

# Double Standards in Judging Collective Action\*

Nils K. Reimer<sup>1</sup>, Marija Branković<sup>2</sup>, Iniobong Essien<sup>3</sup>, Jin X. Goh<sup>4</sup>, Sébastien Goudeau<sup>5</sup>, Nóra A. Lantos<sup>6</sup>, and Jenny Veldman<sup>7</sup>

<sup>1</sup>University of California, Santa Barbara, United States

<sup>2</sup>Singidunum University, Serbia

<sup>3</sup>Leuphana University of Lüneburg, Germany

<sup>4</sup>Colby College, United States

<sup>5</sup>University of Poitiers, France

<sup>6</sup>Eötvös Loránd University, Hungary

<sup>7</sup>KU Leuven, Belgium

July 15, 2022

## Abstract

Collective action is a powerful force driving social change but often sparks contention about what actions are acceptable means to effect social change. In five studies (total  $N = 2,979$ ), we investigated double standards in judging collective action—that is, whether observers will judge the same protest actions as more acceptable if the protesters are ingroup members and their cause aligns with the ingroup’s interests (*identity-based double standards*) or if the protesters’ cause aligns with the observers’ ideological positions (*ideology-based double standards*). In two studies, we developed an instrument of 25 controversial protest actions, based in item response theory, to measure where people draw the line between acceptable and unacceptable forms of collective action. In three preregistered experiments, we used this instrument to test for double standards in judging collective action for workers’ rights in the United Kingdom and for or against defunding the police and for or against restricting abortion in the United States. We found evidence for ideology-based, but not for identity-based, double standards: Participants judged the same protest actions to be more acceptable when the protesters’ cause aligned with their own ideological position—but showed no ingroup bias when judging collective action by ingroup and outgroup members. Our findings have theoretical and practical implications for understanding the often divided response to prominent social movements.

Protest movements often spark contention about what actions are acceptable means of protest. Reactions to Black American athletes kneeling during the national anthem to protest racist police violence are a case in point. Kneeling during the national anthem is not violent, disruptive, or illegal. And yet, only 29% of White Americans (66% of Black Americans) and 11% of Republicans (59% of Democrats) considered it appropriate for Black athletes to protest in this way (YouGov, 2017). Indeed, Black athletes who had participated in the protests faced a backlash in public

opinion (Lacina, 2020). This and other examples suggest that *who* the protesters are and *what* they are protesting influences how acceptable observers judge their actions to be.

In this paper, we examine double standards in judging collective action—that is, whether observers judge the same protest actions as more or less acceptable depending on their own and the protesters’ group memberships (*identity-based double standards*) or on the protesters’ cause and how it aligns with their own ideological positions (*ideology-based double standards*). In two studies, we first develop an instrument of 25 controversial protest actions, based in item response theory, to capture double standards in judging

---

\* M.B.–J.V. are listed in alphabetical order. This research was supported by a Seedcorn Research Grant from the European Association of Social Psychology.

collective action. In three preregistered experiments, we then use this instrument to test for double standards in judging protest actions for workers' rights in the United Kingdom and for or against defunding the police and for or against restricting abortion in the United States. We find evidence for ideology-based, but not for identity-based, double standards: People judge the same protest actions to be more acceptable when the protesters' cause aligns with their own ideological positions—but do not show ingroup bias when judging collective action by ingroup and outgroup members.

### Double Standards in Judging Collective Action

Collective action—that is, any action taken by group members to advance a shared political goal (for similar definitions, see Becker, 2012; van Zomeren, 2016)—is a powerful force driving social change. For example, Black Lives Matter protests lastingly shifted public discourse about racial inequity toward antiracist ideas (Dunivin et al., 2022).

Collective action can take many forms. Psychologists distinguish between *normative* collective action that seeks to achieve a political goal while conforming to the norms of the existing social system and *non-normative* collective action that violates those norms (Wright et al., 1990). Recent research has shown that this distinction matters for how people respond to collective action. Shuman et al. (2021) showed that non-normative, non-violent collective action is more effective than either normative or violent collective action at gaining concessions from those most resistant to social change. Feinberg et al. (2020) demonstrated, however, that observers are less supportive of social movements that use extreme protest actions. Similarly, Teixeira et al. (2020) found that advantaged-group members perceive non-normative collective action by disadvantaged-group members as more damaging to their ingroup's social image and are thus less supportive of such action. Verkuyten et al. (2022) found that, in general, the public tends to be intolerant of non-normative collective action. This means that activists face the dilemma that non-normative collective action might be most effective at gaining concessions but that it also risks reducing popular support for a cause. Together, these studies show that the distinction between normative and non-normative collective action is psychologically and societally con-

sequential.

Research has, for the most part, relied on ad-hoc distinctions between what researchers themselves considered normative and non-normative collective action. In liberal democracies, researchers tend to consider actions such as signing petitions, voting in elections, or peaceful protest to be normative and actions such as blocking traffic, damaging property, or violent protest to be non-normative. But, as the examples in the first paragraph show, the distinction between normative and non-normative collective action might instead be in the eye of the beholder.

In this research, we move this distinction from the researcher's intuition into the realm of scientific investigation and test for double standards in where people draw the line between acceptable and unacceptable forms of collective action. For that purpose, we define a double standard as judging the same action as more or less acceptable depending on who is performing the action and for what reason (for an analogous definition, see Foschi, 2000).<sup>1</sup> In this section, we derive predictions from social psychological theories about how identity-based and ideology-based double standards could lead people to judge the same protest actions as more or less acceptable depending on who the protesters are and what they are protesting.

### Identity-Based Double Standards

Social Identity Theory (Tajfel & Turner, 1979; for a recent review, see Reimer et al., 2022) argues that just as people show self-serving biases to achieve positive self-esteem, they show ingroup-serving biases to achieve positive social identities. In other words, they think about ingroup and outgroup in “me”–“not me” terms and favor ingroup members (“us”) over outgroup members (“not us,” Brewer, 2007).

One domain in which ingroup bias manifests is judgements about other people's actions. Hewstone (1990) reviewed research showing that people make ingroup-serving causal attributions when judging actions by ingroup and outgroup members, for example, by attributing negative behavior by outgroup mem-

<sup>1</sup>Feinberg et al. (2020) provided incidental evidence for double standards in judging collective action as, in a manipulation check, Black participants rated Black Lives Matter protests as less extreme than White participants and liberal participants rated protest actions for progressive causes as less extreme than conservative participants.

bers to internal causes but attributing negative behavior by ingroup members to external causes. Valdesolo & DeSteno (2007) demonstrated that participants judged the same selfish action as less unfair when performed by themselves or an ingroup member than when performed by an outgroup member. Other studies (Abrams et al., 2013; Endevelt et al., 2021; for exceptions, see Mendoza et al., 2014; Pinto et al., 2010) provided further evidence for ingroup bias in judging moral transgressions by ingroup and outgroup members.

In the same vein, we propose that ingroup bias results in identity-based double standards in judging collective action by ingroup and outgroup members. That is, we hypothesize that people will judge the same protest actions as more acceptable if the protesters are ingroup members (*Hypothesis 1a*) or if the cause of the protest aligns with the ingroup's interests (*Hypothesis 1b*). This hypothesis could explain why, for example, far more Black than White Americans considered it appropriate for Black athletes to kneel down to protest police violence against Black Americans (YouGov, 2017). Notably, this hypothesis applies equally to historically disadvantaged groups mobilizing against social injustice and to historically advantaged groups defending their group's position.

### ***Ideology-Based Double Standards***

System Justification Theory (Jost & Banaji, 1994; for a recent review, see Jost, 2020) argues that people are motivated to defend, justify, and bolster the prevailing social, economic, and political system because doing so serves basic epistemic, existential, and relational needs. Both advantaged and disadvantaged groups are thought to be motivated to justify the existing system, although the strength of this motivation and its expression vary across individuals and situations.

While system justification often leads people to resist social change, its relationship to collective action depends on the goal of the action. Jost et al. (2017) argued that research on collective action needs to distinguish between system-challenging protest aimed at changing an unequal status quo and system-supporting protest aimed at maintaining or defending an unequal status quo. Osborne et al. (2019) showed that, for members of both advantaged and disadvantaged groups, system justification is associated with supporting system-supporting actions but with op-

posing system-challenging actions.

Just as system justification shapes support for, and opposition to, collective action, we propose that it results in ideology-based double standards in what actions people consider acceptable forms of collective action. First, we hypothesize that people will judge the same protest actions as more acceptable if the protest supports, rather than challenges, the system (*Hypothesis 2a*). This hypothesis reflects the assumption that the motivation to justify the system is, to some extent, universal. Second, we hypothesize that people will judge the same protest actions as more acceptable if they endorse system-justifying beliefs and the protest supports the system or if they reject system-justifying beliefs and the protest challenges the system (*Hypothesis 2b*). Notably, this hypothesis implies a symmetry in how people with different ideological orientations judge system-supporting and system-challenging collective action.

As system-justifying beliefs are closely related to political conservatism (Jost et al., 2003), this hypothesis could explain partisan differences in what actions liberals and conservatives consider acceptable means of protest for progressive and conservative causes. Ideology-based double standards could, for example, explain why far more Democrats than Republicans considered it appropriate to kneel during the national anthem to protest racist police violence (YouGov, 2017).

### **Using Item Response Theory to Detect Double Standards**

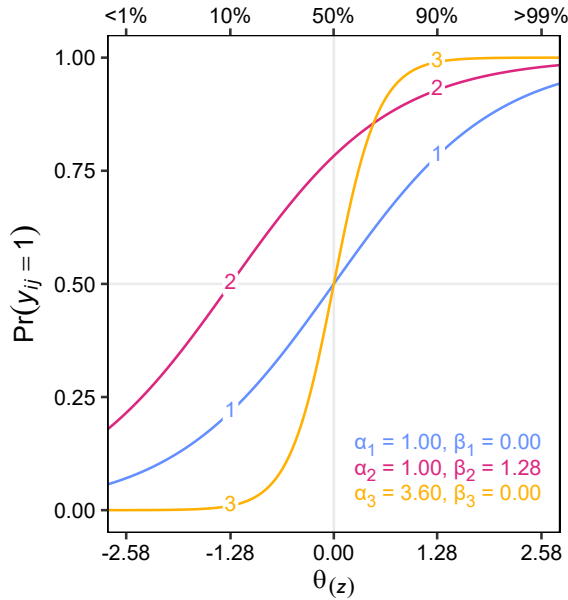
Item response theory is a conceptual and statistical framework for understanding how the characteristics of both items and respondents shape responses to a set of items (DeMars, 2010). When respondents judge whether each of a set of actions is an acceptable means of protest (1 = *yes*, 0 = *no*), a two parameter logistic item response theory model estimates responses as a function of several latent (unobserved) parameters:

$$\Pr(y_{ij} = 1) = \text{logit}^{-1}(\alpha_i(\theta_j + \beta_i))$$

where  $\Pr(y_{ij} = 1)$  is the probability that respondent  $j$  considers action  $i$  an acceptable means of protest,  $\theta_j$  estimates how *accepting* respondent  $j$  is of various protest actions,  $\beta_i$  estimates how *acceptable* action  $i$  is, and  $\alpha_i$  estimates how *discriminating* action  $i$  is.

**Figure 1**

Item response curves for three hypothetical protest actions



Note.  $\theta_{(z)}$  follows a standard normal distribution and is shown as both z-scores (bottom) and percentiles (top).

Figure 1 illustrates those relationships for three hypothetical protest actions.  $\theta_{(z)}$  is the z-standardized tendency for a participant to be more accepting of various actions so that  $\beta_i$  determines the probability that the average respondent ( $\theta_{(z)} = 0$ ) considers an action an acceptable means of protest. Action 2 ( $\beta_2 = 1.28$ ) is more acceptable than Actions 1 and 3 ( $\{\beta_1, \beta_3\} = 0$ ) as the average respondent is more likely to consider the former ( $\text{Pr} = .78$ ) than the latter ( $\text{Pr} = .50$ ) acceptable means of protest. Action 3 ( $\alpha_3 = 3.60$ ) is more discriminating than Actions 1 and 2 ( $\{\alpha_1, \alpha_2\} = 1$ ) as the slope for the relationship between how accepting a respondent is and how likely they are to consider an action acceptable is steeper for the former action. This means that knowing whether someone considers Action 3 acceptable provides more information about them than knowing whether they consider Actions 1 or 2 acceptable.

In this research, item response theory serves two purposes. First, item response theory provides a statistical framework for scale development. In Studies 1 and 2, we select the most discriminating and informative actions to build an instrument for capturing double standards in the experiments. Second, item response theory provides a formal and statistical

definition of double standards in judging collective action as respondents being more accepting of the same protest actions depending on who the protesters and what they are protesting. In Experiments 1 and 2, we operationalize double standards as the differences in  $\theta_{(z)}$  between conditions which, as  $\theta_{(z)}$  is z-standardized, correspond to Cohen's  $d$  effect sizes.

### Purpose of the Present Research

The first purpose of our research is to develop an instrument to measure where people draw the line between acceptable and unacceptable forms of collective action. In Study 1, we ask participants to generate more and less extreme protest actions and compile a pool of protest actions for scale development. In Study 2, we ask participants to rate how acceptable they consider each of those protest action to be and use item response theory to select the most discriminating and informative protest actions for our instrument. In so doing, we build an instrument that enables both present and future research to capture double standards in judging collective action. In this way, our research situates the distinction between normative and non-normative collective action in the eye of the beholders and opens it to scientific investigation.

The second purpose of our research is to test for double standards in judging collective action—that is, whether people judge the same protest actions as more acceptable if the protesters' are ingroup members or the protesters' cause aligns with the ingroup's interests (*Hypothesis 1a, 1b*) or if the protesters' cause aligns with their own system-justifying or system-challenging motives (*Hypotheses 2a, 2b*). In Experiment 1, we use the instrument developed in Studies 1 and 2 to test for double standards in how acceptable participants consider collective action for workers' rights in the United Kingdom. By varying both the participants' and the protesters' group memberships (working/middle class), Experiment 1 compares the relative evidence for identity-based (*Hypothesis 1a, 1b*) and ideology-based double standards (*Hypothesis 2a*). Extending Experiment 1, Experiment 2 considers both system-challenging and system-defending collective action in the context of the 2020 Black Lives Matter protests in the United States. By varying the protesters' cause (for/against defunding the police) as well as the participants' and the protesters' group

memberships (Black/White), Experiment 2 compares the relative evidence identity-based (*Hypothesis 1a, 1b*) and ideology-based double standards (*Hypothesis 2a, 2b*). Together, the preregistered experiments provide a comprehensive test of the hypothesized double standards in judging collective action.

## Scale Development

In two studies, we developed an instrument of 25 protest actions to capture double standards in judging collective action.

### Study 1

In Study 1, we compiled protest actions from participants' responses and other sources. We recruited 60 participants from the Prolific subject pool, all of whom were citizens of the UK or the US. To increase the socioeconomic diversity of our sample, we recruited 30 non-students without a university degree, 15 non-students with a university degree, and 15 current university students.

Participants first read an accessible definition of what a social group is and that collective action is any action group members take to promote the interests of their social group. Participants were then asked to name between five and ten actions that fit that definition. Participants were encouraged to think of actions that varied in how acceptable they were in their opinion. We recoded responses into a smaller set of unique actions, which we supplemented with protest actions from the psychological and political science literature (e.g., Sharp, 1973). This process resulted in 72 actions that varied in how acceptable we would expect them to be. For details, see Supplemental Online Material (SOM).

### Study 2

In Study 2, we measured how acceptable participants judged the actions from Study 1 to be and applied item response theory to develop an instrument to capture double standards in judging collective action. We recruited 158 participants (*Mdn* = 30 years, age range: 18–68 years; 103 women, 52 men, 2 other, 1 prefer not to say) from the Prolific subject pool, all of whom were citizens of the UK or the US. To increase the socioeconomic diversity of our sample, we recruited 80 non-students without a university degree, 37 non-students with a university degree, and

41 current university students. We excluded 15 participants who failed an attention check, leaving a final sample of 143 participants for our analyses.

Participants again read an accessible definition of collective action. Participants were then asked to think of different causes and circumstances and to rate how often a given action would be an acceptable means for a group to advance one of these causes (1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *always*). In addition, participants rated how disruptive, violent, and extreme they considered an action to be (1 = *not at all*, 4 = *very*) and how positive or negative they felt, in general, about an action (1 = *very positive*, 5 = *very negative*). Each participant rated 20 of the 72 actions from Study 1 so that each action was rated by 29–53 participants.

We estimated a graded response model (Bürkner, 2021; Samejima, 1997)—an item response theory model for ordinal response variables—for participants' ratings of how often an action would be an acceptable form of collective action.<sup>2</sup> Based on the results, we selected the 25 most discriminating, informative, and relevant protest actions to form an instrument for measuring double standards in judging collective action in Experiments 1 and 2. We selected controversial, and thus diagnostic, actions (e.g., disrupting traffic) over actions that almost all respondents considered acceptable (e.g., signing petitions) or unacceptable (e.g., political violence; Figure 2). For detailed ratings and results, see SOM.

## Experiment 1

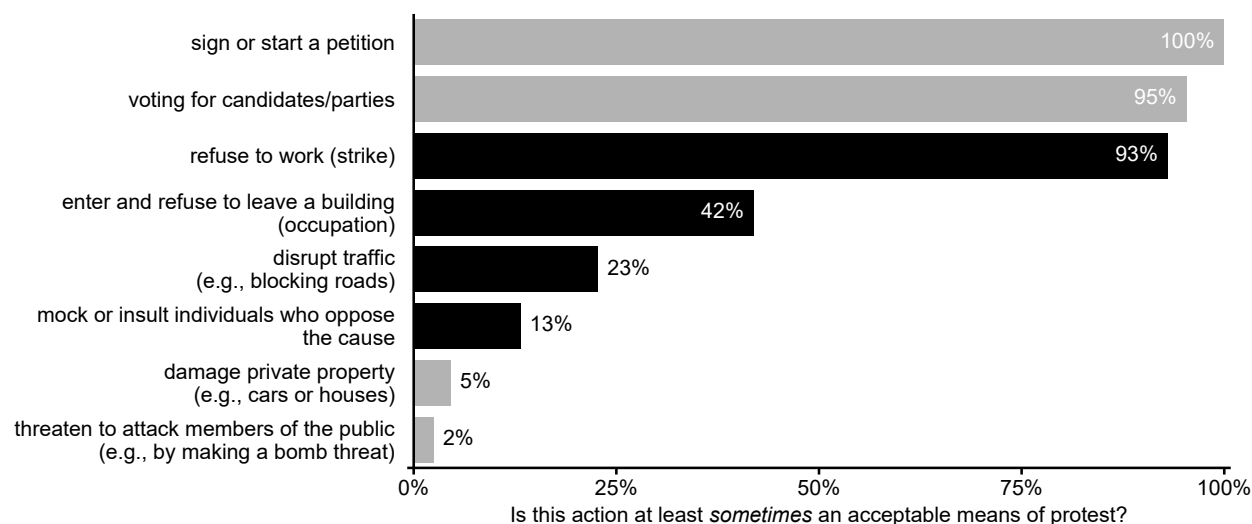
In Experiment 1, we used the newly developed instrument to test for double standards in judging collective action for workers' rights in the United Kingdom. That is, we tested whether people with either working-class or professional jobs applied different standards when judging collective action taken by people with either working-class or middle-class jobs to protest against a fictitious government bill threatening their rights.

By varying the participants' and the protesters' group memberships, we tested the preregistered hy-

<sup>2</sup>Ratings of how often a given action would be an acceptable form of collective action were strongly and negatively correlated with how disruptive, violent, and extreme participants considered the action to be and how negative they felt about it (Table S3).

**Figure 2**

Examples of protest actions rated in Study 2



*Note.* Percentages reflect the proportion of participants who thought that an action was *sometimes*, *often*, or *always* an acceptable means to advance a cause. Darker bars mark actions that were included in the final scale.

pothesis that, in line with *Hypothesis 1a* and *1b*, participants would judge the same protest actions as more acceptable if the protesters were ingroup members protesting for the ingroup's rights than if they were outgroup members protesting for the outgroup's rights. By comparing reactions to working-class and middle-class protesters, we tested how observers judge collective action by lower-status (i.e. working-class) and higher-status (middle-class) group members. Assuming that collective action by lower-status group members is seen as more threatening to the unequal status quo than collective action by higher-status group members and that people are, to some extent, motivated to justify the system, we tested the preregistered hypothesis that, in line with *Hypothesis 2a*, participants would judge the same protest actions as more acceptable if the protesters were from a higher-status group than if they were from a lower-status group. In non-preregistered analyses, we further explored whether, in line with *Hypothesis 2b*, participants would judge the same protest actions as more or less acceptable depending on their own ideological positions. In this way, Experiment 1 provided a first test of the hypothesized identity- and ideology-based double standards in judging collective action.

## Method

We preregistered the sample size as well as all hypotheses, inclusion/exclusion criteria, measures, and manipulations ([https://osf.io/24wrx/?view\\_only=8560eb60286149498f8da48bc9f9d99b](https://osf.io/24wrx/?view_only=8560eb60286149498f8da48bc9f9d99b)). We made all materials, data, and analysis scripts available online ([https://osf.io/d3yev/?view\\_only=40782034017c40f0bcecb1cc87760b62](https://osf.io/d3yev/?view_only=40782034017c40f0bcecb1cc87760b62)). We followed sample size recommendations for item response theory models (DeMars, 2010, p. 36), planning to recruit 500 participants.

## Study Design

We used a 2 (quasi-experimental: higher-status/lower-status participants)  $\times$  2 (experimental: higher-status/lower-status protesters) between-subjects design to test our hypotheses.

## Participants

We recruited 515 participants from the Prolific subject pool who were UK citizens, 25 years old or older, and not current students.<sup>3</sup> As preregistered, we excluded

<sup>3</sup>We had preregistered a sample of 500 participants, before exclusions, but included another 15 participants who completed the study without returning an approval code to the Prolific platform. Participants received, on average, £9.00 (\$10.93) per hour of participation.

71 participants who failed an attention check. This resulted in a final sample of 443 participants ( $Mdn = 41$  years, age range: 25–76 years; 272 women, 171 men, 1 non-binary). Of these, 210 participants considered their past, current, or future jobs to be working-class jobs. Participants in this lower-status group did not have a university degree and placed themselves on the bottom three ranks of the subjective socioeconomic status ladder. Another 233 participants considered their past, current job, or future jobs to be middle-class/professional jobs. Participants in this higher-status group had at least an undergraduate degree and placed themselves on the top four ranks of the subjective socioeconomic status ladder.

### ***Procedure***

We used a screening survey to recruit participants who satisfied our preregistered inclusion criteria for the lower-status and higher-status groups. For the lower-status group, we recruited 475 participants who did not have a university degree and placed themselves on the bottom three ranks of a subjective socioeconomic status ladder. For the higher-status group, we recruited 400 participants who had at least an undergraduate degree and placed themselves on the top four ranks of the subjective socioeconomic status ladder.

In the screening survey, participants read an accessible definition of what working-class and middle-class/professional jobs are (for details, see SOM). Participants then answered, among other questions, whether they considered their current job—or the jobs they had had in the past or expected to have in the future—to be a working-class job or a middle-class/professional job. As preregistered, we excluded participants from the lower-status group who did not respond “working-class job” and participants from the higher-status group who did not respond “middle-class/professional job”.

We recruited 500 participants from the remaining 687 participants, 250 from the lower-status group and 250 from the higher-status group. Participants were randomly assigned to read a vignette about a government bill affecting either people in working-class jobs (lower-status protesters) or people in professional jobs (higher-status protesters). Participants in both conditions were instructed to carefully read the vignette and to try to imagine what it would be like if

this situation was real. Participants in the lower-status protesters condition read the following introduction:

The government, though not necessarily the current government, is going to introduce a bill that will mostly affect people in working-class jobs. Working-class jobs, in this case, are jobs done by skilled, semi-skilled, unskilled manual workers or by casual workers. These are jobs that do not usually require a university degree. Other jobs are unlikely to be affected.

Participants in the higher-status protesters condition instead read the following introduction:

The government, though not necessarily the current government, is going to introduce a bill that will mostly affect people in professional jobs. Professional jobs are administrative, managerial, or other jobs that usually require a university degree. Other jobs are unlikely to be affected.

Participants in both conditions then read an almost identically worded paragraph:

This government measure would make it easier for companies to hire workers during economic growth and to lay off workers during an economic crisis. As a consequence, companies would be able to fire employees with little notice and without giving a reason. Trade unions are opposed to the measure. They argue that the bill would compromise job security, and prevent employees from challenging harassment or other abuse without the fear of being fired. People in [working-class/professional] jobs are particularly at risk, and there is a rise in tension and outrage among them.

On the next pages, participants completed all remaining measures. On the final page, we asked participants to recall who the people most affected by the fictitious government bill were. As preregistered, we excluded all participants whose response did not qualitatively match their experimental condition.

## Measures

We measured the outcome variable by asking participants to decide, for each of 25 protest actions presented in a randomized order, whether they thought this action was “an acceptable means for people in [working-class/professional] jobs to protest against the government bill” (1 = *yes*, 0 = *no*; see Table A1).

We assessed reactions to the vignette by asking participants how outraged they would be if the government were to introduce this bill in real life, to what extent it would affect them personally, and to what extent it would affect people like them (1 = *not at all*, 7 = *very much*). We also asked participants to what extent they identified with people with the kinds of jobs most affected by the proposed bill (1 = *not at all*, 7 = *very much*) and how often, if at all, they had participated in protest actions such as the ones we asked about (1 = *never*, 5 = *very often*).

We measured social dominance orientation with the eight-item SDO<sub>7(s)</sub> scale (Ho et al., 2015), for example, “it is unjust to try to make groups equal” (1 = *strongly oppose*, 7 = *strongly favour*; McDonald’s  $\omega = .89$ ). A confirmatory factor analysis model in which all items loaded onto a single factor showed acceptable fit,  $\chi^2(20) = 108.69$ ; CFI = 0.92; TLI = 0.88; RMSEA = 0.11, [0.09, 0.14].

We measured system-justifying beliefs with eight items (adapted from Kay & Jost, 2003), for example, “in general, I find society to be fair” (1 = *strongly disagree*, 7 = *strongly agree*; McDonald’s  $\omega = .89$ ). A confirmatory factor analysis model in which all items loaded onto a single factor showed acceptable fit,  $\chi^2(20) = 77.37$ ; CFI = 0.94; TLI = 0.92; RMSEA = 0.09, [0.07, 0.12].

In the screening survey, we recorded participants’ gender, age, nationality, student status, and employment status. We also included two three-item scales measuring social identification with people in working-class and middle-class/professional jobs (adapted from Becker et al., 2011) and a one-item semantic differential scale measuring political orientation (“People often describe their political orientation as left-wing or right-wing. On a scale from left to right, where would you position yourself?”; 1 = *left*, 7 = *right*).

## Results

### Reactions to the Manipulation

Participants with professional jobs thought that they would be more outraged if the government were to introduce a bill affecting people with similar jobs ( $M = 6.00$ ,  $SD = 1.05$ ) than by a bill affecting people with working-class jobs ( $M = 5.38$ ,  $SD = 1.28$ ; Cohen’s  $d = 0.50$ ). Conversely, participants with working-class jobs thought that they would be more outraged by a bill affecting people in similar jobs ( $M = 6.26$ ,  $SD = 1.05$ ) than by a bill affecting people in professional jobs ( $M = 5.61$ ,  $SD = 1.47$ ;  $d = 0.52$ ). Participants thought that a bill affecting people with similar jobs would affect them personally ( $d = 1.14$ ) and people like them ( $d = 1.33$ ) more than a bill affecting people with other jobs. Participants identified to a greater extent with people in similar jobs ( $M = 6.21$ ,  $SD = 1.12$ ) than with people in other jobs ( $M = 4.06$ ,  $SD = 1.65$ ;  $d = 1.22$ ). Overall, participants’ reactions suggested that the experimental design worked as intended and that participants in the lower-status and higher-status groups understood the vignette in ingroup–outgroup terms.

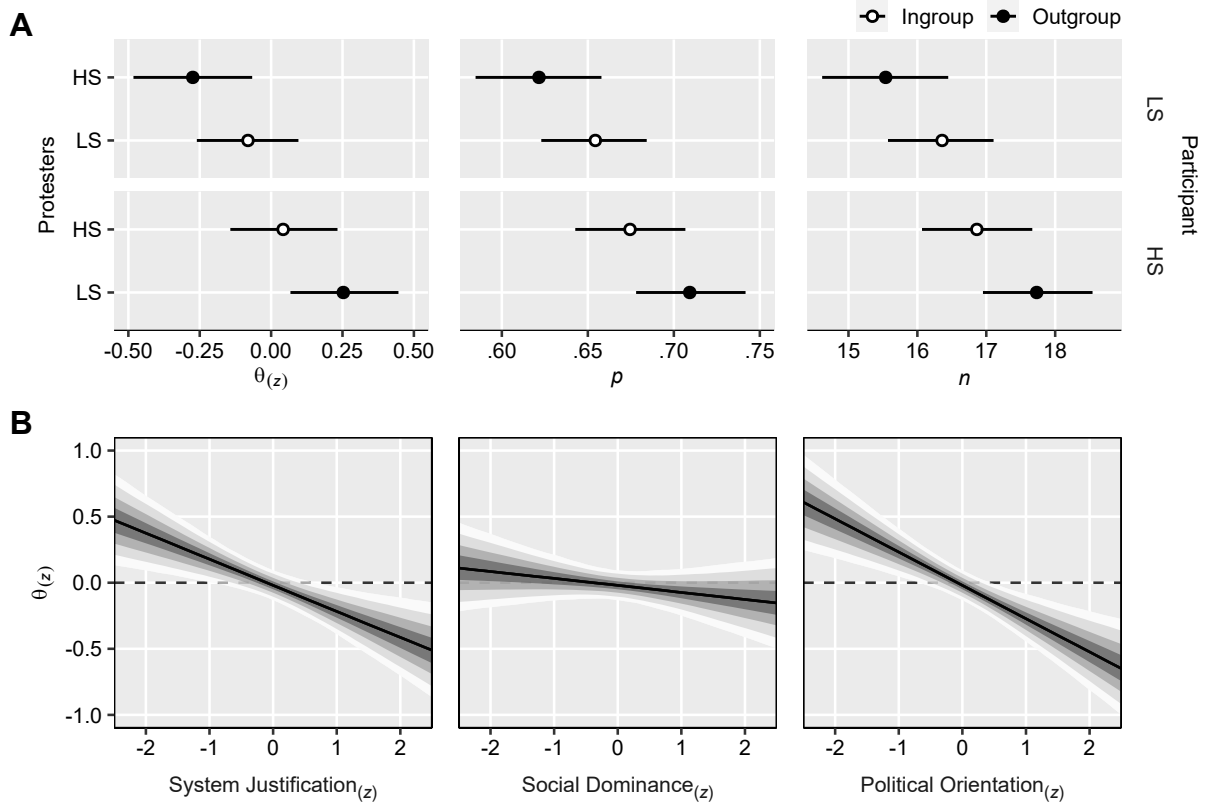
### Preregistered Analyses

To test our hypotheses, we estimated a two-parameter logistic item response theory model (Bürkner, 2021) with participants’ responses to the question whether they thought each action was an acceptable means of protest as the outcome variable. For each action  $i$ , the model estimated how acceptable ( $\beta_i$ ) and discriminating ( $\alpha_i$ ) that protest action was. For each participant  $j$ , the model estimated their unique propensity to consider protest actions acceptable ( $\theta_j$ ). In addition, the model estimated how accepting participants were of controversial protest actions as a function of three dummy-coded variables that encoded the group status of the protesters and the participant.

We estimated this model in CmdStan (Gabry & Cesnovar, 2021; Stan Development Team, 2021) using Bayesian statistical methods. Bayesian inference involves choosing a likelihood function and prior distributions. A likelihood function links the observed data to the model parameters and states how likely the observed data are given different values of said model parameters. Prior distributions state how plausible different values of said model parameters are



**Figure 3**  
Results from the preregistered (A) and non-preregistered (B) analyses for Experiment 1



*Note.* HS = Higher Status, LS = Lower Status.  $\theta_{(z)}$  is the  $z$ -standardized tendency to consider more controversial actions acceptable means of protest. (A)  $p$  and  $n$  are, respectively, the predicted proportion and number of actions a participant would consider acceptable means of protest in each condition. Bars enclose the 95% most plausible estimates. (B) Ribbons enclose, from the darkest to the lightest shade, the 50%, 80%, 95%, and 99% most plausible estimates.

before considering the observed data. Bayesian inference applies Bayes' theorem to update prior distributions in light of the observed data to produce posterior distributions. In contrast to  $p$ -values and confidence intervals, posterior distributions have a straight-forward interpretation as stating how plausible different values of the model parameters are given the observed data.

Our model derived the likelihood of participants' responses from a Bernoulli likelihood function with a logistic regression equation linking the two item parameters ( $\alpha_i, \beta_i$ ), the one participant parameter ( $\theta_j$ ), and the three regression coefficients to the observed data. To identify the model, we constrained  $\theta_j$  to have a mean of zero and constrained  $\alpha_i$  to have a fixed mean and to be non-negative. We used partial pool-

ing to estimate  $\alpha_i, \beta_i$ , and  $\theta_j$ . Our model assigned weakly informative prior distributions (Gelman et al., 2017) to all model parameters.<sup>4</sup> We report point estimates, based on the median of posterior samples, and uncertainty intervals, based on the quantiles of posterior samples, that enclose the 95% most plausible estimates.

Figure 3 (A) shows estimates for each combination of the protesters' and the participants' group membership. Overall, we found that participants' responses depended on both the protesters' and the participants' group status—but not in the directions predicted by our hypotheses. Contradict-

<sup>4</sup>Our model assigned Half-Cauchy(0, 3) prior distributions to the standard deviations of  $\alpha_i, \beta_i$ , and  $\theta_j$  and Normal(0, 3) prior distributions to all other model parameters.

ing our first hypothesis, participants did not consider protest actions performed by their ingroup to be more acceptable, on average, than the same actions performed by the relevant outgroup (Cohen's  $d = 0.00, [-0.20, 0.20]$ ). Instead, we found that participants from higher-status backgrounds considered protest actions performed by both lower-status ( $d = 0.34, [0.07, 0.59]$ ) and higher-status ( $d = 0.33, [0.03, 0.63]$ ) protesters to be, on average, more acceptable than participants from lower-status backgrounds. Contradicting our second hypothesis, participants considered protest actions performed by higher-status protesters to be less acceptable, on average, than the same actions performed by lower-status protesters ( $d = -0.20, [-0.40, -0.00]$ ).

### Non-Preregistered Analyses

We explored to what extent participants' ideological orientations influenced how acceptable they considered various protest actions to be. To that end, we estimated another two-parameter logistic item response model that estimated participants' responses as a function of the participant's and the protesters' group status and of the participants' political orientation, social dominance orientation, and system-justifying beliefs. We used factor scores to quantify social dominance orientation and system-justifying beliefs and standardized all new predictor variables. We report standardized regression coefficients that quantify by how many standard deviations a participant's propensity to consider more collective actions acceptable increases for each additional standard deviation of the predictor variable.

Figure 3 (B) the  $z$ -standardized propensity to consider more controversial protest actions acceptable as a function of the three ideological orientation variables. We found that participants who reported a more right-wing political orientation ( $\beta_{xy} = -0.25, [-0.37, -0.15]$ ) and who expressed more agreement with system-justifying beliefs ( $\beta_{xy} = -0.20, [-0.30, -0.10]$ ) tended to find fewer collective actions to be acceptable. In contrast, we found that, after controlling for the other two variables, social dominance orientation was not associated with participants' judgements about how acceptable various collective actions are ( $\beta_{xy} = -0.05, [-0.15, 0.05]$ ). Overall, these findings suggest that people who are right-wing and endorse system-justifying beliefs tend

to find various collective actions to be less acceptable than people who are left-wing and do not endorse system-justifying beliefs.<sup>5</sup>

### Discussion

Experiment 1 provided a first test of the hypothesized identity- and ideology-based double standards in judging collective action. That is, we tested whether, in line with *Hypothesis 1a* and *1b*, participants would judge the same protest actions as more acceptable if the protesters were ingroup members protesting for the ingroup's rights or whether, in line with *Hypothesis 2a*, participants would judge the same protest actions as more acceptable if the protesters were from a higher-status group. We found that participants' responses depended on both the participants' and the protesters' group memberships—but not in the hypothesized directions. Instead, we found that both lower-status and higher-status participants tended to find the same protest actions more acceptable when lower-status protesters protested a bill threatening their rights. In non-preregistered analyses, we further found that people who were right-wing and endorsed system-justifying beliefs tended to find all protest actions to be less acceptable.

Experiment 1 did not, however, provide a conclusive test of our hypotheses. First, by focusing on fictitious government bills, we might have chosen a scenario too far removed from current affairs to evoke strong ingroup bias in participants' judgements of protest actions. That said, participants' reactions to the experimental manipulation suggested that it evoked outrage and was understood in ingroup-outgroup terms. Second, by focusing on collective action to defend workers' rights, we arguably studied reactions to collective action for a progressive cause. To test for ideology-based double standards, we relied on the assumption that collective action by lower-status group members would be seen as more challenging to the prevailing system than collective action by higher-status group members. This assumption, however, was contradicted by our observation that participants who endorsed system-justifying be-

<sup>5</sup>We ran additional analyses to explore how these associations differed across experimental conditions. We found uncertainty intervals for these associations to overlap across conditions, suggesting that we did not have enough data to differentiate these varying effects.

liefs tended to find actions by lower-status and higher-status protesters to be less acceptable. Experiment 2 addressed those limitations by focusing on a scenario we expected to evoke stronger responses from participants and by examining reactions to both system-challenging and system-defending collective action.

## Experiment 2

In Experiment 2, we investigated potential double standards in judging collective action for or against defunding the police in the United States. That is, we tested whether Black and White Americans applied different standards when judging collective action taken by either Black or White protesters to protest either for or against police divestment as a possible solution to racist police violence. We conducted this study in January 2021, a time when, after a year of unprecedented protests for racial justice, most Americans could be expected to be aware of, and have formed an opinion on, the Black Lives Matter movement. We focused on defunding the police as this position remained controversial among both Black and White Americans even as they broadly agreed on the need for police reform.<sup>6</sup>

By varying the participants' and the protesters' group memberships, we tested the preregistered hypothesis that participants would judge the same protest actions as more acceptable if the protesters were ingroup members (*Hypothesis 1a*). By assuming that defunding the police aligns more closely with the interests of Black than White Americans, we tested the preregistered hypothesis that participants would judge the same protest actions as more acceptable if the cause of the protest aligned with their ingroup's interests (*Hypothesis 1b*). By varying whether the protesters protested for or against defunding the police, we tested the preregistered hypotheses that participants would judge the same protest actions as more acceptable if the protest supported, rather than challenged, the system (*Hypothesis 2a*) and if they endorsed system-justifying beliefs and the protest supported the system or if they rejected system-justifying beliefs and the protest challenged

the system (*Hypothesis 2b*). In this way, Experiment 2 provided a complete test of the hypothesized identity- and ideology-based double standards in judging collective action. In addition, we tested the simpler, alternative hypothesis that participants, in general, would judge the same protest actions as more acceptable if they supported the protesters' cause (*Hypothesis 3*).

## Method

We preregistered the sample size as well as all hypotheses, inclusion/exclusion criteria, measures, and manipulations ([https://osf.io/skxjt/?view\\_only=d8ce44a700884b5ab36b64ef08f833a1](https://osf.io/skxjt/?view_only=d8ce44a700884b5ab36b64ef08f833a1)). We made all materials, data, and analysis scripts available online ([https://osf.io/d3yev/?view\\_only=40782034017c40f0bcecb1cc87760b62](https://osf.io/d3yev/?view_only=40782034017c40f0bcecb1cc87760b62)). As reported in the preregistration, we ran simulations, using data from Experiment 1, to determine that a sample size of  $N = 1,600$  ( $n = 200$  per condition) was sufficient to detect even small differences between conditions ( $0.09 < \text{Cohen's } d < 0.16$ ).

## Study Design

We used a  $2$  (quasi-experimental: Black/White participants)  $\times 2$  (experimental: Black/White protesters)  $\times 2$  (experimental: for/against defunding the police) between-subjects design to test our hypotheses.

## Participants

We recruited 1,773 Black and White American participants from the Prolific subject pool who were 18 years old or older, lived in the US, and were US citizens.<sup>7</sup> As preregistered, we excluded 173 participants who failed at least one of three attention checks or who reported a different ethnic background than they had reported in the Prolific prescreening questionnaire. This resulted in a final sample of 1,600 participants ( $Mdn = 31$  years, age range: 18–84 years; 864 women, 708 men, 27 sex/gender diverse) of whom 800 identified as Black and 800 identified as White.

## Procedure

Participants read the following paragraphs:

In 2020, police officers killed Breonna Taylor and George Floyd. Many were outraged that police officers had, once again,

<sup>6</sup>In December 2020, only 34% of Black Americans and 18% of White Americans supported defunding the police while majorities of Black and White Americans supported police reforms such as eliminating qualified immunity (50% and 57%) or banning chokeholds (79% and 61%, YouGov, 2020).

<sup>7</sup>Data were collected between January 15 and 28, 2021. Participants received, on average, \$12.89 per hour of participation.

killed unarmed Black Americans. Across the United States, people called for changes to prevent future police violence.

Some argue that, to end police violence, we should take money away from police departments. Reducing police funding would mean fewer police officers on the street. Fewer police officers would mean fewer opportunities for them to turn violent. Reducing police funding would also leave more money for other services. Proponents argue for reallocating police funding to social services, housing, and education. Doing so would keep communities safer with fewer police officers. We refer to this position as “defunding the police”. This position differs from “reforming the police” which might mean increasing police funding and also differs from “abolishing the police” which means disbanding police departments altogether.

Participants were then asked to answer whether the text had been about “reforming the police”, “defunding the police”, or “abolishing the police”. If they selected the wrong answer, they were instructed to reread the text and select the right answer. On the next page, participants stated whether they supported or opposed the proposed solution.

Participants in the system-challenging protest condition then read a text about protesters in support of defunding the police:

Earlier, you read about defunding the police as a possible solution to end police violence. Some local residents want to protest for defunding the police. They argue that reducing police funding would prevent police violence.

Participants in the system-supporting protest condition instead read about protesters rallying against defunding the police:

Some local residents want to protest against defunding the police. They argue that reducing police funding would mean fewer police officers serving their community.

Participants then read either that “most of the protesters are Black” or that “most of the protesters are White”. Participants again had to correctly answer multiple choice questions about the text (“Are the protesters for or against defunding the police?”, “Who are the protesters?”) before being able to proceed.

On the next pages, participants completed all remaining measures. On the final page, participants responded to three attention checks: “In this study, you first read about a proposed solution to police violence. What was it?” (*reforming the police, defunding the police, abolishing the police*); “In this study, you then read about protesters. Were these protesters for or against the proposed solution?” (*for, against*); and “Were most of the protesters Black or White?” (*Black, White*). As preregistered, we excluded participants who gave an answer inconsistent with their assigned experimental condition.

### Measures

We measured the outcome variable by asking participants to think about the protesters they had read about and to decide, for each of 25 protest actions presented in a randomized order, whether they thought this action was “an acceptable means for them to protest [for/against] defunding the police” (1 = *yes*, 0 = *no*). We replaced some actions from Experiment 1 because they either did not fit the study context or had been considered acceptable by almost all participants (see Table B1).

We measured system-justifying beliefs with eight items (adapted from Kay & Jost, 2003), for example, “in general, I find society to be fair” (1 = *strongly disagree*, 7 = *strongly agree*; McDonald’s  $\omega = .91$ ). A confirmatory factor analysis model in which all items loaded onto a single factor showed acceptable fit,  $\chi^2(28) = 4309.15$ ; CFI = 0.95; TLI = 0.93; RMSEA = 0.11, [0.10, 0.12].

We measured support for defunding the police with one item: “Do you support or oppose defunding the police?” (1 = *strongly oppose*, 5 = *strongly support*).

We included additional measures to describe the sample, to describe reactions to the manipulation, or to use in non-preregistered analyses. In addition to demographic questions, we asked participants how outraged they were about recent incidents of police violence against Black Americans, to what extent they

identified with the protesters described in the study, and to what extent they identified with their racial ingroup (1 = *not at all*, 7 = *very much*). We also asked how often, if at all, participants had participated in protest actions such as the ones we had asked about (1 = *never*, 5 = *very often*) and whether they had participated in protests for reforming, defunding or abolishing the police; against reforming, defunding or abolishing the police; or in neither. We measured political orientation with a one-item semantic differential scale: “People often describe their political orientation as liberal or conservative. On a scale from liberal to conservative, where would you position yourself?” (1 = *liberal*, 7 = *conservative*).

## Results

### Reactions to the Manipulation

As expected, Black participants ( $M = 6.18$ ,  $SD = 1.31$ ) reported being more outraged about recent incidents of police violence than White participants ( $M = 5.56$ ,  $SD = 1.61$ ; Cohen’s  $d = 0.42$ ). Black participants strongly identified with their ingroup ( $M = 6.46$ ,  $SD = 1.09$ ) and, across experimental conditions, identified more with Black protesters ( $M = 4.66$ ,  $SD = 1.99$ ) than with White protesters ( $M = 4.03$ ,  $SD = 2.16$ ;  $d = 0.30$ ). In contrast, White participants identified less strongly with their ingroup ( $M = 4.85$ ,  $SD = 1.53$ ;  $d = 1.21$ ) and did not identify more with White protesters ( $M = 3.58$ ,  $SD = 2.01$ ) than with Black protesters ( $M = 3.81$ ,  $SD = 1.77$ ;  $d = -0.12$ ). Both White ( $d = 0.67$ ) and Black ( $d = 0.53$ ) participants tended to identify more with protesters protesting *for* defunding the police. On average, participants tended to describe their political orientation as moderately liberal ( $M = 2.92$ ,  $SD = 1.73$ ) but, as expected, were divided in their support for defunding the police ( $M = 3.37$ ,  $SD = 1.42$ ). That is, 56% supported defunding the police, 30% opposed defunding the police, and 14% remained undecided.

### Preregistered Analyses

To test our hypotheses, we estimated a series of two-parameter logistic item response theory models with participants’ responses to the question whether they thought each action was an acceptable means of protest as the outcome variable. Our models differed from the models used in Experiment 1 in two ways. First, we estimated the item parameters ( $\alpha_i$ ,  $\beta_i$ ) as

*correlated* varying effects. Second, we used varying, rather than fixed, effects to estimate differences between the eight conditions. This resulted in partial pooling—condition-wise estimates were shrunk towards each other—and allowed us to compare conditions without multiple comparison problems (Gelman et al., 2012). Our models assigned weakly informative prior distributions to all model parameters.<sup>8</sup> Figure 4 shows results from three preregistered models we estimated to test our hypotheses.

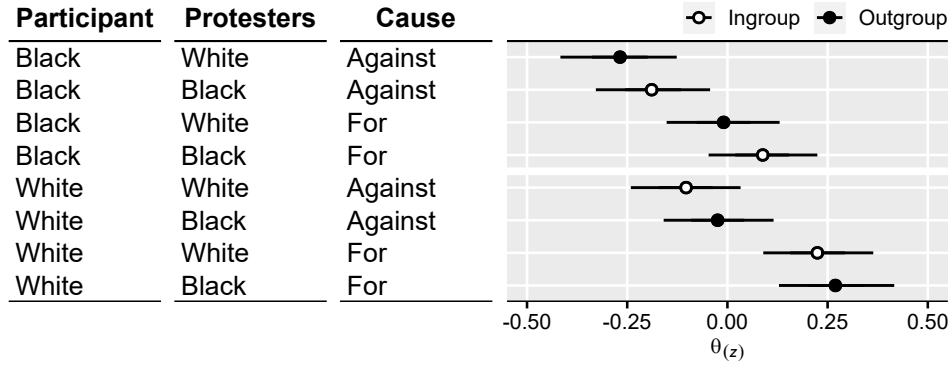
Model 1 (M1) estimated varying intercepts for the eight conditions to test whether, in line with Hypotheses 1a, 1b, or 2a, participants’ responses depended on their own group membership, the protesters’ group membership, or the protesters’ cause. Contradicting *Hypothesis 1a*, participants did not consider protest actions performed by their ingroup to be more acceptable, on average, than the same actions performed by the relevant outgroup ( $d = 0.01$ ,  $[-0.04, 0.06]$ ). Contradicting *Hypothesis 1b*, participants did not consider protest actions for a cause that was nominally aligned with their ingroup’s interests to be more acceptable, on average, than protest actions for a cause not aligned with their ingroup’s interests ( $d = -0.01$ ,  $[-0.06, 0.04]$ ). Contradicting *Hypothesis 2a*, participants did not consider protest actions for a system-defending cause to be more acceptable, on average, than protest actions for a system-challenging cause ( $d = -0.14$ ,  $[-0.20, -0.09]$ ). Instead, we found that, on average, White participants considered all protest actions to be more acceptable than Black participants ( $d = 0.09$ ,  $[0.04, 0.14]$ ) and both Black ( $d = 0.13$ ,  $[0.06, 0.20]$ ) and White ( $d = 0.16$ ,  $[0.08, 0.23]$ ) participants considered the same actions to be more acceptable when protests were *for*, rather than *against*, defunding the police. As in Experiment 1, we thus found that participants’ responses depended on both the participants’ and the protesters’ group memberships—but not in the directions predicted by our hypotheses.

Model 2 (M2) extended Model 1 by estimating participants’ responses as a function of their z-standardized endorsement of system-justifying beliefs. As preregistered, we modeled this relationship

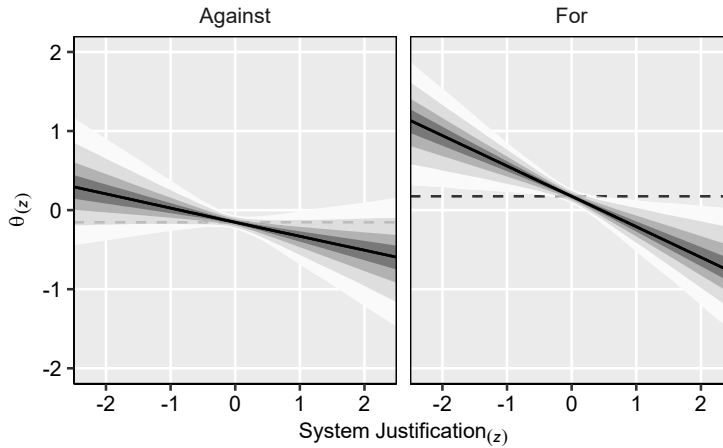
<sup>8</sup>Our model assigned LKJ(2) prior distributions to the Cholesky-transformed correlation matrices for varying effects and (Half-)Cauchy(0, 5) prior distributions to all other model parameters.

**Figure 4**  
Results from the preregistered analyses for Experiment 2

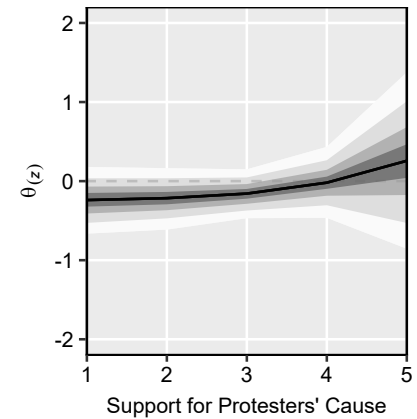
### M1



### M2



### M3



*Note.* Against = Protesters oppose defunding the police. For = Protesters support defunding the police.  $\theta_{(z)}$  is the z-standardized tendency to consider more controversial actions acceptable means of protest. Ribbons enclose, from the darkest to the lightest shade, the 50%, 80%, 95%, and 99% most plausible estimates.

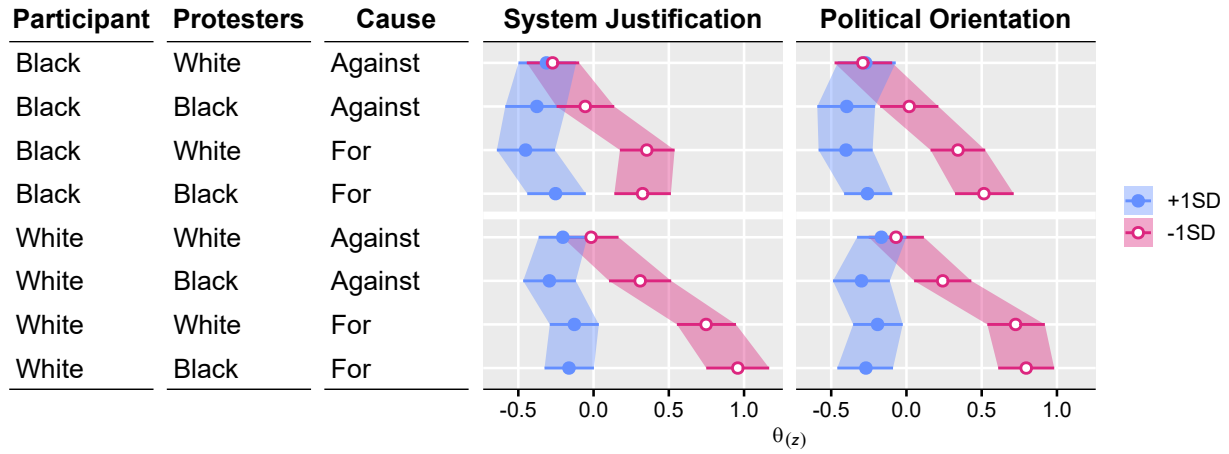
with two fixed effects, one estimating the effect of system-justifying beliefs on judgements about system-defending protest actions and one estimating their effect on judgements about system-challenging protest actions, and one varying effect estimating its variance across conditions. Supporting *Hypothesis 2b*, participants who *rejected* system-justifying beliefs were *more* likely to consider system-challenging protest actions (for defunding the police) to be acceptable means of protest ( $\beta_{xy} = 0.38, [0.16, 0.58]$ ). We did not, however, find evidence for the ideological symmetry implied by *Hypothesis 2b* since participants who *endorsed* system-justifying beliefs were *not* more likely to consider system-defending protest actions

(against defunding the police) to be acceptable means of protest ( $\beta_{xy} = -0.18, [-0.40, 0.02]$ ).

Figure 5 shows the estimated pattern of condition-wise differences underlying those fixed effects. Participants who endorsed system-justifying beliefs tended to consider system-challenging and system-defending protest actions to be equally unacceptable. In contrast, participants who rejected system-justifying beliefs evinced ideology-based double standards: In line with *Hypothesis 2b*, they considered the same protest actions to be more acceptable when the protesters challenged the system or, to a lesser extent, when the protesters were from the disadvantaged group.

**Figure 5**

Predictions from the preregistered (system justification) and non-preregistered (political orientation) analyses for Experiment 2



*Note.* Against = Protesters oppose defunding the police. For = Protesters support defunding the police.  $\theta_{(z)}$  is the  $z$ -standardized tendency to consider more controversial actions acceptable means of protest.

Model 3 (M<sub>3</sub>) extended Model 1 by estimating participants' responses as a function of their self-reported support for the cause of the protest. We recoded participants' responses to create a predictor variable that encoded support for defunding the police when protesters supported defunding the police and opposition to defunding the police when protesters opposed defunding the police. As preregistered, we modeled this relationship as a monotonic effect (Bürkner & Charpentier, 2020) that estimated the average change in the outcome variable across predictor categories as well as how much of this change occurred between each of the four pairs of adjacent predictor categories.<sup>9</sup> Contradicting *Hypothesis 3*, participants who supported the protesters' cause did not, on average, consider the same protest actions to be more acceptable than participants who opposed the protesters' cause ( $\beta_y = 0.14, [-0.12, 0.40]$ ). Ergo, our results did not support the alternative hypothesis that ideology-based double standards can be reduced to support for, or opposition to, the cause of a protest.

<sup>9</sup>Our model assigned a Dirichlet prior,  $\alpha = 1, 1, 1, 1$ , to the proportions of the overall change that was expected to occur between each of the four pairs of predictor categories.

### Non-Preregistered Analyses

We explored whether group identification moderated how the participants' and the protesters' group memberships affected participants' responses. To that end, we extended Model 1 by estimating participants' responses as a function of their  $z$ -standardized identification with their racial ingroup. As in Model 2, we modeled this relationship with a fixed and a varying effect. We found, however, that even participants who strongly identified with their racial ingroup (+1SD) did not consider protest actions performed by their ingroup to be more acceptable than the same actions performed by the relevant outgroup ( $d = 0.01, [-0.00, 0.02]$ ) and did not consider protest actions for a cause that was aligned with their ingroup's interests to be more acceptable than protest actions for a cause not aligned with their ingroup's interests ( $d = 0.00, [-0.01, 0.01]$ ). Our non-preregistered analyses thus suggested that group identification did not moderate group differences in judgements about collective action by ingroup and outgroup members.

We also explored whether we would find ideology-based double standards when operationalizing ideology as political orientation instead of as system justification. To that end, we reran Model 2 with political orientation as the  $z$ -standardized predictor

variable. Our results mirrored the preregistered analyses: More liberal participants were more likely to consider protest actions for defunding the police to be acceptable ( $\beta_{xy} = 0.41, [0.17, 0.62]$ ) but more conservative participants were not more likely to consider protest actions against defunding the police to be acceptable ( $\beta_{xy} = -0.16, [-0.41, 0.04]$ ). As Figure 5 shows, conservative participants tended to consider all protest actions to be equally unacceptable while liberal participants considered the same protest actions to be more acceptable when protesters rallied around a progressive cause. Our non-preregistered analyses thus replicated the ideology-based double standards from the preregistered analyses with a different operationalization of ideology.

## Discussion

Experiment 2 provided a complete test of the hypothesized identity- and ideology-based double standards in judging collective action. As in Experiment 1, we found that participants' responses depended on both the participants' and the protesters' group memberships—but not in the hypothesized directions. We found that, contrary to *Hypothesis 1a*, participants considered protest actions taken by ingroup and outgroup members to be equally acceptable and that, contrary to *Hypothesis 1b*, participants did not consider the same protest actions to be more acceptable when the protesters' cause aligned with their ingroup's interests. Like Experiment 1, Experiment 2 thus found no evidence for identity-based double standards—even though it focused on an issue of direct and current relevance to the participants.

Expanding Experiment 1, Experiment 2 considered reactions to both system-challenging and system-defending collective action and, in so doing, provided a stronger test of the hypothesized ideology-based double standards. Contrary to *Hypothesis 2a* and the underlying assumption of a universal system-justifying motive, we found that participants considered the same protest actions to be *more* acceptable when judging system-challenging collective action (for defunding the police) than when judging system-defending collective action. This finding might reflect our liberal-leaning sample. In line with *Hypothesis 2b*, we found that participants who rejected system-justifying beliefs considered the same protest action more acceptable when judging system-challenging

collective action (for defunding the police). We did not, however, find evidence for ideological symmetry in this relationship as participants who endorsed system-justifying beliefs considered system-challenging and system-defending collective action to be equally unacceptable. In addition, we did not find evidence for the alternative, simpler *Hypothesis 3* that that participants would judge the same protest actions to be acceptable when they supported the protesters' cause. In this way, Experiment 2 provided evidence for ideology-based, but not for identity-based, double standards in judging collective action.

## Experiment 3

### Method

We preregistered the sample size, hypotheses, inclusion/exclusion criteria, measures, and manipulations ([https://osf.io/kphyw/?view\\_only=59f5792a6d3f4fa48516ea9d5f637822](https://osf.io/kphyw/?view_only=59f5792a6d3f4fa48516ea9d5f637822)). We deviated from the preregistration in two ways. First, we stopped collecting data before reaching the preregistered sample size. We did so as the Supreme Court decision on reproductive rights, announced on June 24, 2022, had rendered the experimental manipulation invalid. Second, we do not report results for two further hypotheses—testing moral conviction as a potential mechanism underlying ideology-based double standards—as those findings are beyond the scope of this manuscript and will be reported in a future publication. We made all materials, data, and analysis scripts available online ([https://osf.io/d3yev/?view\\_only=40782034017c40f0bcecb1cc87760b62](https://osf.io/d3yev/?view_only=40782034017c40f0bcecb1cc87760b62)).

### Study Design

We used a 2 (quasi-experimental: conservative/liberal participants)  $\times$  2 (quasi-experimental: male/female participants)  $\times$  2 (experimental: for/against restricting abortion) between-subjects design to test our hypotheses.

### Participants

We recruited 804 participants from the Prolific subject pool who were 18 years old or older and lived in the United States.<sup>10</sup> We balanced the sample's gender

<sup>10</sup>Data were collected between June 10 and 23, 2022. Participants received, on average, \$24.70 per hour of participation.



and political composition so that half of all participants identified as conservative and the other half identified as liberal and so that roughly half of the participants in each group were women and men. As preregistered, we excluded 71 participants who failed at least one of five attention checks or reported a different political orientation than they had reported in the Prolific prescreening questionnaire. As noted above, we had to stop collecting data before reaching the preregistered sample size of 800 eligible participants. This resulted in a final sample of 733 participants (*Mdn* = 37 years, age range: 18–93 years) of whom 181 were conservative men, 190 were conservative women, 185 were liberal men, and 177 were liberal women.

### **Procedure**

After answering where they would place themselves along the political spectrum, in line with their response in the Prolific prescreening questionnaire, participants read the following paragraph:

Recent news suggested that the Supreme Court might soon overturn its *Roe v. Wade* decision that, so far, has guaranteed legal abortions in the first 20–24 weeks of pregnancy. Overturning *Roe v. Wade* would allow states to enact laws to further restrict or ban abortions.

In the supporting abortion restrictions condition, participants then read a text presenting arguments for restricting or banning abortion:

Some people welcome this news because they oppose legal abortions. They argue that life begins at conception and that, therefore, abortion ends the life of an unborn child. As human life is sacred, ending an unborn life is wrong and cannot be justified by a pregnant person's right to choose. In this view, restricting or banning abortions is the only way to protect unborn lives. We refer to this position as "supporting abortion restrictions".

In the opposing abortion restrictions condition, participants instead read a text presenting arguments against restricting or banning abortion:

Some people are alarmed by this news because they support legal abortions. They argue that pregnant people have a right to control their own body and, therefore, have a right to safe and legal abortions. Restricting or banning abortion would lead to more illegal and unsafe abortions. In this view, providing legal abortions is the only way to protect pregnant people's rights and to prevent harm. We refer to this position as "opposing abortion restrictions".

Participants were then asked to select which position the text described and what arguments for that position were presented in the text. If they selected the wrong answer, they were instructed to reread the text and select the right answer. Participants then rated to what extent they support or oppose restricting abortion and to what extent their feelings about this issue are a moral conviction.

Participants then read about protesters protesting either for (in the supporting abortion restrictions condition) or against (in the opposing abortion restrictions condition) restricting or banning abortion:

Earlier, you read why some people [support/oppose] further restricting or banning abortion. Some local residents who hold this view want to protest [for/against] restricting or banning abortion.

Participants rated which of several protest actions they consider acceptable means to protest for or against restricting abortion. On the next pages, participants completed the remaining measures. On the final page, participants responded to two attention checks that assessed whether they paid attention to the experimental manipulation: "In this study, you read about some people's view on a policy change. What was the policy change?" and "In this study, you then read about some protesters. Were the protesters for or against restricting abortion?"

### **Measures**

We measured the outcome variable by asking participants to think about the protesters they had read about and to decide, for each of 25 protest actions presented in a randomized order, whether they thought this action was "an acceptable means for them to

protest [for/against] restricting or banning abortion” (1 = *yes*, 0 = *no*; see Table C1).

We included additional measures to describe the sample, to report as descriptive statistics, to use in non-preregistered analyses or future analyses not reported in this paper.

We measured support for restricting abortion with one item: “Do you support or oppose restricting (or banning) abortion?” (1 = *strongly oppose*, 5 = *strongly support*). We also included a three-item measure of moral conviction (Ryan, 2014) that assessed to what extent participants’ feelings about restricting or banning abortion were, for example, connected to their core moral beliefs or convictions (1 = *not at all*, 5 = *very much*).

We measured gender-related system-justifying beliefs with eight items (adapted from Jost & Kay, 2005), for example, “in general, relations between men and women are fair” (1 = *strongly disagree*, 7 = *strongly agree*; McDonald’s  $\omega = .93$ ). A confirmatory factor analysis model in which all items loaded onto a single factor showed acceptable fit,  $\chi^2(20) = 111.90$ ; CFI = 0.97; TLI = 0.95; RMSEA = 0.09, [0.08, 0.11].

We will measured moral concerns with the 36-item moral foundations questionnaire (MFQ-2, Atari et al., 2022) which assesses to what extent participants endorse concerns about care, equality, proportionality, loyalty, authority, and purity (e.g., “I believe chastity is an important virtue.”; 1 = *does not describe me at all*, 5 = *describes me extremely well*). We embedded three further attention checks within the questionnaire (e.g., “To show that you are paying attention and giving your best effort, please select ‘moderately describes me.’”).

In addition to demographic questions, we asked participants to what extent they identified with their gender (1 = *strongly disagree*, 7 = *strongly agree*) and measured political orientation with a one-item semantic differential scale: “People often describe their political orientation as liberal or conservative. On a scale from liberal to conservative, where would you position yourself?” (1 = *liberal*, 7 = *conservative*).

## Results

### Reactions to the Manipulation

As expected, participants who identified as conservative reported being far more conservative ( $M =$

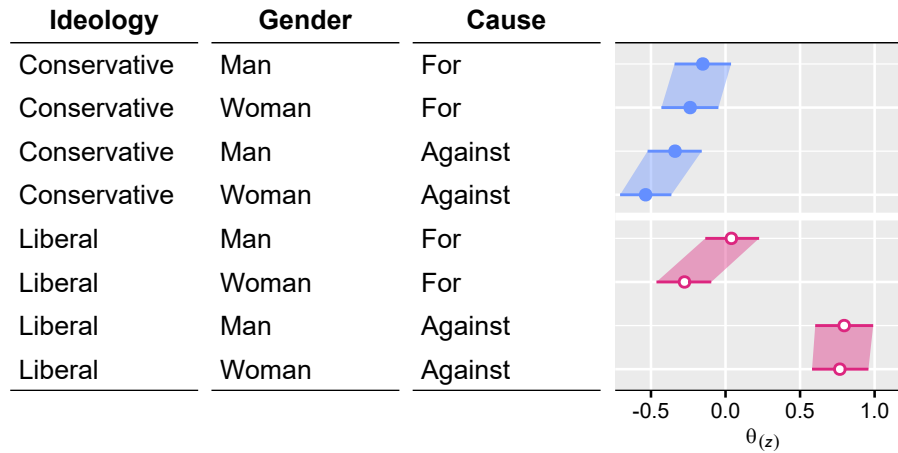
6.05,  $SD = 0.79$ ) than participants who identified as liberal ( $M = 1.73$ ,  $SD = 0.80$ ; Cohen’s  $d = 5.43$ ). Likewise, conservative participants tended to endorse system-justifying beliefs ( $M = 5.10$ ,  $SD = 0.95$ ) while liberal participants tended to reject system-justifying beliefs ( $M = 2.86$ ,  $SD = 1.03$ ;  $d = 2.26$ ). As expected, conservative and liberal participants differed in their reactions to the manipulation as the former tended to support restricting abortion ( $M = 3.77$ ,  $SD = 1.48$ ) while the latter tended to oppose restricting abortion ( $M = 1.28$ ,  $SD = 0.85$ ;  $d = 2.06$ ). When comparing politically balanced subsamples of men and women, women ( $M = 2.55$ ,  $SD = 1.76$ ) did not differ from men ( $M = 2.55$ ,  $SD = 1.72$ ) in their attitudes toward restricting abortion ( $d = -0.02$ ).

### Preregistered Analyses

To test our hypotheses, we used a two-parameter logistic item response theory model, identical to the one used in Experiment 2, to estimate how likely participants were to consider each action an acceptable means of protest as a function of the protesters’ cause and of the participants’ gender and ideology. Figure 6 shows the results of our preregistered analyses.

As in Experiments 1 and 2, we found no evidence for identity-based double standards: Female participants did not consider protest actions *against* restricting abortion to be any more acceptable, on average, than male participants or protest actions *for* restricting abortion ( $d = 0.14$ , [0.00, 0.29]). Instead, we again found evidence for ideology-based double standards: Conservative participants considered the same protest actions to be more acceptable, on average, when protesters *supported* restricting abortion ( $d = 0.24$ , [0.07, 0.43]) while liberal participants considered the same protest actions to be more acceptable when protesters *opposed* restricting abortion ( $d = 0.90$ , [0.72, 1.08]). This pattern was consistent across subsamples as conservative women ( $d = 0.30$ , [0.04, 0.55]) and, to a lesser extent, conservative men ( $d = 0.19$ , [-0.07, 0.46]) considered the same protest actions to be more acceptable when protesters *supported* restricting abortion and as both liberal men ( $d = 0.76$ , [0.49, 1.03]) and women ( $d = 1.04$ , [0.78, 1.32]) considered the same protest actions to be more acceptable when protesters *opposed* restricting abortion. This double standard was, however, more pronounced among liberal participants

**Figure 6**  
Results from the preregistered analyses for Experiment 3



*Note.* Results show the estimated  $z$ -standardized tendency ( $\theta_{(z)}$ ) to consider more controversial actions acceptable means to protest for or against restricting abortion as a function of the participants' ideology and gender.

( $d = 0.66, [0.41, 0.92]$ ). In this way, Experiment 3 provided evidence for both ideological symmetry and asymmetry in judging collective action for and against restricting abortion.

#### Non-Preregistered Analyses

#### Discussion

### General Discussion

Our research was motivated by real-world examples that seemed to suggest that where people draw the line between acceptable and unacceptable protest actions depends on *who* the protesters are and *what* they are protesting—in other words, that there are double standards in judging collective action. Our findings, however, showed that it is not so simple. Contradicting our hypothesis of identity-based double standards, participants in two preregistered experiments did not show ingroup bias when judging controversial protest actions taken by ingroup and outgroup members to advance their group's interests. Instead, supporting our hypothesis of ideology-based double standards, participants judged the same controversial protest actions to be more acceptable when the protesters' cause aligned with their own (system-challenging) ideological position. In the remainder of this General Discussion, we consider some limiting conditions on our findings and discuss theoretical and practi-

cal implications for understanding the often divided response to collective action.

#### Limitations

Our research applied item response theory to judgments about collective action to investigate whether where people draw the line between acceptable and unacceptable means of protest depends on who the protesters are and what they are protesting. In so doing, we moved the distinction between normative and non-normative collective action from the realm of the researcher's intuition into the realm of scientific investigation, allowing us to test for double standards in judging collective action.

Despite its strengths, our research is qualified by important limitations. First, our research examined the hypothesized relationships for three political causes—protecting workers' rights, defunding the police, restricting abortion—and thus provided only limited evidence that our findings generalize beyond those causes. Relying on few stimuli to establish an effect threatens the validity and replicability of research findings and constrains the generalizability of psychological research (Yarkoni, 2022). Future research should sample a wider range of causes to address this pervasive but often ignored problem (Judd et al., 2012). This is particularly important when studying collective action as recent theorizing (Jost et al.,

2017) and research (Osborne et al., 2019) highlighted the importance of differentiating between progressive and conservative causes. Second, our research was based on samples from two Western, Educated, Industrialized, Rich, and Democratic (WEIRD; Henrich et al., 2010) contexts—the United Kingdom and the United States—which limits the cross-cultural generalizability of our findings.

## Implications

Most broadly, our results showed that, for many controversial protest actions, there is no consensus on what is and is not an acceptable means to advance a cause. Instead, this judgement seems to depend on what the cause of a protest is and how it aligns with one's beliefs and values. In this way, our results confirm our contention that the distinction between normative and non-normative forms of collective action should be situated in the eye of the beholder. By developing an instrument for measuring where people draw the line between acceptable and unacceptable forms of collective action, we provided a paradigm that we hope will stimulate research on when and why people differ in making this distinction.

After all, this distinction can be consequential. If people believe that even extreme actions are acceptable means to advance a cause they support, especially if they moralize their support for that cause (Mooijman et al., 2018), they might support violent extremism. In this way, our findings could explain why 45% of Republicans supported the storming of the U.S. Capitol on January 6, 2021 (YouGov, 2021) even though it was illegal, destructive, and violent. If people believe that even non-violent actions are unacceptable means to advance a cause they oppose, they might support stifling dissent. In this way, our findings could explain why Republicans responded to Black Lives Matter protests by seeking to further criminalize disruptive protest (e.g., blocking highways, Quinton, 2021) that might be most effective at challenging injustice (Shuman et al., 2022, 2021). For those reasons, we encourage researchers to use our paradigm to further investigate when and why people apply different standards when judging collective action for different causes.

## Conclusion

Opinion polls show deep divides not only about the ends of protests, but also about the means of protest. For example, only 11% of Republicans and 29% of White Americans—compared to 59% of Democrats and 66% of Black Americans—considered kneeling during the national anthem—a non-violent form of collective action—an appropriate means to protest racist police violence (YouGov, 2017). Our research showed that, in contrast to well-documented double standards in other domains, people do not apply a different standard when judging collective action by ingroup members or for a cause aligned with the ingroup's interests. Instead, our research demonstrated that people consider the same protest actions to be more acceptable when the cause of the protest aligns with their own ideological positions—in other words, that there are partisan double standards in judging collective action.

## References

- Abrams, D., Randsley de Moura, G., & Travaglino, G. A. (2013). A double standard when group members behave badly: Transgression credit to ingroup leaders. *Journal of Personality and Social Psychology*, 105(5), 799–815. <https://doi.org/10.1037/a0033600>
- Atari, M., Haidt, J., Graham, J., Koleva, S., Stevens, S. T., & Dehghani, M. (2022). Morality beyond the WEIRD: How the nomological network of morality varies across cultures. *PsyArXiv*. <https://doi.org/10.31234/osf.io/q6c9r>
- Becker, J. C. (2012). Virtual special issue on theory and research on collective action in the European Journal of Social Psychology [Editorial]. *European Journal of Social Psychology*, 42(1), 19–23. <https://doi.org/10.1002/ejsp.1839>
- Becker, J. C., Tausch, N., Spears, R., & Christ, O. (2011). Committed dis(s)idents: Participation in radical collective action fosters disidentification with the broader in-group but enhances political identification. *Personality and Social Psychology Bulletin*, 37(8), 1104–1116. <https://doi.org/10.1177/0146167211407076>
- Brewer, M. B. (2007). The social psychology of intergroup relations: Social categorization, ingroup bias, and outgroup prejudice. In A. W. Kruglanski & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (2nd ed., pp. 695–715). Guilford Press.

- Bürkner, P.-C. (2021). Bayesian item response modeling in R with brms and Stan. *Journal of Statistical Software*, 100(5). <https://doi.org/10.18637/jss.v100.i05>
- Bürkner, P.-C., & Charpentier, E. (2020). Modelling monotonic effects of ordinal predictors in Bayesian regression models. *British Journal of Mathematical and Statistical Psychology*, 73(3), 420–451. <https://doi.org/10.1111/bmsp.12195>
- DeMars, C. (2010). *Item response theory*. Oxford University Press.
- Dunivin, Z. O., Yan, H. Y., Ince, J., & Rojas, F. (2022). Black Lives Matter protests shift public discourse. *Proceedings of the National Academy of Sciences*, 119(10), e2117320119. <https://doi.org/10.1073/pnas.2117320119>
- Endevelt, K., Schori-Eyal, N., & Halperin, E. (2021). Everyone should get the same, but we should get more: Group entitlement and intergroup moral double standard. *Group Processes & Intergroup Relations*, 24(3), 350–370. <https://doi.org/10.1177/1368430219896618>
- Feinberg, M., Willer, R., & Kovacheff, C. (2020). The activist's dilemma: Extreme protest actions reduce popular support for social movements. *Journal of Personality and Social Psychology*, 119(5), 1086–1111. <https://doi.org/10.1037/pspi0000230>
- Foschi, M. (2000). Double standards for competence: Theory and research. *Annual Review of Sociology*, 26(1), 21–42. <https://doi.org/10.1146/annurev.soc.26.1.21>
- Gabry, J., & Cesnovar, R. (2021). *cmdstanr: R interface to CmdStan* (Version 0.4.0). <https://mc-stan.org/cmdstanr>
- Gelman, A., Hill, J., & Yajima, M. (2012). Why we (usually) don't have to worry about multiple comparisons. *Journal of Research on Educational Effectiveness*, 5(2), 189–211. <https://doi.org/10.1080/19345747.2011.618213>
- Gelman, A., Simpson, D., & Betancourt, M. (2017). The prior can often only be understood in the context of the likelihood. *Entropy*, 19, 10, 555. <https://doi.org/10.3390/e19100555>
- Hewstone, M. (1990). The “ultimate attribution error”? A review of the literature on intergroup causal attribution. *European Journal of Social Psychology*, 20(4), 311–335. <https://doi.org/10.1002/ejsp.2420200404>
- Ho, A. K., Sidanius, J., Kteily, N., Sheehy-Skeffington, J., Pratto, F., Henkel, K. E., Foels, R., & Stewart, A. L. (2015). The nature of social dominance orientation: Theorizing and measuring preferences for intergroup inequality using the new SDO-7 scale. *Journal of Personality and Social Psychology*, 109(6), 1003–1028. <https://doi.org/10.1037/pspi0000033>
- Jost, J. T. (2020). *A theory of system justification*. Harvard University Press.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, 33(1), 1–27. <https://doi.org/10.1111/j.2044-8309.1994.tb01008.x>
- Jost, J. T., Becker, J., Osborne, D., & Badaán, V. (2017). Missing in (collective) action: Ideology, system justification, and the motivational antecedents of two types of protest behavior. *Current Directions in Psychological Science*, 26(2), 99–108. <https://doi.org/10.1177/0963721417690633>
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129(3), 339–375. <https://doi.org/10.1037/0033-2909.129.3.339>
- Jost, J. T., & Kay, A. C. (2005). Exposure to benevolent sexism and complementary gender stereotypes: Consequences for specific and diffuse forms of system justification. *Journal of Personality and Social Psychology*, 88(3), 498–509. <https://doi.org/10.1037/0022-3514.88.3.498>
- Judd, C. M., Westfall, J., & Kenny, D. A. (2012). Treating stimuli as a random factor in social psychology: A new and comprehensive solution to a pervasive but largely ignored problem. *Journal of Personality and Social Psychology*, 103(1), 54–69. <https://doi.org/10.1037/a0028347>
- Kay, A. C., & Jost, J. T. (2003). Complementary justice: Effects of “poor but happy” and “poor but honest” stereotype exemplars on system justification and implicit activation of the justice motive. *Journal of Personality and Social Psychology*, 85(5), 823–837. <https://doi.org/10.1037/0022-3514.85.5.823>
- Lacina, B. (2020). *National anthem protests and whites' views of black NFL players* [Unpublished manuscript]. Department of Political Science, University of Rochester. [http://www.bethanylacina.com/docs/Lacina\\_NFL\\_paper.pdf](http://www.bethanylacina.com/docs/Lacina_NFL_paper.pdf)
- Mendoza, S. A., Lane, S. P., & Amodio, D. M. (2014). For members only: Ingroup punishment of fairness norm violations in the ultimatum game. *Social Psychological and Personality Science*, 5(6), 662–670. <https://doi.org/10.1177/1948550614527115>
- Mooijman, M., Hoover, J., Lin, Y., Ji, H., & Dehghani, M. (2018). Moralization in social networks and the

- emergence of violence during protests. *Nature Human Behaviour*, 2(6), 389–396. <https://doi.org/10.1038/s41562-018-0353-0>
- Osborne, D., Jost, J. T., Becker, J. C., Badaan, V., & Sibley, C. G. (2019). Protesting to challenge or defend the system? A system justification perspective on collective action. *European Journal of Social Psychology*, 49(2), 244–269. <https://doi.org/10.1002/ejsp.2522>
- Pinto, I. R., Marques, J. M., Levine, J. M., & Abrams, D. (2010). Membership status and subjective group dynamics: Who triggers the black sheep effect? *Journal of Personality and Social Psychology*, 99(1), 107–119. <https://doi.org/10.1037/a0018187>
- Quinton, S. (2021). Republicans respond to Black Lives Matter with anti-protest bills. *Pew Charitable Trusts*. <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2021/02/04/republicans-respond-to-black-lives-matter-with-anti-protest-bills>
- Reimer, N. K., Schmid, K., Hewstone, M., & Al Ramiah, A. (2022). Self-categorization and social identification: Making sense of us and them. In D. Chadee (Ed.), *Theories in social psychology* (2nd ed., pp. 273–295). Wiley-Blackwell.
- Ryan, T. J. (2014). Reconsidering moral issues in politics. *The Journal of Politics*, 76(2), 380–397. <https://doi.org/10.1017/S0022381613001357>
- Samejima, F. (1997). Graded response model. In W. J. van der Linden & R. K. Hambleton (Eds.), *Handbook of modern item response theory* (pp. 85–100). Springer.
- Sharp, G. (1973). *The politics of nonviolent action*. Porter Sargent.
- Shuman, E., Hasan-Aslih, S., Zomeran, M. van, Saguy, T., & Halperin, E. (2022). Protest movements involving limited violence can sometimes be effective: Evidence from the 2020 Black Lives Matter protests. *Proceedings of the National Academy of Sciences*, 119(14), e2118990119. <https://doi.org/10.1073/pnas.2118990119>
- Shuman, E., Saguy, T., van Zomeran, M., & Halperin, E. (2021). Disrupting the system constructively: Testing the effectiveness of nonnormative non-violent collective action. *Journal of Personality and Social Psychology*, 121(4), 819–841. <https://doi.org/10.1037/pspi0000333>
- Stan Development Team. (2021). *Stan modeling language users guide and reference manual* (Version 2.27.0). <http://mc-stan.org/>
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The psychology of intergroup relations* (pp. 33–48). Brooks/Cole.
- Teixeira, C. P., Spears, R., & Yzerbyt, V. Y. (2020). Is Martin Luther King or Malcolm X the more acceptable face of protest? High-status groups' reactions to low-status groups' collective action. *Journal of Personality and Social Psychology*, 118(5), 919–944. <https://doi.org/10.1037/pspi0000195>
- Valdesolo, P., & DeSteno, D. (2007). Moral hypocrisy: Social groups and the flexibility of virtue. *Psychological Science*, 18(8), 689–690. <https://doi.org/10.1111/j.1467-9280.2007.01961.x>
- van Zomeran, M. (2016). Building a tower of babel? Integrating core motivations and features of social structure into the political psychology of political action. *Political Psychology*, 37, 87–114. <https://doi.org/10.1111/pops.12322>
- Verkuyten, M., Adelman, L., & Yogeeswaran, K. (2022). Intolerance of transgressive protest actions: The differential roles of deontological and utilitarian morality. *Personality and Social Psychology Bulletin*, 48(1), 1–16. <https://doi.org/10.1177/01461672221099709>
- Wright, S. C., Taylor, D. M., & Moghaddam, F. M. (1990). Responding to membership in a disadvantaged group: From acceptance to collective protest. *Journal of Personality and Social Psychology*, 58(6), 994–1003. <https://doi.org/10.1037/0022-3514.58.6.994>
- Yarkoni, T. (2022). The generalizability crisis. *Behavioral and Brain Sciences*, 45, e1. <https://doi.org/10.1017/S0140525X20001685>
- YouGov. (2017). *HuffPost: NFL (Sept. 25–26, 2017)* [Data set]. <https://perma.cc/3Q3V-4GC4>
- YouGov. (2020). *HuffPost: Police reform (Dec. 3–6, 2020)* [Data set]. <https://perma.cc/JH5P-3W3K>
- YouGov. (2021). *Capitol protest (Jan. 6, 2021)* [Data set]. <https://perma.cc/YG99-EUYX>

## Appendix A

**Table A1**

List of protest actions used in Experiment 1

| #  | Action                                                                                                                    | Pr  |
|----|---------------------------------------------------------------------------------------------------------------------------|-----|
| 1  | participate in a public meeting of representatives and elected officials                                                  | 97% |
| 2  | hold meetings to inform the public                                                                                        | 96% |
| 3  | make a public speech                                                                                                      | 96% |
| 4  | hold meetings to influence the public                                                                                     | 93% |
| 5  | attend or organise a protest march                                                                                        | 93% |
| 6  | attend or organise a protest rally                                                                                        | 92% |
| 7  | use social media (e.g., Facebook, Twitter, Instagram) to influence the public                                             | 92% |
| 8  | do not buy goods or services from companies who support the bill (consumers' boycott)                                     | 92% |
| 9  | paste up posters with political messages in places where it is allowed and encouraged                                     | 89% |
| 10 | join or form a group of activists who oppose the bill                                                                     | 87% |
| 11 | refuse to accept honours or awards in protest                                                                             | 82% |
| 12 | donate to political parties who oppose the bill                                                                           | 80% |
| 13 | refuse to work (strike)                                                                                                   | 80% |
| 14 | pay for adverts on social media (e.g., Facebook, Twitter, Instagram) to influence public opinion                          | 78% |
| 15 | donate to activist groups who oppose the bill                                                                             | 77% |
| 16 | visit people in their homes to convince them about the issue (canvassing, door knocking)                                  | 54% |
| 17 | stand or sit in a building and refuse to leave (stand-in, sit-in)                                                         | 51% |
| 18 | refuse to honour national symbols and traditions (e.g., refusing to sing the national anthem) until the bill is abandoned | 47% |
| 19 | enter and refuse to leave a building (occupation)                                                                         | 38% |
| 20 | paste up posters with political messages in places where it is not allowed or encouraged                                  | 35% |
| 21 | disrupt traffic (e.g., blocking roads)                                                                                    | 22% |
| 22 | refuse to cooperate with the police and other government agencies                                                         | 19% |
| 23 | mock or insult individuals who support the bill                                                                           | 14% |
| 24 | spray paint political messages in public places                                                                           | 14% |
| 25 | deface flags or other national symbols                                                                                    | 12% |

*Note.* Actions are ordered by the proportion of participants, across all conditions, who considered it to be an acceptable means of protest in Experiment 1.

## Appendix B

**Table B1**

List of protest actions used in Experiment 2

| #  | Action                                                                                                    | Pr  |
|----|-----------------------------------------------------------------------------------------------------------|-----|
| 1  | make a public speech                                                                                      | 94% |
| 2  | <i>hand out flyers, leaflets, or pamphlets</i>                                                            | 93% |
| 3  | use social media (e.g., Facebook, Twitter, Instagram) to influence the public                             | 91% |
| 4  | hold meetings to influence the public                                                                     | 91% |
| 5  | paste up posters with political messages in places where it is allowed and encouraged                     | 91% |
| 6  | attend or organise a protest march                                                                        | 91% |
| 7  | donate to activist groups                                                                                 | 89% |
| 8  | join or form a group of activists                                                                         | 89% |
| 9  | <i>wear or display political symbols (e.g., patches, flags, bumper stickers)</i>                          | 86% |
| 10 | refuse to buy goods or services from companies that advocate [against/for] defunding the police (boycott) | 85% |
| 11 | pay for adverts on social media (e.g., Facebook, Twitter, Instagram) to influence public opinion          | 83% |
| 12 | donate to politicians who advocate [for/against] defunding the police                                     | 82% |
| 13 | refuse to accept honors or awards in protest                                                              | 80% |
| 14 | refuse to work (strike)                                                                                   | 61% |
| 15 | visit people in their homes to convince them about the issue (canvassing, door knocking)                  | 61% |
| 16 | stand or sit in a building and refuse to leave (stand-in, sit-in)                                         | 55% |
| 17 | <i>attend a protest march even though it might turn violent</i>                                           | 44% |
| 18 | <i>attend a protest march even though it might be unlawful</i>                                            | 42% |
| 19 | <i>attend a protest march while carrying a firearm (where legal)</i>                                      | 35% |
| 20 | enter and refuse to leave a building (occupation)                                                         | 34% |
| 21 | paste up posters with political messages in places where it is not allowed or encouraged                  | 29% |
| 22 | <i>refuse to pay fees, fines, or taxes in protest</i>                                                     | 29% |
| 23 | disrupt traffic (e.g., blocking roads)                                                                    | 25% |
| 24 | spray paint political messages in public places                                                           | 23% |
| 25 | mock or insult individuals who are [against/for] defunding the police                                     | 15% |

*Note.* Actions are ordered by the proportion of participants, across all conditions, who considered it to be an acceptable means of protest in Experiment 2. Actions in *italics* replaced actions used in Experiment 1 that were either redundant or did not fit the context of Experiment 2.



## Appendix C

**Table C1**

List of protest actions used in Experiment 3

| #  | Action                                                                                                               | Pr  |
|----|----------------------------------------------------------------------------------------------------------------------|-----|
| 1  | make a public speech                                                                                                 | 94% |
| 2  | hand out flyers, leaflets, or pamphlets                                                                              | 92% |
| 3  | wear or display political symbols (e.g., patches, flags, bumper stickers)                                            | 92% |
| 4  | hold meetings to influence the public                                                                                | 92% |
| 5  | attend or organise a protest march                                                                                   | 91% |
| 6  | use social media (e.g., Facebook, Twitter, Instagram) to influence the public                                        | 91% |
| 7  | donate to activist groups                                                                                            | 90% |
| 8  | refuse to buy goods or services from companies that advocate [against/for] restricting or banning abortion (boycott) | 90% |
| 9  | paste up posters with political messages in places where it is allowed and encouraged                                | 90% |
| 10 | join or form a group of activists                                                                                    | 90% |
| 11 | donate to politicians who advocate [for/against] restricting or banning abortion                                     | 89% |
| 12 | pay for adverts on social media (e.g., Facebook, Twitter, Instagram) to influence public opinion                     | 84% |
| 13 | refuse to accept honors or awards in protest                                                                         | 82% |
| 14 | refuse to work (strike)                                                                                              | 56% |
| 15 | visit people in their homes to convince them about the issue (canvassing, door knocking)                             | 50% |
| 16 | stand or sit in a building and refuse to leave (stand-in, sit-in)                                                    | 41% |
| 17 | attend a protest march even though it might be unlawful                                                              | 40% |
| 18 | <i>protest outside the homes of politicians who advocate [against/for] restricting or banning abortion</i>           | 40% |
| 19 | attend a protest march even though it might turn violent                                                             | 40% |
| 20 | paste up posters with political messages in places where it is not allowed or encouraged                             | 26% |
| 21 | enter and refuse to leave a building (occupation)                                                                    | 25% |
| 22 | refuse to pay fees, fines, or taxes in protest                                                                       | 23% |
| 23 | mock or insult individuals who are [against/for] restricting or banning abortion                                     | 20% |
| 24 | spray paint political messages in public places                                                                      | 15% |
| 25 | disrupt traffic (e.g., blocking roads)                                                                               | 12% |

*Note.* Actions are ordered by the proportion of participants, across all conditions, who considered it to be an acceptable means of protest in Experiment 3. Action in *italics* replaced an action used in Experiment 2 because it better fit the context of Experiment 3.