jackson, & Fassinger, 2015). In other words, tension and differences between communities of LGB and Black people are likely greater than those between communities of LGB and transgender people. Despite these differences, Black people and transgender people are similar in their high rates of experienced discrimination and prejudice. Indeed, widespread bias against transgender and Black individuals in policing and the criminal justice system has been reported and discussed in the media (Signorile, 2011; Swaine, Laughland, Lartey, & McCarthy, 2015).

Third, this study extended previous research by exploring the effect of group affirmation on intra-minority intergroup relations. Research has focused on perceived discrimination to the near exclusion of affirmation, yet, as noted above, the effects of affirmation may operate through different processes than discrimination. Increasing public support for LGB people and recent legal recognition of same-sex marriage in the U.S. (Pew Research Center, 2015) suggest that LGB people may be an ideal population for studying processes related to perceived affirmation.

Finally, this study aimed to investigate possible mechanisms underlying the hypothesized effects of perceived LGB (in)equity on intergroup relations. I tested two cognitive variables as potential mediators: perceiving the ingroup and outgroup as sharing a common superordinate identity (presumably through shared experiences of

oppression), and perceiving oneself as part of the larger category of Americans. I also tested negative and positive affect as mediators of the effect of LGB in(equity) on intergroup relations.

My overarching hypothesis was that the attitudes, empathic feelings, and ally behaviors cisgender White LGB people hold toward a marginalized target group would be predicted by the interaction between perceived LGB (in)equity and marginalized target group. I developed specific hypotheses regarding the effects of anti-LGB discrimination on intergroup relations based on previous research conducted by Craig and Richeson. In contrast, I did not frame specific hypotheses about effects of LGB group affirmation given a general lack of research in this area and the mixed findings regarding the effect of positive affect on social perceptions. Based on the research reviewed, I hypothesized that making anti-LGB discrimination salient to LGB participants would improve their intergroup reactions toward transgender people but worsen their reactions toward Black people (compared to when group treatment is not made salient). Furthermore, I expected that the hypothesized effect of anti-LGB discrimination in the transgender condition would be explained by perception of LGB and transgender people sharing a common superordinate identity (e.g., LGBTQ people). Specifically, increasing the salience of discrimination against LGB people was hypothesized to increase perceptions of this shared identity, which, in turn, was hypothesized to be directly associated with positive intergroup relations. In contrast, I believed the hypothesized effect of anti-

LGB discrimination in the Black condition would be explained by threat-related negative affect. Specifically, increasing the salience of anti-LGB discrimination was expected to increase this threat-related affect, which, in turn, was hypothesized to be linked with poorer intergroup relations. Finally, I examined the effect of LGB group affirmation on intergroup relations as a research question and considered identification with the larger category of Americans and positive affect as potential mediators. Figure 1 summarizes these hypotheses.

## Chapter 2: Method

### Participants

The final sample consisted of 310 White, non-Hispanic cisgender participants. Average age was 30.27 ( $SD = 9.25$ ). A majority of participants identified as gay men ( $n = 115$ , 37.1%) and lesbians ( $n = 88$ , 28.4%), followed by bisexual women ( $n = 57$ , 18.4%), and bisexual men ( $n = 50$ , 16.1%). Participants were from geographically diverse areas across 46 states. Table 1 summarizes the demographics of participants.

The final sample was drawn from 395 non-Hispanic White, cisgender, LGB American adults who completed the online survey. Data from 85 of these people were dropped based on measures taken to ensure the quality of data. These measures included checking participants' attentiveness to and suspicion about the study, as well as their qualitative responses to the manipulation prompts. People were screened out for unreasonable duration of completing the survey (less than 10 or more than 100 minutes), incorrect endorsement of two attention check items, reporting that their data should not be used toward the end of the survey, and correctly identified the core purpose or the design of this study. Participants who inaccurately identified the theme of the stimuli or inaccurately responded to the writing prompts were also screened out. Figure 2 summarizes these participant screening procedures. Power analyses for moderated mediation design were conducted using Monte Carlo methods (Thoemmes, MacKinnon, and Reiser, 2010). Results indicated that a minimum of 245

participants would be needed to detect a small-to-medium meditating effect size and a small-to-medium moderating effect for a power value of .80 and an alpha level of .05.

## **Design**

The study investigated how exposure to materials related to LGB group discrimination and affirmation would influence intergroup perceptions and behaviors among White cisgender LGB individuals. The study used a between-group 3-by-2 factorial design featuring conditions varying in perceptions of LGB (in)equity (discrimination, affirmation, control) and in the target marginalized outgroup (Black people, transgender people). Participants were randomly assigned to one of the six conditions.

## **Stimulus Materials**

**LGB (in)equity manipulation.** I adapted materials used in previous studies that were found heighten the salience of group prejudice for participants (Craig & Richeson, 2012; Major, Kaiser, O'Brien, & McCoy, 2007). Participants first read an article that varied based on the condition they were assigned to. Participants in the control condition read an article titled "Researchers Explore Left-Handedness" describing a research study on left-handedness and brain function. Those in the discrimination control read an article titled "Sexual Orientation Prejudice is Alive" describing a study on the continuing disparities facing LGB Americans as well as their negative impact on LGB people's health. Finally, those in the affirmation condition read an article titled "Sexual Orientation Equality is On the Rise"

describing a study on the increasing support LGB Americans experience and its positive impact on LGB people's health. After each article, participants responded to an accuracy check question: *What was the theme of the article?* I then reinforced the manipulation effects by prompting participants to generate examples and elaborate on their reactions regarding the main topic of their assigned article (see Appendix C). These materials were presented after covariate assessment and the bogus memory task (described under procedure).

**Manipulation check.** As a manipulation check, participants were instructed to rate six statements on a 5-point scale from 0 (*does not describe the article*) to 4 (*describes the article extremely well*) regarding the topic of the article they had read and written about (see Appendix K). Three of these statements clearly described the main topics of the three articles; the other three were not descriptive of any of the articles.

### **Measures of Covariates**

**Pre-manipulation emotion.** A 5-point face scale was adapted (Lorish & Maisiak, 1986) to assess participants' mood before exposing to the stimuli materials (see Appendix B). Participants were asked to identify the face that represented their mood in the moment. Responses ranged from 1 (*an extremely sad face*) to 5 (*an extremely happy face*). This scale has excellent psychometric properties (Lorish & Maisiak, 1986). For example, greater negative mood was associated with depression measured by the Beck Depression Inventory. Scores measured across two time points

also highly correlated, suggesting good test-retest reliability (Lorish & Maisiak, 1986).

**Pre-manipulation attitudes.** Items assessing participants' comfort level with one's ingroup (cisgender or White people) and outgroup (transgender or Black people), depending on the outgroup condition (see Appendix B). A variety of other groups were included to mask the purpose of the study. Participants were given a 101-point scale with labels for every 10-point increments from 0 (*extremely uncomfortable*) to 100 (*extremely comfortable*). In one experiment, a measure of pre-existing comfort with gay men using this measurement strategy was, as expected, positively associated with an established measures of attitudes toward gay men after the intervention (e.g., Golom & Mohr, 2011).

### **Measures of Mediators and Dependent Variables**

Participants completed a variety of scales and tasks designed to assess post-manipulation affect, intergroup perceptions, empathic response, and ally behavior. Measures concerning outgroup relations focused on either Black or transgender people, depending on the condition of target outgroup to which the person was randomly assigned. The measures were presented to participants in the order of presentation in this section.

**Post-manipulation affect.** An 18-item emotion checklist was used (adapted from the Positive and Negative Affect Schedule—Expanded [PANAS-X]; Watson & Clark, 1999; see Appendix D). Participants were asked to rate the extent to which

they experience a list of emotions using a 7-point scale with responses ranging from 1 (*very slightly or not at all*) to 7 (*extremely*). These emotions include items from PANAS-X subscales assessing hostility, fear, sadness, joviality, security, and gratitude. Each of the affective states were assessed by three items and scores were averaged for each affective state. Parallel analysis indicated that a two-factor structure was optimal in this study. Principal axis factoring with direct oblimin rotation was used to understand the factor structure underlying item variance. The two factors accounted for a total of 60.7% of the common variance, and represented (a) negative affect (which includes hostility, fear, and sadness) and (b) positive affect (which includes joviality, security, and gratitude). Scores corresponding to these factors were generated by averaging relevant items so that higher scores indicated greater intensity of such affective states. The checklist has excellent psychometric properties and has been used in sexual minority populations (e.g., Mohr, 2016). For example, personal anti-LGB victimization was positively associated with hostility and fear (Mohr, 2016). Internal consistency of scale scores for positive and negative affect in this study were satisfactory (Cronbach's alpha = .94 & .91, respectively).

**Resource distribution.** Participants completed a resource distribution task (Harth et al., 2008; see Appendix E) in which they were instructed to imagine that they had \$500 (USD) and to indicate the way they would exhaustively distribute the money across six different organizations that serve the following populations: Americans living in rural areas, transgender/Black Americans (depending on the

experimentally assigned outgroup), U.S. immigrants, American artists, LGB Americans, and U.S. veterans. Support for the target outgroup is indicated by that donation amount given to the organization serving the outgroup. This task was used previously to understand people's reactions to intergroup inequalities (Harth et al., 2008). It was found that people would donate more funds to the outgroup when illegitimate ingroup advantages or legitimate outgroup disadvantages was made salient, compared to salient legitimate ingroup advantages (Harth et al., 2008).

**Relations among self, ingroup, and outgroup.** A pictorial measure based on the Inclusion of Other in Self Scale (Aron, Aron, & Smollan, 1992; Schubert, & Otten, 2002; see Appendix F) was used to assess (a) participants' own identification with Americans as a whole and (b) their perceived closeness between LGB people and members of the target marginalized outgroup. Similar measures have been used to assess perceived group connectedness (Mashek, Cannaday, & Tangney, 2007) and perceived group similarity (Craig & Richeson, 2012). Participants were presented with a set of seven increasingly overlapping pairs of circles that represent (a) participant's self and Americans as a whole and (b) LGB Americans and Transgender/Black Americans in general, respectively for the two constructs. Participants were asked "In your view, which one of these pictures best describes the way you see the relationship between...?" The circle pairs were numbered 1-7 with larger numbers reflecting greater closeness of relationship. When used in a

community setting, overlap of the self and the community was positively correlated with psychological sense of community (Mashek et al., 2007).

**Bias against outgroup.** A two-item thermometer scale was used to assess participants' explicit attitudinal bias against the outgroup (Craig & Richeson, 2012; see Appendix G). Specifically, in the racial identity condition, the measure focused on participants' attitudes toward Black and White people; in the gender identity condition, the measures focused on their attitudes toward cisgender and transgender people. Responses range from 0 (*coldest or least favorable*) to 100 (*warmest or most favorable*). The difference between the two attitude scores reflect pro-ingroup/anti-outgroup bias. Larger positive difference scores represent greater bias against the outgroup as compared to the ingroup. A score of 0 means similar levels of evaluation for both ingroup and outgroup members. In one study, a measure of anti-Black bias using this measurement strategy was, as expected, positively correlated with a measure of symbolic racism (Sears & Henry, 2003).

**Empathic response to unjust outgroup treatment.** Participants were instructed to rate the extent to which they experience anger, compassion, and guilt in the moment as they think about the treatment in the U.S. of members of their experimentally assigned outgroup (Black or transgender people; see Appendix H). Anger items were *angry*, *furious*, *irritated*, and *outraged* (van Zomeren et al., 2004; van Zomeren et al., 2011; Strümer & Simon, 2009). Compassion items were *compassion*, *sympathy*, and *mercy* (Harth et al., 2008; Zebel, Doosje, & Spears,

2009). Finally, guilt items were *guilty*, *ashamed*, and *having a bad conscience*; (Harth et al., 2008). Previous studies have shown that these items produced reliable scores for assessing anger (Cronbach's alpha = .93; van Zomeren et al., 2011), compassion (Cronbach's alpha = .82; Zebel et al., 2009), and guilt (Cronbach's alpha = .76; Harth et al., 2008). Higher scores on these three measures of affective states in support of people in marginalized outgroups were positively associated with ally behaviors (Harth et al., 2008; Iyer, Leach, Crosby, 2003; Leach, Iyer, & Pedersen, 2006; Mallett, Huntsinger, Sinclair, & Swim, 2008; Russell, 2011). Similar to the PANAS-X, items on these measures were rated on scale ranging from 1 (*very slightly or not at all*) to 7 (*extremely*). Measures were scored by averaging items, yielding scales where larger values reflect greater empathic response. Internal consistencies of scale scores for anger, compassion, and guilt in this study were satisfactory (Cronbach's alpha = .92, .71, & .86, respectively).

**Outgroup identification.** A 4-item group identification scale (Doosje, Ellemers, and Spears, 1995; see Appendix I) was adapted to assess participants' identification with their experimentally assigned outgroup (Black or transgender people). The scale has been shown to produce reliable scores (Cronbach's alpha = .83; Doosje et al., 1995) and has been used to assess respondents' identification with one's ingroup (Doosje et al., 1995) and outgroup (van Zomeren, Postmes, Spears, & Bettache, 2011). Greater identification with members of a marginalized outgroup was shown to be associated with greater group-based anger in defense of the outgroup and

ally behavioral intention (van Zomeren et al., 2011). A sample item includes “I feel strong ties with Black Americans.” Responses range from 1 (*not at all*) to 7 (*very much*). Responses to the four items were averaged to yield a composite score, where larger numbers represent stronger identification with the concerned outgroup. Internal consistency of scale scores in this study was satisfactory (Cronbach’s alpha = .90).

**Flyer dissemination.** Participants completed a flyer dissemination task (Stewart et al., 2013; see Appendix J) in which they were first presented with an informational flyer summarizing the disparities that transgender or Black Americans (depending on assigned condition) face in law and policy enforcement. They were then instructed to indicate the number of flyers they were willing to take and distribute in their community from 0 to 20. Greater number of flyers indicates greater support for the target outgroup. This task was used to assess collective action in previous studies (e.g., Stewart et al., 2010; 2013). It was found that affective reactions toward the outgroup, such as collective guilt, predicted the number of flyers taken that calls for action on behalf of the outgroup (Stewart et al., 2010).

## **Procedure**

I recruited participants using Internet sampling to ensure diverse representation of the target population. Most participants accessed the online survey through advertisements on Reddits ( $n = 133$ , 42.9%) and Qualtrics’ research panels ( $n = 85$ , 27.4%), followed by Amazon Mechanical Turk ( $n = 88$ , 28.4%), listservs of local LGBT community organizations ( $n = 3$ , 0.96%), and a Facebook ad ( $n = 1$ ,

0.32%). Potential participants were told that eligibility requirements included being at least 18 years old and currently living in the U.S. Those who were interested in continuing then completed an eligibility survey consisting of demographic items. Eligible participants were invited to continue to participate in the study. Participants were informed that their participation was voluntary and anonymous in nature and that it was within their rights to terminate in the course of participation.

Participants were first presented with measures of covariates, which were followed by a memorization task (described below). They were then exposed to stimulus materials for the LGB (in)equity manipulation, followed by measures of mediators and dependent variables, and finally manipulation check and additional demographic items. On completion, participants were thanked and debriefed. Participants recruited through Qualtrics' research panel were compensated with a range of incentives including gift cards and airline mileage. The first 200 participants, recruited through other platforms, were each compensated with a \$10 Amazon gift card. The study was approved by the Institutional Review Board of the author's affiliated university.

A number of measures were taken to mask the purpose of the study. First, the study was framed as a survey consisting of multiple studies on a variety of topics (memory skills, social perceptions). Consistent with this ruse, a task involving memorization of several series of numbers was placed between assessment of covariates and the experimental manipulation. Second, participants were not informed

that all participants were cisgender, White, LGB people until debriefing. Similarly, participants were unaware of the study's focus on reactions to transgender and Black people. This focus was masked in several ways. For example, the target outgroup was embedded in a larger list of social groups when assessing covariates and reactions to the resource distribution task. Also, when the outgroup-specific measures were presented, participants were told the "remainder of the survey will focus on your perceptions and reactions related to one of the groups that was just presented. We need to focus on a single group in order to understand how the various methods of measuring social reactions related to each other. Our system randomly selects groups for each participant as the focus across the measures. The selected group for you is [target outgroup]."

### **Analytic Plan**

SPSS 23 was used to generate descriptive statistics for all measured variables and run a series of ANOVAs to confirm successful priming of LGB discrimination and affirmation salience.

Mplus 7 was used for the main analyses. All models included pre-manipulation emotion as well as pre-manipulation attitudes toward one's ingroup (White or cisgender) and outgroup (Black or transgender) as covariates. All scores of continuous variables were standardized before analyses. I conducted hierarchical linear regressions to examine the main and interactive effects of LGB (in)equity and outgroup identity on all dependent variables, except number of flyers. Because many

participants requested no flyers, I dichotomized the variable (0 = *requested no flyers*, 1 = *requested at least one flyer*) and modeled it using logistic regression. In addition, although the way I operationalized bias is common in intergroup research, I examined attitudes toward the ingroup and outgroup separately when there were significant main or interactive effects of LGB (in)equity to understand which attitude target contributed to the effects.

To prepare for mediation analyses, I conducted hierarchical linear regressions to examine the main and interactive effects of LGB (in)equity and outgroup identity on all hypothesized mediators (often referred to as path *a* in mediation models). For mediators that were predicted by LGB (in)equity (either as main effects or as effects moderated by outgroup identity), I further examined the main and interactive effects of the individual mediator and outgroup identity on all dependent variables (often referred to as path *b* in mediation models). Finally, I conducted mediation analyses by calculating bias-corrected bootstrapped confidence interval estimates of the indirect effects based on 10,000 bootstrap samples. Indirect effects were considered statistically significant when zero did not fall with the 95% confidence interval. Simulation studies showed that this approach offers greater power in mediation analyses than other approaches (e.g., Sobel test; Fritz & MacKinnon, 2007). Simple mediation was conducted if neither path *a* nor *b* was moderated by outgroup identity. Moderated mediation was conducted if path *a* or path *b* was moderated by outgroup identity. A single confidence interval was estimated in the case of simple mediation

and separate confidence intervals were estimated for the two outgroup conditions in the case of moderated mediation.

The first ten participants' responses on the flyer dissemination task were treated as missing the initial version of the survey did not offer zero as a response option; this error was corrected in the version of the survey other participants completed. Altogether, missing data was minimal (2.26%) and was handled by full information maximum likelihood estimation in analyses.

## Chapter 3: Results

### **Preliminary Analyses and Bivariate Correlations**

Means, standard deviations, and bivariate correlations among all measured variables are included in Table 2. Pre-manipulation positive mood was negatively correlated with negative affect; and positively correlated with post-manipulation positive affect, identification with Americans, outgroup identification, empathic compassion, and likelihood of requesting a flyer. Pre-manipulation positive attitudes toward the ingroup (i.e., LGB people) were positively correlated with post-manipulation positive affect, identification with Americans, bias against the outgroup, empathic compassion for the outgroup. Finally, pre-manipulation positive attitudes toward the outgroup were negatively correlated with bias against the outgroup and positively correlated with post-manipulation affect, LGB-outgroup closeness, outgroup identification, empathic anger and compassion for the outgroup, donation amount to organizations serving the outgroup, and likelihood of requesting a flyer.

### **Manipulation Check**

A series of ANOVAs on the three (in)equity conditions (using Games-Howell post hoc tests to handle heterogeneous variances) confirmed that participants were aware of the main topics of the articles they read. The statement characterizing anti-LGB discrimination as the focus of the assigned article was rated as more descriptive of the article in the discrimination condition compared to the affirmation condition ( $p$

< .001,  $d = 2.83$ ) and the control condition ( $p < .001$ ,  $d = 3.40$ ). Similarly, the statement characterizing support for LGB people as the article's focus was rated as more descriptive in the affirmation condition compared to the discrimination condition ( $p < .001$ ,  $d = 2.74$ ) and the control condition ( $p < .001$ ,  $d = 3.26$ ). Finally, the statement characterizing differences between left- and right-handed people as the article's focus was rated as more descriptive in the control condition compared to the discrimination condition ( $p < .001$ ,  $d = 5.19$ ) and the affirmation condition ( $p < .001$ ,  $d = 5.48$ ).

### **Effects of Manipulations on Outcomes**

In preparation for regression analyses, sexual orientation (in)equity was represented with two dummy coded variables indicating the discrimination and affirmation conditions. Similarly, target outgroup identity was represented with a single dummy coded variable indicating the Black American condition. The 2-way interaction between (in)equity and target outgroup was computed by multiplying each of the two (in)equity dummy variables by the target outgroup dummy variable. The interaction effect was tested through a chi square deviance test comparing a main effects model with a model featuring both main and interaction effects.

Controlling for pre-manipulation affect and attitudes towards one's ingroup and outgroup, linear regressions showed no significant interaction between sexual orientation (in)equity and outgroup identity on any of the outcomes ( $R^2$  change ranged from .00 – .01 across outcomes). Some main effects were found, however (see

Table 3). The only significant main effect of sexual orientation (in)equity was on empathic response in the form of anger. Specifically, salient group affirmation reduced empathic anger in support of the outgroup ( $d = -0.41$ ). No main effect of sexual orientation (in)equity was found on other outcome variables. Main effects of outgroup identity were found on a number of outcomes. Participants reported greater identification with transgender people and willingness to make donations to organizations serving transgender people compared to Black people ( $ds = 0.28$  &  $0.50$ , respectively). Also, participants expressed greater bias against and less empathic anger and guilt toward transgender people compared to Black people ( $ds = 0.24$ ,  $-0.27$  &  $-0.42$ , respectively). Follow-up analyses regarding the effect of outgroup on bias showed that participants expressed more favorable attitudes toward cisgender people than White people ( $d = 0.36$ ) and that the difference between their attitudes toward transgender people and Black people was non-significant ( $d = 0.13$ ). Outgroup identity had no effect on empathic response in the form of compassion or likelihood of requesting an informative flyer.

### **Effects of Manipulations on Mediators**

Main effects of the independent variables on possible mediators are summarized in Table 4. Results showed that sexual orientation (in)equity had significant main effects on positive and negative affect. Specifically, participants in the discrimination condition reported significantly greater negative affect ( $d = 0.63$ ) and less positive affect ( $d = -0.30$ ) than those in the control condition. However,

participants in the affirmation condition did not show any significant differences in negative and positive affect compared to those in the control condition ( $d = 0.12$  &  $0.16$ , respectively). Since the outgroup identity manipulation was not presented before measures of positive and negative affect, no interactive effects moderated by target outgroup were tested.

Results also showed no significant effects of sexual orientation (in)equity on the items indicating closeness of self to Americans and closeness of LGB Americans to the target outgroup, both as main effects ( $d$ s ranged from  $-.21$  to  $.06$ ) and interaction effects with outgroup identity ( $R^2$  changes =  $.00$ ). The only main effect of outgroup identity on either of these items was that participants viewed LGB people as being closer to transgender people than to Black people ( $d = -0.63$ ).

### **Effects of Mediators on Outcomes**

Effects of potential mediators on outcomes—both main effects and interactive effects moderated by target outgroup—were next tested. These tests were conducted only for potential mediators that were impacted by the (in)equity manipulation, given that the predictor and potential mediator be related to one another for a mediated effect to exist (Frazier, Tix, & Barron, 2004). Thus, analyses were conducted for positive and negative affect but not identification with Americans or perceived LGB-outgroup relations. Tables 5 and 6 summarize the main effects of negative affect and positive affect, respectively.

Results revealed that negative affect was positively related to empathic responses in the form of anger, guilt, and compassion, as well as to flyer requests. None of these main effects was moderated by outgroup identity ( $R^2$  change ranged .00 – .01). In contrast, a significant interaction effect was found for prediction of outgroup identification ( $B = -0.19$ ,  $SE = .09$ ,  $p = .044$ ), such that negative affect was positively associated with identification with transgender people ( $B = 0.23$ ,  $SE = .07$ ,  $p = .001$ ) but not Black people ( $B = 0.04$ ,  $SE = .07$ ,  $p = .563$ ). There was no effect of negative affect on donation, both as a main effect and an interaction effect with outgroup identity ( $R^2$  change = .00).

Results showed a significant interaction between positive affect and outgroup identity on intergroup bias ( $B = -0.19$ ,  $SE = .09$ ,  $p = .047$ ) and donation ( $B = 0.25$ ,  $SE = .11$ ,  $p = .019$ ). Specifically, positive affect was positively related to bias against transgender people ( $B = 0.23$ ,  $SE = .07$ ,  $p = .001$ ) but unrelated to bias against Black people ( $B = 0.04$ ,  $SE = .07$ ,  $p = .563$ ). Also, I found that the positive association between positive affect and bias against transgender people was due to improved attitudes toward cisgender people ( $B = 0.19$ ,  $SE = .07$ ,  $p = .004$ ) rather than worsened attitudes toward transgender people ( $B = -0.04$ ,  $SE = .06$ ,  $p = .531$ ). Similarly, positive affect was negatively related to donations for organizations serving transgender people ( $B = -0.21$ ,  $SE = .08$ ,  $p = .011$ ) but unrelated to donations for organizations serving Black people ( $B = 0.04$ ,  $SE = .09$ ,  $p = .633$ ). No significant effects of positive affect were found on outgroup identification, empathic responses,

and flyer request, both as main effects and as interaction effects with outgroup identity ( $R^2$  change ranged .00 – .01).

### **Mediation**

Confidence interval estimates of indirect effects were estimated only when a predictor had an effect on potential mediator. The previous analyses indicated that the only such effects were found between discrimination and the two affect variables. Thus, indirect effects were estimated for the impact of ingroup discrimination on all dependent variables, as mediated by negative and positive affect (see Table 7).

A single confidence interval was estimated in cases where outgroup did not moderate any of the paths in the mediation model. Four of these intervals did not contain zero, indicating the presence of statistically significant indirect effects. Specifically, LGB group discrimination indirectly led to greater empathic responses (anger, guilt, compassion) and likelihood of requesting an informative flyer for distribution via greater negative affect, regardless of outgroup identity.

Separate confidence intervals were estimated for the transgender and Black conditions in the three cases where outgroup condition moderated the association between the mediator and dependent variable. In all three cases, statistically significant indirect effects were found for the transgender condition but not the Black condition. Specifically, LGB group discrimination indirectly led to less intergroup bias and greater donation via reduced positive affect when the target outgroup was transgender people but not Black people. Also, LGB group discrimination indirectly

led to greater identification with transgender people through greater negative affect.

This indirect effect was not observed when the outgroup was Black people.

## Chapter 4: Discussion

Efforts to advance human rights and achieve social change are often most successful when different marginalized groups work together. This study primarily aimed to examine the effect of ingroup discrimination on indicators of prejudice and allyship in relation to different marginalized outgroups, as well as on variables that may elucidate the conditions and mechanisms of stigma-based solidarity (as theorized by Craig & Richeson, 2016). In addition, the study went beyond the predominant focus on discrimination by exploring the effect of ingroup affirmation on relations with other marginalized groups.

This study focused on the effect of perceived ingroup (in)equity on LGB individuals' reactions toward members in the transgender or Black community, and generally failed to replicate past findings. Nonetheless, mediation analyses partially supported the hypothesis that salient ingroup discrimination would improve intergroup relations with an outgroup with an easily accessible common ingroup identity (i.e., transgender people) but not for an outgroup without such a superordinate identity (i.e., Black people). I found that threat-related emotions elicited by ingroup discrimination may provide some foundation for individuals to relate to outgroups in a supportive manner. The expectation that group affirmation would consistently facilitate positive intergroup relations was, however, not supported.

### **Group Discrimination and Intergroup Relations**

Previous studies suggest that making group discrimination salient improves reactions toward other marginalized groups that share a readily accessible common superordinate identity (e.g., *racial minorities* for Asian, Latino/a, and Black individuals; Craig & Richeson, 2012) but worsens reactions toward marginalized outgroups when such a common superordinate identity does not exist or when the groups have pre-existing intergroup tensions (e.g., racial minorities in relation to sexual minorities; Craig & Richeson, 2014). I tested these effects simultaneously in a single model. Results showed a striking lack of replication of these findings, suggesting potential limits of generalization to different constellations of group identities. Inconsistent with my hypotheses, I found no direct effect of LGB group discrimination on cognitive, affective, and behavioral aspects of intergroup relations (including LGB-outgroup overlap)—both as a main effect and in interaction with outgroup identity (transgender vs. black). Furthermore, the null direct effect of LGB group discrimination on LGB-transgender overlap also resulted in a lack of evidence that LGB discrimination salience would improve relations with transgender people via greater perceived commonality.

Why did LGB group discrimination salience have no direct effect on intergroup relations? One of Kleiman et al.'s (2015) speculations of their finding a null effect of heterosexism salience on sexual minority participants' reaction toward Black people was a lack of manipulation strength. Although this is plausible, results of this study revealed strong effects of LGB group discrimination on the manipulation

check as well as post-manipulation affect. Therefore, it seems unlikely that these null results are due to a weak stimulus. Another speculation is that there can be other mediating paths explaining the effect of LGB group discrimination. Specifically, several mediation analyses pointed to the possibility of suppression and inconsistent mediation. That is, once post-manipulation affect was included in the model as a mediator, the indirect effect had an opposite sign from the direct effect and the total effect was weaker than the direct effect. To this end, identification of additional mediating paths with opposing indirect effects may explain the overall lack of direct effect of LGB group discrimination. For instance, research has suggested that discrimination and rejection were found to lower people's collective self-esteem (Branscombe et al., 1999) and that collective self-esteem was positively linked to favorable attitude toward outgroups (Branscombe & Wann, 1994). It is also possible that there was a ceiling effect. The hypothesized direct effect may have been masked by LGB people's generally positive attitudes toward other minority groups, especially when these attitudes were self-report and measured explicitly (Grollman, 2017). In fact, levels of pre-manipulation comfort with both transgender and Black people were quite high in this sample, which may have added challenge to improve intergroup relations in the first place. Further research would be warranted to understand the multiple pathways that may be at play in stigma-based solidarity and to consider implicit measures of attitudes.

Despite the lack of direct effects of LGB group discrimination, a number of indirect effects were consistent with aspects of Craig and Richeson's (2016) emerging theory of stigma-based solidarity. Specifically, I found that LGB group discrimination indirectly led to improved reactions toward outgroups through increases in threat-based negative affect and decreases in positive affect. I observed these indirect effects under certain conditions: (a) when the outgroup was transgender people or (b) when the outcome measures prompted participants to consider examples of injustice facing members of the assigned outgroup. These findings, discussed below, are consonant with Craig and Richeson's speculation that a "common stigmatized-identity activation" (p. 23) may change how threat toward people's ingroup affects their outgroup perceptions. These researchers proposed that the experience of social identity threat should explain the link between discrimination salience and improved outgroup attitudes when a common superordinate identity is accessible. The present study tested this previously unexamined proposition about the mediating role of perceived threat.

I expected that transgender people would be a group that, compared to Black people, shares a more accessible superordinate identity with LGB people (e.g., *LGBTQ people*) and that this common ingroup identity would improve LGB people's reactions to transgender people (but not Black people) in the face of threat triggered by ingroup discrimination. This hypothesis was supported by a set of indirect effects found for LGB individuals' reactions to transgender people but not Black people.

Specifically, indirect effects were found linking ingroup discrimination with greater identification with transgender people (through the increase in negative emotions caused by discrimination salience), and with less anti-transgender bias and greater willingness to donate to organization serving transgender people (through the decrease in positive emotions caused by discrimination salience). Although it was unclear why some effects of LGB group discrimination were mediated by negative affect and others by positive affect, these results for transgender people were generally consistent with what Craig and Richeson (2016) theorized, assuming that the changes in affect reflected a perception of threat.

Additional indirect effects were identified that consistently improved reactions to both transgender and Black people via greater post-manipulation threat-related negative affect. This pattern of results was generally observed for outcomes that emphasized societal injustices facing the outgroups, including empathic responses to outgroup injustice and interest in obtaining at least one informative flyer to disseminate in people's own community. Previous studies have found that explicitly drawing connections between ingroup and outgroup (e.g., through emphasizing common issues both ingroup and outgroup are facing) has the potential to promote coalition (Shnabel, Halabi, & Noor, 2013). Unlike those studies, the current research intentionally did not draw explicit ingroup-outgroup connections in the manipulation procedures. Therefore, my results suggest that situating outgroup members in a larger

system of power and inequality can be important in coalition building when one is primed to think that their own group was deprived.

Of note, threat-based negative affect did not worsen reactions to Black people. Rather, negative affect had a lack of effect on outcomes that did not emphasize outgroup injustice in the Black condition. This may reflect the time period in which data were collected — a time when the injustices against Black Americans were heavily covered in the media and the imminent Trump presidency raised concerns about oppressive practices across a variety of marginalized groups. These factors may be strong enough to eliminate the hypothesized worsening attitudes effect. It is also possible that the hypothesized worsening effect may have been, again, masked by the generally positive racial attitudes that LGB people expressed in explicit measures. Altogether, these results contribute to greater understanding of when SIT and CIIM will apply.

My findings highlighted the pivotal role of affect in explaining the effect of LGB group discrimination. My observation that threat-based negative affect served as a promoting factor whereas positive affect acted as a barrier for outgroup support seems to grant support for the *feeling as information* hypothesis (Bodenhausen et al., 2007; Schwarz & Clore, 1983), which postulates that incidental affect may influence people's social judgment (particularly around stereotyping). Indeed, previous studies have showed that certain forms of negative affect (e.g., sadness) reduce stereotyping through cautious and effortful information processing (Lambert, Khan, Lickel, &

Fricke, 1997); whereas certain forms of positive affect (e.g., happiness) may, conversely, encourage people's reliance on heuristics and stereotypes (Bodenhausen et al., 1994). Alternatively, it is possible that support for an outgroup could provide people with an opportunity to use altruism as a way of coping with the negative affect elicited by anti-LGB discrimination, as suggested by the *negative state relief model* (Caldini, Schaller, Houlihan, Arps, & Fultz, 1987). This possibility could be tested in extensions of the present study by examining whether negative affect decreases after reporting support for marginalized outgroups. More research is necessary, still, to understand how positive and negative affect may function differently as mediators for group discrimination. For instance, future studies can consider measuring effortful processing as a mediator, consistent with the *feelings as information* perspective. From this viewpoint, the negative affect produced by anti-LGB discrimination may signal a need to process information more carefully, which could lead White cisgender LGB people to challenge negative stereotypes about other marginalized groups.

Finally, I found outgroup identity had an effect on a number of outcomes. Consistent with my expectations, LGB individuals perceived a greater overlap between LGB people and transgender people than that between LGB people and Black people. LGB individuals also reacted more favorably toward transgender people, compared to Black people, in the form of outgroup identification and donation. However, unexpectedly, they also expressed greater bias, less empathic

anger and guilt toward transgender people than toward Black people. Such greater levels of intergroup bias against transgender people was actually driven by the more favorable attitudes toward cisgender people than those toward White people. Unlike *cisgender* status, privilege associated with *Whiteness* is much more discussed in the larger society; and differences in awareness of privileges may explain why one reacts differently toward the two privileged ingroup when schemas around power and inequalities were activated. Such privileged identities were not used in measuring outgroup identification and donation intention. Further, the greater empathic anger and guilt LGB individuals felt for Black people in response to injustice they experience might be due to the greater media coverage of police mistreatment facing the Black community despite evidence showing that people in the transgender community also face similar issues. This may also be due to the greater likelihood for LGB people to view Black people as an outgroup, such that they may feel more complicit in the wrongs done to Black people, compared to those done to transgender people.

### **Group Affirmation and Intergroup Relations**

One additional goal of this study was to explore the effect of group affirmation on intergroup relations. There was no evidence supporting the hypothesis that group affirmation would facilitate support for marginalized outgroups. In fact, the only effect was contrary to hypothesis: Compared to control, LGB individuals reported feeling less angry on behalf of either transgender or Black people when LGB

group affirmation was made salient. It was not clear why LGB individuals felt less righteously angry for the outgroups when they were reminded about LGB recognition and equality. Perhaps, people become less attuned to outgroup oppression when one's own group is affirmed. More research is warranted to understand the effect of ingroup affirmation on solidarity with other marginalized groups.

The overall lack of effects of group affirmation might be due to a concurrent activation of group discrimination when group affirmation was made salient. Data were collected during the presidential election, which stimulated considerable public discourse on potential threats to minority rights (including LGB rights). In fact, many participants reported experiencing both positive and negative feelings in their reflections in the group affirmation condition. For instance, people actually mentioned their fear of having their rights (e.g., marriage equality) stripped under the new administration. Future research is necessary to understand more about the process of identity-affirming experiences. The activation of both group affirmation and discrimination may lead to an overall null effect.

### **Limitation and Future Directions**

It is important to interpret findings in light of several study limitations. First, this study examined the short-term effects of ingroup discrimination salience. Little is known about the effect of prolonged exposure of ingroup discrimination on intergroup relations in a long run. Population-based surveys that longitudinally track

sexual minorities' exposure to discrimination and their attitudes toward other groups can be used to offer additional insights on this topic (e.g., Swank & Fahs, 2011).

Second, the stimuli used in the current study drew the intergroup boundary between heterosexual and LGB people. The materials characterized LGB people as a monolithic sexual minority group facing similar levels of discrimination or affirmation from heterosexual people, which may not be accurate given the divergent experiences among the LGB community (e.g., bisexual individuals may also face discrimination from the lesbian/gay community besides heterosexual people; Brewster & Moradi, 2010). I did not expect nor find any evidence that the stimuli would influence one subgroup differently from another. However, it was not clear the degree to which this grouping may predispose participants to more readily categorize transgender people as one's own ingroup given the commonly used term "LGBT," compared to stimuli that only mentioned specific subgroup identities (e.g., gay men). Future research, however, can consider tailoring the stimuli materials to specific subgroups and further elucidate the conditions that may be needed to activate a common ingroup identity.

Finally, I assessed allyship in the form of one-time supportive behaviors (donation, flyer dissemination). Yet, supportive behavior and activism can have varying degrees of commitment. For instance, changing one's profile picture on social media to raise awareness of certain social issues can be quite different from regularly working toward resolving these issues (Kristofferson, White, & Pelozo,

2014). Future research can consider other types of activism and supportive behaviors for social change and examine how reflections on ingroup discrimination may initiate or even deepen one's valuing social justice and knowledge about systems of oppression that often predict long-term commitment in allyship (e.g., Miller & Sendrowitz, 2011).

### **Implications**

Findings suggest some tentative implications about the potential benefits of awareness of and reflection on ingroup discrimination, including (a) reducing prejudice toward other marginalized groups and increasing allyship, (b) creating a basis for coalition building, and (c) facilitating multicultural competence.

Most of the past research on prejudice reduction for marginalized communities has focused on encouraging ingroup members to take the perspective of members of the outgroup, having or imagining positive interactions with outgroup members, and exploring common identities shared by ingroup and outgroup members (Gonzales, Riggle, & Rostosky, 2015). The current study shows that exposure to and reflection on information related to ingroup discrimination may indirectly encourage people to reduce prejudice against and express support for the outgroup through activation of threat-related affect. Such affective states may provide individuals with a foundation to empathize with injustices experienced by other marginalized outgroups. In addition, results suggest that highlighting outgroup injustice may facilitate ally development when a common superordinate identity is not easily

accessible. This way, the frustrations and anger about inequality of one's own group would not turn into derogation against another minority group that may be perceived as antagonistic.

Human rights are advanced when minority communities collaborate and work together. Although resource scarcity may sometimes lead marginalized groups to engage in competitive relations, the current research contributes to growing evidence that ingroup discrimination could encourage members in a marginalized group to support and identify with other marginalized groups—particularly when the target outgroup is one that historically shares a collaborative relation with the ingroup or when members are made aware of the injustices experienced by the outgroup.

Finally, current multicultural education curriculum emphasizes increasing knowledge and understanding (about the outgroup), focusing on core values (e.g., social justice), understanding and using privilege, and cultivating empathy (Gonzales et al., 2015). However, when I consider the increasingly diverse body of psychologists-in-training, learning about how one's own group has been historically marginalized and reflections about the impact discrimination has on ingroup may provide an additional avenue to engage trainees to deepen their understanding of both themselves and clients as multicultural beings.

## Appendix A: Comprehensive Literature Review

Relatively little psychological research has examined intra-minority intergroup relations, and even less has investigated the role of perceived societal discrimination against and affirmation of one's marginalized group. This literature review discusses theory and empirical research relevant to this area of inquiry, as well as basic findings related to the outcome variables. I begin by discussing the question of why it may be useful to study both perceived group discrimination and affirmation. I then review work on the effects of perceived group discrimination on intergroup relations, and then do the same on the effects of perceived group affirmation. Finally, I discuss the dependent variables of the proposed study, i.e. perceptions in relation to members of an outgroup as well as affective and behavioral responses to biased treatment against members of other marginalized groups.

### **Group Discrimination vs. Affirmation: Two Sides of the Same Coin?**

While group discrimination stresses the disparity and stigma people in a marginalized group face from other subgroups of a superordinate group (often presumed to be the privileged subgroup of the same identity dimension), group affirmation focuses on the respect and recognition marginalized individuals receive. In this sense, discrimination against and affirmation of people in marginalized groups seem like two extremes of experiences along a single continuum of group evaluation. However, group discrimination and affirmation are not simply polar opposites but rather two conceptually related but distinct constructs. In the context of sexual

orientation stigma for instance, low levels of sexual prejudice do not necessarily equate to actual acceptance and affirmation of LGB individuals (Pittinsky, 2005; Russell & Richards, 2003). Tolerance can be conceptualized as low levels of group discrimination and yet also low levels of affirmation. Relatedly, scholars have noted that “null environments” claiming lack of prejudice risk perpetuating oppressive conditions by failing to anticipate and counter discrimination (Fassinger, 1995). This argument is analogous to one that was made based on research on affect. According to Taylor (1991),

Increasingly, researchers have argued that positive and negative affect cannot be considered endpoints of a single continuum, but rather must be thought of as qualitatively distinct phenomena (e.g., Bersheid, 1983; Diener & Emmons, 1985; Isen, 1984; Watson, Clark, & Tellegen, 1988) ... suggestions that they are distinct phenomena have arisen from the lack of parallel effects in the literature (p. 67).

Given the conceptualized distinctiveness of group discrimination and group affirmation, it cannot be assumed that processes set in motion through the latter are simply the opposite of those through the latter. It is for this reason that I separately consider the effects of discrimination and affirmation in this literature review. In the following sections, I review research relevant to the investigation of group affirmation for marginalized individuals in the context of intergroup relations.

### **Effects of Group Discrimination on Intergroup Relations**

Perceptions of group discrimination have long been thought to influence intergroup relations. Frameworks emerging from social identity theory (Tajfel & Turner, 1979; 1986) have inspired hypotheses—sometimes competing—on the effects of group discrimination on attitudes and behaviors toward outgroups. Richeson and Craig (2011), for example, highlighted ways that the common ingroup identity model (CIIM; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993) and social identity threat theory (Branscombe, Ellemers, Spears, & Doosje, 1999) offer opposite predictions regarding how discrimination affects the way marginalized groups view one another. In this section, I review these perspectives and their associated evidence.

### **Common Ingroup Identity Model**

Building upon social identity and self-categorization theories (Brewer, 1979; Brown & Turner, 1981; Tajfel & Turner, 1979), Gaertner et al. (1993) proposed CIIM to understand intergroup attitudes and behaviors. The essence of social categorization theories lies on the tendency for human beings to categorize people into ingroup versus outgroup, or *us* versus *them*. The social attributes that people use to distinguish ingroup from outgroup can be understood as group boundaries. CIIM argues that people's perception of group boundaries is a source of intergroup bias. "Factors that transform members' cognitive representation of the memberships from two groups to one group" (p. 2) are suggested to reduce intergroup bias such as ingroup favoritism, and to encourage cooperation with and positive evaluation of former outgroup

members. This transformation of perceived group boundaries can be referred to as recategorization. This process of recategorization does not involve eliminating the initially existing social categories nor representing members of both ingroups and outgroups as separate individuals. Rather, it emphasizes a common superordinate identity that the individuals' ingroup and outgroup share and thus also the connection between oneself and members in the outgroup. This model has been supported by research showing that individuals belonging to a privileged social category report more positive attitudes toward marginalized group members when a common superordinate identity is made salient (e.g., intergroup relations between White Americans and racial minorities in Gaertner, Rust, Dovidio, Bachman, & Anastasio, 1994).

Richeson and Craig (2011) argued that CIIM can also be applied to predict intra-minority intergroup relations. Specifically, they proposed that highlighting the common fate that members of the ingroup and the target outgroup both experience will improve evaluations of outgroup members through recategorization. Take intergroup relations among Asian, Hispanic, and Black Americans as an example. All of these groups share the experience of racism, along with a common superordinate identity of racial minority. Along this line, the researchers hypothesized that the racism directed toward any of the specific racial minority groups will elicit a common superordinate identity (i.e., racial minority), which in turn will generate more positive attitudes toward other racial minority groups.

Craig and Richeson (2012) conducted a series of studies to demonstrate the utility of CIIM in explaining intergroup relations among racial minority groups in the U.S.. The first studies provided population-based evidence for positive intergroup relations between Hispanic and Black Americans (Study 1a) and a positive association between perceived anti-Hispanic racism and perceived common fate shared with Black people among a sample of Hispanic Americans (Study 1b). The researchers then tested among samples of Asian Americans (Studies 2-4) and Hispanic Americans (Study 5) the effect of perceived group racism on participants' perceived similarity between themselves and Black Americans (Studies 2, 3, & 5) and their explicit and implicit attitudes toward Black Americans (Studies 2 & 5 and Studies 3 & 4, respectively). Participants experimentally assigned to the racism-salient condition read an article titled "Racial Bias Is Alive". It described an ostensible research study about the "pervasive discrimination faced by Asian [or Hispanic] Americans in income disparities, anti-Asian [or anti-Hispanic] attitudes held by Whites, mental health risks, and disparities in media representation" (p. 776). Those in the control condition, instead, read an article titled "Researchers Explore Left-Handedness" that described an ostensible research study on left-handedness and brain function without any mentioning of race. Consolidating the results, the researchers concluded that the results for the most part supported their hypothesis: Participants' perceived similarity with Black Americans mediated a positive effect of

the group discrimination prime on explicit positive attitudes towards Black Americans.

Craig and Richeson's (2012) studies were among the first to investigate the utility of CIIM in the context of relations between minority groups. However, the research focused on groups defined by one social identity dimension (i.e., race). They noted in their limitation section that:

Although such a focus is important for furthering research focusing on members of socially disadvantaged groups as actors rather than passive targets (Shelton, 2000), many different social groups encounter discrimination. Thus, future research should explore different combinations of participant and target groups (e.g., gays and lesbians) to assess the generalizability of these findings (p. 774).

A few studies have addressed this limitation of Craig and Richeson's (2012) studies. Kleiman, Spanierman, and Smith (2015), for example, investigated the effect of perceived heterosexism on White gay and heterosexual men's racial empathy, colorblind racial attitudes, and allyship intentions for Black Americans. The researchers posited that perceived heterosexism would increase White gay men's levels of racial empathy by increasing their awareness and sensitivity to oppression. This increased empathy, in turn, was hypothesized to improve racial attitudes. Although the study was not conceptualized within the CIIM framework, the hypotheses were based on the similar notion that experiencing group-based

oppression offers a basis for identifying with members of other oppressed groups. Kleiman et al. (2014) randomly assigned both White heterosexual men and White gay men to (a) read an article that described a sexual minority man experiencing heterosexist physical violence (heterosexist violence condition), (b) read an article that described a man experiencing physical violence without any attributions to heterosexism (violence condition), or (c) read no article. Results indicated that this manipulation had no effect on participants' racial empathy or attitudes, both as a main effect and in interaction with participants' sexual orientation.

A number of factors may explain these null results. First, the two dimensions of identity investigated may have been too different from one another to stimulate a higher order category of oppressed persons. These identities differ in a number of ways (e.g., concealability, development). Moreover, historical tensions between gay and Black communities have been documented. Second, the null findings may have been partly due to the individual focus of the experimental materials, which described single examples of violence. Findings may have differed with materials that described the impact of heterosexist violence on sexual minority people as a group. The authors also noted that findings might be due to small sample size in certain conditions (e.g.,  $N = 19$ ). It is worth noting that one set of findings was consistent with the CIIM: Compared to heterosexual participants, gay participants reported higher levels of racial empathy and lower levels of colorblind attitudes. Nevertheless, the null experimental results raised questions about the extent to which priming heterosexism

increases gay men's sense of connection to Black Americans through a common "marginalized" or "disadvantaged" identity.

Craig together with Richeson (2014) and DeHart, Richeson, and Fiedorowicz (2012) also conducted studies that examined intergroup relations among marginalized groups that differ in social identity dimensions, using similar an experimental design as the aforementioned study (Craig & Richeson, 2012). Both studies yielded results that did not support CIIM. Craig et al. (2012) speculated that the null results may reflect different group goals, as well as intergroup tensions. For example, with respect to their investigation of White women's racial attitudes toward other racial minorities when primed with sexism-salient materials, they noted:

The presumed perpetrators of sexism (men) are not necessarily the same as the presumed perpetrators of racism (Whites). Consequently, women may not assume that their goal of protecting against gender prejudice is necessarily aligned with the goals of the other stigmatized groups (e.g., protecting against racism). Women may even perceive Black and Latino men (i.e., the prototypical racial group members) as perpetrators of sexism. Taken together, these perceptions provide little foundation for the emergence of a spontaneous common categorization (p. 1116).

In brief, evidence seems to paint a picture that CIIM can predict the effect of group discrimination on intergroup relations among disadvantaged groups as long as these groups share the same social identity dimension, where a common perpetrating

outgroup can be spontaneously activated. To understand the contradictory findings in the context of intergroup relations among marginalized groups that differ in identity dimensions, Richeson and Criag (2011) suggested the social identity threat theory (Branscombe et al., 1999).

### **Social Identity Threat Theory**

Social identity threat theory was proposed by Branscombe et al. (1999) and built on the premise that “people derive self-esteem from group memberships and enhance their esteem by perceiving their own group (the ingroup) more positively than outgroups” (Richeson & Craig, p. 167). Branscombe et al. proposed four types of social identity threat. They include:

Categorization threat: being categorized against one’s will;

Distinctiveness threat: group distinctiveness is prevented or undermined;

Threats to value of social identity: the group’s value is undermined;

Acceptance: One’s position within the group is undermined (p. 36).

Among these four types of social identity threat, threat directed to the value of one’s social identity is relevant to the current investigation of group discrimination. Branscombe et al. argued that people will restore the perceived positivity of their own group when the group’s value is threatened. People may restore the collective esteem by favoring their ingroup and derogating the threatening or even non-threatening outgroups. Such reactions as ingroup favoritism and outgroup derogations are posited to occur especially among people who highly identify with their ingroup since they

tend to derive self-esteem from their group memberships to a greater extent than their low-identified counterparts. Branscombe et al. (1999) provided several examples of such efforts to restore collective esteem in the face of a value-based social identity threat. For example, they noted that the threat can emerge from a dominant or privileged outgroup (e.g., African Americans attributing discrimination to race, and subsequently derogating White Americans to restore collective esteem; Branscombe, Schmitt, & Harvey, 1999). They also discussed how similar dynamics can occur with threat directed from an outgroup that has a similar status and power as compared to the ingroup (e.g., Americans witnessing an American athlete losing a boxing contest to a Russian athlete, resulting in derogation against Russians; Branscombe & Wann, 1994).

Richeson and Craig (2011) extended this social identity threat perspective to the context of intra-minority intergroup relations. They noted that discrimination toward one's group could elicit perceptions of threat from members of a different oppressed minority group for several reasons. As discussed earlier, historical tensions between minority groups could override any tendency to for members of one group to identify with those of the other group through a sense of shared fate as oppressed. Also, large differences between the groups (e.g., groups defined by different dimensions of identity) may dampen the tendency for discrimination toward one group to evoke a superordinate identity as oppressed in members of the other group. Finally, perceived discrimination from an oppressed group is unlikely to elicit a

common oppressed identity among the targets of the discriminatory behavior. Little research has examined these possibilities among minority groups defined by the same dimension of identity. However, it is worth noting that Craig and Richeson (2012) did not find a significant correlation between perceived racial discrimination and perceived closeness with Black Americans among Latina/os (Study 1a). They speculated that intergroup competition between Latina/os and Black Americans as well as perceived racism from Black Americans might explain the null correlation.

A few studies have supported the social identity threat perspective for intergroup relations among marginalized groups defined by different identity dimensions. Two experimental studies were conducted to examine the effect of primed sexism among female White college students on their explicit and implicit racial intergroup bias (Craig et al., 2012) using a similar design as Craig and Richeson (2012). In Study 1, the researchers found that those in the sexism-salient condition expressed more explicit anti-racial minority sentiment than those in the control condition. In Study 2, they found that those in the sexism-salient condition reported greater implicit pro-White sentiment compared to those in the control condition. With a more stringent control, Craig and Richeson (2014) replicated the same pattern of findings with a different configuration of social identities. They conducted an experimental study among a sample of heterosexual Latino and Black college students to examine their explicit attitudes toward sexual minorities upon being primed with racism toward their respective racial groups (Study 2). Results

showed that those in the racism-salient condition expressed less explicit positive attitudes toward and political support for lesbians and gay men. This experiment extended the correlational evidence gathered in the researchers' Studies 1a and 1b (2014), in which they found negative associations between perceived racial group discrimination and attitudes toward homosexuality using two population-based surveys with heterosexual Black Americans and with heterosexual Asian Americans.

In conclusion, on the one hand, group discrimination against one's own group seems to elicit bias toward other marginalized groups across identity dimensions (e.g., across race and sexual orientation) since the concerned marginalized outgroup might overlap with other threatening outgroups and could be perceived as perpetrators of such discrimination. On the other hand, group discrimination may encourage positive attitudes toward other marginalized groups within the same identity dimension (e.g., race) due to the spontaneous activation of a superordinate identity as oppressed. This appears to be most likely to occur when common fate or a common threatening outgroup is highlighted and intergroup competition does not take center stage in the relations among the marginalized groups of interest.

### **Effect of Group Affirmation on Intergroup Relations**

Compared to group discrimination, there has been relatively little research examining the effect of group affirmation on intergroup relations. In this section, I review two lines of research that may inform predictions about effects of group affirmation. First, some research has explored how the experience of respect for

oneself or one's membership group may influence social perceptions and intergroup relations (Huo & Binning, 2008). Second, given a lack of relevant experimental evidence in the first line of research, I also review research on positive affect assuming that positive emotions would arise in reaction to group affirmation. To this end, Fredrickson's (2001) broaden hypothesis for positive affect and Schwarz and Clore's (1983) feelings-as-information perspective may substantiate our prediction for the effect of group affirmation on intra-minority intergroup relations.

### **Integrative Model of Respect**

Huo and Binning (2008) proposed an integrative model of respect. They defined respect by "an individual's assessment of how they are evaluated by those with whom they share common group membership" (p. 2). This definition suggests that the experience of respect concerns individuals (e.g., how people in my company evaluate me as an individual) rather than individuals' social identities or subgroups to which people belong (e.g., how people in my company evaluate me as a person of color or racial minorities in general). However, Huo, Molina, Binning, and Funge (2010) broadened the model beyond personal respect to include group respect. I will introduce the model and evidence supporting it, followed by research that examined intergroup respect.

The integrative model of respect focuses on the effect of personal respect and assumes that experience of respect satisfies two basic social motives: the striving for status and the need to belong. Correspondingly, the two dimensions of experience of

respect include the evaluation of one's status and liking. Status evaluation refers to the extent to which one perceives being a worthy and valued member of a group whereas liking evaluation refers to the degree to which one perceives being liked by others in a group. Huo and Binning (2008) argued that striving for status is a primary motive for social engagement since high personal status implies that one is useful to the functioning of the group (Huo, Binning, & Molina, 2008; Spears, Ellemers, & Doosje, 2005). They proposed that fair treatment an individual receives from group members (including peers and authorities) would positively influence the evaluation of one's own status in the group. That is, when one is treated fairly, it is also likely that one would perceive him/herself as a valued member of the group. They continued to argue that such experience of respect at the personal level would then affect one's engagement in social settings.

Several descriptive studies have supported the hypothesized connection between the experience of personal respect and group-oriented outcomes such as group identification and social engagement. For instance, Smith and Tyler (1997) conducted two survey studies and found that perceived personal respect from fellow group members was positively correlated with past attempts to help improve the ingroup and valuing of such behaviors. Boeckmann and Tyler (2002) conducted a survey study examining motives for people's civic participation. They found that respect the respondents perceived from people of their communities was positively associated with civic engagement, such as attending neighborhood meetings. Huo,

Binning, and Molina's (2010) survey of high school students indicated that greater perceived fair treatment from peers and school authorities was positively associated with higher status-based respect, which, in turn, was linked to greater school engagement.

Besides correlational evidence, causal evidence has been gathered for the positive effect of experience of respect on social engagement. For example, Simon and colleagues examined how respect received from other members in a lab-constructed group setting would influence participants' group identification and group engagement intentions such as taking on group-serving tasks (Renger & Simon, 2011; Simon & Stürmer, 2003; 2005; Simon, Lüken, & Stürmer, 2006) and actual group-serving behaviors such as generation of additional suggestions for a group project (Renger & Simon, 2011). In all four studies, respectful treatment by fellow group members increased participants' group identification and intended and actual engagement in group-serving behavior. In a different study, Branscombe et al. (2002) found that those who were primed with personal respect would express greater efforts to improve the lab-constructed ingroup. Altogether, findings from these studies suggested that experience of personal respect is an important factor for engagement in groups one belongs to.

Can findings for personal respect be extended to group respect? Huo and Molina's (2006) discussion offered some insights. They argued,

Although the research on respect has been limited to investigations of individuals' connections to a single group and/or its representative authority, the social structure inherent in diverse communities suggests that feeling that one's subgroup is respected by the common group (e.g. work organization, nation) should influence the individual's attitudes and feelings toward both the collective and the subgroups within it (p. 361).

In this sense, the status evaluation pathway of the integrative model of respect can be applied to the context of intergroup relations across marginalized groups since these groups are also embedded in a common higher-order group such as community or society. Instead of experience of respect concerning an individual, the focus can be shifted to respect concerning subgroups that one identifies with, which I will refer to as perceived group respect. In fact, Simon, Mommert, and Renger (2015) conducted two experiments examining the effect of perceived group respect from members of an outgroup on the process of recategorization. In both studies, they found that participants in the high respect condition were more likely than others to think of the original ingroup and outgroup as one common group rather than two separate groups. Furthermore, Study 2 clarified that participants in the high respect condition were also more likely to think of the two groups as *two subgroups of a common group*. In either case, results showed that experience of group respect facilitated the process of ingroup–outgroup recategorization. As we have discussed in the section on CIIM, the process of recategorization may be important for intergroup relations.

Correlational evidence also suggests that perceived group respect might also give rise to positive intergroup relations and overall social engagement, particularly among marginalized groups (as summarized in Huo, Binning, & Begeny, 2015). Huo and Molina (2006) conducted a survey of community adults examining how perceived respect by members in the larger American society concerning one's racial/ethnic minority group may be related to a set of group-oriented variables. They found that greater perceived respect for one's racial/ethnic group was associated with less distrust of the American justice system and lower levels of ingroup favoritism. The researchers also found perceived minority group respect to be positively linked to positive attitudes towards Americans in general. These findings were observed among their Black and Hispanic American sample and not among White participants. Huo, Molina, et al. (2010) replicated some of these findings in an adolescent sample in a school survey. They found that increase in perceived respect for one's racial/ethnic group from people at the school community was associated with decrease in school disengagement among Asian and Hispanic American students but not among White nor African American students. They also found that greater perceived group respect was associated with more positive attitudes towards other racial/ethnic outgroups and school authorities such as teachers and staff at school. This pattern of result was only observed among racial/ethnic minority youth. Of note, since the researchers combined both Whites and racial/ethnic minority groups in generating the attitude score, it remains unclear whether the positive association between perceived group respect and

favorable attitudes towards other outgroups would hold if these target groups only included racial/ethnic minority outgroups. Nevertheless, results from these studies suggest that perceived respect for one's marginalized group may not only result in greater engagement in the superordinate group, but also less ingroup favoritism.

The evidence I reviewed so far concerns intergroup relations within the same identity dimension. What does research indicate regarding the effect of subgroup respect on intergroup relations across identity dimensions? Simon and Grabow (2014) conducted a community survey among a sample of lesbian and gay non-Muslim German nationals. They found that those who reported greater estimated percentages of people in Germany willing to respect homosexuality and other forms of sexual diversity also expressed lower levels of anti-Muslim immigrant attitude. The authors showed that such relationship could occur through an increased level of perceived recognition of equality (i.e., perceiving German society in general recognize gays and lesbians as equal citizens and acknowledge their achievements and needs). This suggested that the perceived group respect might improve intergroup relations across identity dimensions.

In summary, there is strong evidence that experiences of personal respect result in social engagement. Most relevant to the current investigation is correlational evidence that perceived group respect is positively related to social engagement with the superordinate group, and positive attitudes towards outgroups. It is possible that recategorization of ingroup and outgroup(s) to a common superordinate category such

as citizens or humans may explain the positive effect of group respect on intergroup relations within and across identity dimensions. Although affirmation of one's group also include experiences of support and acceptance in addition to respect, research on group respect offers a preliminary basis for my investigation of group affirmation.

### **Positive Affect**

Experiences of group affirmation may also influence intergroup relations by eliciting a range of positive emotions. Fredrickson's (2001) broaden hypothesis and Schwarz and Clore's (1983) feelings-as-information perspective are relevant to the current investigation, despite their competing predictions regarding how positive emotions affect the way people process social information. In the following section, I first review Fredrickson's (2001) broaden hypothesis, followed by Schwarz and Clore's (1983) feelings-as-information perspective.

**Broaden hypothesis.** Building on Isen and colleagues' experiments on positive emotions, Fredrickson argued that positive emotional states, as compared to negative and neutral states, "widen the array of thoughts, action urges, and percepts that spontaneously come to mind" (Fredrickson, 2013, p. 17). There has been ample evidence supporting the broadening effect of positive emotions on the scope of cognitions and attention (e.g., Fredrickson & Branigan, 2005; Johnson, Waugh, & Fredrickson, 2010). With regard to the effect on interpersonal relationships and social cognitions, positive affective states have been shown to encourage altruistic behavior (George, 1991), perspective-taking and interpersonal connection (Nelson, 2009;

Waugh & Fredrickson, 2006), and trust (Dunn & Schweitzer, 2005). Further, induction of positive affect has been shown to enhance the forming of inclusive social categories (Dovidio, Gaertner, Isen, & Lowrance, 1995; Isen, Niedenthal, & Cantor, 1992; Ong, Burrow, & Fuller-Rowell, 2012) and the reduction of the salience of intergroup boundaries (Johnson & Fredrickson, 2005).

*Interpersonal connections and altruism.* A number of studies have investigated the effect of positive emotions on interpersonal trust and connections. For example, Nelson (2009) conducted two experiments to examine the effect of affective state and cross-cultural perspective taking on empathic concerns. In both studies, the researcher manipulated her student participants' emotional state (positive vs. neutral) and target cultural similarity (culturally similar vs. different) through a directed writing task. Participants then read a vignette that described a person experiencing distress for reasons that were either culturally similar to or different from the participant. She found a significant interaction effect on empathy such that participants induced with a positive emotional state, as compared to those in a neutral state, expressed greater perspective taking and feelings of compassion toward the vignette protagonist, particularly one that with a different cultural background. In Study 2, the researcher added a negative emotional state manipulation to the affect condition and manipulated participants' emotional states by asking them to read a list of mood-inducing statements. Results again showed that participants induced with a positive emotional state, compared to those in the neutral and the negative emotional

states, expressed greater empathy toward the culturally different protagonist. Although the broadening effect of positive emotions was not observed when the vignette protagonist shared a culturally similar background with the participants (which could be due to a ceiling effect as argued by the author), these findings suggested that positive affect could enhance one's ability to empathize with people with backgrounds different from the self.

Dunn and Schweitzer (2005) conducted five experiments in hopes of understanding the effect of positive emotional states on interpersonal trust. In Studies 1-3, the researchers induced positive states (e.g., happiness, gratitude, pride) or negative states (e.g., sadness, anger, guilt) in participants using a directed writing task, and then asked participants to rate the trustworthiness of a nominated coworker or acquaintance. Across all three experiments, trustworthiness ratings were higher among participants induced with positive emotional states than those induced with negative emotional states. In Study 3, the researchers further clarified that the observed difference in trust was primarily driven by other-oriented emotional states (e.g., gratitude, anger) rather than self-oriented emotional states (e.g., pride, guilt). Lastly in Study 5, the researchers added a neutral condition to the manipulation and found that the effect of enhanced trust by the induction of gratitude, compared to neutrality and anger, was strongest when the nominated trustee was someone the participant was unfamiliar with. This is consistent with the conclusion Nelson (2009)

drew that the broadening effect of positive affect might be particularly salient in the context of unfamiliar social relationships.

Correlational evidence also supports the broaden hypothesis with respect to interpersonal relationships. For example, Waugh and Fredrickson (2006) conducted a prospective survey study examining the relationship between positive emotions and the development of roommate relationships in a university setting. The researchers found that levels of positive emotions in the first week of college were positively associated with both perceived connectedness with roommates and complexity of understanding of roommates. These effects persisted even when controlling for extraversion and negative emotions. In addition, the researchers found that, compared to participants who experienced a low ratio of positive to negative emotions daily throughout the first month of college, those with a high positivity ratio reported a greater increase in perceived connectedness and in complex understanding of their roommates. In a different study, George (1991) surveyed salespeople and found that self-reported positive affective state was positively correlated with altruistic behaviors both toward colleagues and customers as rated by participants' supervisors.

In summary, evidence suggests that positive affect can enhance people's interpersonal connection in both lab and field settings, particularly in relation to people who are different from or unfamiliar to oneself.

***Social categorization and intergroup boundaries.*** Some research has examined positive emotions' effect on social cognition. Isen et al. (1992), for

example, examined how positive affect would influence the relatedness between traits and social roles. The researchers offered a candy bar to participants in the experimental condition to induce a positive affective state whereas no such procedure was administered to those in the control condition. They then asked participants to rate how related various social roles such as *grandmother* and *bartender* were to trait categories such as *nurturing* (positive) and *pretentious* (negative). For each trait category, such as nurturing, there was one set of social roles that were typical exemplars (e.g., *grandmother*) and another set of nontypical roles (e.g., *bartender*). They found a two-way interaction between affect condition and the valence of traits on relatedness, such that, as compared to control group participants, participants primed with positive affect reported that the role exemplars had higher relatedness with positive traits but not with negative traits. In addition, perceived relatedness between non-typical exemplars and positive trait categories was higher among those primed with positive affect than among control. Furthermore, Rust (1995), as cited in Dovidio, Gaertner, Isen, Rust, and Guerra (1998), replicated the study by using a different manipulation strategy but a similar design and yielded the same conclusion. Rust induced participants' emotional states by asking them to read a series of affectively positive or neutral statements, followed by asking them to rate the extent to which a list of people (including themselves) fit into a variety of positive and negative social categories. She found that, compared to participants primed with neutral affect, those with positive affect reported themselves as well as others being

more fitting into the positive categories and less fitting into the negative ones.

Altogether, these results suggested that positive affect may broaden people's social cognitions by associating targets with positive social categories or traits more liberally.

Ong, Burrow, and Fuller-Rowell (2012) tested the broadening effect of positive affect on social inclusivity in an experimental field study. The researchers examined the effect of the priming President Barack Obama on social inclusiveness and hypothesized that positive emotions would mediate the relationship. They asked their African American college participants in the experimental condition to write about thoughts and feelings about Obama and those in the control condition to write about their daily activities for six consecutive days before as well as after the 2008 presidential election. They found that the Obama condition, as compared to the control, not only induced more positive emotions, but also the use of first-person plural self-references (e.g., we, us, our) and the use of social references (e.g., mention of friends, family, and sharing). Participants in the Obama condition also used fewer other-references (e.g., he, she, they, them). Positive emotions mediated the effect of the manipulation on all three types of references. Although the results suggested that the activation of positive affect could be a mechanism that explained the observed increase in inclusive superordinate references when African Americans wrote about Obama, it was not clear to what extent of social inclusivity the use of "we" and

“sharing” entailed, whether participants only felt more connected to people who shared their identity (e.g., African American) or even to those did not.

Dovidio et al. (1995) investigated the broadening effect of positive affect on social categorization in an intergroup context. Participants were invited to work on a group problem-solving task in a lab setting. The researchers found that participants primed with positive affect were, relatively to control group participants, more likely to evaluate outgroup members positively, think of the ingroup and the outgroup as one group, and minimize the distinctness of the ingroup and outgroup. They further showed that common superordinate group was related to reduced bias against the outgroup. A subsequent study extended this research to investigation of groups with a history of antagonism (Dovidio et al., 2008). Besides manipulating participants’ affect (positive vs. neutral), the researchers manipulated the salience of group membership (subgroup vs. superordinate group identification). In the subgroup representation condition, participants addressed the ingroup and outgroup based on subgroup memberships (e.g., liberal, conservatives); whereas in the superordinate representation condition, participants addressed the groups based on both the superordinate and subgroup memberships (e.g., Colgate liberals, Colgate conservatives). The researchers found a significant interaction between affect and salience of group membership such that the priming of positive affect increased participants’ inclusive group representations and reduced intergroup bias in the superordinate group condition and decreased participants’ inclusive group

representations and heightened intergroup bias in the two-group condition. In other words, the broadening effect of positive affect on categorization of historically antagonistic ingroup and outgroup was only observed when participants were primed with a common superordinate identity of the two groups throughout the experiment. Such an effect was not observed when the subgroup identities were the only salient group representation.

In contrast to the findings of Dovidio et al. (2008), Johnson and Fredrickson (2005) found an overall reduction in intergroup bias without making either a subgroup or superordinate group identity salient. They conducted a two-phase experiment investigating how various emotional states (joy, fear, or neutrality) would affect their White participants' ingroup bias in recognizing faces of their own race (i.e., White) versus a different one (i.e., Black). Results showed that, in both learning and testing phases, participants induced with joy consistently demonstrated an elimination of ingroup bias (i.e., recognizing White faces better than Black faces), which was observed in responses from those induced with fear and neutrality. Such elimination bias in the joy condition was driven by better facial recognition of Black individuals. The authors postulated that the reduced ingroup bias could be due to the promotion of holistic perception and/or an elicitation of more inclusive social categorizations and the salience of group boundaries by positive emotional state. Although Johnson and Fredrickson's (2005) study focused on facial recognition bias

rather than attitudes, the results suggest that positive affect may have an overall effect in reducing intergroup evaluative bias.

In conclusion, evidence suggests that positive affect can lead to positive social perceptions, such as enhanced connection and similarity to other individuals and groups. Of particular interest is evidence showing that positive affect may encourage people to include the original outgroup in a common superordinate ingroup.

**Feelings-as-information.** Despite evidence supporting the broadening hypothesis with respect to inter-group relations, it is important to consider other lines of research suggesting that such broadening effects could be blunted by other effects of positive affect. Bodenhausen, Todd, and Becker (2007) reviewed research on the role of affect in stereotyping, and found evidence that happiness and other positive states may increase a person's tendency to stereotype others. They interpreted such findings from a feelings-as-information perspective (Schwarz & Clore, 1983), which argues that people use their feelings in deciding whether and how to respond to different states in the world. Bodenhausen et al. postulate that a happy mood indicates that "all is well, and one can go with one's dominant, initial reactions" (p. 141). That means a happy mood can result in greater reliance on heuristics and stereotype application to members of out-groups. From this perspective, the broadening impact of positive affect on inter-group perceptions could be muted if the dominant stereotypes about a target group are negative.

Bodenhausen, Kramer, and Süsser (1994) conducted four experiments examining the effect of state happiness on stereotype application. The researchers induced state happiness among participants by a variety of means including music, facial feedback, and recalling personal memories of happy times through writing. Participants then read two cases of alleged misconduct such as assault and cheating and were asked to rate the degree to which they found the defendants guilty. Results showed that participants in the happy condition, compared to those in the neutral condition, rated the defendants guiltier when the identity of the defendants stereotypically match with the type of misconduct (e.g., Hispanic men being stereotypically perceived as aggressive; student athlete being stereotypically viewed as being prone to cheating). It is also worth noting that greater stereotyping was observed regardless of the level of arousal in happiness when comparing people induced with excited, energetic happiness and those induced with calm, serene happiness. These results suggested that happiness as an affective state could encourage people to make decisions based on stereotypes.

Similarly, Park and Banaji (2000) demonstrated similar effects of state happiness on heightened stereotype use through three experiments. The researchers tested among samples of college students from a variety of racial backgrounds for the effect of state happiness induced with video clips on their memory of a list of paired names and identities. Names were varied by having African or European roots whereas identities were varied by criminal versus politician (Study 1) or basketball

player versus nonplayer (Studies 2-3). Results across the three showed that state happiness increased participants' tendency to falsely match African American names and stereotypical identities such as criminal and basketball player. In particular, findings from Studies 2-3 further indicated that such increased false identification for African American names was resulted from participants' reduced ability to distinguish basketball players from nonplayers and lower criterion for considering African American names as basketball players.

In sum, although group affirmation may elicit a range of positive emotions in the moment, happiness as an affective state in particular may heighten people's reliance on heuristics and stereotypes. If the dominant stereotypes of a target group are negative, the greater likelihood of applying such negative stereotypes onto members of the target group may reduce the overall broadening effect of positive emotions.

### **Outcome Variables: Group-Based Responses in Intergroup Contexts**

Previous research on intra-minority intergroup relations has mainly focused on attitudes as the outcome (e.g., Craig & Richeson, 2014; Simon & Grabow, 2014). As noted by Craig and Richeson (2012), there is value in considering other responses toward other marginalized outgroups, including identification with outgroups, group-based affect, and collective action on behalf of outgroups. These additions are important for two reasons. First, these different group-based responses have different functions and expressions in the real world. For instance, some researchers have

stressed that variables such as attitudes may not always translate into actions in an intergroup context (e.g., Gaertner, Dovidio, Nier, Banker, & Ward, 2000; Batson et al., 2002). Second, intergroup relations researchers have typically focused on prejudice reduction as a goal rather than cultivation of positive group evaluations and behaviors as ally development (Gonzalez, Riggle, & Rostosky, 2015). One contribution of the proposed study is inclusion of a wider variety of intergroup variables than has been typically studied in research on intra-minority intergroup relations, including outcomes that are positive in valence. In this section, I reviewed three domains of intergroup responses: intergroup perceptions, empathic response to outgroup injustices, and ally behaviors.

### **Intergroup Perceptions**

Intergroup perceptions have been frequently examined in intergroup relations research (Yzerbyt & Demoulin, 2010) and concern how individuals perceive and evaluate their ingroups outgroups. In this section, I provide an overview of basic concepts and knowledge related to the three types of intergroup perceptions examined in the proposed study: explicit attitudes, group identification, and intergroup bias.

Explicit intergroup attitudes refer to the conscious affective evaluation of different social groups, such as feelings ranging from acceptance to rejection, from trust to distrust, and from liking to disliking (Brewer & Kramer, 1985). Explicit attitudes toward a wide variety of social groups have often been measured by a single-item feeling thermometer scale (e.g., American National Election Studies,

2011; Haddock et al., 1993; Herek, 2002; Herek and Capitano, 1999). Different psychometrically sound scales have also been developed to measure outgroup members' explicit attitudes toward specific social groups, such as Black people (Katz & Hass, 1988; Neville, Lilly, Duran, Lee, & Browne, 2000), gay and lesbian individuals (Herek, 1988), and transgender people (Walch, Ngamake, Francisco, Stitt, & Shingler, 2012).

There has been consistent correlational and experimental evidence for an effect of perceived discrimination toward one's own group on attitudes toward other marginalized outgroups. For instance, it has been shown in multiple studies that the induction of perceived own-group discrimination would elicit more explicit positive attitudes towards other marginalized outgroups within the same identity dimension (e.g., Craig & Richeson, 2012) yet less explicit positive attitudes towards other marginalized outgroups across identity dimensions (e.g., Craig & Richeson, 2014). Furthermore, there is also preliminary evidence gathered for the effect of perceived group respect on attitudes toward other marginalized outgroups. For example, it has been shown that perceived group respect was positively associated with more positive attitudes towards other outgroups on the same identity dimension (e.g., Huo, Molina, et al., 2010) and also toward marginalized outgroups across identity dimensions (e.g., Simon & Grabow, 2014).

Group identification refers to the sense of connectedness and shared identity between oneself and different social groups (van Zomeren, Postmes, & Spears, 2008).

Researchers have typically been adapting the group identification scale developed by Doosje, Ellemers, and Spears (1995) in assessing people's identification to the group of interest. Group identification has mostly been investigated in the context of ingroup. For instance, it has been shown that higher perceived discrimination against one's ingroup was positively associated with identification with the ingroup if it is not feasible for people to change their group membership (e.g., Armenta & Hunt, 2009; Branscombe et al., 1999; Schmitt, Branscombe, Kobrynowicz, & Owen, 2002; Schmitt, Spears, & Branscombe, 2003). There has been evidence showing the positive effect of experience of personal respect on group identification (e.g., Branscombe et al., 2002; Renger & Simon, 2011). Nevertheless, little evidence has been gathered for the effect of social equity of one's ingroup on the identification to other marginalized outgroups.

Finally, intergroup bias refers to the biased tendency that people have in favoring one's ingroup more than outgroups (Hewstone, Rubin, & Willis, 2002). It is often assessed by the difference scores between group perceptions of the ingroup and those of the outgroup. For a positive-valence variable (e.g., perceived warmth), if the score for the ingroup is higher than that for the outgroup, ingroup favoritism is shown; whereas if the reverse is true, outgroup derogation can be concluded. There has been evidence showing that perceived own-group discrimination would elevate people's outgroup derogation tendency when the marginalized outgroup differed in

identity dimensions (e.g., Craig et al., 2012). Perceived group respect has also been shown to negatively associated with ingroup favoritism (Huo, Molina, et al., 2010).

### **Empathic Response to Outgroup Injustices**

Research on affective responses in intergroup contexts has rapidly grown in the past decade (Yzerbyt & Demoulin, 2010). This area involves research that examines people's "emotional reactions about the ingroup, about the outgroup, about their relations, as well as about a host of other events" (Yzerbyt & Demoulin, 2010, p. 1046). In relation to the current study, I am interested in people's emotional reactions to unjust experiences facing individuals in other marginalized groups. How people react may depend on their appraisals of these experiences, whether they view them as legitimate or justifiable (Stewart et al., 2013; van Zomeren et al., 2008). Emotions such as guilt, sympathy, and moral outrage may become salient as one appraises injustice that people in other outgroups experience (Leach, Snider, & Iyer, 2002), which I refer to as empathic response. Despite the important role these emotions play in intergroup dynamics, there has not been much research on how social (in)equity concerning one's marginalized identity influences people's empathic response to disparities and biases facing other marginalized outgroups. In this section, I will discuss each of these group-based emotions in greater detail.

**Group-based anger.** Anger as an emotional reaction to group injustices has been much studied in research on relative deprivation theory (Smith, Pettigrew, Pippin, & Bialosiewicz, 2012), which argues that perceived disadvantages

experienced by the ingroup in comparison to the outgroup trigger anger. Therefore, this research has focused on people's experience of anger in reaction to perceived group discrimination directed toward the ingroup rather than the outgroup. Previous studies have items such as *anger*, *resentment*, and *frustrations* in assessing people's experience of anger (e.g., Leonard, Moons, Mackie, & Smith, 2011; Strümer & Simon, 2009; van Zomeren, Postmes, Spears, & Bettache, 2011; van Zomeren, Spears, Fischer, & Leach, 2004). Some findings have supported the argument that perceived group discrimination elicits group-based anger specifically when the injustice concerns the ingroup. Evidence has been gathered across different marginalized and disadvantaged groups such as women (Ellemers & Barreto, 2009; Iyer & Ryan, 2009) and immigrant workers (Grant, Abrams, Robertson, & Garay, 2014). Beyond discrimination directing toward the ingroup, some evidence suggests that individuals in privileged groups may experience anger in reaction to the illegitimate privileges they possess (Gordijn, Yzerbyt, Wigboldus, & Dumont, 2006; Iyer, Schmader, & Lickel, 2007; Leach, Iyer, & Pedersen, 2006, 2007).

**Group-based guilt.** Guilt is another commonly researched emotion that may occur when people with a privileged identity are aware of the illegitimate advantageous position over other outgroups and share responsibility for the disadvantages experienced by the outgroups (Wohl, Branscombe, & Klar, 2006). Some evidence suggests that group-based guilt may be heightened when privileged individuals focus on the illegitimate advantages of the ingroup rather than on the

disadvantages of the marginalized outgroup (Harth, Kessler, & Leach, 2008; Iyer, Leach, & Crosby, 2003; Powell, Branscombe, & Schmitt, 2005). It has also been shown that privileged individuals experience more group-based guilt when they recategorize people in the marginalized outgroup as members of a common ingroup (Gordijn et al., 2006). Doosje, Branscombe, Spears, and Manstead (1998) conducted among the first research on group-based guilt, and their collective guilt scale has been adapted by others to measure collective guilt experienced by different privileged groups such as men (e.g., Gunn & Wilson, 2011; Branscombe et al., 2004) and nationals (e.g., Boeckmann & Feather, 2007; Zebel, Doosje, & Spears, 2009). There are also scales developed for specific privileged populations (e.g., the White Guilt subscale in the Psychosocial Costs of Racism to Whites scale; Spanierman & Heppner, 2004). Alternatively, researchers have also assessed the construct by asking participants to endorse the extent to which they feel *guilty*, *ashamed*, or *having a bad conscience* about a described situation (e.g., Harth, Kessler, & Leach, 2008; Iyer, Schmader, & Lickel, 2007).

**Group-based compassion.** The last set of emotional reactions to outgroup injustices is compassion-related emotions, which have been measured by items such as *compassion*, *sympathy*, and *mercy* (Harth, Kessler, & Leach, 2008; Zebel, Doosje, & Spears, 2009). This set of emotions is based in identification with the outgroup and the plight outgroup members experience (Leach, Snider, & Iyer, 2002). In fact, it has been shown that compassion would increase among people in privileged groups when

appraisals of disadvantages and injustices experiences by people in other marginalized groups were made salient (Harth, Kessler, & Leach, 2008).

### **Ally Behaviors**

Ally behaviors can be defined as collective action on behalf of people in other marginalized outgroups. More specifically, it can be conceptualized as any action that aims to improve the collective condition (e.g., status, power, or influence) of other oppressed groups as a whole with which one may not share membership (Wright, Taylor, & Moghaddam, 1990; van Zomeren & Iyer, 2009). Ally behaviors have often been operationalized as behavioral intentions and actual behavior (van Zomeren & Iyer, 2009). Although behavioral intentions do not necessarily translate into actual behaviors, numerous studies have measured ally behaviors as behavioral intentions, such as willingness to confront one's identity-based privileges (e.g., Kleiman et al., 2015), willingness to protest injustice (e.g., Shi, Hao, Saeri, & Cui, 2014; Jost, Chaikalis-Petritsis, & Abrams, 2012), and willingness to partake in concrete steps that may lead to systemic changes (e.g., Iyer & Ryan, 2009). Actual behaviors have been studied in different ways, depending on research design. If the study is correlational, researchers often assess past behaviors such as past activism and political involvement (e.g., Montgomery & Stewart, 2012; Swank & Fahs, 2011, 2012). If the study is experimental, researchers often examine real-time display of behaviors such as signing petitions (e.g., van Zomeren, Postmes, & Spears, 2012), disseminating flyers that calls for prejudice reduction (e.g., Stewart, Latu, Branscombe, & Denney,

2010; Stewart et al., 2013), and distributing imaginary resources to different groups (e.g., Harth et al., 2008). Such behaviors are typically low-risk and conventional, as opposed to ones such as civil disobedience (Corning & Myers, 2002). Lastly, similar to intergroup attitudes, researchers have also assessed ally behaviors relative to ingroup behaviors to yield measures of ingroup favoritism (e.g., Harth et al., 2008).

Virtually no research has examined links between perceived group discrimination and ally behavior. However, studies based on relative deprivation theory (Smith, Pettigrew, Pippin, & Bialosiewicz, 2012) have examined the effect of social inequity toward the ingroup on engagement in behaviors that would benefit the ingroup. In fact, a number of these studies have suggested that group-based anger is a mediator of the relationship between perceived discrimination and collective actions. For instance, a series of three experiments found among samples of women in Germany that blatant sex-based discrimination elicited perceived group-based disadvantage and anger, which in turn led to more collective action for other women in terms of both behavioral intentions and actual behavior (Ellemers & Barreto, 2009).

In conclusion, only a few studies have examined the impact of perceived social (in)equity on intergroup relations toward groups defined along a different aspect of identity, and those studies have focused on the impact on attitudes. Some studies have examined the impact of perceived social (inequity) on other aspects of

intergroup relations (e.g., group-based emotions, collective action), but these studies have mainly focused on identities defined by the same dimension of identity.

### **Interrelations among the Outcome Variables**

Perceived discrimination and affirmation are hypothesized to have similar effects on the range of intergroup variables examined in the proposed study, suggesting that these variables may be interrelated. In this section, I briefly review research on associations among these different types of inter-group variables.

**Intergroup perceptions and collective action.** As mentioned in the beginning of this section, attitudes do not always result in actions in an intergroup context (e.g., Gaertner et al., 2000; Batson et al., 2002). Although negative attitudes toward an outgroup may not automatically lead to aggressive behaviors against the outgroup, they may be associated with withdrawal behaviors; similarly, although positive attitudes toward an outgroup may not translate into prosocial behaviors for the outgroup, they may generally be associated with approach behaviors (e.g., Cacioppo & Berntson, 1994; Cacioppo, Gardner, & Berntson, 1997). In fact, it has been shown that positive attitudes toward the outgroup were positively associated with both behavioral intentions and actual behaviors of allyship (e.g., Fingerhut, 2011; Kleiman et al., 2015; Pittinsky, Rosenthal, & Montoya, 2011). Furthermore, identification with members of the outgroup has been shown to increase both behavioral intentions and actual behaviors of allyship (e.g., Batson et al., 2002; Mallett et al., 2008; Pittinsky, Rosenthal, & Montoya, 2011; Shih, Stotzer, &

Gutierrez, 2013; Todd, Bodenhausen, & Galinsky, 2012; van Zomeren, Postmes, Spears, & Bettache, 2011).

**Group-based affect and collective action.** Research has suggested that group-based emotions in support of people in other marginalized outgroups are positively associated with ally behaviors. For instance, anger on behalf of marginalized outgroups such as non-heterosexual individuals (Study 1 in Mallett et al., 2008), Black people (Study 2 in in Mallett et al., 2008) and aboriginal people (Study 3 in Leach, Iyer, & Pedersen, 2006) was positively associated with past ally behaviors among heterosexuals, White people, and non-aboriginal people, respectively. Guilt about the harm caused by the inaction or action of one's privileged ingroup to marginalized outgroup was also positively correlated with ally behaviors among White people (e.g., Kleiman et al., 2015; Iyer, Leach, Crosby, 2003; Studies 2 & 3 in Mallett et al., 2008; Stewart et al., 2010;) and among heterosexuals (e.g., Russell, 2011). Lastly, compassion toward a marginalized outgroup was positively associated with willingness to support recommendations that would benefit the outgroup, including immigrants (Study 3 in Harth et al., 2008) and Black people (Study 2 in Iyer, Leach, Crosby, 2003).

**Intergroup perceptions and group-based affect.** Links between perceptions of an outgroup and affect toward members of the outgroup have been found in a number of studies. Group-based guilt was negatively associated with negative attitudes towards outgroup. For instance, greater collective guilt experienced by

White people was associated with less negative racial attitudes (e.g., Kleiman et al., 2005; Powell, Branscombe, & Schmitt, 2005). A similar pattern of results was also found among non-aboriginal people's attitudes toward aboriginals (Pedersen, Beven, Walker, & Griffiths, 2004). Compassion toward a marginalized outgroup was found to have a positive relationship with positive bias toward the outgroup (Vescio, Sechrist, & Paolucci, 2003). The researchers found that greater state compassion among White people was related to greater pro-Black attitudes. Lastly, greater identification with a marginalized outgroup was also positively related to greater group-based anger on behalf of the outgroup (van Zomeran, Postmes, Spears, & Bettache, 2011).

In sum, the three domains of outcomes seem to share positive associations with one another when they are assessed in relation to the same outgroup in a similarly valenced direction (e.g., positive attitudes, positive affect, supportive behavior).

## Appendix B: Measures for Pre-Manipulation Emotion and Comfort with Outgroup

How are you feeling right now?

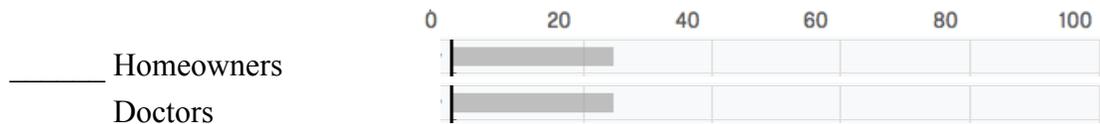
- 1 
- 2 
- 3 
- 4 
- 5 

--- Next page ---

Please use the scale (0) extremely uncomfortable to (100) extremely comfortable and rate the extent to which you feel comfortable with the following groups of people.

- 0 = extremely uncomfortable;
- 10 = very uncomfortable;
- 20 = quite uncomfortable;
- 30 = fairly uncomfortable;
- 40 = slightly uncomfortable;
- 50 = neither comfortable nor uncomfortable;
- 60 = slightly comfortable;
- 70 = fairly comfortable;
- 80 = quite comfortable;
- 90 = very comfortable;
- 100 = extremely comfortable

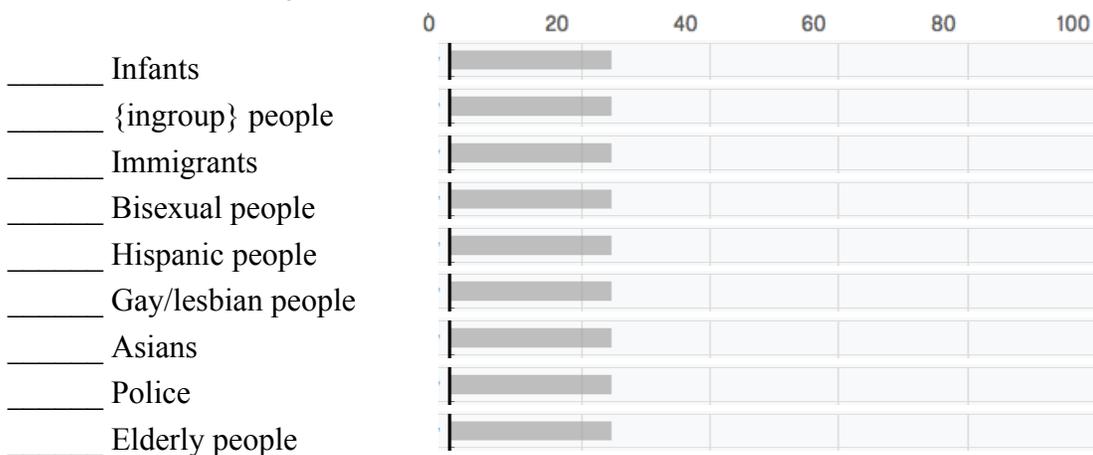
How comfortable are you with...





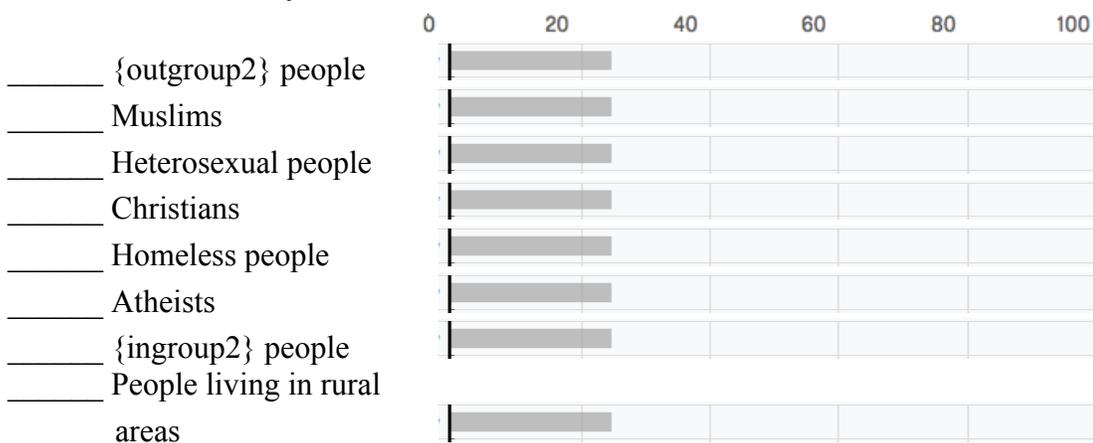
--- Next page ---

How comfortable are you with...



--- Next page ---

How comfortable are you with...



<b>Conditions</b>	{ingroup}	{outgroup}	{ingroup2}	{outgroup2}
<i>Race</i>	White	Black	non-transgender	transgender
<i>Gender Identity</i>	non-transgender	transgender	White	Black

## Appendix C: Manipulation Materials for LGB (In)equity

### **LGB Discrimination Condition**

The following article consists of a summary of a research study. Please take a moment to read the article as you normally would. Next, we will ask you some questions about the article.

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#### **SEXUAL ORIENTATION PREJUDICE IS ALIVE**

By: J. Haley

Associated Press | October 30, 2016

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Recent data collected by Illinois Research Consortium has shown that lesbian, gay, and bisexual (LGB) people still face discrimination in many important areas of life. The study surveyed over 5,000 LGB and heterosexual Americans several times over a 10-year period. It found that LGB people routinely experience discrimination and inequality in the workplace, places of business, places of worship, and in other daily interactions. In addition, the survey revealed that heterosexual people continue to hold negative attitudes about LGB people.

#### **PREJUDICE STILL PREVALENT**

The survey revealed that negative attitudes about LGB people were relatively common and changed little over the course of the study. The researchers found that a majority of the surveyed heterosexual people held negative attitudes against LGB people and would subtly discriminate against them if given the chance. For instance, these heterosexual participants reported seeing LGB people as less love-oriented than heterosexual people; and thought LGB people should not raise kids. Additionally, they associated more positive qualities with heterosexual people than with LGB people. It is estimated that these biases against LGB people will likely remain prevalent in the next decade.

#### **HEALTH RISKS**

The survey revealed that these negative social attitudes impact the lives of LGB Americans. Over 80% of LGB adults in the study reported experiencing discrimination from heterosexual peers, academic advisors, work supervisors, or other community members and leaders. For example, these LGB participants reported that others made biased assumptions about their personal and professional interests. They also reported hearing prejudiced remarks and being treated unfairly because of their sexual orientation. This type of LGB-related discrimination is known to increase physical and psychological health problems. In fact, LGB people are 3 times more

likely than heterosexual people to report experiencing physical illnesses and symptoms of anxiety and depression.

In short, the Illinois Research Consortium showed that LGB people continue to face widespread prejudice and inequality on a regular basis.

--- Next page ---

What was the theme of the article you just read?

To what extent do you think that the author of the reading was...

	(0) Not at all	(1)	(2)	(3)	(4)	(5)	(6) Very much
communicating the topic clearly?	<input type="radio"/>						
communicating the topic in a persuasive manner?	<input type="radio"/>						
presenting a balanced view of the topic?	<input type="radio"/>						

--- Next page ---

In this part of the survey, we would like to understand your view about the continuing prejudice and inequality facing LGB Americans. What are some examples you can think of that illustrate the continuing prejudice and inequality for LGB Americans as a whole?

What do you find most concerning about the continuing prejudice and inequality faced by LGB Americans? Please describe these thoughts and feelings in enough detail for us to understand your perspective.

## **LGB Affirmation Condition**

The following article consists of a summary of a research study. Please take a moment to read the article as you normally would. Next, we will ask you some questions about the article.

---

### **SEXUAL ORIENTATION EQUALITY IS ON THE RISE**

By: J. Haley

Associated Press | October 30, 2016

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Recent data collected by Illinois Research Consortium has shown that lesbian, gay, and bisexual (LGB) people receive strong support in many important areas of life. The study surveyed over 5,000 LGB and heterosexual Americans several times over a 10-year period. It found that LGB people experience a relatively high level of respect and recognition in the workplace, places of business, places of worship, and in other daily interactions. In addition, the survey revealed that heterosexual people now hold many positive attitudes about LGB people.

#### **ACCEPTANCE IS GROWING**

The survey revealed that positive attitudes about LGB people have increased over the course of the study. The researchers found that a majority of the surveyed heterosexual people held supportive attitudes and would refuse to discriminate against LGB people even if given the chance to do so. For instance, these heterosexual participants reported seeing LGB people as loving, competent, and reliable; and favored same-sex marriage. Additionally, they viewed LGB and heterosexual people as the same on a variety of personal characteristics. It is estimated that social acceptance of LGB people will continue to grow in the next decade. HEALTH

#### **BENEFITS**

The survey revealed that these positive social attitudes impact the lives of LGB people. Over 80% of LGB adults in the study reported experiencing support from their heterosexual peers, academic advisors, work supervisors, or other community members and leaders. For example, these LGB participants reported hearing others speak about their sexual orientation in a supportive way. They also reported that others value their personal and professional interests, and treat them with respect even when their sexual orientation is made public. This type of LGB-related support is known to contribute to physical and psychological health. In fact, LGB people with

social support are as likely as heterosexual people to report good physical health and life satisfaction.

In short, the Illinois Research Consortium showed that LGB people are receiving increased recognition and equality in their everyday lives.

--- Next page ---

What was the theme of the article you just read?

To what extent do you think that the author of the reading was...

	(0) Not at all	(1)	(2)	(3)	(4)	(5)	(6) Very much
communicating the topic clearly?	<input type="radio"/>						
communicating the topic in a persuasive manner?	<input type="radio"/>						
presenting a balanced view of the topic?	<input type="radio"/>						

--- Next page ---

In this part of the survey, we would like to understand your view about the growing recognition and equality for LGB Americans. What are some examples you can think of that illustrate the growing recognition and equality for LGB Americans as a whole?

What do you find most positive about the rapidly growing support and equality for LGB Americans? Please describe these thoughts and feelings in enough detail for us to understand your perspective.

### **Control Condition**

The following article consists of a summary of a research study. Please take a moment to read the article as you normally would. Next, we will ask you some questions about the article.

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## **RESEARCHERS EXPLORE LEFT-HANDEDNESS**

By: J. Haley

Associated Press | October 30, 2016

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Data collected in 2015 by the Illinois Research Consortium estimates that 7–10% of the adult population is left-handed. This study also examined a gene linked to left-handedness. Although little is known about this gene, it is suspected that it changes the asymmetry of the human brain. Asymmetry allows the left side of the brain to control speech and language while the right side controls emotion. In left-handers this is often reversed.

### **EFFECTS ON HUMAN THINKING**

This study examined a theory proposing that right-handed people process information one piece at a time, but left-handed people process several pieces of information simultaneously. The researchers tested this theory by asking adults to complete two tasks either simultaneously or one at a time. When given two tasks to complete at the same time, left-handers tended to do better than right-handers. However, when told to focus on one task at a time, right-handers tended to complete the tasks faster than left-handers.

The researchers concluded that right-handed people tend to solve problems by breaking them down into manageable sections and analyzing each piece one at a time. In contrast, left-handed people tend to solve problems by looking at the whole picture and using pattern matching to solve the problem.

### **DIFFERENCES IN MEMORY**

Another set of experiments examined the role of handedness on different types of memory. Memory for personal events, known as episodic memory, uses different parts of the brain than the memory for general facts, known as non-episodic memory. Left-handers tended to be more skilled in episodic than non-episodic memory. This finding was the opposite in right-handers.

In short, the Illinois Research Consortium concluded that left- and right-handed people show many interesting differences in task and memory performance.

*--- Next page ---*

What was the theme of the article you just read?

	(0) Not at all	(1)	(2)	(3)	(4)	(5)	(6) Very much
communicating the topic clearly?	<input type="radio"/>						
communicating the topic in a persuasive manner?	<input type="radio"/>						
presenting a balanced view of the topic?	<input type="radio"/>						

--- Next page ---

In this part of the survey, we would like to understand your view about the differences between left- and right-handed people. What are some examples of differences between left- and right-handed people that you have noticed?

What are your reactions about the different ways left- and right-handed people organize and process information? Please describe these thoughts and feelings in enough detail for us to understand your perspective.

## Appendix D: Measures for Post-Manipulation Emotion

Here are a number of words and phrases that describe different feelings and emotions. Please indicate to what extent you feel this way right now.

	(0) Very slightly not at all	(1)	(2)	(3) Moderately	(4)	(5)	(6) Extremely
Safe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Calm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Happy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appreciative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protected	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scornful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relaxed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afraid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cheerful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grateful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loathing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At ease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frightened	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joyful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Downhearted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thankful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Appendix E: Resource Distribution Task

For this part of the survey, pretend that you have \$500 to donate to organizations that serve the groups of people listed below. Show us how you would distribute the money if you had to make the donations today. You can give money to as many or as few groups as you wish. Please make sure that your donations end up totaling \$500. The box at the bottom will show you your total.

\$ \_\_\_\_\_ [Organization A] Population served: Americans living in rural areas

\$ \_\_\_\_\_ [Organization B] Population served: {outgroup} Americans

\$ \_\_\_\_\_ [Organization C] Population served: U.S. immigrants

\$ \_\_\_\_\_ [Organization D] Population served: American artists

\$ \_\_\_\_\_ [Organization E] Population served: Gay/lesbian/bisexual Americans

\$ \_\_\_\_\_ [Organization F] Population served: U.S. Veterans

\$Total
---------

<b>Conditions</b>	{outgroup}
<i>Race</i>	Black
<i>Gender Identity</i>	transgender

## Appendix F: Measures for Self-Categorization

The remainder of the survey will focus on your perceptions and reactions related to one of the groups that were just presented. We need to focus on a single group in order to understand how the various methods of measuring social reactions relate to each other. Our system randomly selects one of the groups for each participant as the focus across the measures.

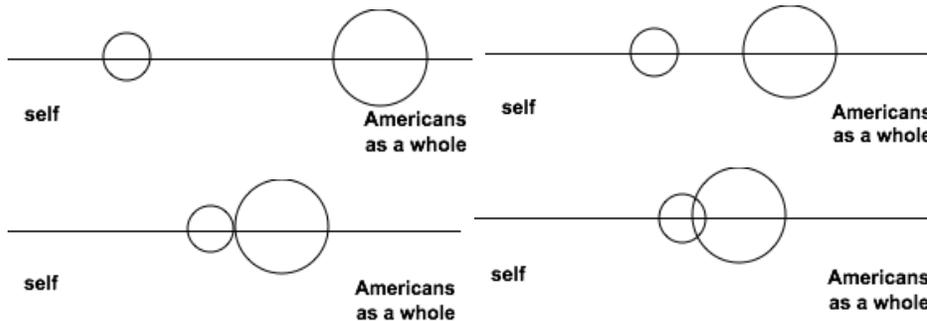
The selected group for you is: {outgroup} people in the United States

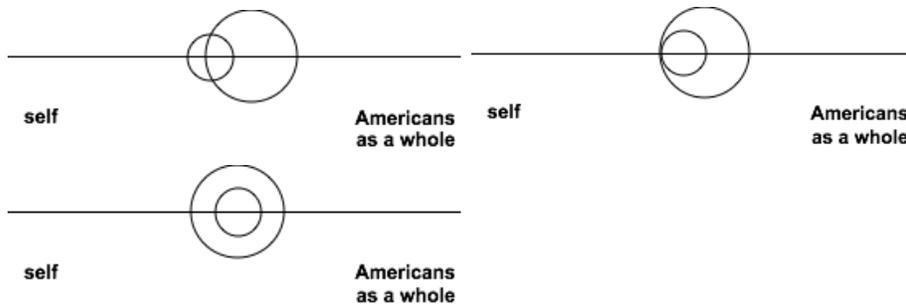
Before presenting the main questions, we need to understand how you view yourself and people with similar identification as you in relation to groups of people. Simply give each item a moment's thought and make your best guess. There is no need to think too much about any one question.

<b>Conditions</b>	{outgroup}
<i>Race</i>	Black
<i>Gender Identity</i>	transgender

--- Next page ---

Here are 7 pairs of circles. Imagine the small circle represents you and the large circle represents American people as a whole. In your view, which one of these pictures best describes the way you see the relationship between you and Americans as a whole?



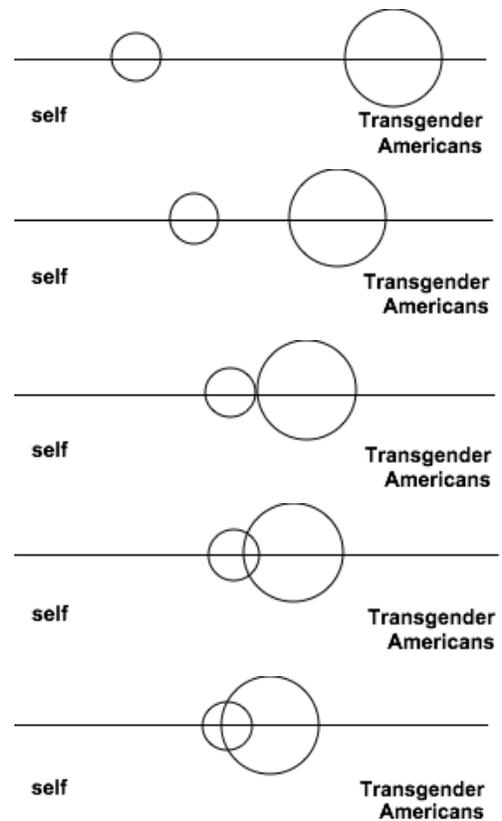
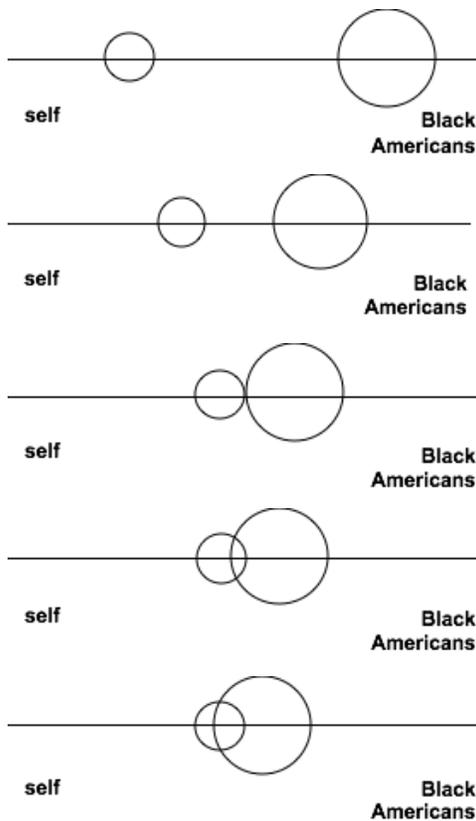


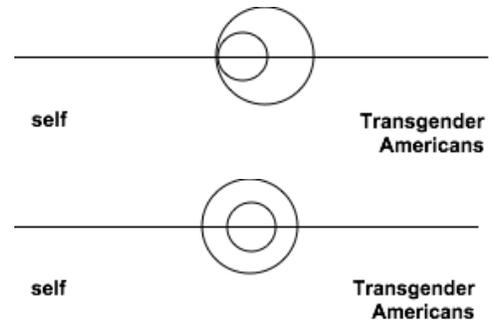
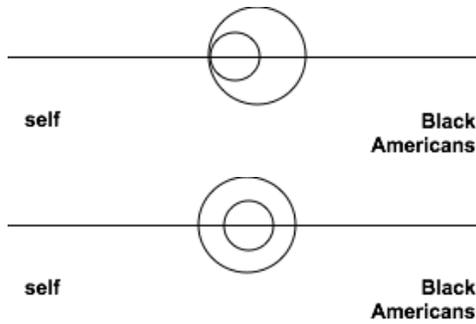
--- Next page ---

Again, here are 7 pairs of circles. This time, imagine the large circle represents transgender Americans whereas the small circle still represents you. In your view, which one of these pictures best describes the way you see the relationship between you and transgender Americans?

Race condition

Gender identity condition





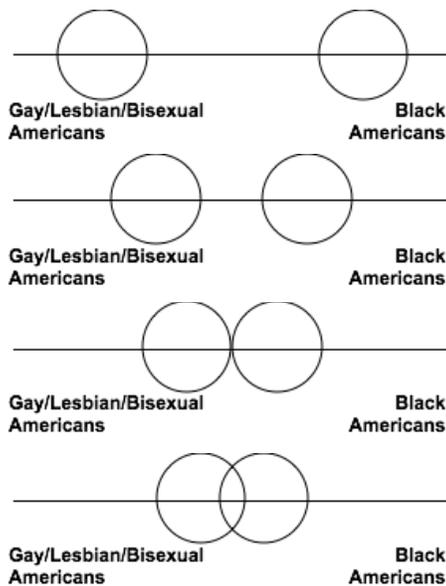
--- Next page ---

The previous question asked you about how you view yourself in relation to transgender Americans. This question is similar, but, instead of focusing on yourself as an individual, the question focuses on a group you belong to.

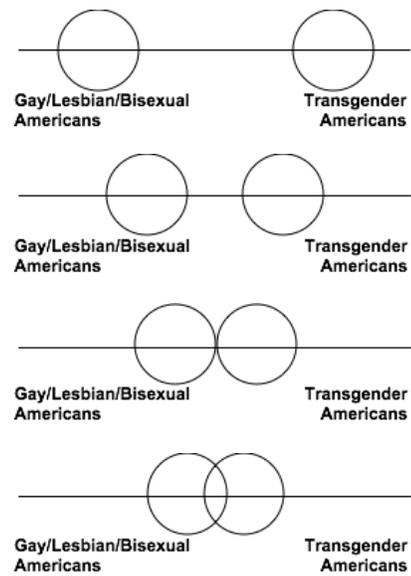
Again, here are 7 pairs of circles. This time, however, imagine the left circle represents gay/lesbian/bisexual Americans and the right circle represents transgender Americans.

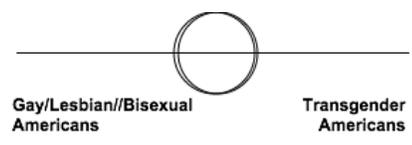
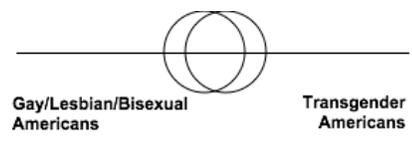
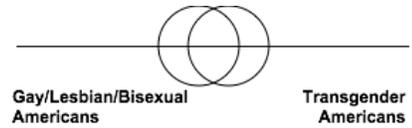
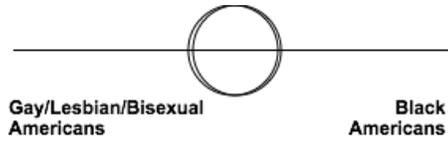
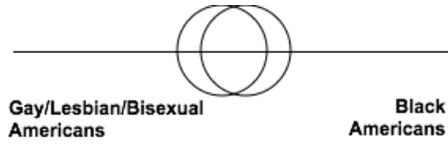
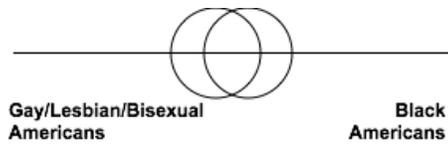
In your view, which one of the following pictures best represents the relationship between gay/lesbian/bisexual Americans and transgender Americans?

Race condition



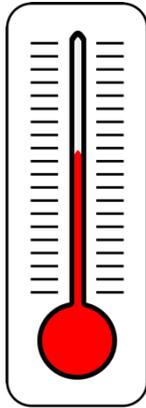
Gender identity condition





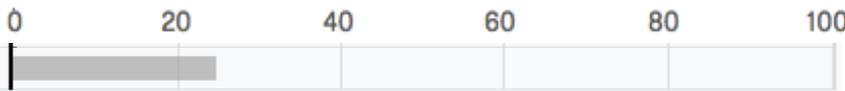
## Appendix G: Measures for Attitudes toward Outgroup and Ingroup

Using a scale from (0°) to (100°), please tell us your personal feelings toward each of the following groups. As you do this task, think of an imaginary thermometer. The warmer or more favorable you feel toward the group, the higher the number you should give it. The colder or less favorable you feel, the lower the number. If you feel neither warm nor cold toward the group, rate it 50°.



- 0° = extremely cold;
- 10° = very cold;
- 20° = quite cold;
- 30° = fairly cold;
- 40° = slightly cold;
- 50° = neither cold nor warm;
- 60° = slightly warm;
- 70° = fairly warm;
- 80° = quite warm;
- 90° = very warm;
- 100° = extremely warm.

At this moment, how warmly do you feel about {outgroup} Americans in general?



At this moment, how warmly do you feel about {ingroup} Americans in general?



Conditions	{ingroup}	{outgroup}
<i>Race</i>	White	Black
<i>Gender Identity</i>	non-transgender	transgender

## Appendix H: Measures for Empathic Response to Outgroup Injustices

The following pages contains different measures regarding {outgroup} Americans. Simply give each item a moment's thought and make your best guess. There is no need to think too much about any one question.

--- Next page ---

At this moment, as you think about how {outgroup} people are treated in the United States, to what extent do you experience each of the following emotions?

	(0) Very slightly or not at all	(1)	(2)	(3) Moderately	(4)	(5)	(6) Extremely
Compassionate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Angry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guilty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delighted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shaky	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Concentrating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Indifferent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ashamed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sympathetic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Furious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regretful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Confident	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	(0) Very slightly or not at all	(1)	(2)	(3) Moderately	(4)	(5)	(6) Extremely
Blue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unconcerned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Embarrassed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Merciful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Remorseful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiastic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jittery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Daring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Downhearted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disgraced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outraged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>Conditions</b>	{outgroup}
<i>Race</i>	Black
<i>Gender Identity</i>	transgender

## Appendix I: Measures for Outgroup Identification

How much do the following statements describe you at this point in time?

	(0) not at all	(1)	(2)	(3)	(4)	(5)	(6) very much
I identify with {outgroup} Americans.	<input type="radio"/>						
I feel strong ties with {outgroup} Americans.	<input type="radio"/>						
I feel a bond with {outgroup} Americans.	<input type="radio"/>						
I feel solidarity with {outgroup} Americans.	<input type="radio"/>						

<b>Conditions</b>	{outgroup}
<i>Race</i>	Black
<i>Gender Identity</i>	transgender

## Appendix J: Flyer Dissemination Task

One of our research teams currently collaborates with different community groups, ranging from ones that are organized by interests and occupation to those by identities and places of residence. These groups spread the word about their work in various ways, including flyers that they distribute to individuals and organizations. In this part of the survey, we ask that you provide feedback on a flyer our team is developing with an organization. This task should take no more than 2 minutes to complete.

Please take a moment to read the flyer that we are developing with an organization.

### Race condition

### Gender identity condition

**Bias against Black People**  
In Law and Policy Enforcement

**Black individuals are more likely to be stopped by the police**

Compared to white adults, black adults are 4-5 times more likely to be suspected of engaging in criminal activities and experience police misconduct/harassment.

Probability of a black adult being stopped ●

Probability of a white adult being stopped ●

**Black individuals are punished more severely than their white peers**

**3x**

Black students are three times more likely to be punished with expulsion or suspension compared to white students when they engage in the same punishable infractions such as truancy.

**-Stop the bias- what you can do**

Help spread the awareness!

Share this poster!  
Share with your family, friends, and community!

Note: The pictures are not drawn to scale.

**Bias against Transgender People**  
In Law and Policy Enforcement

**Transgender individuals are more likely to be stopped by the police**

Compared to cisgender adults, transgender adults are 4-5 times more likely to be suspected of engaging in criminal activities and experience police misconduct/harassment.

Probability of a transgender adult being stopped ●

Probability of a cisgender adult being stopped ●

**Transgender individuals are punished more severely than their cisgender peers**

**3x**

Transgender students are three times more likely to be punished with expulsion or suspension compared to cisgender students when they engage in the same punishable infractions such as truancy.

**-Stop the bias- what you can do**

Help spread the awareness!

Share this poster!  
Share with your family, friends, and community!

Note: The pictures are not drawn to scale.

We would like to get your feedback on the flyer. As you read the flyer: (1) How convincing is it; (2) how easy is it to understand; and (3) how politically extreme does it sound to you?

How convincing is the flyer?

- Very unconvincing
- Quite unconvincing
- Slightly unconvincing
- Neither convincing nor unconvincing
- Slightly convincing
- Quite convincing
- Very convincing

How easy is it to understand the flyer?

- Very difficult to understand
- Quite difficult to understand
- Slightly difficult to understand
- Neither easy nor difficult to understand
- Slightly easy to understand
- Quite easy to understand
- Very easy to understand

How politically extreme does the flyer sound to you?

- Very moderate
- Quite moderate
- Slightly moderate
- Neither extreme nor moderate
- Slightly extreme
- Quite extreme
- Very extreme

We are willing to supply our participants with copies of these flyers to distribute in their communities. If you are interested in doing this, then please indicate below how many flyers (up to 20) you wish to receive. If you request flyers, then, after completing this survey, we will redirect you to a new survey in which you can provide your mailing address. How many copies do you wish to receive?

- No, I do not wish to receive any to distribute.
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20

## Appendix K: Manipulation Check

We are close to the end of the survey. The quality of our research depends on making sure participants were paying attention when responding to the survey. In particular, we want to make sure that you read the article that we presented earlier in the survey and that you wrote on the topic of the article. Below, you will see very brief summaries of eight different article. Please indicate the extent to which each one of the following statements describes the article you read.

Responses:

- Does not describe the article
- Describes the article slightly well
- Describes the article moderately well
- Describes the article very well
- Describes the article extremely well

Items:

1. Eating seafood rich in omega-3 can protect against Alzheimer's disease.
2. Eating seafood from polluted water increases the risk of certain cancers.
3. Lesbian, gay, and bisexual people still face widespread prejudice.
4. Lesbian, gay, and bisexual people are receiving increasing support.
5. Poor parenting weakens children's immune system.
6. Poor parenting reduces children's academic success.
7. Left-handed people process information in different ways than right-handed people.
8. Left-handed people are more prone to accidents than right-handed people.

*Table 1. Demographics of Participants*

Demographic Factor	<i>n</i> (%)
Sexual Orientation	
Lesbian or gay	203 (65.5)
Bisexual	107 (34.5)
Gender	
Cisgender female	145 (46.8)
Cisgender male	165 (53.2)
Education	
Less than high school	5 (1.6)
High school	36 (11.6)
Some college/vocational training/Associate's degree	117 (37.7)
Bachelor's degree	101 (32.6)
Graduate/Professional degree	44 (14.2)
Annual Income in 2015	
Under \$10,000	83 (26.8)
\$10,000-\$19,999	43 (13.9)
\$20,000-\$29,999	44 (14.2)
\$30,000-\$39,999	37 (11.9)
\$40,000-\$49,999	23 (7.4)
\$50,000-\$59,999	28 (9.0)
Over \$60,000	45 (14.5)
Areas of residence	
Urban	106 (34.2)
Suburban	130 (41.9)
Rural	67 (21.6)

*Note.* Total sample size: *n* = 310.

Table 2. Bivariate Correlations among the Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>Covariates</b>														
1. Pre-tx emotion	—													
2. Pre-tx attitudes toward ingroup	.13*	—												
3. Pre-tx attitudes toward outgroup	.13*	.38**	—											
<b>Mediators</b>														
4. Negative affect	-.41**	-.09	-.01	—										
5. Positive affect	.56**	.26**	.14*	-.46**	—									
6. Overlap of LGB and outgroup	.06	.10	.20**	-.04	.13*	—								
7. Identification with Americans	.19**	.21**	-.03	-.24**	.26**	.25**	—							
<b>Group perception</b>														
8. Outgroup bias	-.04	.17**	-.42**	-.09	.12*	-.12*	.22**	—						
9. Outgroup identification	.25**	.11	.48**	.04	.16**	.38**	-.04	-.43**	—					
<b>Empathic response</b>														
10. Anger	-.04	.07	.15**	.21**	-.03	.07	-.08	-.23**	.33**	—				
11. Guilt	.00	-.08	.10	.26**	-.04	-.01	-.04	-.27**	.27**	.68**	—			
12. Compassion	.14*	.12*	.21**	.05	.08	.06	-.03	-.34**	.41**	.24**	.29**	—		
<b>Ally behavior</b>														
13. Donation	-.02	-.06	.22**	.02	-.08	.09	-.11	-.36**	.39**	.21**	.18**	.31**	—	
14. Flyer	.12*	.07	.19**	.17**	.06	.20**	-.03	-.19**	.39**	.12*	.16**	.11	.15*	—

Mean	3.62	83.27	78.37	1.40	3.49	4.16	3.76	-3.62	2.92	3.03	2.17	3.53	85.50	0.24
<i>SD</i>	0.95	18.54	21.46	1.21	1.45	1.50	1.73	20.40	1.61	1.83	1.69	1.39	76.01	0.43
Range	1-5	0-100	0-100	1-7	1-7	1-7	1-7	-100- 100	1-7	1-7	1-7	1-7	0-500	0, 1

---

\*  $p < .05$ . \*\*  $p < .01$

Table 3. Main Effects of Independent Variables on Dependent Variables

DV: Donation	<i>B (SE)</i>
Discrimination	-0.03 (.13)
Affirmation	0.07 (.13)
Black as outgroup	-0.50 (.11)***
DV: Bias against outgroup	<i>B (SE)</i>
Discrimination	0.05 (.12)
Affirmation	0.07 (.12)
Black as outgroup	-0.24 (.09)*
DV: Anger	<i>B (SE)</i>
Discrimination	-0.00 (.14)
Affirmation	-0.41 (.13)**
Black as outgroup	0.27 (.11)*
DV: Guilt	<i>B (SE)</i>
Discrimination	0.16 (.13)
Affirmation	-0.14 (.13)
Black as outgroup	0.42 (.11)***
DV: Compassion	<i>B (SE)</i>
Discrimination	0.03 (.14)
Affirmation	-0.02 (.14)
Black as outgroup	0.03 (.11)
DV: Outgroup identification	<i>B (SE)</i>
Discrimination	0.06 (.12)
Affirmation	-0.06 (.12)
Black as outgroup	-0.28 (.10)**
DV: Flyer	<i>B (SE)</i>
Discrimination	0.14 (.21)
Affirmation	0.33 (.21)
Black as outgroup	-0.11 (.17)

*Note.* DV = Dependent variable. Regression unstandardized coefficients were shown. Standard errors were shown in parentheses. Covariates included pre-manipulation emotion, attitudes toward ingroup, and attitudes toward outgroup. Covariates and dependent variables were standardized.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 4. Main Effects of Independent Variables on Mediators

DV: Post-tx negative affect	<i>B (SE)</i>
Discrimination	0.63 (.12)***
Affirmation	0.12 (.12)
DV: Post-tx positive affect	<i>B (SE)</i>
Discrimination	-0.30 (.11)**
Affirmation	0.16 (.11)
DV: Overlap of LGB and outgroup	<i>B (SE)</i>
Discrimination	-0.02 (.13)
Affirmation	0.06 (0.13)
Black as outgroup	-0.63 (0.11)***
DV: Identification with Americans	<i>B (SE)</i>
Discrimination	-0.15 (.13)
Affirmation	-0.21 (.13)
Black as outgroup	0.02 (.11)

*Note.* DV = Dependent variable. Regression unstandardized coefficients were shown. Standard errors were shown in parentheses. Covariates included pre-manipulation emotion, attitudes toward ingroup, and attitudes toward outgroup. Covariates and dependent variables were standardized.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 5. Effects of Post-Manipulation Negative Affect on Dependent Variables

DV: Donation	<i>B (SE)</i>
Post-tx negative affect	0.00 (.06)
Black as outgroup	-0.51 (.11)***
DV: Bias against outgroup	<i>B (SE)</i>
Post-tx negative affect	-0.08 (.05)
Black as outgroup	-0.24 (.04)*
DV: Anger	<i>B (SE)</i>
Post-tx negative affect	0.23 (.06)***
Black as outgroup	0.28 (.11)*
DV: Guilt	<i>B (SE)</i>
Post-tx negative affect	0.29 (.06)***
Black as outgroup	0.42 (.11)***
DV: Compassion	<i>B (SE)</i>
Post-tx negative affect	0.13 (.06)*
Black as outgroup	0.02 (.11)
DV: Outgroup identification	<i>B (SE)</i>
Post-tx negative affect	0.14 (.05)**
Black as outgroup	-0.28 (.10)**
DV: Flyer	<i>B (SE)</i>
Post-tx negative affect	0.36 (.09)***
Black as outgroup	0.10 (.18)

Note. DV = Dependent variable. Regression unstandardized coefficients were shown. Standard errors were shown in parentheses. Covariates included pre-manipulation emotion, attitudes toward ingroup, and attitudes toward outgroup. Covariates and dependent variables were standardized.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 6. Effects of Post-Manipulation Positive Affect on Dependent Variables

DV: Donation	<i>B (SE)</i>
Post-tx positive affect	-0.09 (.07)
Black as outgroup	-0.51 (.10)***
DV: Bias against outgroup	<i>B (SE)</i>
Post-tx positive affect	0.14 (.06)*
Black as outgroup	-0.23 (.09)*
DV: Anger	<i>B (SE)</i>
Post-tx positive affect	-0.03 (.07)
Black as outgroup	0.29 (.11)**
DV: Guilt	<i>B (SE)</i>
Post-tx positive affect	-0.03 (.07)
Black as outgroup	0.43 (.11)***
DV: Compassion	<i>B (SE)</i>
Post-tx positive affect	-0.03 (.07)
Black as outgroup	0.03 (.11)
DV: Outgroup identification	<i>B (SE)</i>
Post-tx positive affect	0.01 (.06)
Black as outgroup	-0.28 (.10)**
DV: Flyer	<i>B (SE)</i>
Post-tx positive affect	-0.05 (.10)
Black as outgroup	0.07 (.17)

*Note.* DV = Dependent variable. Regression unstandardized coefficients were shown. Standard errors were shown in parentheses. Covariates included pre-manipulation emotion, attitudes toward ingroup, and attitudes toward outgroup. Covariates and dependent variables were standardized.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

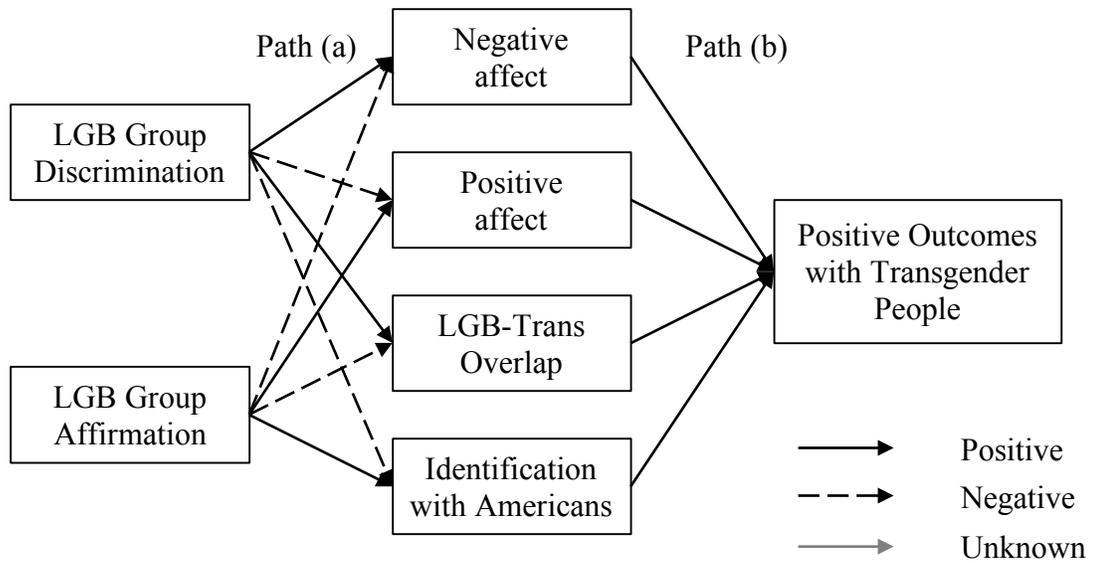
Table 7. Moderated Mediation Analyses on Dependent Variables

DV: Donation	<i>B</i> [95% CI]
<b>Moderation:</b> Pos. Aff. x Black	0.25 [0.06, 0.46]
<b>Mediation:</b> D → Pos. Aff. → O	—
Trans as outgroup	0.06 [0.02, 0.15]
Black as outgroup	-0.01 [-0.06, 0.03]
DV: Outgroup Bias	<i>B</i> [95% CI]
<b>Moderation:</b> Pos. Aff. x Black	-0.19 [-0.35, -0.01]
<b>Mediation:</b> D → Pos. Aff. → O	—
Trans as outgroup	-0.07 [-0.14, -0.02]
Black as outgroup	-0.02 [-0.08, 0.02]
DV: Anger	<i>B</i> [95% CI]
<b>Moderation:</b> Neg. Aff. x Black	—
<b>Mediation:</b> D → Neg. Aff. → O	0.15 [0.08, 0.24]
DV: Guilt	<i>B</i> [95% CI]
<b>Moderation:</b> Neg. Aff. x Black	—
<b>Mediation:</b> D → Neg. Aff. → O	0.18 [0.11, 0.28]
DV: Compassion	<i>B</i> [95% CI]
<b>Moderation:</b> Neg. Aff. x Black	—
<b>Mediation:</b> D → Neg. Aff. → O	0.08 [0.02, 0.17]
DV: Outgroup identification	<i>B</i> [95% CI]
<b>Moderation:</b> Neg. Aff. x Black	-0.19 [-0.34, -0.04]
<b>Mediation:</b> D → Neg. Aff. → O	—
Trans as outgroup	0.14 [0.07, 0.24]
Black as outgroup	0.03 [-0.05, 0.10]
DV: Flyer	<i>B</i> [95% CI]
<b>Moderation:</b> Neg. Aff. x Black	—
<b>Mediation:</b> D → Neg. Aff. → O	0.24 [0.13, 0.36]

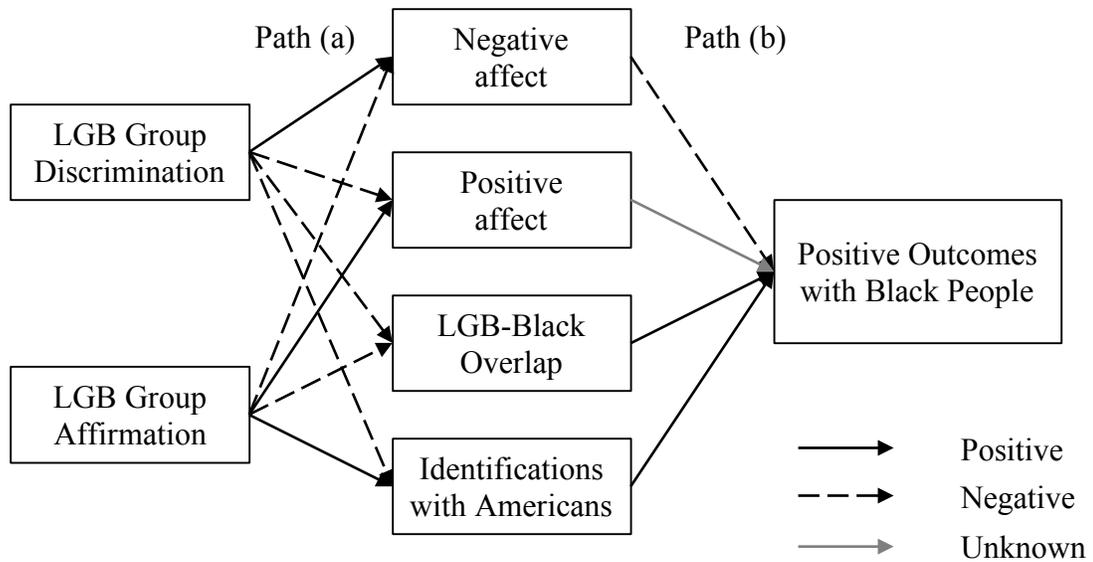
*Note.* DV = Dependent variable. D = LGB group discrimination. O = Outcome. Pos. Aff. = Positive affect as a mediator. Neg. Aff. = Negative affect as a mediator. Bias-corrected bootstrapped 95% confidence intervals were shown. Lower- and upper-level confidence intervals were shown in brackets. Covariates included pre-manipulation emotion, attitudes toward ingroup, attitudes toward outgroup, sexual orientation (in)equity, outgroup identity, and one of the mediators (post-manipulation negative affect or positive affect).

Figure 1. Hypothesized Moderated Mediation Models

Transgender People as Outgroup

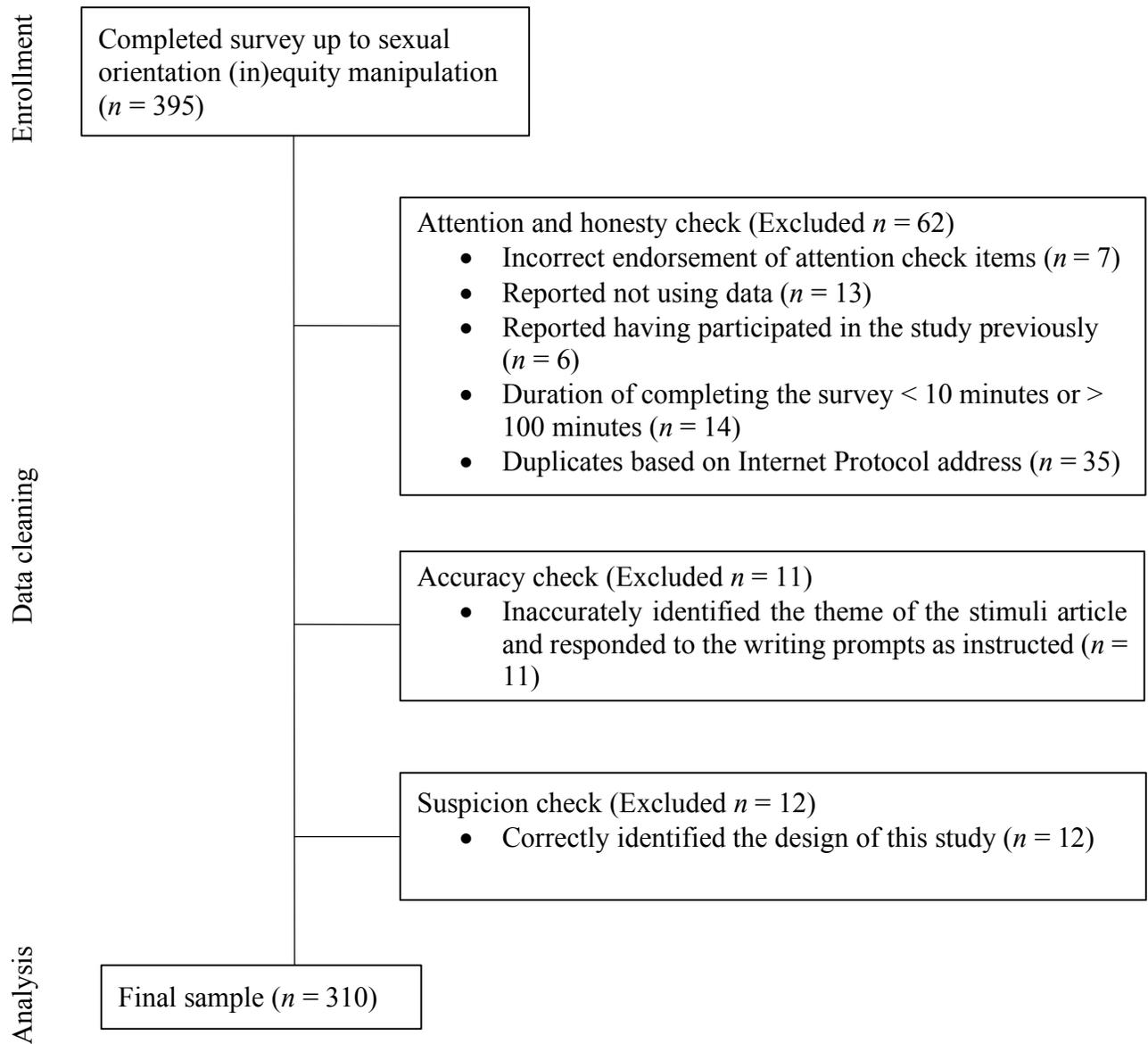


Black People as Outgroup



Note. Effects on mediators and dependent variables were evaluated individually. Direct paths linking LGB (in)equity to outcomes were included in all models.

Figure 2. Sample Selection Procedures



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