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# Mobilized or Marginalized? Understanding low-status groups' responses to social justice efforts led by high-status groups

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#### **Abstract**

Members of high-status groups (e.g., men) often lead social justice efforts that seek to benefit low-status groups (e.g., women), but little is known about how observers respond to such instances of visible and influential solidarity. We presented information about a non-profit organization seeking to address gender (Study 1, N = 198) or racial (Study 2, N = 216) inequality, in which the leadership team was manipulated to include a numerical majority of either high-status group members or low-status group members. Members of low-status groups who read about the majority high-status leadership team reported lower levels of collective action intentions, compared to those who read about the majority low-status leadership team. Mediation analyses (Studies 1 and 2) and an experimental-causal-chain design (Study 3, N = 405) showed that lower collective action intentions in response to the majority high-status leadership team were mediated by participants' perception of a specific problem presented by high-status group leaders (lower awareness of inequality) and lower levels of hope. Study 4 (N = 555) demonstrated that low-status group members responded more negatively to a majority high-status leadership team in an organization seeking to benefit their low-status ingroup (solidarity context), compared to organizations seeking to benefit other groups (non-solidarity contexts). Results provide the first evidence that the presence of influential high-status group leaders can discourage members of low-status groups from joining a social justice effort that seeks to benefit their ingroup, and that these negative responses extend beyond preferences predicted by frameworks of ingroup bias and role congruity.

**Keywords:** solidarity, allies, collective action, inequality, non-profit organizations

Social justice organizations play an important role in challenging systems of group-based inequality, as they work to coordinate resources and labor to advocate for the interests of low-status groups (Goldberg, 1991; Tilly, 2004). Social psychological theories of collective action have traditionally assumed that participants in such social justice efforts come from the low-status group that stands to benefit from challenges to the status quo (Tajfel & Turner, 1979; Wright et al., 1990). These frameworks have viewed members of high-status groups, in contrast, as seeking to maintain the social hierarchies that benefit their groups (see Leach et al., 2002; van Zomeren & Iyer, 2009).

The theoretical focus on social change actors from low-status groups mirrors historical trends in social movement participation (Basu, 2016; Dierenfield, 2004; Eddo-Lodge, 2017; Lent, 2002; Zinn, 2003). However, some members of high-status groups do take solidarity actions and participate in social justice efforts that benefit low-status outgroups (Boyd, 2015; Woog, 2000). Increasingly, members of high-status groups also take up positions of leadership in these organizations. While 58% of American non-profit groups serve racial/ethnic minority communities, for example, White people make up 82% of executives and 83% of board members in these organizations (Brown, 2015). Similarly, trustees of British not-for-profit organizations typically belong to high-status groups, with 92% being White and 67% being men (Charity Commission, 2017).

Members of high-status groups who lead social justice efforts wield a great deal of power and influence. Leaders oversee the development of these organizations' goals and strategies (Einwohner, 2007; Reicher & Haslam, 2012; Tilly, 2004), and can serve as the public face of the movement (Foster-Fishman et al., 2007; Selvanathan & Jetten, 2020). To our knowledge, however, no social psychological research has investigated the impact of having high-status group leaders take on such influential roles in social justice efforts.

Does the presence of high-status group leaders facilitate efforts to mobilize observers to

contribute to the social justice effort, or does it instead dampen observers' collective action intentions? This question has not been addressed in the literature, which to date has focused on two other issues. One line of work has delineated the factors that predict high-status groups' participation in social justice efforts (see Leach et al., 2002; Radke et al., 2020; Subašić et al. 2008; Thomas et al., 2009). Other studies have examined low-status group members' responses to individual allies from high-status groups who support the social justice effort (Brown & Ostove, 2013; Droogendyk et al., 2016).

This paper considers the intergroup dynamics that underpin the impact of high-status group leaders' involvement in social justice efforts that seek to benefit a low-status group. Because high-status groups occupy positions of power in society (Goodman, 2001), their participation can contribute to the success of a social justice effort by providing access to resources and networks (Marx & Useem 1971), and by showcasing the broader justice values represented by the movement (Drury & Kaiser, 2014; Gervais & Hillard, 2014). However, high-status group leaders' contributions to the social justice effort can be limited because they (typically) do not have lived experience of the systemic disadvantages being tackled. We propose that when observers perceive these kinds of problems with high-status group leaders, they will be less willing to join the social justice effort. We further expect these negative responses to be especially pronounced among observers from low-status groups. We develop these two arguments in turn below.

# Collective Action Intentions in Response to Leaders of a Social Justice Effort

We expect that observers will be less willing to join a social justice effort whose influential leaders belong to the high-status group (compared to the low-status group), because they perceive particular problems with leaders from high-status groups and experience more negative emotional responses. Our model specifies emotions to be the direct predictors of collective action intentions, because emotions motivate actions in response to

stimuli (e.g., individuals or events) that are relevant to an individual (Iyer & Leach, 2008). Discrete emotions, in particular, have been linked to goals and action intentions in the context of interpersonal relations (Frijda et al., 1989; Roseman et al., 1994) and intergroup relations (Iyer & Leach, 2008; Smith, 1993). Most relevant to the context of social justice efforts, emotions such as anger and hope have been shown to predict individuals' collective action intentions (see Thomas et al., 2009; van Zomeren et al. 2012).

We propose that observers' perceptions of particular problems with high-status group leaders will elicit specific emotional responses. Appraisal theories propose that emotional responses are based on distinct cognitive judgments about a situation or relationship (Roseman & Smith, 2001; Smith, 1993). Research has also shown that emotions mediate the relationship between appraisals and collective action intentions (Gordijn et al., 2006; Leach et al., 2006; Iyer et al., 2007). Below we set out the specific appraisals and emotions that should be most relevant in predicting observers' collective action intentions to work with a social justice effort led by high-status group leaders. Figure 1 presents the conceptual model.

# **Proposed Process**

Perceived Leaders' Awareness of Inequality. Research on responses to inequality suggests that when high-status group leaders are engaged in a social justice effort that benefits a low-status group, observers are likely to perceive a particular problem: low awareness of inequality. Leaders from the high-status group by definition have not experienced the disadvantages being tackled by the social justice effort, and thus may be perceived as not fully understanding the experiences of the disadvantaged group. For instance, research shows that members of high-status groups are not well attuned to subtle instances of bias experienced by low-status groups (Richeson & Shelton, 2005). Compared to members of low-status groups, members of high-status groups are typically less aware of prejudice (Eibach & Ehrlinger, 2006, 2010; Samson & Bobo, 2014) and perceive inequality

to be more legitimate and less pervasive (Iyer & Ryan, 2009). Indeed, members of high-status groups are perceived to be less willing to engage in a social justice effort than are members of low-status groups (Brown & Ostrove, 2003). Thus, observers may believe that high-status group leaders lack a full understanding of the problem being tackled by a social justice effort, compared to leaders from the low-status group.

*Hope.* Perceiving high-status group leaders as being less aware of inequality (compared to low-status group leaders) should result in lower levels of collective action among observers because they feel less hope (see Figure 1). Hope is experienced when an individual believes that a situation can change (Cohen-Chen et al., 2014) and has positive feelings about the anticipated outcome (Lazarus, 1999). Appraising high-status group leaders as having lower awareness of inequality should reduce observers' belief that social change will occur, and thus reduce feelings of hope (Cohen-Chen et al., 2017).

Because hope combines a desire for change with a sense of efficacy, it is conceptualized as an action-oriented emotion in interpersonal contexts (Snyder, 2002) and intergroup contexts (Aminzade & McAdam, 2001; Perlman, 2013). Research has shown that hope predicts support for social change (Greenaway et al., 2016) and collective action intentions (Wlodraczyk et al., 2017), especially when individuals are focused on social justice (Hasan-Aslih et al., 2019). Given the positive orientation of hope, it should be a strong predictor of collaborative collective action to work with a social justice effort.

#### Alternative Processes

The literature suggests two alternative processes within our framework that might underpin observers' unwillingness to contribute to a social justice effort led by members of the high-status group (see Figure 1).

Perceived Alienation of Low-Status group and Perceived Leaders' Ulterior Motive.

Research on the psychology of relative advantage suggests that observers could perceive

high-status group leaders as alienating members of the low-status group whose interests they should be promoting. For instance, high-status group leaders might support goals and strategies that are inconsistent with low-status groups' preferences: Research shows that, compared to members of low-status groups, members of high-status groups are less willing to challenge inequality (Iyer & Ryan, 2009), and prefer more conventional—and in some cases non-political—strategies to address inequality (Marx & Useem, 1971; Rattan & Ambady, 2014). Alienation of the low-status group can also occur because high-status group leaders are accustomed to holding a position of power in society and thus may (inadvertently) engage in behaviors that reproduce status distinctions within the social justice effort (Jackman, 1994); examples include dominating discussions and crowding out voices of the low-status group (Droogendyk et al., 2016; Hammack & Pilecki, 2015).

Observers might also perceive high-status group leaders' motives as not entirely focused on achieving social equality. While members of high-status groups likely believe in the principles of fairness and justice, research shows that their prosocial contributions can be based in other strategic aims (see van Leeuwen & Tauber, 2010), such as advancing their career or protecting the moral reputation of their high-status ingroup (Hopkins et al., 2007; van Leeuwen, 2007; Van Vugt & Hardy, 2010). Observers who perceive such ulterior motives are likely to find them problematic, as the leaders will not appear to be genuine representatives of the core values associated with the social justice effort.

Anger. These two perceptions of high-status group leaders—alienation of low-status group members and ulterior motive—point to clear transgressions that violate accepted norms of fairness and justice, and thus should increase observers' feelings of anger. Appraisal theories posit that anger is based in judgements of injustice or unfairness, with evidence for this relationship documented in the context of interpersonal (Frijda et al., 1989; Roseman et al., 1994) and intergroup (see Iyer & Leach, 2010) relations. Anger is associated with the

goal of challenging the agent responsible for the transgression or harm (Frijda et al., 1989, Roseman et al., 1994). This work suggests that anger about high-status leaders' shortcomings might predict *lower* levels of collective action to work with the organization they represent.

Given our focus on collaboration with a social justice effort, however, we suspect that the processes via anger will not be sufficient to explain observers' willingness to take action. In the literature, anger has been linked to confrontational action that seeks to disrupt the status quo (see Thomas et al., 2009; van Zomeren et al., 2012). Thus, we would expect anger to predict a more direct form of challenging the problematic leaders (e.g., via protest). In contrast, collaborative collective action intentions to work with the justice effort should be predicted by a positive emotion such as hope.

# Observers' Group Status Shapes Responses to Leaders of a Social Justice Effort

A social identity analysis posits that observers' responses should be moderated by their own group membership (see Ellemers et al., 2002). Building on this perspective, we propose that *observers from the low-status group* will report strong negative responses to high-status group leaders relative to low-status group leaders. Members of low-status groups should be motivated to consider the implications of high-status group leaders' presence in social justice efforts that benefit the low-status group, because their ingroup is directly affected by this action. For instance, research shows that women report stronger emotional responses (anger and sympathy) than do men when they read about gender inequality (Iyer & Ryan, 2009), which suggests that such inequality is more relevant to members of the low-status group (Iyer & Leach, 2008). Observers from the low-status group are also likely to recognize the particular problems created by high-status group leaders. Compared to members of high-status groups, members of low-status groups are more aware of bias and discrimination in contexts of racial inequality (Adams et al., 2006; Operario & Fiske, 2001) and gender inequality (Becker & Swim, 2011; Davis & Robinson, 1991). Low-status group members

have lower threshold standards than do high-status group members for identifying injustice against the low-status group (Miron et al., 2011) and harm done by the high-status group (Miron et al., 2010). Thus, we expect observers from the low-status group to report lower levels of collective action intentions, more negative emotions, and higher levels of perceived problems in response to high-status group leaders, compared to low-status group leaders.

In contrast, we expect *observers from the high-status group* to report more equivalent responses to leaders from the high-status group and low-status group. The aforementioned research indicates that members of high-status groups will be less aware (than are members of low-status groups) of high-status group leaders' limitations in the context of a social justice effort that seeks to benefit a low-status group (Droogendyk et al., 2016). High-status group members may also pay less attention to the potential for problems created by leaders from the high-status group, because they are less directly affected by the disadvantage (Dawtry et al., 2005). As such, we expect that observers from the high-status group will not differentiate between high-status group leaders and low-status group leaders in their responses, with respect to collective action intentions, emotions, and perceived problems.

# Alternative Accounts of Low-Status Groups' Negative Responses to High-Status Group Leaders

Theoretical frameworks in the extant social psychological literature would suggest that low-status group members' negative responses to high-status group leaders are not unique to contexts of solidarity, but instead could be explained by two more general processes.

Ingroup Bias. One account posits that low-status group members might simply prefer leaders from their own group, compared to leaders of an outgroup. Individuals' bias towards their ingroup has been documented among both minimal groups (Mullen et al., 1992) and real-world groups (Bettencourt et al., 2001). People also respond more favorably to leaders from their ingroup compared to leaders from an outgroup (Steffens et al., 2014). According to

the ingroup bias explanation, low-status group members would report negative responses to high-status group leaders in any organizational context, regardless of whether their presence represents solidarity with the low-status group (i.e., efforts that benefit the low-status group) or a more general social justice orientation (i.e., efforts that benefit an outgroup or society).

Role Congruity. A second plausible explanation for observers' preference for low-status group leaders (compared to high-status group leaders) draws on the concept of role congruity (Eagly & Karau, 2002; Sy et al., 2010). High-status group leaders could be seen as generally unsuitable to lead social justice efforts that benefit an outgroup, because they do not have the physical, intellectual, or personality characteristics that are stereotypically considered to be effective in this area. This perspective predicts that negative responses to high-status group leaders' presence in solidarity contexts (i.e., efforts that benefit the low-status group) would be equivalent to the negative responses documented for other types of low role congruity (e.g., other domains that are stereotypically viewed as being less suitable for the high-status group). We investigate the extent to which these alternative accounts can explain the pattern of results predicted by our model, as described below.

# **Overview of Hypotheses and Studies**

Our framework sets out three hypotheses regarding observers' responses to influential high-status group leaders in a social justice effort that benefits the low-status group.

Compared to observers from the high-status group, we expect observers from the low-status group to more clearly differentiate between influential leaders from the high-status group and influential leaders from the low-status group, with respect to collective action intentions (*Hypothesis 1*) and the hypothesized mediator variables: perceived leaders' awareness of inequality and hope (*Hypothesis 2*). We also predict that perceived leaders' awareness of inequality and hope will mediate observers' lower collective action intentions in response to high-status group leaders compared to low-status group leaders (*Hypothesis 3*), because of

our focus on collaborative actions; furthermore, we evaluate the extent to which the alternative process variables—perceived alienation of low-status group, perceived leaders' ulterior motive, and anger—mediate this relationship. The first two studies test these hypotheses in the context of a non-profit organization that addresses gender (Study 1) or racial/ethnic (Study 2) inequality. Participants from either the low-status group or high-status group read that influential leaders belong to either the low-status group or the high-status group, and then complete measures of collective action intentions, perceived problems with the leaders, and emotions.

Study 3 provides an experimental test of the hypothesized process underpinning low-status group members' lower collective action intentions in response to high-status group leaders. In the context of a social justice effort that benefits the low-status group, we orthogonally manipulate the influential leaders' group background (high-status versus low-status) and their awareness of inequality. We expect that observers who read about high-status group leaders with high awareness of inequality (versus no mention of awareness) will feel more hope, which will predict increased collective action intentions (*Hypothesis 4*).

Lastly, we consider alternative explanations for our hypothesized effects, by investigating whether low-status groups' negative responses to high-status group leaders' role in solidarity contexts can be explained by accounts of ingroup bias and role congruity. Study 4 compares low-status group members' responses to high-status group leaders in a solidarity context (an organization that seeks to benefit the low-status ingroup) versus two non-solidarity contexts (organization that seek to benefit clear outgroups) that represent either high or low levels of general role congruity. We predict that low-status group members will report more negative responses to high-status group leaders in the solidarity context compared to the non-solidarity contexts (*Hypothesis 5*), with respect to perceived problems, felt emotions, and collective action intentions. We also expect that these differences will hold

regardless of the role congruity associated with each domain in the non-solidarity contexts (*Hypothesis 6*). Findings consistent with these hypotheses would indicate that negative responses to high-status group leaders are especially pronounced in solidarity contexts, and thus extend beyond preferences predicted by frameworks of ingroup bias and role congruity.

# Study 1

We predicted that observers' group membership (high-status group or low-status group) would moderate their responses to leaders from the high-status group compared to leaders from the low-status group, with respect to collective action intentions (*Hypothesis 1*) as well as perceptions of the leaders and emotions (*Hypothesis 2*). In the context of a non-profit organization that combats gender inequality, the composition of the leadership team was manipulated to include either more women (members of the low-status gender group) or more men (members of the high-status gender group). We designated one gender group as the numerical majority in order to demonstrate that leaders from this group had meaningful influence in the organization. Participants who self-categorized as male or female reported their responses to the leaders who made up the numerical majority on the leadership team.

Our prediction regarding the mediation model (*Hypothesis 3*) had not been developed when we designed this study. Thus, our investigation of the process underpinning lower collective action intentions in response to high-status group leaders (compared to low-status group leaders) was fully exploratory. This approach dictated two aspects of how we report this study. First, we do not differentiate between the hypothesized mediators and alternative mediators in the Method section. Second, we report all analyses for the tests of experimental effects and mediation models in the main text of the Results section.

# Method

# Design

The study employed a 2 (leadership composition manipulation: majority female vs.

majority male) x 2 (participant gender group: female vs. male) between-participants personby-treatment quasi-experimental design. Participants were randomly allocated to one of the two leadership composition conditions and reported their gender group. Every participant self-identified as either male or female, with none choosing the "other" option.

#### **Procedure**

Participants read a description of a fictional gender equality organization that manipulated the leadership team's gender composition. They then completed a manipulation check item and measures of their perceptions, emotions, and collective action intentions.

# **Participants**

We sought to recruit a sample of 200 participants, in order to obtain 50 participants in each of the four cells of our 2 x 2 design. This sample size was chosen to ensure sufficient power to detect a moderate effect size (0.25) following an *a priori* power analysis using the G\*Power program (Bakker et al., 2016; Faul et al., 2007).

United States residents at least 18 years of age were recruited to participate via Amazon Mechanical Turk (MTurk). Two hundred and two MTurk users submitted questionnaires and received US\$1.50 compensation, at which point the study was closed on the MTurk website. Four participants were excluded because their responses to the manipulation check question indicated that they had not correctly understood the information provided in the materials.

The remaining 198 participants provided responses to at least 95% of the items, and thus were retained in the final sample. The missing data was classified as Missing Completely at Random (MCAR) as Little's MCAR test returned a non-significant result:  $\chi^2$  (2, 2018, N = 198) = 2049.57, p = .307 (Little, 1988). Thus, there was no evidence of systematic patterns in the missing data.

The final sample (N = 198) included 103 men and 95 women, whose ages ranged from 18 to 72 years (M = 39.58, SD = 12.06; 2 cases of missing data). One hundred and fifty-four

participants (77.8%) identified as White, 21 (10.6%) as Asian American, nine (4.5%) as African American, nine (4.5%) as mixed race, four (2%) as Hispanic or Latinx, and one (0.5%) as Native American. Each cell in the design included between 45 and 53 participants.

#### Materials

Participants read about a fictional organization that sought to combat gender inequality in the United States. The first paragraph described the aims and strategies of the organization:

The Gender Equality Network (GEN) is a national grass-roots organization that works to improve the lives of millions of women and their families in the United States. GEN advocates for policies that advance equity for girls at all levels of education; challenges gender bias and discrimination in higher education and the workplace; and provides leadership development opportunities and mentoring for women in higher education.

The second paragraph described the leadership team's responsibilities in the organization, and the final sentence manipulated the gender composition:

The Gender Equality Network is run by an Executive Leadership Team that is responsible for identifying strategic priorities, developing and implementing campaigns, and mentoring staff. This leadership team currently includes [more women than men *or* more men than women].

#### Measures

The measures reported below were created using 32 out of the 95 items (33.68%) presented in the full questionnaire. The 63 omitted items were discarded for one of two reasons. First, 23 items originally intended to be included in a composite measure were dropped based on exploratory analyses; details are provided in relevant sections below. Second, 40 items were determined to be tangential to the aims of this paper, as they assessed either individual differences or general evaluations of the leaders (e.g., perceived

competence) and the organization (e.g., perceived success). Further information can be obtained by contacting the first author.

Manipulation Check. One item asked participants to recall the gender composition of the leadership team described in the manipulation: "The leadership team of the Gender Equality Network currently includes: (a) more men than women; (b) equal numbers of men and women; (c) more women than men. Participants could choose only one response option. As noted in the Participants section, four participants provided responses that did not match the condition to which they had been assigned and were thus excluded from the sample.

Collective Action Intentions (Outcome Variable). Five items ( $\alpha$  = .96) were developed to assess the extent to which participants wanted to take action to support the organization: "I would like to donate money to this organization," "I would like to help this organization achieve its goals," "I would like to work with this organization," "I would like to contribute my time to this organization," and "I would like to get involved in campaigns run by this organization." Participants indicated the extent to which they agreed with each statement using a seven-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Perceptions of Leaders (Mediators). To ensure that participants appraised the leaders who were in a position of power and influence in the organization, we directed them to focus on the leaders who made up the numerical majority on the leadership team. The instructions for the measures reminded participants which gender group the majority of the leaders belonged to, and asked them to focus on these leaders when responding to the items:

"Using the response scale below, indicate the extent to which you agree with each statement about the leadership of the Gender Equality Network. Recall that the leadership team is made up mostly of {men or women}. Focus on these {male leaders or female leaders} when considering your answers."

Responses were provided on a seven-point scale (1 = strongly disagree, 7 = strongly agree).

Perceived Awareness of Inequality. Four items ( $\alpha$  = .86) were developed to assess the extent to which participants believed that the leaders were aware of gender inequality and the experiences of women, and the extent to which the leaders were able to apply this knowledge to their role: "The leaders truly understand the struggles faced by victims of gender inequality," "I think that the leadership team represents those who are disadvantaged by gender inequality," "The leadership team probably has blind-spots that limit its ability to work for gender equality (reverse-scored)," and "The leadership team will be able to speak for those who are disadvantaged by gender inequality."

**Perceived Alienation of Women.** Four items ( $\alpha$  = .92) were developed to measure the extent to which participants believed that the leadership prevented women from taking a central role in the social justice effort and instilled distrust in the leadership team: "The make-up of the current leadership team reduces the voice available to women," "The current leadership team will make women feel marginalized," "Women might question the work done by the leadership of the Gender Equality Network," and "The leadership team probably faces skepticism from those who are victimized by gender inequality."

We originally developed four additional items to assess the extent to which participants believed that the leadership would empower women (e.g., "Women probably feel empowered under the leadership of the Gender Equality Network."). In an Exploratory Factor Analysis, these four items loaded onto a distinct factor from the four items assessing perceived alienation of women. However, the two measures were strongly correlated (r [198] = -0.76, p < .001) and produced nearly identical patterns of results in the main analyses. To reduce unnecessary duplication, we have dropped these items from the paper.

**Perceived Ulterior Motive.** Three items ( $\alpha = .71$ ) measured the extent to which participants perceived a personal ulterior motive for the leaders' involvement in the organization: "The leaders probably took these jobs in order to advance their own careers," "I

think that the leaders gain some personal benefits by being part of this organization," and "I wonder if the leaders have selfish reasons for being part of this organization." We had created a reverse-scored item ("My guess is that the leaders are fully committed to helping victims of gender inequality"), but dropped it as it reduced the reliability of the measure to below 0.60.

Emotions (Mediators). Participants were asked to indicate the extent to which they felt each of 27 emotions about the leadership of the Gender Equality Network, using a seven-point response scale ( $0 = not \ at \ all$ ,  $6 = very \ much$ ). As with the previous set of measures, the instructions reminded participants of the gender composition of the leadership team (i.e., majority male or majority female) and asked them to focus on the leaders in the numerical majority group when considering their responses.

The emotion terms spanned a range of positive and negative emotions that represent a broad range of responses to inequality and efforts to challenge it (Drury et al., 2005; Greenaway et al., 2016; Montada & Schneider, 1989). All 27 items were submitted to an Exploratory Factor Analysis using Maximum Likelihood extraction and Oblimin rotation.

Two distinct factors emerged, which could be interpreted as hope (explaining 38.46% of the variance) and anger (explaining 21.67% of the variance). Nine items loaded strongly (range: 0.61 to 0.88) and uniquely on the *Hope* factor: hopeful, inspired, optimistic, excited, thankful, confident, appreciative, pleased, grateful ( $\alpha$  = .95). Six items loaded strongly (range: 0.71 to 0.93) and uniquely on the *Anger* factor: angry, annoyed, irritated, outraged, furious, fed up ( $\alpha$  = .94). The remaining 12 items did not load strongly onto these factors or any other distinct interpretable factors, and thus were dropped from further analyses.

#### **Results**

# **Bivariate Correlations**

The measured variables were significantly associated with each other in expected directions,<sup>2</sup> with the exception of anger and collective action intentions (see Table 1).

# **Experimental Effects**

A series of 2 (leadership composition manipulation: majority female vs. majority male) x 2 (participant gender group: female vs. male) between-participant Analyses of Variance (ANOVAs) were conducted to assess the impact of the two factors on each measure. Table 2 presents the tests of omnibus main effects (test statistics, effect sizes, and descriptive statistics). Full details of the interaction effects—including omnibus and follow-up tests—are reported in the text below, as they provide direct tests of Hypotheses 1 and 2. Significant two-way interactions were followed up by testing the simple effects of the leadership composition manipulation for each participant gender group; figures displaying the results are included in the Appendix (Figures A1 to A6).

Collective Action Intentions (Outcome Variable). There was a significant main effect of the leadership composition manipulation, and no significant main effect of participant gender group (Table 2). These effects were qualified by a significant two-way interaction, F(1, 194) = 9.30, p = .003,  $\eta_p^2 = .046$ .

Simple effects analyses (Figure A1) indicated that female participants in the majority female leaders condition reported significantly stronger collective action intentions (M = 4.11, SD = 1.59) than did the female participants in the majority male leaders condition (M = 2.96, SD = 1.46), F(1, 194) = 13.13, p < .001,  $\eta_p^2 = .063$ . Among male participants, there was no effect of the leadership composition manipulation: there was no evidence of a difference in collective action intentions between men in the majority female leaders condition (M = 3.27, SD = 1.47) and men in the majority male leaders condition (M = 3.46, SD = 1.67), F(1, 194) = 0.40, p = .531,  $\eta_p^2 = .002$ .

# Perceptions of Leaders (Mediators).

**Perceived Awareness of Inequality.** There was a significant main effect of the leadership composition manipulation, and no significant main effect of participant gender

group (Table 2). These effects were qualified by a significant two-way interaction,  $F(1, 194) = 24.31, p < .001, \eta_p^2 = .111.$ 

Simple effects analyses (Figure A2) indicated that female participants in the majority female leaders condition perceived these female leaders to be significantly more aware of gender inequality (M = 5.36, SD = 1.07) than did the female participants who evaluated the male leaders in the majority male leaders condition (M = 2.82, SD = 1.15), F(1, 194) = 130.17, p < .001,  $\eta_p^2 = .402$ . Among male participants, the same pattern of results emerged though with a smaller effect size: men in the majority female leaders condition perceived the female leaders to have significantly more awareness of gender inequality (M = 4.86, SD = 1.02) than did men who evaluated the male leaders in the majority male leaders condition (M = 3.83, SD = 1.10), F(1, 194) = 22.75, P < .001,  $\eta_p^2 = .105$ .

**Perceived Alienation of Women.** There was a significant main effect of the leadership composition manipulation, and no significant main effect of participant gender group (Table 2). These effects were qualified by a significant two-way interaction, F(1, 194) = 9.34, p = .003,  $\eta_p^2 = .046$ .

Simple effects analyses (Figure A3) indicated that female participants in the majority female leaders condition perceived significantly less alienation of women (M = 2.75, SD = 1.27), than did the female participants in the majority male leaders condition (M = 5.43, SD = 1.16), F(1, 194) = 102.70, p < .001,  $\eta_p^2 = .346$ . Among male participants, the same pattern of results emerged with a smaller effect size: male participants in the majority female leaders condition perceived significantly less alienation of women (M = 3.04, SD = 1.49) than did male participants in the majority male leaders condition (M = 4.61, SD = 1.20), F(1, 194) = 37.81, P < .001,  $\eta_p^2 = .163$ .

**Perceived Ulterior Motive.** There was a significant main effect of the leadership composition manipulation, and no significant main effect of participant gender group (Table

2). These effects were qualified by a significant two-way interaction,  $F(1, 194) = 24.48, p < .001, \eta_p^2 = .112.$ 

Simple effects analyses (Figure A4) indicated that female participants perceived less ulterior motive among the female leaders in the majority female leaders condition (M = 4.03 SD = 1.27) than did the female participants who evaluated the male leaders in the majority male leaders condition (M = 5.42, SD = 0.94), F(1, 194) = 35.78, p < .001,  $\eta_p^2 = .156$ . Among male participants, there was no significant effect of the leadership composition manipulation: there was no evidence of a difference between men in the majority female leaders condition (M = 4.58, SD = 1.78) and men in the majority male leaders condition (M = 4.38, SD = 1.08) in their perception of leaders' ulterior motive F(1, 194) = 0.83, p = .363,  $\eta_p^2 = .004$ .

# **Emotions (Mediators).**

*Hope.* There was a significant main effect of the leadership composition manipulation, but no significant effect of participant gender group (Table 2). These effects were qualified by a significant two-way interaction, F(1, 194) = 17.611, p < .001,  $\eta_p^2 = .083$ .

Simple effects analyses (Figure A5) indicated that female participants responding to the female leaders in the majority female leaders condition reported significantly more hope (M = 4.15, SD = 1.06) than did the female participants who responded to the male leaders in the majority male leaders condition (M = 2.81, SD = 1.28), F(1, 194) = 28.84, p < .001,  $\eta_p^2 = .129$ . Among male participants, there was no significant effect of the leadership composition manipulation: there was no evidence of a difference between men in the majority female leaders condition (M = 3.44, SD = 1.24) and men in the majority male leaders condition (M = 3.55, SD = 1.27) in their levels of hope, F(1, 194) = 0.22, p = .643,  $\eta_p^2 = .001$ .

Anger. There was no significant main effect of the leadership composition manipulation or participant gender group (Table 2). The two-way interaction effect was

significant, F(1, 194) = 6.40, p = .012,  $\eta_p^2 = .032$ .

Simple effects analyses (Figure A6) indicated that female participants responding to the female leaders in the majority female leaders condition reported significantly less anger (M = 1.87, SD = 1.19) than did the female participants who responded to the male leaders in the majority male leaders condition (M = 2.64, SD = 1.38), F(1, 194) = 9.71, p = .002,  $\eta_p^2 = .048$ . Among male participants, there was no effect of the leadership composition manipulation: there was no evidence of a difference in reported levels of anger between men in the majority female leaders condition (M = 2.04, SD = 1.16) and men in the majority male leaders condition (M = 1.94, SD = 1.11), F(1, 194) = 0.16, p = .686,  $\eta_p^2 = .001$ .

# **Mediation Analyses**

Moderated Mediation Model. To investigate the process underpinning lower collective action intentions in response to a majority male (compared to majority female) leadership team, we designed a custom mediation model for the PROCESS macro in SPSS (Hayes, 2018) using a model builder tool (Frank, 2018). The model specified the leadership composition manipulation as the exogenous predictor variable in a serial mediation model with collective action intentions as the final outcome variable. The three measures assessing perceptions of leaders (awareness of inequality, ulterior motive, alienation of women) were specified as the first set of parallel mediators, and the two emotions (hope, anger) as the next set of parallel mediators. Participant gender was specified to moderate the relationships between the leadership composition manipulation and the first set of mediators (i.e., the three perceptions of leaders). This model enabled an exploratory test of the proposed mediation pathway (leadership composition manipulation → perceived leaders' awareness of inequality → hope → collective action intentions) against the alternative mediator variables.

We tested the model using estimates based on 10,000 bootstrap samples (Hayes, 2018). Participant gender moderated the direct effect of the leadership composition manipulation on

each perception of the leaders: perceived awareness of inequality (b = -1.52, SE = 0.31, lower 95% CI = -2.1325 and upper 95% CI = -0.9139), perceived ulterior motive (b = 1.59, SE = 0.32, lower 95% CI = 0.9573 and upper 95% CI = 2.2265), and perceived alienation of women (b = 1.12, SE = 0.37, lower 95% CI = 0.3976 and upper 95% CI = 1.8451).

Furthermore, two indirect effects from the leadership composition manipulation on collective action intentions were moderated by participant gender: (1) leadership composition manipulation → perceived awareness of inequality → collective action intentions (b = -0.50, SE = 0.26, lower 95% CI = -1.0510 and upper 95% CI = -0.0388), and (2) leadership composition manipulation → perceived awareness of inequality → hope → collective action intentions (b = -0.49, SE = 0.16, lower 95% CI = -0.8538 and upper 95% CI = -0.2318).

To decompose these interaction effects, we tested the custom serial mediation model separately among male and female participants using estimates based on 10,000 bootstrap samples (Hayes, 2018). This strategy enabled us to examine the indirect effects of the leadership composition manipulation on the collective action outcome measure via the various mediators separately for each gender group.

Mediation Model among Female Participants. The total effect of the leadership composition manipulation on collective action intentions (b = -1.16, SE = 0.31) was significant: lower 95% CI = -1.7815, upper 95% CI = -0.5314. Figure 2 presents the direct effects tested in this model. The leadership composition manipulation had a significant effect on each of the three leader perception variables. However, the manipulation did not have a significant effect on the emotions or collective action intentions once the three perception variables were also included as predictors. Only perceived awareness of inequality was associated with hope, and only perceived alienation of women was associated with anger. Collective action intentions were significantly associated with only one variable: hope.

The indirect effects for all pathways from the leadership composition manipulation to

the collective action outcome variable are presented in Table 3, with results for female participants in the top row for each indirect effect. The first three indirect effects (Paths 1  $\rightarrow$  3) tested the effects of the manipulation on collective action via each leader perception variable, and the next two indirect effects (Paths 4 and 5) tested the effects of the manipulation on collective action via each emotional response. The last six indirect paths considered the effects of the manipulation via two variables: one leader perception and one emotion (Paths 6  $\rightarrow$  11). The only significant indirect effect was Path 6, which tested the effect of the manipulation on collective action intentions via perceived leaders' awareness of inequality and hope.

**Mediation Model among Male Participants.** The total effect of the leadership composition manipulation on collective action intentions (b = .19, SE = 0.31) was not significant: lower 95% CI = -0.4226, upper 95% CI = 0.8074. Figure 3 presents the direct effects. The leadership composition manipulation had a significant effect only on perceived awareness of inequality and perceived alienation of women. Perceived awareness of inequality was associated with hope, and three variables were associated with collective action intentions: perceived awareness of inequality, hope, and perceived alienation of women.

All indirect effects from the leadership composition manipulation to the collective action outcome variable are presented in Table 3, with results for male participants in the bottom row for each indirect effect. Two of the 11 indirect effects were significant: Path 1, which tested the effect of the manipulation on collective action via perceived awareness of inequality, and Path 6, which tested the effect of the manipulation on collective action intentions via perceived awareness of inequality and hope.

**Alternative Model.** Our design measured all variables at a single time-point and thus does not allow us to make strong claims about the causal order specified in the mediation

model. However, the fact that hope was the only consistent direct predictor of collective action intentions gives us some confidence in our interpretation of the findings. Our model is also consistent with appraisal theories of emotion and previous research on the role of group-based emotions in predicting collective action intentions. While comparing our model with alternatives in which the order of variables is altered does not provide strong evidence that one order should be preferred (Lemmer & Gollwitzer, 2017; Wiedermann & von Eye, 2015), we report the test of a plausible alternative model in the Supplemental Materials.

#### **Discussion**

Study 1 provides a first empirical demonstration of the intergroup dynamics involved in observers' responses to high-status group leaders in a social justice organization that seeks to benefit the low-status group. The presence of influential male leaders, compared to influential female leaders, reduced collective action intentions among female participants (i.e., observers from the low-status gender group). In contrast, there was no evidence that the presence of influential male leaders lowered collective action intentions among male participants (i.e., observers from the high-status group). These results provide support for Hypothesis 1, and the social identity analysis of the role of group membership in shaping observers' willingness to collaborate with a social justice organization.

Results also support Hypothesis 2, whereby participants' group membership moderated their responses on the mediator variables. Female participants responded more negatively to the male leaders on a majority male leadership team than they did to the female leaders on a majority female leadership team, with respect to all three perceptions of the leaders (awareness of inequality, alienation of women, ulterior motive) and both emotions (hope, anger). Male participants, in contrast, evaluated influential high-status group leaders negatively only with respect to two mediator variables: they perceived the male leaders in the majority male leadership team as being less aware of inequality and more likely to alienate

women, compared to the female leaders on the majority female leadership team. There was no evidence that influential male leaders of a gender equality organization evoked more negative emotional responses among male observers.

Consistent with Hypothesis 3, exploratory mediation analyses showed that lower collective action intentions to work with a gender equality organization led by a majority male leadership team (compared with a majority female leadership team) were mediated by a specific perceived problem (leaders' low awareness of inequality) and emotional response (hope). Furthermore, there was no evidence that the alternative mediator variables that were tested in the model—perceived alienation of women, perceived ulterior motive, and anger—mediated participants' collective action intentions.

The nature of the indirect effect was moderated by participant gender. Only one indirect effect (that included perceived awareness of inequality and hope) was significant among female participants (i.e., the low-status group). In contrast, two indirect effects (one with perceived awareness of inequality and hope, and one with only perceived awareness of inequality) were significant among male participants (i.e., the high-status group). The stronger impact of the emotional response among members of the low-status group suggests that they perceived the information about the organization as more personally relevant to them (see Iyer & Leach, 2008).

Study 1 thus provided evidence for the hypothesized pattern of experimental effects and the process underpinning collective action intentions. To replicate these results, we conducted a second study in a different intergroup context: racial inequality in the United Kingdom.

#### Study 2

White and ethnic minority participants in the United Kingdom were presented with information about a non-profit organization seeking to achieve racial equality, whose leadership team was manipulated as being either majority White or majority racial/ethnic

minority. We tested Hypotheses 1-3 in order to replicate results from Study 1.

The hypothesized mediation model was supported in Study 1, and thus we now differentiate between hypothesized mediators (perceived leaders' awareness of inequality and hope) and alternative mediators (perceived leaders' alienation of the low-status group and ulterior motive, and anger). To conserve space when reporting the experimental effects, we focus on the outcome variable (collective action intentions) and the hypothesized mediators in the main text; results for the alternative mediators are reported in the Supplemental Materials. Our test of the mediation model includes the hypothesized mediators as well as the alternative mediators, so as to assess the independent effects of the hypothesized mediators.

#### Method

# Design

The study employed a 2 (leadership composition manipulation: majority racial/ethnic minority vs. majority White) x 2 (participants racial/ethnic group: racial/ethnic minority vs. White) between-participants person-by-treatment quasi-experimental design. Participants were randomly allocated to one leadership composition condition, and reported their racial/ethnic group membership. We only retained participants who self-identified as either solely racial/ethnic minority<sup>3</sup> or solely White, to ensure that they clearly identified with either the low-status racial/ethnic group or the high-status racial/ethnic group.

#### Procedure

As in Study 1, participants read about a fictional racial equality organization that manipulated the racial composition of the leadership team. They then completed a manipulation check item and a set of measures assessing responses to the influential leaders.

# **Participants**

Following Study 1, we sought to recruit a total of 200 participants, in order to obtain 50 participants in each of the four cells in the design. The Prolific Academic website was used to

recruit United Kingdom residents at least 18 years of age. To ensure that we obtained equal numbers of White participants and racial/ethnic minority participants, separate advertisements were set up to recruit 100 White participants and 100 racial/ethnic minority participants. An administrative error led to an additional 55 racial/ethnic minority participants being given access to the study. Thus the initial sample included a total of 255 individuals (100 White, 155 racial/ethnic minority).

Of the 255 individuals who started the questionnaire, 234 submitted their responses to receive UK£2.00 compensation. Eighteen were then excluded because their responses to the manipulation check question indicated that they had not correctly understood the information provided in the stimulus material. The remaining 216 participants provided responses to at least 95% of the questionnaire items, and thus were retained in the final sample. The missing data was classified as Missing Completely at Random (MCAR) based on Little's MCAR test:  $\chi^2$  (2, 3144, N = 216) = 3043.67, p = .898 (Little, 1988). Thus, there was no evidence of systematic patterns in the missing data.

The final sample of 216 participants included 94 men (43.5%), 120 women (55.6%), and one participant who self-identified their gender as "other." Their ages ranged from 18 to 70 years (M = 31.00, SD = 11.18; one case of missing data). One hundred and nine participants (50.5%) identified as White, 59 (27.3%) as Asian/Asian British, 23 (10.6%) as mixed-race with no White heritage; 22 (10.2%) as Black/African Caribbean/Black British, and three (1.4%) as Arab/Arab British. For the purposes of the analyses, we created one group of White participants, and one group of racial/ethnic minority participants (including self-identified mixed-race participants with no White heritage). Each of the four cells in the design included between 53 and 55 participants.

#### Materials

The materials from Study 1 were adapted to describe a fictional organization—the Race

and Equality Centre—that sought to combat racial inequality in the United Kingdom. The last sentence manipulated the racial group composition of the leadership team: "This leadership team currently includes [more White people than members of ethnic minority groups (e.g., Black British, Asian British, Arab) *or* more members of ethnic minority groups (e.g., Black British, Asian British, Arab) than White people]."

#### Measures

The questionnaire was identical to that used in Study 1, except for minor modifications to fit the context of racial inequality in the United Kingdom. The measures reported below were created using 32 out of the 95 items (33.68%) in the full questionnaire, based on the rationale reported in the first study. Further information can be obtained from the first author.

Manipulation Check. A single item asked participants to recall the racial composition of the leadership team presented in the manipulation: "The leadership team of the Race and Equality Centre currently includes: (a) more White people than members of ethnic minority groups; (b) equal numbers of White people and members of ethnic minority groups; (c) more members of ethnic minority groups than White people. Participants could choose only one response option. As noted in the Participants section, 18 participants provided responses to this question that did not match the experimental condition to which they had been randomly assigned; they were thus excluded from the sample.

Outcome Variable. The five items assessing *Collective Action Intentions* in Study 1 were adapted to assess the extent to which participants wanted to take action to help the Race and Equality Centre ( $\alpha = .94$ ).

**Hypothesized Mediators.** Items from Study 1 were adapted to create the four-item measure of leaders' *Perceived Awareness of Racial Inequality* ( $\alpha$  = .85) and the nine-item measure of *Hope* ( $\alpha$  = .94). Following the format of the first study, instructions reminded participants which racial/ethnic group the majority of the leaders belonged to, and asked them

to focus on the leaders in the numerical majority group when responding to the items.

Alternate Mediators. The Study 1 items were adapted to create the four-item measure assessing *Perceived Alienation of Racial/Ethnic Minorities* ( $\alpha$  = .85) by the leaders, the three-item measure of *Perceived Ulterior Motive* ( $\alpha$  = .72) of the leaders, and the six-item measure of *Anger* ( $\alpha$  = .94). As in Study 1, instructions reminded participants which racial/ethnic group the majority of the leaders belonged to, and asked them to focus on these leaders.

#### **Results**

#### **Bivariate Correlations**

All six variables were significantly associated with each other (see Table 4) and the pattern of results was generally consistent with Study 1.

# Experimental Effects

A series of 2 (leadership composition manipulation: majority racial/ethnic minority leaders vs. majority White leaders) x 2 (participant racial/ethnic group: racial/ethnic minority vs. White) between-participant Analyses of Variance (ANOVAs) were conducted to assess the impact of the two factors on each measure. Significant two-way interactions were followed up by testing the simple effects of the leadership composition manipulation for each participant racial/ethnic group. Below we report the results for the main outcome variable and the two hypothesized mediators; figures displaying these results are included in the Appendix (Figures A7 to A9). Results for the three alternative mediator variables are reported in the Supplemental Materials.

Collective Action Intentions. The main effect of the leadership composition manipulation was not significant, F(1, 212) = 3.44, p = .065,  $\eta_p^2 = .016$ : there was no evidence of a difference in collective action intentions between participants in the majority racial/ethnic minority leaders condition (M = 3.96, SD = 1.34) and participants in the majority White leaders condition (M = 3.62, SD = 1.39). Furthermore, there was no

significant effect of participant race/ethnicity, F(1, 212) = 3.40, p = .067,  $\eta_p^2 = .016$ , indicating no evidence of a difference between racial/ethnic minority participants (M = 3.97, SD = 1.39) and White participants (M = 3.63, SD = 1.34) in collective action intentions.

The two-way interaction was not significant, F(1, 212) = 2.88, p = .091,  $\eta_p^2 = .013$ . However, this omnibus test is relatively insensitive, particularly when one simple effect is non-significant (Rosnow & Rosenthal, 1989)—as we had expected to be the case for members of the high-status group (i.e., White participants). Given that we did find distinct simple effects among men and women in Study 1, we sought to replicate this specific set of results (see also Kaiser & Spalding, 2015). Thus, we proceeded to test the simple effects of the leadership composition manipulation for each participant racial/ethnic group (Figure A7).

Among racial/ethnic minority participants, those in the majority racial/ethnic minority leaders condition reported significantly stronger collective action intentions (M = 4.29, SD = 1.26) than did those in the majority White leaders condition (M = 3.64, SD = 1.45), F(1, 212) = 6.26, p = .013,  $\eta_p^2 = .029$ . Among White participants, the effect of the leadership composition manipulation was not significant, F(1, 212) = 0.12, p = .911,  $\eta_p^2 < .001$ . There was no evidence of a difference in collective action intentions between White participants in the majority racial/ethnic minority leaders condition (M = 3.64, SD = 1.35) and White participants in the majority White leaders condition (M = 3.61, SD = 1.35).

**Perceived Awareness of Inequality.** There was a significant main effect of the leadership composition manipulation, F(1, 212) = 146.81, p < .001,  $\eta_p^2 = .409$ : participants in the majority racial/ethnic minority leaders condition perceived these racial/ethnic minority leaders to be significantly more aware of racial inequality (M = 4.89, SD = 1.00) than did participants who evaluated the White leaders in the majority White leaders condition (M = 3.01, SD = 1.24). The main effect of participant race/ethnicity was not significant, F(1, 212) = 0.86, p = .356,  $\eta_p^2 = .004$ . Thus, there was no evidence of a difference between

racial/ethnic minority participants (M = 3.93, SD = 1.60) and White participants (M = 4.06, SD = 1.28) in their perception of leaders' awareness of inequality.

These effects were qualified by a significant two-way interaction, F(1, 212) = 9.87, p = .002,  $\eta_p^2 = .044$ . Simple effects analyses (Figure A8) indicated that racial/ethnic minority participants in the majority racial/ethnic minority leaders condition perceived the racial/ethnic minority leaders to be significantly more aware of racial inequality (M = 5.06, SD = 1.13) than did racial/ethnic minority participants who evaluated the White leaders in the majority White leaders condition (M = 2.77, SD = 1.10), F(1, 212) = 115.35, p < .001,  $\eta_p^2 = .352$ . Among White participants, the same pattern of results emerged though with a smaller effect size: those in the majority racial/ethnic minority leaders condition perceived the racial/ethnic minority leaders to be significantly more aware of racial inequality (M = 4.73, SD = 0.83) than did those who evaluated the White leaders in the majority White leaders condition (M = 3.38, SD = 1.31), F(1, 212) = 40.65, p < .001,  $\eta_p^2 = .161$ .

**Hope.** There was a significant main effect of the leadership composition manipulation, F(1, 212) = 27.20, p < .001,  $\eta_p^2 = .114$ : participants in the majority racial/ethnic minority leaders condition reported significantly more hope (M = 3.81, SD = 1.06) than did participants in the majority White leaders condition (M = 3.04, SD = 1.15). The effect of participant race/ethnicity was not significant, F(1, 212) = 0.37, p = .542,  $\eta_p^2 = .002$ . Thus, there was no evidence of a difference in reported levels of hope between racial/ethnic minority participants (M = 3.39, SD = 1.29) and White participants (M = 3.47, SD = 1.04).

These effects were qualified by a significant two-way interaction, F(1, 212) = 9.37, p = .002,  $\eta_p^2 = .042$ . Simple effects analyses (Figure A9) indicated that racial/ethnic minority participants in the majority racial/ethnic minority leaders condition felt significantly more hope (M = 3.99, SD = 1.15) than did racial/ethnic minority participants in the majority White leaders condition (M = 2.77, SD = 1.13), F(1, 212) = 33.93, p < .001,  $\eta_p^2 = .138$ . Among

White participants, there was no significant effect of the leadership composition manipulation, F(1, 212) = 2.34, p = .127,  $\eta_p^2 = .011$ : there was no evidence of a difference in levels of hope between White participants in the majority racial/ethnic minority leaders condition (M = 3.63, SD = 0.95) and White participants in the majority White leaders condition (M = 3.31, SD = 1.11).

# **Mediation Analysis**

Moderated Mediation Model. We investigated the process underpinning lower collective action intentions in response to a majority White (compared to majority racial/ethnic minority) leadership team with the serial moderated mediation model developed in Study 1. We aimed to test the hypothesized mediation pathway (leadership composition manipulation → perceived awareness of inequality → hope → collective action intentions) in the context of the alternative mediator variables (perceived leaders' alienation of racial/ethnic minority groups, perceived leaders' ulterior motive, anger). We also assessed whether participant race/ethnicity moderated the relationship between the leadership composition manipulation and the first set of mediators (i.e., the three perceptions of leaders).

We tested the model using estimates based on 10,000 bootstrap samples (Hayes, 2018). Participant race/ethnicity moderated the direct effect of the leadership composition manipulation on perceived leaders' awareness of inequality (b = -0.93, SE = 0.30, lower 95% CI = -1.5239 and upper 95% CI = -0.3297). There was no evidence that the effect of the manipulation on the two alternative mediators was moderated: perceived ulterior motive (b = 0.50, SE = 0.30, lower 95% CI = -0.998 and upper 95% CI = 1.1081), and perceived alienation (b = 0.46, SE = 0.29, lower 95% CI = -0.1134 and upper 95% CI = 1.0433). Participant race/ethnicity moderated only one indirect effect of the leadership composition manipulation on collective action intentions, which included the hypothesized mediators: composition → perceived awareness of inequality → hope → collective action intentions (b =

-0.19, SE = 0.09, lower 95% CI = -0.3916 and upper 95% CI = -0.0467).

As in Study 1, we next tested the custom serial mediation model separately among racial/ethnic minority group participants and White participants using estimates based on 10,000 bootstrap samples (Hayes, 2018). This approach enabled us to examine the indirect effects of the leadership composition manipulation on the collective action outcome measure via the various mediators separately for each racial/ethnic group.

Mediation Model among Racial/Ethnic Minority Participants. The total effect of the leadership composition manipulation on collective action intentions (b = -0.63, SE = 0.27) was significant: upper 95% CI = -1.1619, lower 95% CI = -0.1011. Figure 4 presents the direct effects tested in the model. The leadership composition manipulation had a significant effect on all three perceptions of the leaders, but not on emotions or collective action intentions once the other predictors were also included. Only perceived leaders' awareness of inequality was associated (positively) with hope and (negatively) with anger. Hope was the sole variable that was significantly associated with collective action intentions.

The indirect effects for all pathways from the leadership composition manipulation to the collective action outcome variable are presented in Table 5, with results for racial/ethnic minority participants presented in the top row for each indirect effect. As in Study 1, only one indirect effect was significant: Path 6, which tested the effect of the manipulation on collective action intentions via perceived awareness of inequality and hope.

**Mediation Model among White Participants.** The total effect of the leadership composition manipulation on the collective action intentions (b = -.03, SE = 0.26) was not significant (lower 95% CI = -0.5411, upper 95% CI = 0.4833). Figure 5 presents the direct effects tested in this model. The leadership composition manipulation had a significant effect on perceived awareness of inequality, perceived alienation of racial/ethnic minority groups, and hope. Perceived awareness of inequality was associated with hope, and two variables—

hope and perceived ulterior motive—were associated with collective action intentions.

Indirect effects from the leadership composition manipulation to collective action intentions are presented in Table 5, with results for White participants presented in the bottom row for each effect. Path 6 was the only significant indirect effect, and included the hypothesized mediator variables: perceived awareness of inequality and hope.

Alternative Model. Our serial mediation model was based in theories of emotion and collective action, and replicated results from Study 1. Nevertheless, we acknowledge that the cross-sectional design did not allow for strong claims regarding causal order. We report a test of a plausible alternative model in the Supplemental Materials.

#### **Discussion**

We replicated the findings from Study 1 in a different intergroup context: racial inequality in the United Kingdom. First, there was qualified support for the prediction that observers' status group membership moderated their collective action intentions in response to influential high-status group leaders, compared to influential low-status group leaders (Hypothesis 1). Although the omnibus interaction test did not meet the conventional level of statistical significance, the tests of simple effects were consistent with the prediction (see Rosnow & Rosenthal, 1989): Participants from racial/ethnic minority groups (i.e., low-status groups) reported lower levels of collective action intentions in the presence of influential high-status group leaders, compared to the presence of influential low-status group leaders. In contrast, there was no evidence that White participants (i.e., high-status group) varied their collective action intentions based on the group membership of the influential leaders.

Tests of experimental effects on the hypothesized mediator variables provided support for Hypothesis 2. Racial/ethnic minority participants perceived influential White leaders to be less aware of racial inequality compared to influential racial/ethnic minority leaders, and reported less hope in response to the White leaders compared to the racial/ethnic minority

leaders. White participants did perceive influential White leaders as being less aware of racial inequality compared to influential racial/ethnic minority leaders, but there was no evidence that they differentiated between the types of leaders in their emotional response.

Lastly, mediation analyses provided evidence for Hypothesis 3 and corroborated the Study 1 finding that lower levels of collective action in response to influential high-status group leaders (compared to influential low-status group leaders) were mediated by a specific perceived problem (leaders' low awareness of inequality) and emotional response (hope). This hypothesized pathway was an important predictor of collective action intentions even after accounting for the effects of the alternative mediators in the model. In contrast to Study 1, the significant indirect effect was consistent for all observers regardless of their status group membership. However, both studies did demonstrate that the hypothesized mediation pathway was significant for both high-status groups and low-status groups.

While there is a clear theoretical rationale for this hypothesized model, the results offer limited evidence for the specified causal pathway in our serial mediation model, because all variables were measured at a single time-point (Spencer et al., 2002). Thus, we conducted an experimental study to provide more conclusive evidence for the specified causal pathway.

#### Study 3

Mediation analyses in the first two studies indicated that a specific perception of leaders (low awareness of inequality) and emotional response (hope) mediated low-status group members' lower levels of collective action intentions in response to influential high-status group leaders. Study 3 provided a stronger test of this hypothesized model by manipulating the mediator variable that was directly affected by the leadership composition manipulation: leaders' awareness of inequality.

The present study was set in the domain of gender inequality, and recruited women as members of the low-status gender group. We presented participants with information about a

gender equality organization, which included two independent manipulations: leaders' awareness of gender inequality (to test the role of this mediator) and gender group composition of the leadership team (to test whether it moderated the effect of the awareness manipulation). Participants then completed measures of hope and collective action intentions.

All aspects of this study—including the design, hypotheses, sampling procedure, materials, measures, and data analytic strategy—were pre-registered before the start of data collection (osf.io/fw2zm). Below we note any deviations from the pre-registration plan based on feedback obtained during the peer review process. All pre-registered measures and analyses that have been omitted from the text are reported in the Supplemental Materials.

### Method

## Design and Procedure

The study employed a 2 (leadership composition manipulation: majority female vs. majority male) x 2 (awareness of inequality manipulation: high vs. no mention of awareness) between-participants design. The control condition in the awareness of inequality factor specifically did not mention awareness, because a statement of low knowledge would not be plausible in an ostensibly public description of an organization's leaders.

Participants were randomly allocated to one of four conditions. The procedure was identical to that of the previous studies: Participants read a description of a fictional organization that included the manipulations, and then completed a series of measures.

# **Participants**

Female residents of the United Kingdom at least 18 years of age were recruited to participate via Prolific Academic for UK£1.00 compensation. Individuals who had participated in our previous studies were not shown the current advertised study. Based on an *a priori* power analysis for a small effect size (0.15), we aimed to collect data from 400 participants (100 per cell). We collected data from 500 participants (125 per condition)

because we had the available resources; this provided a buffer in case some participants did not complete the full questionnaire or failed the leadership composition manipulation check.

The 497 submitted questionnaires were assessed against pre-registered exclusion criteria. Eight participants were excluded because they did not identify their gender as female (one identified as male, three identified as non-binary, and four did not answer the question). A further 84 participants were excluded because they provided incorrect answers to the manipulation check item for the leadership composition manipulation (full details provided in the Measures section). All of the remaining 405 participants answered every single question, and thus were retained in the final sample. A sensitivity analysis ( $\alpha = 0.05$ ,  $\beta = 0.80$ ) indicated that this sample size would be sufficient to detect an effect size of 0.155.

All participants in the final sample identified their gender as female, with ages ranging from 18 to 74 years (M = 37.22, SD = 12.60). With respect to race/ethnicity, 370 (91.4%) identified as White, 12 (3%) as Black/African/Caribbean/Black British, 11 (2.7%) as Asian/Asian British, and 12 (2.9%) as having a mixed racial/ethnic background or as "other." *Materials* 

Participants read about a fictional gender equality organization, which included the manipulations of the two independent variables. The first paragraph presented the focus and aims of the organization: "RBH is a British not-for-profit organisation that focuses on gender equality. RBH develops policies and programmes to improve opportunities for women."

The second paragraph described the role of the leadership team in the organization, with the final sentence manipulating the *gender composition of the team*:

The organisation is run by an Executive Leadership Team that is responsible for identifying strategic priorities, developing concrete goals and key performance indicators, and evaluating the success of these campaigns. **This leadership team** current includes [more men than women *or* more women than men].

The final paragraph manipulated the leaders' awareness of gender inequality. Participants in the *high awareness condition* read the following text:

The leadership team brings extensive experience to the organisation: All members have worked on issues relevant to gender equality for more than 10 years. Every leader also undertakes ongoing training and independent study to further develop their knowledge of subtle gender bias in contemporary society. All members of the leadership team are thus well-equipped to understand the challenges facing women, and to develop appropriate policies and programmes to address these barriers.

The *no statement control condition* did not mention the leaders' awareness of gender inequality. Participants in this condition only read the first two paragraphs.

### Measures

The questionnaire included the final set of items from Studies 1 and 2 to assess the relevant variables. Thus, all items were used to create the composite measures described below.

**Manipulation Checks.** As in Studies 1 and 2, participants were first asked to identify the composition of the leadership team, as a check of whether they had correctly understood the materials. A total of 84 participants incorrectly identified the gender composition of the leadership team they had read about; this included 51 participants in the majority female leaders condition and 33 participants in the majority male leaders condition.<sup>4</sup> These participants were omitted from the final sample (N = 405).

The four items assessing *perceived awareness of inequality* in Studies 1 and 2 were adapted for use as a check for the second manipulation ( $\alpha = .84$ ). Following the format of the previous studies, instructions reminded participants which gender group the majority of the leaders belonged to, and asked them to focus on these leaders when responding to the items.

**Hope.** Instructions reminded participants which gender group the majority of the

leaders belonged to, and asked them to focus on these leaders when responding to the items. The items used in Studies 1 and 2 to assess Hope (9 items,  $\alpha$  = .96) were again used here. The questionnaire also included items to assess anger, because we had planned to include it in the mediation model to test the independent effect of hope in predicting collective action intentions. In the interest of brevity, however, we have decided to focus solely on the variables in the hypothesized mediation model variables. Details regarding the anger variable (measure and results) are reported in the Supplemental Materials.

Collective Action Intentions. As in Studies 1 and 2, five items were used to assess the extent to which participants wanted to work with the gender equality organization ( $\alpha = .92$ ).

### **Results**

### **Bivariate Correlations**

The three measured variables were correlated significantly with each other in the expected directions. Perceived leaders' awareness of inequality was positively associated with hope (r [405] = 0.75, p < .001) and collective action intentions (r [405] = 0.35, p < .001). Collective action intentions were positively associated with hope (r [405] = 0.47, p < .001).

### Manipulation Check: Perceived Awareness of Inequality

A 2 (leadership composition manipulation: majority female vs. majority male) x 2 (awareness of inequality manipulation: high vs. no statement control) between-participant Analysis of Variance (ANOVA) was conducted to assess the impact of the two independent variables on the perceived awareness of inequality manipulation check.

The main effect of the awareness of inequality manipulation was significant, F(1, 401) = 12.76, p < .001,  $\eta_p^2 = .03$ : The leaders presented in the high awareness condition were perceived as being significantly more aware of inequality (M = 4.16, SD = 1.28) than were the leaders in the control condition whose awareness of inequality was not explicitly mentioned (M = 3.87, SD = 1.38). Furthermore, there was a significant main effect of the

leadership composition manipulation, F(1, 401) = 339.00, p < .001,  $\eta_p^2 = .46$ : Participants evaluated the female leaders in the majority female leaders condition as being significantly more aware of gender inequality (M = 4.95, SD = 0.84) than did participants who evaluated the male leaders in the majority male leaders condition (M = 3.16, SD = 1.12).

These effects were qualified by a significant two-way interaction, F(1, 401) = 5.14, p = .024,  $\eta_p^2 = .09$ , which was followed up by testing the simple effects of the awareness of inequality factor at each level of the leadership composition factor<sup>5</sup> (Figure A10 in the Appendix). When considering the majority male leadership teams, participants perceived the male leaders in the high awareness condition to be significantly more aware of gender inequality (M = 3.45, SD = 1.13) than did participants who evaluated the male leaders in the control condition (M = 2.88, SD = 1.04), F(1, 401) = 18.01, p < .001,  $\eta_p^2 = .04$ . In the majority female leaders condition, the simple effect was not significant, F(1, 401) = 0.81, p = .369,  $\eta_p^2 < .01$ : there was no evidence of a difference in perceived female leaders' awareness of gender inequality, whether participants were in the high awareness condition (M = 5.02, SD = 0.85) or the control condition (M = 4.89, SD = 0.83).

The simple effects indicate that the awareness of inequality manipulation successfully addressed the perceived problem of male leaders' low awareness of inequality. This was the main comparison of interest, given our focus on explaining negative responses to influential male leaders in a gender equality organization. However, there was no evidence that the awareness manipulation influenced perceptions of the female leaders on the majority female leadership team. We return to this point in the Discussion section.

# Experimental Effects

We conducted a 2 (leadership composition manipulation: majority female vs. majority male) x 2 (awareness of inequality manipulation: high vs. no statement control) between-participant Analysis of Variance (ANOVA) that assessed the impact of the two independent

variables on hope and collective action intentions.<sup>6</sup> Significant two-way interactions were followed up by testing the simple effects of the awareness of inequality factor at each level of the leadership composition factor.<sup>5</sup>

Hope. The main effect of the awareness of inequality manipulation was significant, F (1, 401) = 12.31, p = .001,  $\eta_p^2$  = .03: Participants reported more hope in response to leaders with high awareness of inequality (M = 4.21, SD = 1.37) than they did in response to leaders whose awareness of inequality was not mentioned (M = 3.92, SD = 1.37). Furthermore, there was a significant main effect of the leadership composition manipulation, F (1, 401) = 359.44, p < .001,  $\eta_p^2$  = .47: Participants reported more hope in the majority female leaders condition (M = 5.04, SD = 0.87) than did participants who in the majority male leaders condition (M = 3.18, SD = 1.13).

These effects were qualified by a significant two-way interaction, F(1, 401) = 10.00, p = .002,  $\eta_p^2 = .02$ . Simple effects analyses (Figure A11 in the Appendix) indicated that, in the majority male leaders condition, participants reported significantly more hope when the leaders were described as having high awareness of inequality (M = 3.51, SD = 1.34) than did participants in the control condition that did not mention leaders' awareness of inequality (M = 2.85, SD = 0.73), F(1, 401) = 23.52, p < .001,  $\eta_p^2 = .06$ . In the majority female leaders condition, the simple effect was not significant, F(1, 401) = 0.06, p = .811,  $\eta_p^2 < .01$ : there was no evidence of a difference in participants levels of hope, whether they considered female leaders in the high awareness condition (M = 5.06, SD = 0.81) or female leaders in the control condition that did not mention leaders' awareness (M = 5.02, SD = 0.91).

Collective Action Intentions. The main effect of the awareness of inequality manipulation was not significant, F(1, 401) = 0.403, p = .526,  $\eta_p^2 < .01$ : there was no evidence that participants reported different levels of collective action intentions in response to leaders with high awareness of inequality (M = 4.11, SD = 1.35) or leaders whose

awareness of inequality was not explicitly mentioned (M = 4.03, SD = 1.40). There was a significant main effect of the leadership composition manipulation, F(1, 401) = 16.87, p < .001,  $\eta_p^2 = .04$ : participants reported higher levels of collective action intentions in the majority female leaders condition (M = 4.36, SD = 1.35) than did participants in the majority male leaders condition (M = 3.81, SD = 1.35). The interaction effect was not significant, F(1, 401) = 0.49, p = .482,  $\eta_p^2 < .01$ . Thus, there was no evidence that the effect of the leadership composition manipulation was moderated by the extent to which leaders were described as being aware of inequality.

# **Mediation Analysis**

Our hypothesized model posited that the indirect effect of the awareness of inequality manipulation on collective action intentions via hope would be significant (*Hypothesis 4*). We first investigated whether there was evidence for moderated mediation, such that the leadership composition manipulation influenced the first direct effect in the mediation model, between the awareness of inequality manipulation and hope. This model was tested using estimates based on 10,000 bootstrap samples (Hayes, 2018).

The leadership composition manipulation moderated the direct effect of the awareness of inequality manipulation on hope (b = 0.62, SE = 0.20, lower 95% CI = 0.2352 and upper 95% CI = 1.0079). The indirect effect from the awareness of inequality manipulation to collective action intentions via hope was also moderated by the leadership composition manipulation (b = 0.29, SE = 0.10, lower 95% CI = 0.1094 and upper 95% CI = 0.4909). We thus tested the model separately in the two leadership composition conditions.

The total effect of the leadership awareness manipulation on collective action intentions was not significant in either the majority male leaders condition (b = 0.18, SE = 0.19, lower 95% CI = -0.1851 and upper 95% CI = 0.5456) or the majority female leaders condition (b = -0.01, SE = 0.20, lower 95% CI = -0.3945 and upper 95% CI = 0.3762). Figure 6 presents the

direct effects in both conditions. The awareness of inequality manipulation had a significant direct effect on hope in the majority male leaders condition, but there was no evidence of this effect in the majority female leaders condition. Hope was significantly associated with collective action intentions in both conditions, whereas the manipulation was not. The indirect effect of the awareness manipulation on collective action intentions via hope was significant in the majority male leaders condition (b = 0.29, SE = 0.08, lower 95% CI = 0.1381 and upper 95% CI = 0.4703), but was not significant in the majority female leaders condition (b = 0.03, SE = 0.12, lower 95% CI = -0.1960 and upper 95% CI = 0.2618).

### **Discussion**

Low-status group members' negative responses to influential male leaders in a social justice effort can be improved by showcasing these leaders' high awareness of the inequality. The manipulation of leaders' awareness of inequality increased female participants' perception that male leaders on a majority male leadership team were aware of inequality, as well as participants' reported feelings of hope. Drawing attention to these male leaders' high awareness of inequality also indirectly increased participants' collective action intentions (compared to the control condition) via increased levels of hope, which was the sole predictor of collective action intentions. Taken together, these results provide more conclusive evidence for the causal order specified among the mediators in the first two studies: perceived leaders' awareness of inequality → hope → collective action intentions.

Results also indicated an important caveat to this conclusion: participants responded more negatively to influential male leaders than they did to influential female leaders, even when male leaders' increased awareness of inequality was highlighted. This suggests that observers perceive low-status group leaders to be especially well suited to leading a social justice effort that benefits their ingroup. Most likely this is because observers assume low-status group leaders to have (at least some) lived experience of the disadvantage that is being

tackled, which arguably gives these leaders the insight to develop the most effective goals and strategies to challenge the inequality. Indeed, the manipulation check results indicated that female leaders were perceived to be highly aware of gender inequality, even when the study materials did not explicitly mention this awareness. Furthermore, the awareness manipulation influenced participants' perceptions of male leaders only to a certain point:

Perceptions of male leaders' awareness of inequality in the high awareness condition were only slightly above the midpoint of the response scale (neither disagree nor agree).

We posit that this pattern of results showcases the intergroup dynamics that underpin any system of intergroup inequality: High-status groups and low-status groups occupy discrete structural positions within a status hierarchy that produce divergent material and psychological experiences (Leach et al., 2002; Ridgeway & Nakagawa, 2014; Tajfel & Turner, 1979). Observers are likely to take notice of leaders' particular perspectives in the context of a social justice organization, where the work itself makes the concept of group status salient. In such cases, a single paragraph that showcases leaders' awareness of inequality (as we used in this study) is not likely to substantially change observers' views about these leaders. For this reason, our manipulation of leaders' awareness of inequality should not be interpreted as an intervention that can elicit equally accepting views of high-status group leaders and low-status group leaders in a social justice effort that benefits the low-status group. Rather, the present study sought to demonstrate that systematically varying leaders' awareness of inequality is sufficient to shift observers' reported feelings of hope and, indirectly, their willingness to contribute to the social justice effort.

Taken together, the first three studies demonstrate that observers from low-status groups respond more negatively to influential leaders from the high-status group (compared to influential leaders from the low-status group) in a solidarity context where the social justice effort seeks to benefit the observers' low-status ingroup. As noted in the Introduction,

alternative accounts could explain these results using the well-established effects of ingroup bias and role congruity. We propose that our effects extend beyond such preferences, because members of a high-status outgroup should be viewed as especially unsuitable to lead an organization that champions the interests of a low-status ingroup. To test this prediction, the final study compared low-status group observers' evaluations of influential high-status group leaders in various organizations that either serve to benefit an ingroup (i.e., a solidarity context) or an outgroup (i.e., a non-solidarity context) with varying degrees of role congruity.

# Study 4

This study recruited individuals who belong to the low-status group in the context of gender inequality: women. Participants read a description of a non-profit organization that included two manipulations. First, the gender composition of the leadership team was presented as either majority male or majority female (as in Studies 1 and 3). Second, we manipulated the group that would benefit from the work done by the organization, in order to vary the extent to which the high-status group leaders' presence could be interpreted as solidarity. One organization worked in the context of gender equality to improve opportunities for women (participants ingroup); thus, the male leaders' presence in this organization could be interpreted as solidarity. The other two conditions were non-solidarity controls, as they described organizations that aimed to benefit outgroups. One organization worked in the context of education to improve students learning outcomes. The other organization worked in the context of engineering to improve construction workers safety.

The two contexts that benefited outgroups were chosen because they represent distinctly gendered domains. Education is a female-dominated occupation (Cross & Bagilhole, 2002) in which workers (i.e., teachers) are perceived as stereotypically feminine (Kahn & Gorski, 2016). Education is also characterized as a stereotypically female occupation in research across the social sciences, including organizational behavior (Rice &

Barth, 2017) and political science (Sanbonmatsu & Dolan, 2009). In contrast, engineering/construction is a male-dominated occupation (Cross & Bagilhole, 2002) in which workers are perceived as stereotypically masculine (Haines et al., 2015; Oswald, 2008). As such, male leaders' (gender) role congruity should be low in the education domain and the high in the engineering domain. We report a pilot study to demonstrate that an independent group of participants perceived these sectors in stereotypically gendered ways.

The questionnaire in the main study included all six measured variables reported in Studies 1 and 2, so that we could assess the full range of observers' responses to leaders.

Since the previous studies demonstrated the key role of the hypothesized mediators (perceived awareness of inequality, hope), we focus solely on these variables in the main text. Information about the alternative mediators is provided in the Supplemental Materials.

In our tests of experimental effects, we expect to find a significant 2-way interaction between the leadership composition manipulation and the beneficiary group manipulation, which will be followed up by examining the simple effects of the beneficiary group factor at each level of the leadership composition factor. To demonstrate that our results cannot be explained solely by ingroup bias (*Hypothesis 5*), we expect to show that participants' responses to influential male leaders are significantly more negative in the organization that benefits women (solidarity context), compared to the organizations that benefit students or construction workers (non-solidarity contexts). Furthermore, we expect to find a significant difference between the solidarity context and both non-solidarity contexts, regardless of the broader (gender) role congruity implied for high-status group leaders in each domain (*Hypothesis 6*); this result would demonstrate that the role congruity explanation alone cannot account for our effects. Lastly, we examine whether lower collective action intentions in response to influential male leaders in the solidarity context (versus the non-solidarity contexts) can be explained by perceived leaders' awareness of the problem and reported

levels of hope—the hypothesized process documented in the previous studies.

### Method

### Design

The study employed a 2 (leadership composition manipulation: majority female vs. majority male) x 3 (beneficiary group manipulation: women vs. students vs. construction workers) between-participants design. All participants were randomly assigned to one of six experimental conditions.

#### **Procedure**

As in previous studies, participants read a description of a fictional organization that included the manipulations. They then completed two manipulation check items and a set of measures that assessed their responses to the leaders.

## **Participants**

United Kingdom residents at least 18 years of age were recruited via Prolific Academic for UK£2.00 compensation. The study was advertised to women who had not participated in our previous studies. Our budget had the capacity to pay 600 participants, which would assign 100 participants to each cell in the design. A sensitivity power analysis ( $\alpha = 0.05$ ,  $\beta = .80$ ) indicated that this sample size would be sufficient to detect an effect size of 0.127.

Questionnaires were submitted by 604 participants, but four participants were immediately excluded for missing more than 50% of responses. An additional 45 participants were then excluded because they provide incorrect responses to a manipulation check item (see Measures section). Each cell in the experimental design had between 86 and 98 participants. Two participants were missing data, each from one item on the questionnaire. Thus, there is no evidence of systematic patterns in the missing data.

The final sample included 555 female participants whose ages ranged from 18 to 80 years (M = 35.45, SD = 12.19). A second sensitivity power analysis ( $\alpha = 0.05$ ,  $\beta = .80$ )

indicated that this sample size was sufficient to detect an effect size of 0.132. With respect to race/ethnicity, 500 (90%) identified as White, 23 (4.1%) as Asian/British Asian, 10 (1.8%) as Black/African/Caribbean/Black British, and 22 (4%) as mixed ethnicity or "other."

# Materials and Manipulations

Participants read a brief description of a non-profit organization. The first two sentences manipulated the beneficiary group, with the following text in each condition:

Female beneficiaries condition: "RBH is a British not-for-profit organisation that focuses on gender equality. RBH develops policies and programmes to improve opportunities for women."

Student beneficiaries condition: "RBH is a British not-for-profit organisation that focuses on education. RBH develops policies and programmes to improve students' learning outcomes."

Construction worker beneficiaries condition: "RBH is a British not-for-profit organisation that focuses on engineering. RBH develops policies and programmes to improve workers' safety in the construction industry."

Participants then read about the leadership team in the organization: "The organisation is run by an Executive Leadership Team that is responsible for identifying strategic priorities, developing concrete goals and key performance indicators, and managing staff." The final sentence manipulated the gender composition of the leadership team: "This leadership team currently includes more [more women than men *or* more men than women]."

Pilot Study: Perceptions of Occupational Sectors. We sought to demonstrate that our descriptions of the education and engineering organizations accurately represented stereotypically female and male occupational sectors, respectively. Thus, we conducted a pilot study in which an independent sample of participants provided their views of each sector, with respect to the gender composition of the workforce, the gender stereotypes

associated with the sector, and the suitability of men and women to work in the sector. Full details of the method and results are reported in the Supplemental Materials. Across all variables, participants perceived engineering to be a more stereotypically masculine occupational sector, compared to education and gender equality. The gender equality and education sectors were perceived to be equivalently stereotypically feminine, with respect to the gender composition of their workforces, the gender stereotypes associated with the sector, and the suitability of women to work in the sector.

#### Measures

The questionnaire included only the final set of items used in Studies 1 and 2 to assess the composite variables. Information about the three alternative mediator variables (perceived alienation of clients/constituents, perceived ulterior motive, anger) is provided in the Supplemental Materials.

**Manipulation Checks.** A single item asked participants to recall the *beneficiary group* they read about: women, students, or workers in the construction industry. Participants could choose only one response option. Twenty-seven participants provided an incorrect response (six in the female beneficiaries condition, 10 in the student beneficiaries condition, 11 in the construction worker beneficiaries condition), and thus were dropped from the sample.

As in Studies 1 and 3, a single item asked participants to recall the *gender composition* of the leadership team presented in the manipulation: more men than women, equal numbers of men and women, or more women than men. Eighteen participants provided an incorrect response to this question (2 in the majority male leaders condition and 16 in the majority female leaders condition) and thus were dropped from the sample.

Collective Action Intentions. The five items from Studies 1 and 2 were used to assess the extent to which participants wanted to work with the organization ( $\alpha = .94$ ).

**Perceived Awareness of the Problem.** Following the format used in the previous

studies, instructions reminded participants which organization they had read about and which gender group the majority of the leaders belonged to. Participants were asked to focus on the leaders who made up the numerical majority on the leadership team. The four items assessing perceived awareness of inequality (Studies 1 and 2) were adapted to measure *Perceived Awareness of the Problem* ( $\alpha = .81$ ), in order to include the range of issues being addressed by the organizations in this study. Example items include, "The leaders truly understand the problems that their organisation is seeking to solve," and "The leadership team will be able to speak for those they are trying to help."

**Hope.** Instructions reminded participants which organization they had read about and which gender group the majority of the leaders belonged to. Participants were asked to focus on these leaders when indicating how much they felt each emotion. The items used in Studies 1 and 2 to measure *Hope* (9 items,  $\alpha = .95$ ) were used here.

### **Results**

### **Bivariate Correlations**

The three focal variables were significantly associated with each other in the expected directions. Collective action intentions were positively associated with hope (r [555] = 0.50, p < .001) and perceived leaders' awareness of the problem (r [555] = 0.32, p < .001). Perceived leaders' awareness of the problem was positively correlated with hope (r [555] = 0.44, p < .001).

# Experimental Effects

A series of 2 (leadership composition manipulation: majority female leaders vs. majority male leaders) x 3 (beneficiary group manipulation: women vs. students vs. construction workers) between-participants Analyses of Variance (ANOVAs) assessed the impact of the two factors on each measure. Significant two-way interactions were followed up by testing the simple effects of the beneficiary group factor at each level of the leadership

composition factor. Table 6 presents the tests of the main effects; the interactions are reported in the text as they provide direct tests of Hypotheses 5 and 6.

Collective Action Intentions. There was a significant main effect of the leadership composition manipulation and the beneficiary group manipulation (Table 6). These effects were qualified by a significant two-way interaction, F(2, 549) = 6.29, p = .002,  $\eta_p^2 = .022$ .

Simple effects analyses (Figure A12 in the Appendix) indicated that in the majority male leaders condition, the simple effect of the beneficiary group factor was significant (F [2, 549] = 12.79, p < .001,  $\eta_p^2$  = .05; we thus conducted follow-up simple comparisons. Participants reported lower levels of collective action intentions to work with the organization seeking to benefit women (M = 2.92, SD = 0.58), compared to the organization seeking to benefit students (M = 3.80, SD = 1.26), p < .001, and compared to the organization seeking to benefit construction workers (M = 3.45, SD = 1.37), p = .003. Reported levels of collective action intentions were also higher for the organization seeking to benefit students than for the organization seeking to benefit construction workers, p = .046. The presence of influential male leaders thus elicited lower levels of collective action intentions among women in the solidarity context (female beneficiaries) than in both non-solidarity contexts (student beneficiaries or construction worker beneficiaries).

In the majority female leaders condition, the simple effect of the beneficiary group factor was not significant, F(2, 549) = 1.52, p = .219,  $\eta_p^2 = .006$ . Thus, there was no evidence of a difference in participants' reported levels of collective action intentions to work with organizations led by majority-female leadership teams, regardless of which group would benefit: women (M = 4.51, SD = 1.46), students (M = 4.60, SD = 1.24), or construction workers (M = 4.28, SD = 1.24).

**Perceived Awareness of the Problem.** The main effects of the leadership composition manipulation and the beneficiary group manipulation were significant (Table 6), and were

qualified by a significant two-way interaction,  $F(2, 549) = 46.11, p < .001, \eta_p^2 = .144$ .

Simple effects analyses (Figure A13 in the Appendix) indicated that in the majority male leaders condition, there was a significant simple effect of the beneficiary group factor  $(F [2, 549] = 34.84, p < .001, \eta_p^2 = .113)$ , which was followed up with simple comparisons. Influential male leaders were perceived to be significantly less aware of the problem in the organization seeking to benefit women (M = 3.91, SD = 0.90) compared to the organization seeking to benefit students (M = 4.31, SD = 0.65), p < .001, and compared to the organization seeking to benefit construction workers (M = 4.77, SD = 0.74), p < .001. Influential male leaders were also perceived to be significantly less aware of the problem in the organization seeking to benefit students than in the organization seeking to benefit construction workers, p < .001. Thus, male leaders on majority male leadership teams were perceived to be less aware of the problem in the solidarity context (female beneficiaries) than in both of the non-solidarity contexts (student beneficiaries or construction worker beneficiaries).

In the majority female leaders condition, the simple effect of the beneficiary group factor was also significant (F [2, 549] = 15.91, p < .001,  $\eta_p^2$  = .055). Simple comparisons indicated that influential female leaders were seen as significantly more aware of the problem in the organization seeking to benefit women (M = 5.23, SD = 0.58) compared to the organization seeking to benefit students (M = 4.73, SD = 0.74), p < .001, and compared to the organization seeking to benefit construction workers (M = 4.67, SD = 0.68), p < .001. There was no difference in influential female leaders' perceived awareness of the problem between the organization seeking to benefit students and the organization seeking to benefit construction workers, p = .563.

**Hope.** There was a significant main effect of the leadership composition manipulation, and the main effect of the beneficiary group manipulation was not significant (Table 6). The two-way interaction was significant, F(2, 549) = 4.54, p = .011,  $\eta_p^2 = .02$ .

Simple effects analyses (Figure A14 in the Appendix) indicated that in the majority male leaders condition, there was a significant simple effect of the beneficiary group factor  $(F [2, 549] = 4.39, p = .013, \eta_p^2 = .016)$ , which was followed up with simple comparisons. Participants reported feeling significantly less hopeful in response to influential male leaders in the organization seeking to benefit women (M = 2.65, SD = 1.27) compared to influential male leaders in the organization seeking to benefit students (M = 3.09, SD = 1.17), p = .012, and compared to influential male leaders in the organization seeking to benefit construction workers (M = 3.11, SD = 1.18), p = .009. There was no evidence of a difference in levels of reported hope about male leaders in the student beneficiaries condition compared to the construction workers beneficiaries condition, p = .907. Thus, influential male leaders elicited less hope from female observers in the solidarity context (female beneficiaries) than in both the non-solidarity contexts (student beneficiaries or construction worker beneficiaries).

In the majority female leaders condition, the simple effect of the beneficiary group factor was not significant, F(2, 549) = 1.47, p = .231,  $\eta_p^2 = .005$ . Thus, there was no evidence of a difference in participants' reported hope about influential female leaders, regardless of the beneficiary group: women (M = 4.24, SD = 1.20), students (M = 4.19, SD = 1.26), or construction workers (M = 3.94, SD = 1.30).

## **Mediation Analysis**

We investigated the mediators of female observers' lower collective action intentions in response to influential male leaders in the solidarity context (i.e., the organization benefitting the ingroup) compared to influential male leaders in non-solidarity contexts (i.e., the organizations benefitting clear outgroups). We expected that the process demonstrated in the previous studies—perceived leaders' awareness of the problem and felt hope—would again account for more negative responses to high-status group leaders in the solidarity context.

The serial mediation model specified collective action intentions as the final outcome

variable, and the beneficiary group manipulation as the exogenous predictor variable, which compared the ingroup beneficiary condition (female beneficiaries) to a newly created outgroup beneficiary condition that included the other two beneficiary groups (students and construction workers). Perceived leaders' awareness of the problem and hope were specified as the mediators as in the previous studies.

We tested the model using estimates based on 10,000 bootstrap samples (Hayes, 2018). The total effect of the beneficiary group manipulation on collective action intentions (b = -0.70, SE = 0.14) was significant: lower 95% CI = -0.9806, upper 95% CI = -0.4284. Figure 7 presents the direct effects tested in the model. The beneficiary group manipulation had a significant effect on perceived leaders' awareness of the problem and collective action intentions: participants perceived lower leader awareness of the problem and reported lower collective action intentions in response to the male leaders in the organization benefitting the ingroup, compared to the male leaders in the organizations benefitting outgroups. Perceived awareness of the problem was associated with hope, which was associated with increased collective action intentions. The only significant indirect effect from the beneficiary group manipulation to collective action intentions included perceived awareness of the problem and hope: b = -0.09, SE = 0.03, lower 95% CI = -0.1578, upper 95% CI = -0.0353.

### **Discussion**

This study sought to demonstrate that low-status group members' negative responses to influential high-status group leaders in a solidarity context represent a unique phenomenon that goes beyond standard accounts of group bias and role congruity. With respect to collective action intentions, perceived leaders' awareness of the problem, and feelings of hope, female observers reported more negative responses to influential male leaders in a social justice organization that benefited their gender group (i.e., solidarity context), compared to the influential male leaders in social justice organizations that benefited the clear

outgroups of students or construction workers (i.e., non-solidarity contexts). Consistent with Hypothesis 5, then, ingroup bias is not sufficient to account for the especially pronounced negative responses to high-status group leaders in solidarity contexts.

The difference in responses between solidarity and non-solidarity contexts held up regardless of the broader (gender) role congruity implied for high-status group leaders in each domain, in line with Hypothesis 6. Observers' responses to influential male leaders were more negative in the solidarity context compared to the non-solidarity context in which men are perceived to be a bad fit (i.e., the education organization benefitting students).

Lastly, participants lower levels of collective action in response to high-status group leaders in solidarity contexts (versus non-solidarity contexts) were mediated by their perception of leaders in the solidarity context as being less aware of the problem, and lower levels of hope. This provides further support for the specific processes we posit are at work in when low-status group members evaluate high-status group leaders in solidarity contexts.

#### **General Discussion**

Social justice efforts led by members of high-status groups can reinforce a set of intergroup dynamics that discourages participation from the very groups they seek to empower and mobilize. In Studies 1 and 2, members of low-status groups reported more negative responses to influential high-status group leaders (compared to influential low-status group leaders) with respect to collective action intentions, hope, and perceived leaders' awareness of inequality. In contrast, there was no evidence that members of high-status groups differentiated between influential leaders from the high-status group or low-status group, with respect to collective action intentions or hope.

Mediation analyses (Studies 1 and 2) demonstrated that lower levels of collective action intentions in response to influential high-status group leaders are mediated by the perception of a specific problem presented by these leaders (i.e., low awareness of inequality) and lower

levels of hope. Study 3 provided experimental evidence for this causal order: A manipulation of high-status group leaders' awareness of inequality increased low-status group members' levels of hope, which in turn predicted higher levels of collective action intentions.

Study 4 found that low-status group members' negative responses to high-status group leaders extend beyond the preferences predicted by frameworks of ingroup bias and role congruity. Participants from the low-status group showed more negative responses to high-status group leaders in social justice efforts benefitting the low-status ingroup (i.e., solidarity contexts), compared to high-status group leaders in social justice efforts benefitting an outgroup (i.e., non-solidarity contexts), even when role congruity for these leaders was low.

## **Theoretical Implications**

By investigating observers' responses to high-status group leaders' influential presence in social justice efforts, the present studies extend a small but growing literature on the consequences of collective action and social movements. Previous work has documented the impact of collective action on activists' attitudes and future collective action intentions (see Becker & Tausch, 2015; Thomas & Louis, 2013), and on the success of efforts to recruit new sympathizers to the movement (see Louis, 2009; Simon & Klandermans, 2001; Subašić et al., 2008). Our findings offer the novel insight that observers' status group membership is likely to shape their responses to social movements (see also Teixeira et al., 2019).

Observers' feelings of hope emerged as a consistent independent predictor of their collective action intentions, above and beyond their feelings of anger (Studies 1 and 2). Frameworks of collective action have typically focused on anger and resentment about injustice as a predictor of social change efforts (see Becker & Tausch, 2015; van Zomeren & Iyer, 2009). The present studies add to a growing body of work demonstrating that positive emotions can predict collective action (Drury et al., 2005; Greenaway et al., 2016). Our studies also uniquely focused on collaborative collective action to work with a social justice

organization, rather than the more combative action to challenge the status quo that is typically featured in empirical studies. Such contributions facilitate the development of comprehensive frameworks of collective action that reflect the range of (emotional) predictors and types of action reflected in social justice efforts.

Our results also contribute to the development of a more nuanced analysis of group status and perceptions of leadership. In the context of standard (for-profit) organizations, research indicates that leaders from low-status groups are typically perceived more negatively than are leaders from high-status groups (Heilman, 2012; Rosette et al., 2008). Other work demonstrates that the direction of perceived congruence between (high) group status and leadership is reversed in contexts where the perspective of low-status groups is valued (Ryan & Haslam, 2005) or where there are shifts in views regarding role congruity (Koenig et al., 2011; Sy et al., 2010). Our results add to this literature by demonstrating that high-status group leaders in social justice organizations are evaluated based on considerations beyond standard preferences predicted by group bias and general role congruity.

# **Directions for Future Research**

The specific focus of our research question highlights various opportunities for future research. First, we intentionally examined responses to leaders of hierarchical non-profit organizations because we sought to understand the impact of high-status group members' influential presence in social justice efforts. Therefore we cannot determine whether the negative responses we documented towards high-status group leaders will generalize to high-status group members working at lower levels of the organization. It is possible that the power wielded by leaders places a particularly harsh spotlight on high-status group members working at that level. In contrast, high-status group members working in lower-level positions may be met with less cynicism because their organizational role constrains the

extent to which their presumed blind-spots can undermine the social justice effort. Future work should explore this possibility.

Our manipulation of leadership composition in all four studies created situations in which members of either the low-status group or high-status group made up the numerical majority of leaders. This choice reflects the reality that social justice efforts are often led by members of high-status groups (Brown, 2015; Charity Commission, 2017), as well as our theoretical interest in understanding the impact of influential high-status group leaders' presence in these contexts. Our findings can be extended by investigating responses to high-status group members who are in the numerical minority, or even the sole representative of their group, on the leadership team of a social justice effort that benefits the low-status group.

The manipulation of leadership composition was also very conspicuous, as it explicitly directed participants' attention to the leaders' status group membership. This strategy overtly made group status salient to participants, and thus may have heightened negative responses to high-status group leaders. Observers may report more balanced responses to high-status group leaders if information about these leaders' presence were presented in a subtle manner. Future work could investigate this possibility by using more naturalistic manipulations of leadership composition, such as a list of names or photos that indicate the leaders' status group membership without directly calling attention to this characteristic.

All four studies focused on a single group identity (race or gender) when considering responses to the leaders of a social justice effort. While this strategy afforded us greater experimental control, it is plausible that observers will consider additional characteristics when responding to influential leaders (see Livingston et al., 2012). Future work might investigate the impact of intersecting identities across categories beyond the focus of the social justice organization (e.g., race/ethnicity and gender, or gender and sexuality) and additional secondary features of the leaders (e.g., attractiveness). Using a more naturalistic

manipulation of leadership composition (e.g., a list of names or photos) would allow researchers to unobtrusively manipulate these additional characteristics, thus contributing to a more comprehensive analysis of observers' responses to leaders of a social justice effort.

We found consistent evidence that observers from low-status groups report negative responses to high-status group leaders' influential presence in social justice efforts that benefit low-status groups, compared to influential low-status group leaders in the same organization (Studies 1-3) and compared to influential high-status group leaders in social justice efforts that benefitted clear outgroups (Study 4). This effect is likely qualified by individual differences, as suggested by related lines of research. For example, low-status groups' level of suspicion about high-status groups' motivations predicts their negative evaluations of these group members' actions (LaCrosse et al., 2015; Major et al., 2013). Similarly, low-status group members' tendency to attribute negative outcomes and experiences to prejudice is shaped by their levels of stigma consciousness (Pinel, 1999) and status-based rejection sensitivity (Mendoza-Denton et al., 2002). More broadly, responses to intergroup inequality are moderated by group identification (Iver & Ryan, 2009; Kaiser & Spalding, 2015) and ideologies such as social dominance orientation (Pratto et al., 2013). Future work should consider how such individual differences might shape low-status group members' responses to the presence of high-status group members (as leaders or participants) in social justice efforts that benefit their low-status ingroup.

Our interest in understanding observers' negative responses to high-status group leaders dictated our decision to assess three perceived problems with high-status group involvement in social justice efforts that benefit the low-status group (low awareness of inequality, alienation of low-status group, ulterior motive). These specific problems were chosen based on theory and research investigating responses to inequality, the psychology of relative advantage, and intergroup prosocial behavior. To extend the present work, additional

problems might also be investigated, such as the external legitimacy or credibility of an organization led by influential high-status group members. Furthermore, as noted in the Introduction, high-status group members' participation in social justice efforts can also have positive outcomes, such as providing access to resources and networks. It is thus important to investigate the extent to which observers from low-status groups acknowledge the positive contributions of high-status group leaders' solidarity (e.g., new perspectives, enhanced resources, increased acceptance by wider society). An examination of ambivalent responses—whereby observers note the problems created by high-status group leaders while also acknowledging their positive contributions—would also extend analyses beyond the standard positive/negative dichotomy that is typically used in the literature. Future work should explore these questions further.

Lastly, the present studies were conducted within the contexts of left-wing or liberal social justice efforts, which focused on improving the status of historically disadvantaged groups along the dimensions of gender (Studies 1, 3, and 4) and race/ethnicity (Study 2). Collective action and social movements can also advocate for right-wing or conservative goals, such as maintaining or defending the existing status quo. For instance, groups that have historically been considered to be advantaged in society (e.g., men, White people in Western contexts) can perceive themselves to be victimized or disenfranchised in the context of shifting cultural and/or political environments (e.g., Leach et al., 2007). While the specific goals of left-wing and right-wing social movements do vary, we speculate that similar intergroup dynamics would operate when members of the (perceived) high-status out-group join or lead the efforts. However, this is an open question that deserves further study.

# **Conclusions**

Social justice efforts led by influential members of high-status groups run the risk of discouraging participation by the low-status groups they seek to empower and mobilize.

Leaders often serve as a visible reminder of an organization's goals and strategic direction, both to its employees and external stakeholders. Given that observers may know little about social justice organizations beyond visible cues such as the group membership of high-profile leaders (Bryson, 2017; Drucker, 2011), our findings underscore the significant real-world challenges facing social justice efforts led by high-status group members. Although our results demonstrate that showcasing high-status group leaders' awareness of inequality can begin to attenuate observers' negative responses, further work is needed in this area. When low-status group members are convinced that influential high-status group leaders play a valued role in social justice efforts, the talents and resources of people from all groups can be harnessed to help effectively challenge inequality and injustice.

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## **Footnotes**

- 1. Three items in this measure describe mutable characteristics that could be held by leaders of either the advantaged or disadvantaged group (e.g., "will be able to speak for those who are disadvantaged by inequality"). However, one item could be seen to describe an immutable characteristic ("The leadership team represents those who are disadvantaged by gender inequality") that cannot be held by leaders from the advantaged gender group. Results of the main analyses on this measure are virtually identical, whether this item is included or omitted. Thus, we decided to retain all four items.
- 2. The correlations between the three perceptions of leaders were moderate in size. To determine that they represent three distinct constructs, we conducted a Confirmatory Factor Analysis. Results indicated that a three-factor model fit the data well; full details are reported in the Supplemental Materials.
- 3. We acknowledge that racial/ethnic minority groups have distinct histories and experiences within mainstream society in the United Kingdom. However, these groups also share the common experience of belonging to a low-status racial/ethnic group, and thus contend with similar issues around power and status differentials in contact experiences with members of the high-status or majority group (Saguy et al., 2008; Tropp & Pettigrew, 2005). Following this reasoning, we decided to combine participants from all racial/ethnic minority groups into a single category in order to assess their responses to influential leaders from the high-status racial/ethnic group (i.e., White people).
- 4. The percentage of participants who failed the leadership composition manipulation check in Study 3 (16.9%, or 84 of 497) was higher than the percentage who failed the equivalent manipulation check in the other studies: Study 1 = 2% (4 of 202), Study 2 = 7.7% (18 of 234) and Study 4 = 7.5% (45 of 600). In Study 3, most of the incorrect responses (60.7%) occurred when participants did not recall women being the majority on the

leadership team. A re-examination of the study materials did not indicate that researcher error could account for these results. It is not clear why this effect was especially pronounced in Study 3.

- 5. The simple effects of the leadership composition factor at each level of the awareness of inequality factor are reported in the Supplemental Materials.
- 6. We presented a different analytic strategy in the pre-registration document: A one-way ANOVA (with four conditions) in order to investigate how the awareness of inequality manipulation and leadership composition manipulation worked *in combination* to influence responses to the leaders. However, the feedback we received during the peer review process persuaded us that we should conduct a 2x2 ANOVA to be consistent with the study design. We report the results of the pre-registered analysis in the Supplemental Materials.
- 7. We conducted separate mini meta-analyses (Goh et al., 2016) to examine the effect of the leadership composition manipulation (majority low-status group leaders versus majority high status leaders; Studies 1 4) and the effect of participants' group membership (low-status group versus high-status group; Studies 1 and 2) on each of the three focal variables: collective action intentions, perceived leaders' awareness of inequality, and hope. Meta-analysis of Cohen's *d* or mean effect size, was calculated using an inverse variance weighting approach with fixed effects (Goh, 2019).

Across the four studies, the effect of the leadership composition manipulation was significant for all three variables (see Tables S4 – S6 in the Supplemental Materials). Compared to the majority high-status leaders condition, the majority low-status leaders condition elicited greater collective action intentions (z = 8.54, p < .001, d = .47, 95% CI [0.36, 0.58]), greater perceived leaders' awareness of inequality (z = 20.51, p < .001, d = 1.22, 95% CI [1.11, 1.34]), and higher levels of reported hope (z = 17.75, p < .001, d = 1.03, 95% CI [0.92, 1.15]).

The effect of participants' group membership was not significant for the three variables across the first two studies (see Tables S7 – S9 in the Supplemental Materials). Thus, there was no evidence of a difference between participants from the low-status group and participants from the high-status group in their reported levels of collective action intentions (z = 1.80, p = .07, d = .18, 95% CI [- 0.02, 0.37]), perceived leaders' awareness of inequality (z = -1.01, p = .31, d = -.10, 95% CI [- 0.29, 0.09]), or hope (z = -.28, p = .77, d = -.03, 95% CI [- 0.22, 0.17]).

 Table 1

 Bivariate Correlations between all Measured Variables, Full Sample (N = 198), Study 1

Measure	1	2	3	4	5	6
1. Perceived awareness of inequality	_					
2. Perceived alienation of women	67**	_				
3. Perceived ulterior motive	59**	.52**	_			
4. Hope	.58**	37**	48**	_		
5. Anger	33**	.36**	.34**	26**		
6. Collective action intentions	.37**	16*	25**	.52**	09	

*Note.* \* p < .05, \*\* p < .01

**Table 2**2 (leadership composition manipulation: majority female vs. majority male) x 2 (participant gender: female vs. male) between-participants ANOVA: Test Statistics, Effect Sizes, and Descriptive Statistics for Main Effects, Full Sample (N = 198), Study 1

	Main Effect of L	eadership Coi	mposition	Main Effect of Participant Gender				
		Descriptiv	e Statistics		<b>Descriptive Statistics</b>			
Measure	Test Statistics + Effect Size	Majority Majority Female Male Leaders Leaders		Test Statistics + Effect Size	Female Participants	Male Participants		
Collective action intentions <sup>1</sup>	F(1, 194) = 4.75,	M = 3.69	M = 3.23	F(1, 194) = 0.59,	M = 3.56	M = 3.37		
	$p = .030, \eta_p^2 = .024$	SD = 1.58	SD = 1.59	$p = .444, \eta_p^2 = .003$	SD = 1.63	SD = 1.57		
Perceived awareness of inequality <sup>1</sup>	F(1, 194) = 133.05,	M = 5.11	M = 3.37	F(1, 194) = 2.76,	M = 4.16	M = 4.33		
	$p < .001, \eta_p^2 = .407$	SD = 1.07	SD = 1.23	$p = .098, \eta_p^2 = .014$	SD = 1.69	SD = 1.17		
Perceived alienation of women <sup>1</sup>	F(1, 194) = 133.84,	M = 2.90	M = 4.99	F(1, 194) = 2.12,	M = 4.02	M = 3.85		
	$p < .001, \eta_p^2 = .408$	SD = 1.39	SD = 1.25	$p = .147, \eta_p^2 = .011$	SD = 1.81	SD = 1.56		
Perceived ulterior motive <sup>1</sup>	F(1, 194) = 13.58,	M = 4.31	M = 4.86	F(1, 194) = 2.27,	M = 4.69	M = 4.48		
	$p < .001, \eta_p^2 = .065$	SD = 1.25	SD = 1.14	$p = .133, \eta_p^2 = .012$	SD = 1.32	SD = 1.13		
Hope <sup>2</sup>	F(1, 194) = 12.63,	M = 3.79	M = 3.21	F(1, 194) = 0.01,	M = 3.51	M = 3.50		
	$p < .001, \eta_p^2 = .061$	SD = 1.20	SD = 1.32	$p = .934, \eta_p^2 < .001$	SD = 1.34	SD = 1.25		
Anger <sup>2</sup>	F(1, 194) = 3.87,	M = 1.96	M = 2.27	F(1, 194) = 2.38,	M = 2.24	M = 1.99		
	$p = .050, \eta_p^2 = .020$	SD = 1.17	SD = 1.28	$p = .125, \eta_p^2 = .012$	SD = 1.34	SD = 1.13		

Note. 1 = 7 point response scale (1 = strongly disagree, 7 = strongly agree). 2 = 7 point response scale (0 = not at all, 6 = very much)

Table 3
Unstandardized Pathway Coefficients for all Indirect Effects in Serial Mediation Model: Female Participants (n = 95) and Male Participants (n = 103), Study 1

Ind	irect Effect Path	Sub-Group of Participants	Effect	SE	Lower 95% CI	Upper 95% CI
1	Composition → Perceived Awareness of Ineq. → Collective Action Intentions	Female Participants  Male Participants	- 0.10 - <b>0.47</b>	0.59 <b>0.24</b>	- 1.1684 - <b>0.9932</b>	1.1794 - <b>0.0389</b>
2	Composition → Perceived Ulterior Motive → Collective Action Intentions	Female Participants Male Participants	0.15 0.00	0.24 0.04	- 0.3041 - 0.0936	0.6380 0.0846
3	Composition → Perceived Alienation of Women → Collective Action Intentions	Female Participants Male Participants	- 0.30 0.51	0.51 0.25	- 1.4375 - 0.0501	0.5868 1.0528
4	Composition → Hope → Collective Action Intentions	Female Participants Male Participants	0.05 0.18	0.22 0.14	- 0.3617 - 0.0607	0.5220 0.4961
5	Composition → Anger → Collective Action Intentions	Female Participants Male Participants	- 0.06 - 0.02	0.08 0.06	- 0.2244 - 0.1495	0.1270 0.1017
6	Composition → Perceived Awareness of Ineq. → Hope → Collective Action Intentions	Female Participants Male Participants	- 0.89 - 0.26	0.35 0.11	- 1.6948 - 0.5196	- 0.3283 - 0.0821
7	Composition → Perceived Awareness of Ineq. → Anger → Collective Action Intentions	Female Participants Male Participants	- 0.04 0.01	0.12 0.03	- 0.3642 - 0.0425	0.1159 0.0629
8	Composition → Perceived Ulterior Motive → Hope → Collective Action Intentions	Female Participants Male Participants	- 0.19 0.02	0.12 0.03	- 0.4503 - 0.0227	0.0200 0.0861
9	Composition → Perceived Ulterior Motive → Anger → Collective Action Intentions	Female Participants Male Participants	0.04 0.00	0.06 0.00	- 0.0468 - 0.0086	0.1773 0.0107
10	Composition → Perceived Alienation of Women → Hope → Collective Action Intentions	Female Participants Male Participants	0.15 0.11	0.24 0.08	- 0.3682 - 0.0153	0.6147 0.2956
11	Composition → Perceived Alienation of Women → Anger → Collective Action Intentions	Female Participants Male Participants	0.16 0.01	0.18 0.03	- 0.2004 - 0.0466	0.5240 0.0758

 $\overline{Note}$ . Composition = Gender composition of leadership team (1 = majority female leaders, 2 = majority male leaders), Ineq. = Inequality. Bolded text indicates a significant indirect effect (p < 0.05).

 $\begin{tabular}{ll} \textbf{Table 4} \\ Bivariate \ Correlations \ between \ all \ Measured \ Variables, Full \ Sample \ (N=216), \ Study \ 2 \\ \end{tabular}$ 

Measure	1	2	3	4	5	6
1. Perceived awareness of inequality						
2. Perceived alienation of racial/ethnic minority groups	78**	_				
3. Perceived ulterior motive	50**	.44**				
4. Hope	.63**	45**	27**			
5. Anger	46**	.34**	.35**	26**	_	
6. Collective action intentions	.35**	26*	26**	.39**	22*	_

*Note.* \* p < .05, \*\* p < .01

**Table 5**Unstandardized Pathway Coefficients for all Indirect Effects in Serial Mediation Model: Racial/Ethnic Minority Participants (n = 105) and White Participants (n = 109), Study 2

Ind	lirect Effect Path	Sub-Group of Participants	Effect	SE	Lower 95% CI	Upper 95% CI
1	Composition → Perceived Awareness of Ineq. → Collective Action Intentions	Ethnic Minority Participants White Participants	- 0.28 - 0.23	0.44 0.24	- 1.1655 - 0.7434	0.5372 0.2154
2	Composition → Perceived Ulterior Motive → Collective Action Intentions	Ethnic Minority Participants White Participants	0.04 - 0.07	0.09 0.09	- 0.1146 - 0.2730	0.2610 0.0835
3	Composition → Perceived Alienation of Minority Group → Coll. Actn. Ints.	Ethnic Minority Participants White Participants	- 0.01 - 0.02	0.29 0.23	- 0.6506 - 0.4565	0.5089 0.4686
4	Composition → Hope → Collective Action Intentions	Ethnic Minority Participants White Participants	0.01 0.12	0.10 0.08	- 0.2150 - 0.0131	0.2041 0.3056
5	Composition → Anger → Collective Action Intentions	Ethnic Minority Participants White Participants	0.03 - 0.01	0.08 0.04	- 0.1425 - 0.0986	0.1957 0.0777
6	Composition → Perceived Awareness of Ineq. → Hope → Coll. Actn. Ints.	Ethnic Minority Participants White Participants	- 0.42 - 0.28	0.17 0.13	- 0.7723 - 0.5468	- 0.0912 - 0.0317
7	Composition → Perceived Awareness of Ineq. → Anger → Coll. Actn. Ints.	Ethnic Minority Participants White Participants	- 0.22 0.01	0.16 0.04	- 0.5518 - 0.0459	0.1000 0.1137
8	Composition → Perceived Ulterior Motive → Hope → Coll. Actn. Ints.	Ethnic Minority Participants White Participants	0.03 0.00	0.03 0.01	- 0.0203 - 0.0094	0.0910 0.0241
9	Composition → Perceived Ulterior Motive → Anger → Coll. Actn. Ints.	Ethnic Minority Participants White Participants	- 0.02 0.00	0.02 0.01	- 0.0699 - 0.0104	0.0109 0.0229
10	Composition → Perceived Alienation of Min. Group → Hope → Coll. Actn. Ints.	Ethnic Minority Participants White Participants	- 0.01 0.06	0.07 0.04	- 0.1740 - 0.0283	0.1156 0.1444
11	Composition → Perceived Alienation of Min. Group → Anger → Coll. Actn. Ints.	Ethnic Minority Participants White Participants	0.04 0.01	0.06 0.25	- 0.0462 - 0.0585	0.1873 0.0475

Note. Composition = Racial/ethnic composition of leadership team (1 = majority racial/ethnic minority leaders, 2 = majority White leaders), Ineq. = Inequality, Coll. Actn. Ints. = Collective action intentions, Min. Group = Racial/ethnic minority group. Bolded text indicates a significant indirect effect (p < 0.05).

 Table 6

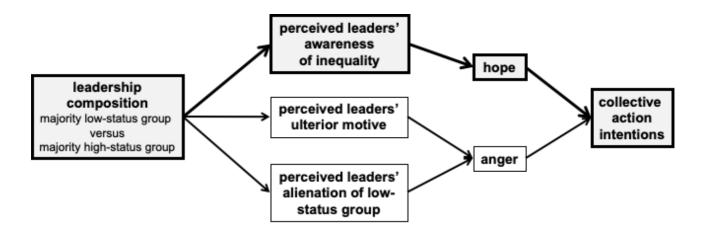
 2 (leadership composition manipulation: majority female vs. majority male) x 3 (beneficiary group: women vs. students vs. construction workers) between-participants ANOVA: Test Statistics, Effect Sizes, and Descriptive Statistics for Main Effects, Full Sample (N = 555), Study 4

	Main Effect of L	eadership Co	mposition	Main Effect of Beneficiary Group			p	
		<b>Descriptive Statistics</b>			Descriptive Statistics			
Measure	Test Statistics + Effect Size	Majority Female Leaders	Majority Male Leaders	Test Statistics + Effect Size	Women	Students	Construction Workers	
Collective action intentions <sup>1</sup>	F(1, 549) = 106.62, $p < .001, \eta_p^2 = .163$	M = 4.47 $SD = 1.32$	M = 3.39 $SD = 1.78$	F(2, 549) = 7.54, $p < .001, \eta_p^2 = .027$	$M = 3.69_{a}$ $SD = 1.36$	M = 4.18b $SD = 1.31$	$M = 3.84_{\rm a}$ $SD = 1.37$	
Perceived awareness of problem <sup>1</sup>	F(1, 549) = 78.92, $p < .001, \eta_p^2 = .126$	M = 4.88 $SD = 0.71$	M = 4.33 $SD = 0.85$	F(2, 549) = 3.76, $p = .024, \eta_p^2 = .014$	$M = 4.54_{ab}$ $SD = 1.01$	$M = 4.51_{a}$ $SD = 0.73$	M = 4.72b $SD = 0.71$	
Hope <sup>2</sup>	F(1, 549) = 125.05, $p < .001, \eta_p^2 = .186$	M = 4.12 $SD = 1.26$	M = 2.95 $SD = 1.22$	F(2, 549) = 1.21, $p = .298, \eta_p^2 = .004$	$M = 3.42_{a}$ $SD = 1.47$	$M = 3.61_{\rm a}$ $SD = 1.33$	$M = 3.50_{\rm a}$ $SD = 1.30$	

*Note.* In the tests of the Beneficiary Group Factor, means in each row that do not share the same subscript are significantly different at p < .05. 1 = 7 point response scale (1 = strongly disagree, 7 = strongly agree). 2 = 7 point response scale ( $0 = not \ at \ all, 6 = very \ much$ ).

Figure 1

Conceptual Model of the Effects of Leadership Composition, Perceptions of Leaders, and Emotional Responses on Collective Action Intentions.



*Note*. Thick solid lines and shaded boxes indicate the proposed mediation process.

Figure 2

Serial Mediation Model for Female Participants (n = 95) Assessing the Effects of Leadership Composition, Perceptions of Leaders, and Emotional Responses on Collective Action Intentions, Study 1.

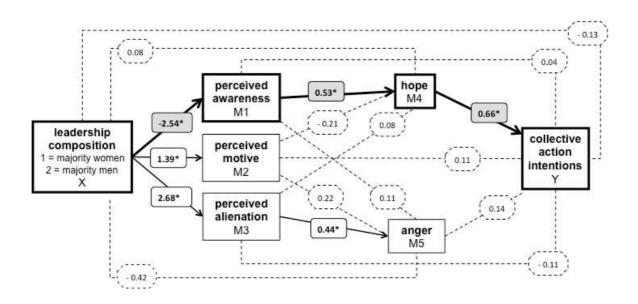


Figure 3

Serial Mediation Model for Male Participants (n = 103) Assessing the Effects of Leadership Composition, Perceptions of Leaders, and Emotional Responses on Collective Action Intentions, Study 1.

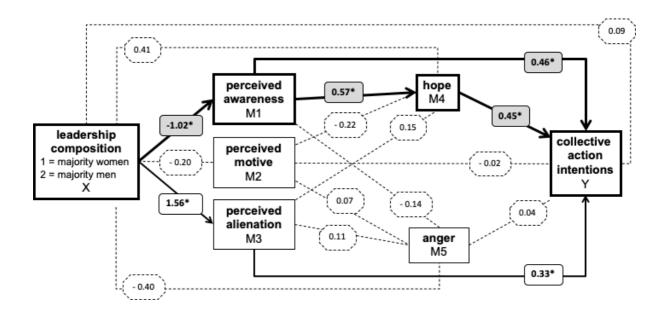


Figure 4

Serial Mediation Model for Racial/Ethnic Minority Participants (n = 105) Assessing the Effects of Leadership Composition, Perceptions of Leaders, and Emotional Responses on Collective Action Intentions, Study 2.

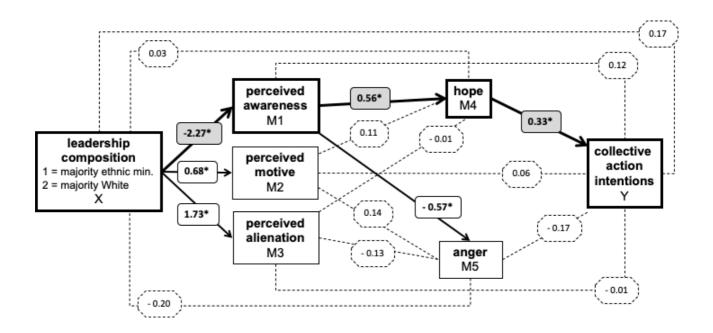


Figure 5

Serial Mediation Model for White Participants (n = 109) Assessing the Effects of Leadership Composition, Perceptions of Leaders, and Emotional Responses on Collective Action Intentions, Study 2.

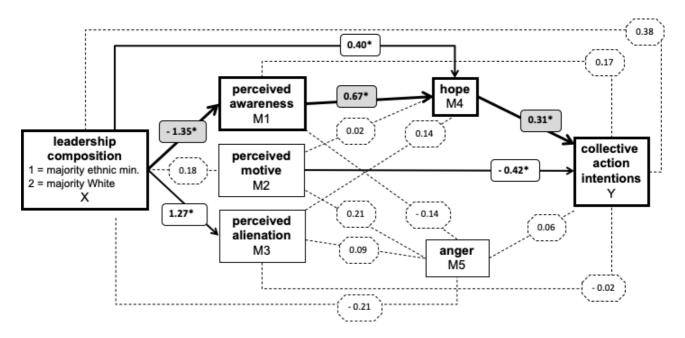
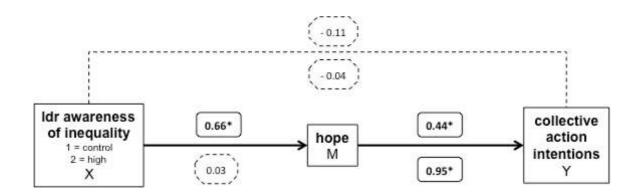


Figure 6

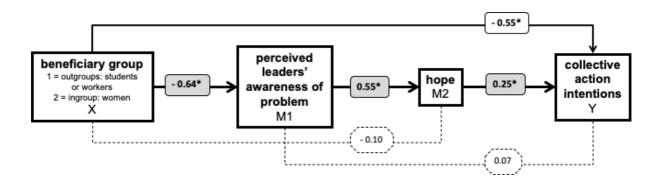
Mediation Model Assessing the Effects of Leaders' Awareness of Inequality on Hope and Collective Action Intentions for the Majority Male Leaders Condition (n = 213) and the Majority Female Leaders Condition (n = 192), Study 3.



*Note*. Unstandardised coefficients shown. \* p < .05. Coefficients above each arrow were calculated for the majority male leaders condition, and coefficients below each arrow were calculated for the majority female leaders condition. Broken lines indicate paths that are not statistically significant at p < 0.05. Thick solid lines and shaded boxes indicate a significant indirect effect from leaders awareness of inequality (X) to collective action intentions (Y).

Figure 7

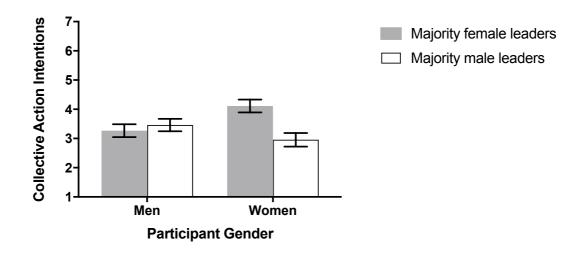
Serial Mediation Model for participants in the majority high-status group leaders conditions (n = 291) Assessing the Effects of Beneficiary Group, Perceived Leaders' Awareness of the Problem, and Hope on Collective Action Intentions, Study 4.



## **Appendix**

Figure A1

Effects of Leadership Composition Manipulation and Participant Gender on Collective Action Intentions, Study 1.



*Note:* Error bars represent standard errors.

Figure A2

Effects of Leadership Composition Manipulation and Participant Gender on Perceived Leaders' Awareness of Inequality, Study 1.

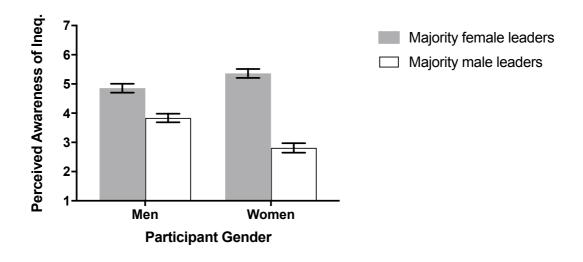


Figure A3

Effects of Leadership Composition Manipulation and Participant Gender on Perceived Leaders Alienation of Women, Study 1.

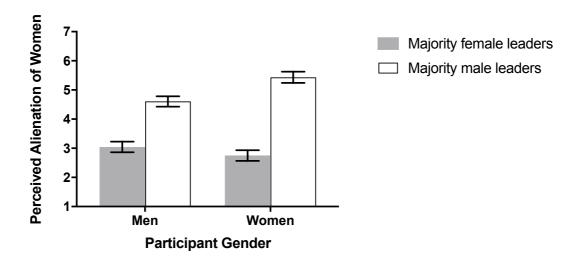


Figure A4

Effects of Leadership Composition Manipulation and Participant Gender on Perceived Ulterior Motive, Study 1.

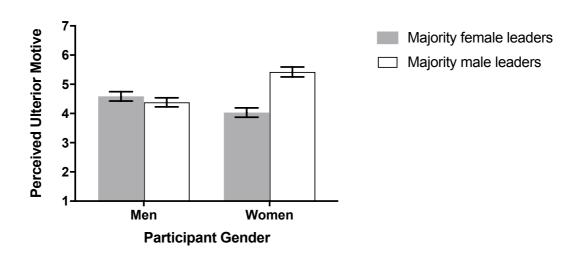


Figure A5

Effects of Leadership Composition Manipulation and Participant Gender on Hope, Study 1.

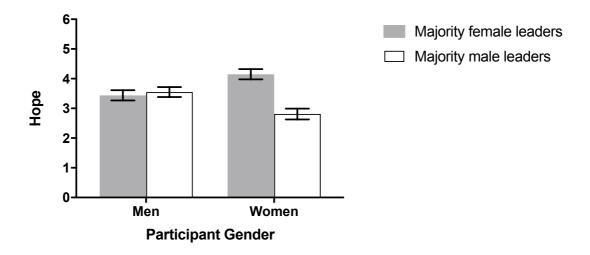


Figure A6

Effects of Leadership Composition Manipulation and Participant Gender on Anger, Study 1.

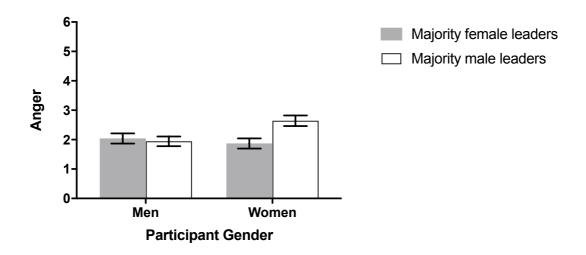


Figure A7

Effects of Leadership Composition Manipulation and Participant Race/Ethnicity on Collective Action Intentions, Study 2.

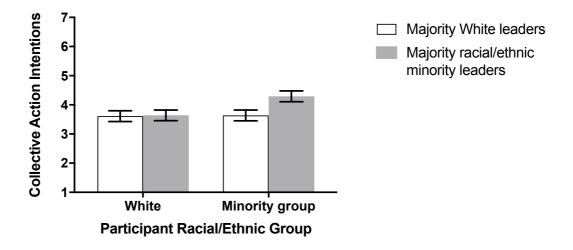


Figure A8

Effects of Leadership Composition Manipulation and Participant Race/Ethnicity on Perceived Awareness of Inequality, Study 2.

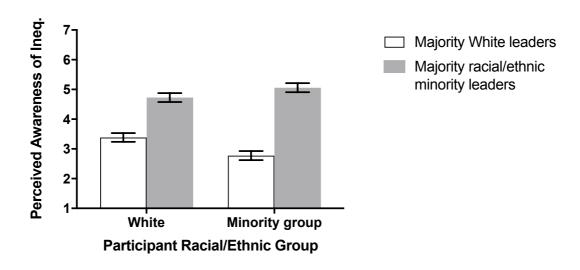


Figure A9

Effects of Leadership Composition Manipulation and Participant Race/Ethnicity on Hope, Study 2.

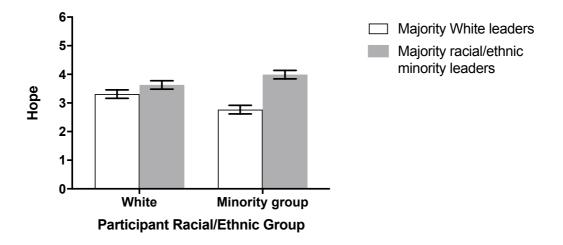


Figure A10

Effects of Leadership Composition Manipulation and Leaders' Awareness of Inequality
Manipulation on Perceived Leaders' Awareness of Problem (Manipulation Check), Study 3.

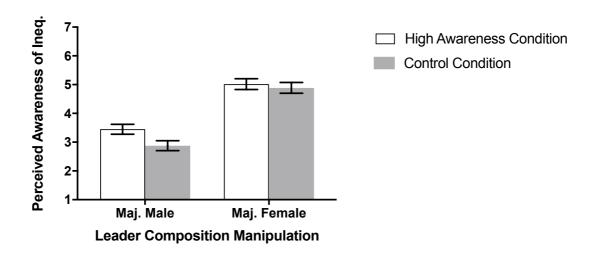


Figure A11

Effects of Leadership Composition Manipulation and Leaders' Awareness of Inequality Manipulation on Hope, Study 3.

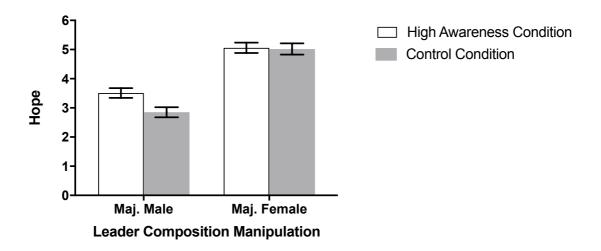


Figure A12

Effects of Leadership Composition Manipulation and Beneficiary Group Manipulation on Collective Action Intentions, Study 4.

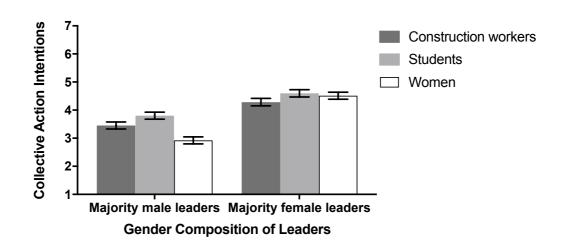


Figure A13

Effects of Leadership Composition Manipulation and Beneficiary Group Manipulation on Perceived Leaders Awareness of the Problem, Study 4.

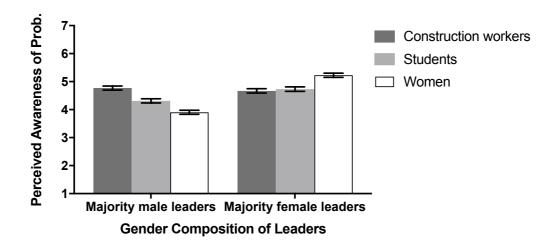


Figure A14

Effects of Leadership Composition Manipulation and Beneficiary Group Manipulation on Hope, Study 4.

