

### Abstract

Collective action is a powerful force driving social change but often sparks contention about what actions are acceptable means to effect social change. We investigated double standards in judging collective action—that is, whether observers judge the same protest actions to be more acceptable depending on who the protesters are and what they are protesting. In two studies, we used item response theory to develop an instrument of 25 controversial protest actions to measure where people draw the line between acceptable and unacceptable forms of collective action. In three preregistered experiments ( $N = 2776$ ), we found no consistent evidence for ingroup bias in terms of social class when judging protests for workers' rights (Experiment 1), in terms of race when judging protests for and against defunding the police (Experiment 2), and in terms of gender when judging protests for and against restricting abortion (Experiment 3). Instead, we found that progressive participants (Experiments 1–3) who rejected system-justifying beliefs (Experiments 1–2) considered the same protest actions more acceptable when a cause aligned with their ideological orientation (for workers' rights, for defunding the police, against restricting abortion) than when it did not (against defunding the police, for restricting abortion). Conservative participants considered the same actions somewhat more acceptable when protesters supported, rather than opposed, restricting abortion (Experiment 3) but considered all protest actions, for and against defunding the police, equally unacceptable (Experiment 2). Our findings have theoretical and practical implications for understanding the often-divided response to social movements.

*Keywords:* collective action, double standards, social identity theory, system justification theory, partisanship, Black Lives Matter, abortion

### Public Significance Statement

This research shows that what people consider an acceptable *means* of protest depends on what the *end* of a protest is. That is, observers sometimes judge the *same* controversial protest action (e.g., blocking a road) to be more acceptable when the protesters' cause (e.g., defunding the police) aligns with their own ideological position. Conservatives, who support social order and oppose social change, tend to consider all protest actions less acceptable than progressives. Progressives, in turn, tend to consider disruptive but non-violent actions acceptable means to achieve social change and challenge social injustice. These findings help explain the often-divided response to recent protest movements.

### Double Standards in Judging Collective Action

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 (compared to 66% of Black Americans) and 11% of Republicans (compared to 59% of Democrats) considered it appropriate for Black athletes to protest in this way (YouGov, 2017). This and other examples suggest that *who* the protesters are and *what* they are protesting influences how acceptable their actions are judged 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 *or* on the protesters’ cause and how it aligns with their own ideological positions.

### 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 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 (Becker & Tausch, 2015; Wright et al., 1990). Some instead refer to the two kinds of collective action as moderate and radical collective action (e.g., Jiménez-Moya et al., 2015). Broadly, this distinction captures the intuition that there are some forms of collective action that are generally considered acceptable and others that are not.

Recent research has shown that this distinction matters for how people respond to

collective action (for a review, see Shuman et al., 2023). 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.<sup>1</sup> 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. 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 consequential.

Past 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 reactions to Black athletes kneeling in protest suggest, the same action might be considered acceptable by some and unacceptable by others. In this research, we test for double standards in where people draw the line between what is an acceptable (normative) and an unacceptable (non-normative) form of collective action.<sup>2</sup> For that purpose, we define a double standard as judging the same protest actions as more or less acceptable depending on who the protesters are and what they are protesting (for a similar definition, see Foschi, 2000).<sup>3</sup>

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<sup>1</sup>In contrast, White Americans exposed to pictures of destructive Black Lives Matter protests were not, on average, any less supportive of systemic change than those exposed to pictures of peaceful protests (Teixeira et al., 2022).

<sup>2</sup>In this research, we use *acceptable* (“agreed or approved of by most people in a society,” Oxford Advanced Learner’s Dictionary, n.d.) as a plain-language synonym for *normative* (“conforming to the norms of the existing social system”).

<sup>3</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.

*Group-Based Double Standards*

Far more Black (66%) than White (29%) Americans considered it appropriate for Black athletes to kneel during the national anthem to protest racist police violence (YouGov, 2017). This suggests that what protest actions people consider acceptable might depend on their own and the protesters' group memberships.

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 judgments 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, people tend to attribute negative behavior by outgroup members to internal causes but attribute negative behavior by ingroup members to external causes (see Pettigrew, 1979). 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 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 and if the cause of the protest aligns with the ingroup's interests. 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***

Far more Democrats (59%) than Republicans (11%) considered it appropriate to kneel during the national anthem to protest racist police violence (YouGov, 2017). This suggests that what protest actions people consider acceptable might depend on the protesters' cause and how it aligns with their own ideological positions.

One explanation for ideology-based double standards is that they result from the same intergroup processes as other group-based double standards. In this view, political partisanship functions as a social identity (Finkel et al., 2020; Harris et al., 2022) and results from universal cognitive mechanisms for forming, detecting, and maintaining alliances (Pinsof et al., 2023). Like other identities, political identities result in group-serving biases in how we evaluate ingroup and outgroup members. This explanation aligns with Verkuyten et al.'s (2022) finding that participants were more tolerant of transgressive protest actions (e.g., sending hate mail) when taken by their most-liked, rather than their least-liked, political group (e.g., climate activists).

Another explanation for ideology-based double standards is that they are rooted in ideological differences in how conservatives and progressives relate to social change and social inequality which, in turn, are motivated by basic psychological needs (Jost et al., 2003; Jost, 2021). As motivated social cognition, ideological differences shape how we think and feel about political issues, actions, and events. In this view, ideology-based double standards depend on whether the cause of a protest aligns with someone's ideological positions.

System Justification Theory (Jost et al., 2004; for a recent review, see Jost, 2020), in particular, 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. Conservatives, far more so than progressives, endorse system-justifying beliefs.

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 opposing system-challenging actions.

Just as system justification affects 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. That is, 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.

In principle, the two explanations for ideology-based double standards—in terms of intergroup processes and ideological differences—could be disentangled by separating political identities and causes. An explanation in terms of intergroup processes posits that political identities, not causes, shape partisan behavior. Indeed, research suggests that partisans’ policy preferences depend more on the stated position of their party than policy content (Cohen, 2003). An explanation in terms of ideological differences instead posits that there is an “elective affinity” between political causes and the psychological needs and motives of their supporters (Jost, 2021). In other words, the content of political ideologies is not arbitrary or a historical accident, as implied by an explanation in terms of intergroup processes (see Pinsof et al., 2023). In practice, however, the two explanations are difficult to disentangle in the context of real-world protest movements in which political identities and causes can seldom be separated.

For now, we use “group-based” to refer to double standards based on ascribed categories such as class, race, and gender and “ideology-based” to refer to double standards

based on ideological alignment. We compare the evidence for different explanations of those double standards in the General Discussion.

### 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). Applied to judging protest actions, this framework allows us to disentangle how *acceptable* different protest actions are from how *accepting* different respondents are of them. In line with the long-standing distinction between normative and non-normative collective action (Wright et al., 1990), it recognizes that some protest actions (e.g., signing petitions) are more acceptable than others (e.g., blocking roads). In line with the hypothesized double standards, it recognizes that some people consider more protest actions acceptable than others. By comparing how accepting respondents are of the *same* protest actions in *different* situations, we can use item response theory to detect double standards in judging collective action.

In this research, respondents judge whether each of a set of more and less controversial protest actions is an acceptable means of protest ( $1 = \text{yes}$ ,  $0 = \text{no}$ ). We use two-parameter item response theory models to estimate the probability  $\Pr(y_{ij} = 1)$  that respondent  $j$  considers action  $i$  an acceptable means of protest as a function of three latent model parameters:

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

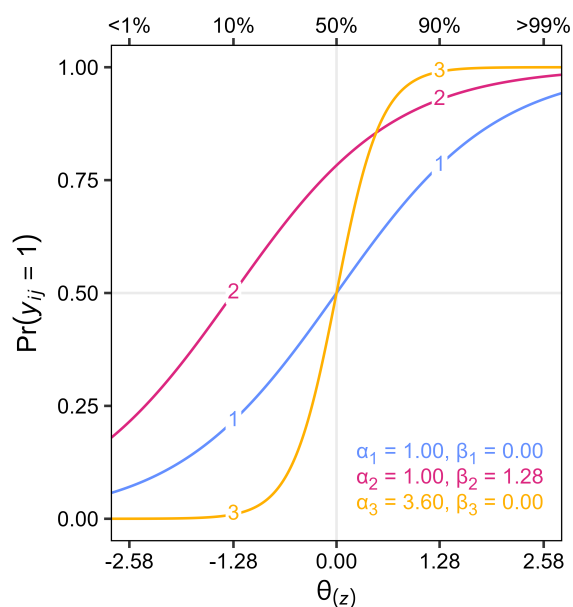
where  $\theta_j$  estimates how *accepting* respondent  $j$  is of various actions,  $\beta_i$  estimates how *acceptable* action  $i$  is, and  $\alpha_i$  estimates how *discriminating* action  $i$  is.

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. It follows a normal distribution so that  $\theta_{(z)} = 1.28$  means that a respondent is more accepting than 90% of respondents.  $\beta_i$  determines the probability that the average respondent ( $\theta_{(z)} = 0$ )



**Figure 1**

Item response curves for three hypothetical protest actions



*Note.*  $\Pr(y_{ij} = 1)$  is the probability that that respondent  $j$  considers action  $i$  an acceptable means of protest.  $\theta_{(z)}$  is the  $z$ -standardized tendency for a participant to be more accepting of various actions. It follows a standard normal distribution and is shown as both  $z$ -scores (bottom) and percentiles (top).  $\beta_i$  and  $\alpha_i$  capture, respectively, how acceptable and discriminating an action is.

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.  $\alpha_i$  determines how much the probability that a respondent considers an action acceptable depends on how accepting that respondent is. 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, it 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 judging collective action. Second, it 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 are and what they are protesting. In Experiments 1–3, we operationalize double standards as differences in  $\theta_{(z)}$  which, as  $\theta_{(z)}$  is  $z$ -standardized, correspond to Cohen’s  $d$  effect sizes. As  $\theta_{(z)}$  determines the probability of respondents judging different protest actions acceptable, it can be converted to the predicted proportion  $p$  and number  $n$  of actions a respondent considers acceptable. Figure 3 (A) illustrates these relationships. Figures 3 (B), 4, 5, and 6 show the predicted proportion of actions a participant would consider acceptable as an intuitive and easily interpretable effect size.

### **Purpose of the Present Research**

Five studies (total  $N = 2,979$ ) investigate double standards in judging collective actions—that is, whether observers judge the same controversial protest actions to be more acceptable depending on who the protesters are and what they are protesting.

Our first purpose is to develop an instrument to measure where people draw the line between normative (acceptable) and non-normative (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 actions 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.

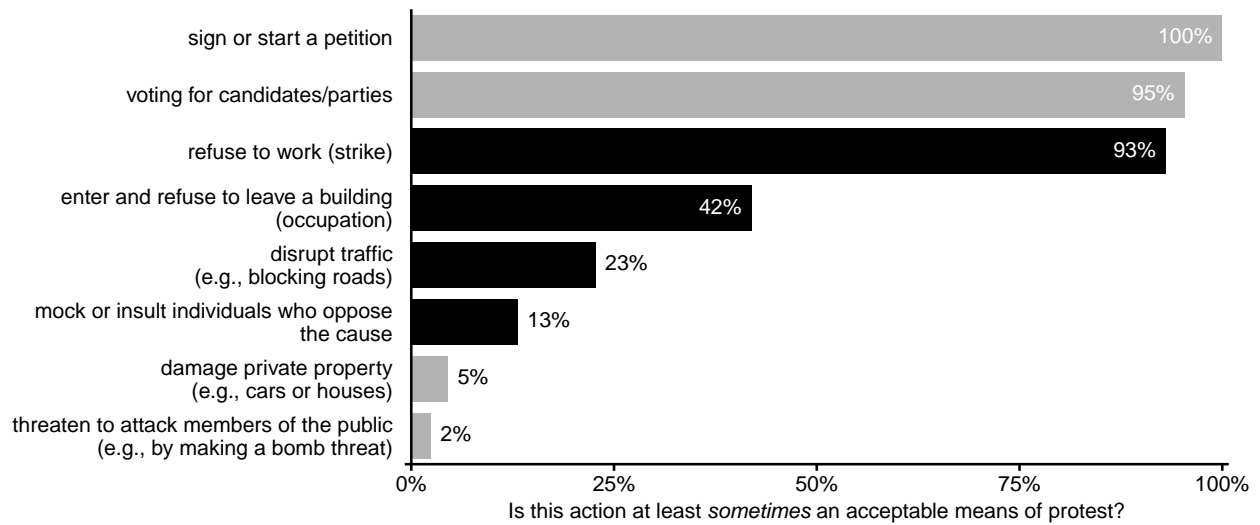
Our second purpose is to investigate potential double standards in judging collective action. Three preregistered experiments used the newly developed instrument to compare how acceptable participants controversial protest actions in different conditions.

By varying the participants' and the protesters' group memberships, we test for in-group bias in terms of social class when judging protests for workers' rights (Experiment 1), in terms of race when judging protests for and against defunding the police (Experiment 2), and in terms of gender when judging protests for and against restricting abortion (Experiment 3). In this way, we test the hypothesis that people will judge the same protest actions as more acceptable if the protesters are ingroup members or the cause of the protest aligns with the ingroup's interests.

By varying the protesters' causes, we test whether participants who identify as left-wing/liberal (Experiments 1–3) and reject system-justifying beliefs (Experiments 1–2) judge the same protest actions to be more acceptable when the protesters' cause is progressive and system challenging (for workers' rights, for defunding the police, against restricting abortion). Likewise, we test whether participants who identify as right-wing/conservative and endorse system-justifying beliefs judge the same protest actions to be more acceptable when the protesters' cause is conservative and system defending (against defunding the police, against restricting abortion). In this way, we test the hypothesis that people will judge the same protest actions as more acceptable if the cause of the protest aligns with their own ideological positions.

**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.

### Scale Development

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

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.

Society is not only made up of individuals, but consists of 'social groups' to which these individuals belong. Each person lives in a place, has a job (or not) at an organisation, is a fan of a specific sports club, has a religion, or belongs to any number of other such groups. Individuals often act in ways to promote the

interests of the social groups to which they belong.

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 A (SOM-A).

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>4</sup> Based on the results, we selected

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<sup>4</sup>Ratings of how often a given action would be an acceptable form of collective action were strongly and

the 25 most discriminating, informative, and relevant protest actions to form an instrument for measuring double standards in judging collective action in Experiments 1–3. 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-A and Tables S1–S3.

### 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 group’s rights.

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 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 further tested how observers judge collective action by lower-status (i.e. working-class) and higher-status (middle-class) group members. In non-preregistered analyses, we tested whether participants would judge the same protest actions as more or less acceptable depending on their own ideological positions in terms of political orientation, system-justifying beliefs, and social dominance orientation.<sup>5</sup> In this way, Experiment 1 provided a first test of the hypothesized class- and ideology-based double standards in judging collective action.

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negatively correlated with how disruptive, violent, and extreme participants considered the action to be and how negative they felt about it (Table S3).

<sup>5</sup>In Experiment 1, we explored a broader range of operationalizations of political ideology, including social dominance orientation, than in the other experiments.

## Method

### *Transparency and Openness*

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)). For Experiments 1 and 2, we had preregistered the additional hypothesis that all participants would judge the same actions to be more acceptable when the protesters were from the higher-status group rather than the lower-status group (Experiment 1) and when the goal of the protest was to support rather than challenge the system (Experiment 2). This hypothesis reflected the assumption that the motivation to justify the system was, to some extent, universal. With hindsight, we no longer think that this assumption is tenable and, therefore, do not discuss the hypothesis based on it. We still follow the same preregistered analysis plan and report all results related to our original hypotheses.

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>6</sup> As preregistered, we excluded 71 participants who failed an attention check. This resulted in a final sample of 443 participants ( $Mdn = 41$

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<sup>6</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.

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, 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. On average, participants tended to describe their political orientation as somewhat left-wing ( $M = 3.54$ ,  $SD = 1.31$ ) with 36% and 20% describing their political orientation as, respectively, at least somewhat left-wing and right-wing.

### *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 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 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-B). 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 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*).

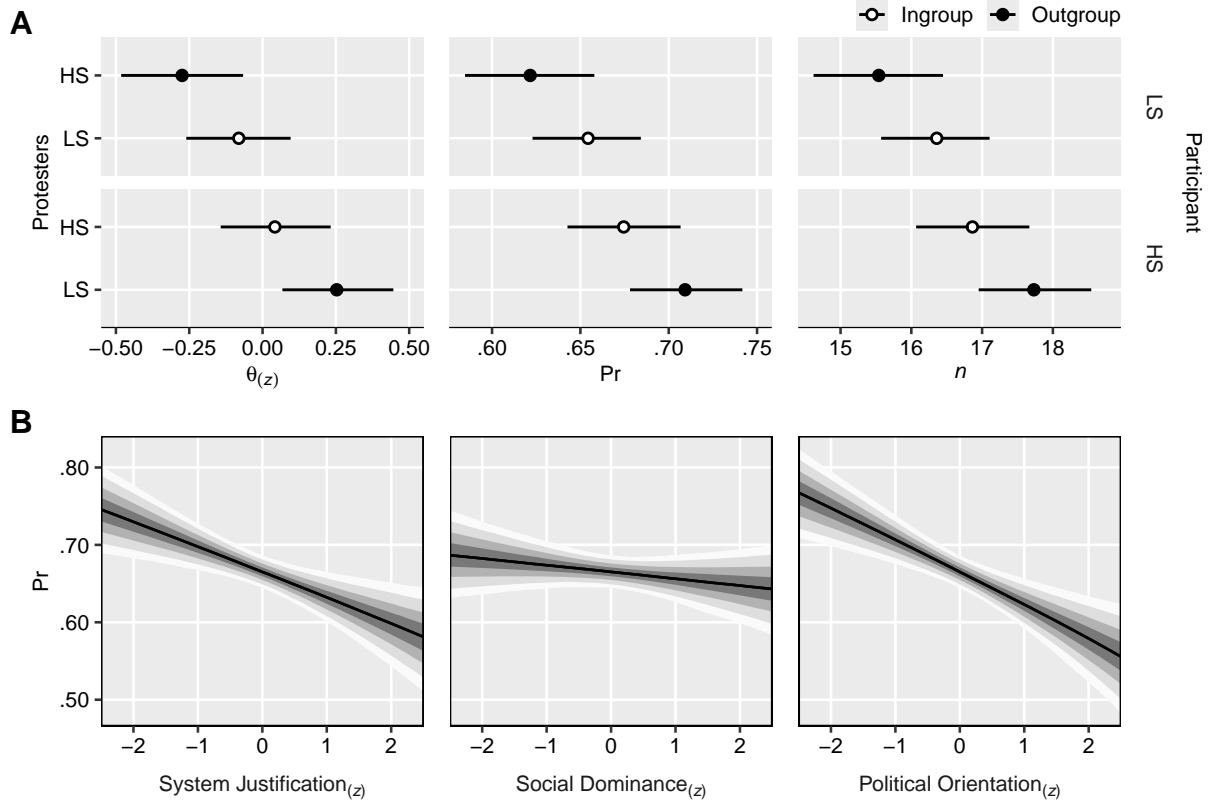
We measured social dominance orientation with the eight-item SDO<sub>7(s)</sub> scale (Ho et al., 2015), for example, “it is unjust to try to make groups equal” (1 = *strongly oppose*, 7 = *strongly favour*; McDonald’s  $\omega = .89$ ). A confirmatory factor analysis model in which all items loaded 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

**Figure 3**

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



*Note.* HS = Higher Status, LS = Lower Status. (A)  $\theta_{(z)}$  is the  $z$ -standardized tendency to consider more controversial actions acceptable means of protest. Pr 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.

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

given the observed data. 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.

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 pooling to estimate  $\alpha_i, \beta_i$ , and  $\theta_j$ . Our model assigned weakly informative prior distributions (Gelman et al., 2017) to all model parameters: 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.

We report differences between conditions in terms of differences in the estimated tendency for a participant to consider more protest actions acceptable ( $\theta_{(z)}$ ) which, as  $\theta_{(z)}$  is  $z$ -standardized, correspond to Cohen’s  $d$  effect sizes. Likewise, we report standardized regression coefficients ( $\beta_{xy}$ ) that correspond to the estimated change in the  $z$ -standardized tendency to consider more protest actions acceptable for each  $+1SD$  change in the predictor variable. All figures show the predicted proportion of protest actions participants would consider acceptable in each condition based on the estimated models.

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. Contradicting our 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 back-

grounds. All 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 shows (B) how participants' tendency to consider more controversial protest actions acceptable varied 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' judgments 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>7</sup>

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<sup>7</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.

## Discussion

Experiment 1 provided a first test of the hypothesized group-based double standards in judging collective action. That is, we tested whether, as hypothesized, participants would judge the same protest actions as more acceptable if the protesters were ingroup members protesting for the ingroup's rights. We found that participants' responses depended on both the participants' and the protesters' group memberships—but not in the hypothesized directions. 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 found evidence for ideology-based double standards as 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' judgments 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 studied reactions to collective action for a progressive cause. To test for ideology-based double standards, we needed to vary the protesters' cause to compare reactions to both progressive and conservative causes. 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 months 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 (Leach & Allen, 2017; Leach & Teixeira, 2022). 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>8</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. 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. 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 they endorsed system-justifying beliefs and the protest supported the system or if they rejected system-justifying beliefs and the protest challenged the system. In this way, Experiment 2 provided a complete test of the hypothesized race- 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.

## Method

### *Transparency and Openness*

We preregistered the sample size as well as all hypotheses, inclusion/exclusion criteria, measures, and manipulations ([https://osf.io/skxjt/?view\\_only=d8ce44a700884b5ab3](https://osf.io/skxjt/?view_only=d8ce44a700884b5ab3)

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<sup>8</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).



6b64ef08f833a1). 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>9</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. On average, participants tended to describe their political orientation as moderately liberal ( $M = 2.92$ ,  $SD = 1.73$ ) with 63% and 16% describing their political orientation as, respectively, at least somewhat liberal and conservative.

### ***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, killed unarmed Black Americans.

Across the United States, people called for changes to prevent future police vio-

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<sup>9</sup>Data were collected between January 15 and 28, 2021. Participants received, on average, \$12.89 per hour of participation.

lence.

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,

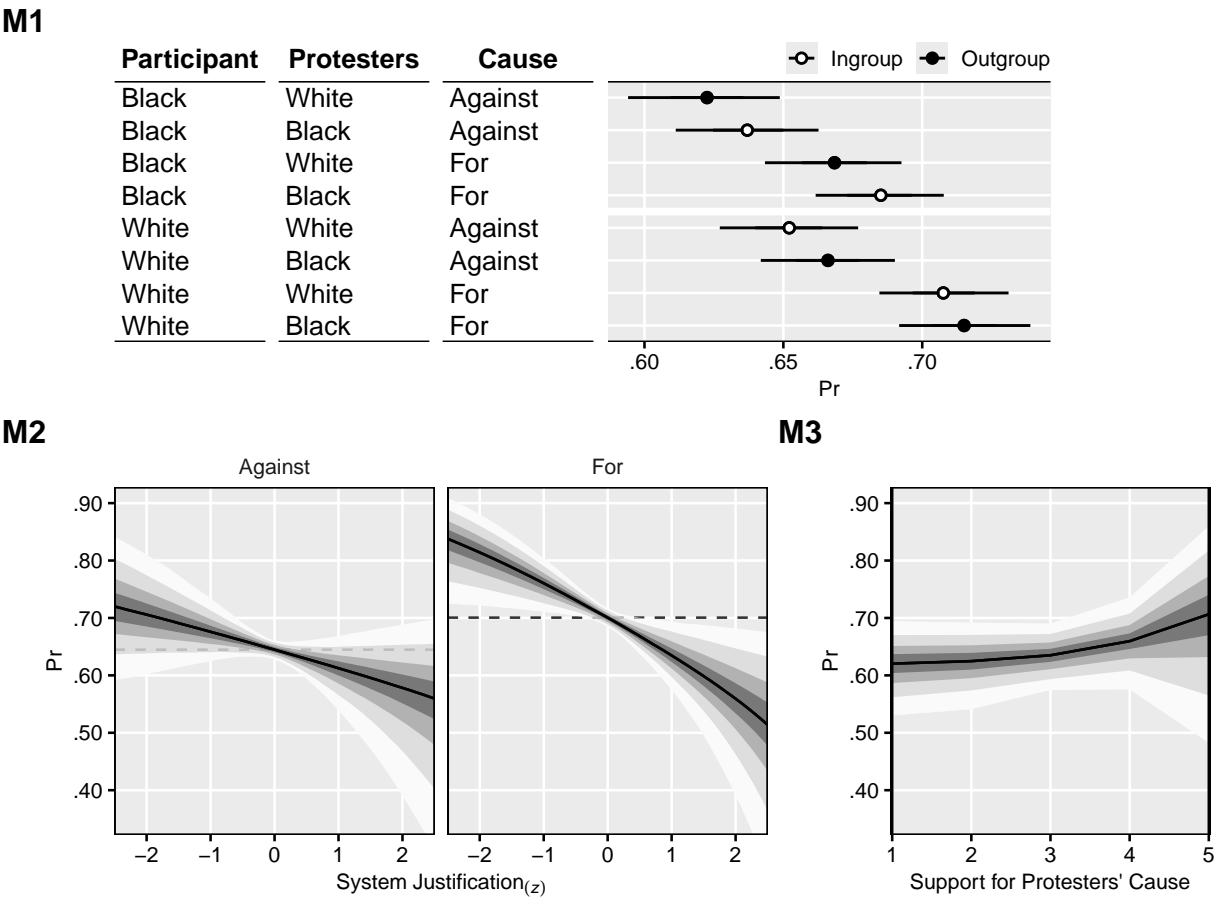
we asked participants how outraged they were about recent incidents of police violence against Black Americans, to what extent they identified with the protesters described in the study, and to what extent they identified with their racial ingroup (1 = *not at all*, 7 = *very much*). We also asked how 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 than Black participants ( $M = 4.85, SD = 1.53$ ;  $d = 1.21$ ) 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.

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



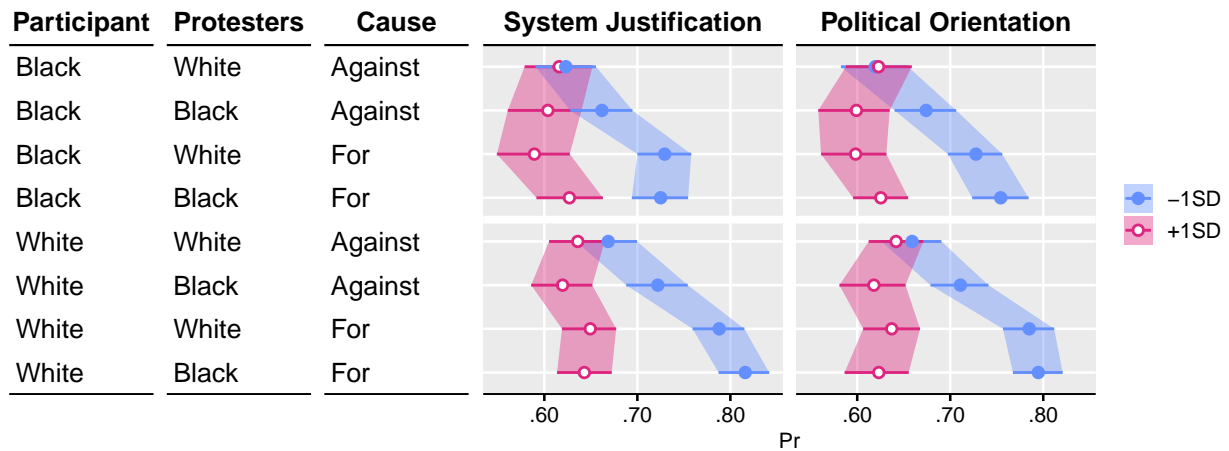
*Note.* Against = Protesters oppose defunding the police. For = Protesters support defunding the police. Pr is the predicted proportion of actions a participant would consider acceptable means of protest. Ribbons enclose, from the darkest to the lightest shade, the 50%, 80%, 95%, and 99% most plausible estimates.

**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

**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. Pr is the predicted proportion of actions a participant would consider acceptable means of protest in each condition if they were higher (+1SD) or lower (-1SD) than average in system justification (left) or political conservatism (right).

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: 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 shows results from three preregistered models we estimated to test our hypotheses.

Model 1 estimated varying intercepts for the eight conditions to test whether, as hypothesized, participants' responses depended on their own group membership, the protesters' group membership, or the protesters' cause. Contradicting the hypothesized race-based double standards, 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 ( $d = 0.01, [-0.04, 0.06]$ ). Likewise, 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

( $d = -0.01, [-0.06, 0.04]$ ). 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 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 with two fixed effects, one estimating the effect of system-justifying beliefs on judgments about system-defending protest actions and one estimating their effect on judgments about system-challenging protest actions, and one varying effect estimating its variance across conditions. Supporting the hypothesized ideology-based double standards, 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 hypothesized ideological symmetry 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: 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.

Model 3 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. This 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. We found that 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.

### ***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 ( $d = 0.05, [-0.01, 0.13]$ ) 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 ( $d = 0.01, [-0.06, 0.08]$ ). Our non-preregistered analyses thus suggested that group identification did not moderate group differences in judgments about collective action by ingroup and outgroup members.

We also explored whether we would find ideology-based double standards when opera-



tionalizing 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 race- 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 the hypothesized race-based double standards, participants considered protest actions taken by ingroup and outgroup members to be equally acceptable and 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 group-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. As hypothesized, 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 that that participants would judge the same protest actions to be acceptable when they supported the protesters' cause.

One reason why we did not find evidence for ideological symmetry might be that participants judged protests for or against a progressive cause and that *opposing* a progressive cause is not equivalent to *supporting* a conservative cause. Another reason might be that, as in Experiment 1, our sample skewed liberal and lacked committed conservatives who might accept more extreme means to oppose a progressive cause. Experiment 3 addressed those limitations by testing for ideology-based double standards in judging collective action for or against a conservative cause in a balanced sample of conservatives and progressives.

### Experiment 3

In Experiment 3, we investigated potential double standards in judging collective action for or against restricting abortion in the United States. That is, we tested whether liberal and conservative women and men applied different standards when judging collective action opposing or supporting further restricting abortion. We conducted this study in June 2022 when many expected the Supreme Court to overturn its *Roe v. Wade* decision that hitherto had guaranteed access to legal abortions in the first 20–24 weeks of pregnancy in the United States. We focused on restricting abortion as it is a conservative issue, as it primarily affects women's reproductive rights, and as the anticipated Supreme Court decision would prompt several states to restrict or ban abortion.

By comparing participants of different political orientations and by varying the protesters' cause, we tested the preregistered hypothesis that, in line with *symmetrical* ideology-based double standards, conservatives would judge the same protest actions to be more acceptable if the protesters supported restricting abortion and that liberals would judge the same protest actions to be more acceptable if the protesters opposed restricting abortion. We tested the alternative hypothesis that, in line with *asymmetrical* ideology-based double standards, con-

servatives would judge all protest actions to be equally unacceptable while liberals would judge the same protest actions to be more acceptable if the protesters opposed restricting abortion. By comparing male and female participants, we further tested the preregistered hypothesis that, in line with gender-based double standards, women would judge protest actions against restricting abortion to be more acceptable, on average, than men or protest actions for restricting abortion.

To achieve an ideologically balanced sample, we moved from an operationalization of political ideology in terms of system-justifying beliefs to an operationalization in terms of ideological self-placement. We did so for three reasons. First, there was the practical reason that Prolific and similar platforms allow prescreening participants in terms of ideological self-placement but not system-justifying beliefs. Second, there was the *a priori* empirical reason that, when comparing the evidence for ideology-based double standards across the two operationalizations of political ideology, the patterns of results were nearly identical in terms of direction and magnitude for system-justifying beliefs and ideological self-placement (see, for example, Figure 5). Third, there was the *a posteriori* empirical reason that, as reported in the Results section, dividing the sample into self-identified conservatives and liberals achieved a nearly complete separation of the sample in terms of system-justifying beliefs. For those reasons, selecting participants based on ideological self-placement was a feasible and effective quasi-experimental strategy to achieve an ideologically balanced sample.

## Method

### *Transparency and Openness*

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, 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)). Our sample size was determined by budget and time constraints.

### ***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 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; 610 White, 55 Asian, 31 mixed, 20 Black, 16 other) of whom 181 were conservative men, 190 were conservative women, 185 were liberal men, and 177 were liberal women.

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

***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 supported or opposed restricting abortion and to what extent their feelings about this issue were 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.

As in the previous experiments, 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 had 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 measured support for restricting abortion with one item: “Do you support or oppose restricting (or banning) abortion?” (1 = *strongly oppose*, 5 = *strongly support*).

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*).

We included additional measures, not used in the analyses reported in this paper, including measures of moral conviction (Ryan, 2014), gender-related system-justifying beliefs (Jost & Kay, 2005), and the updated moral foundations questionnaire (Atari et al., 2023, for details, see SOM-C). Within the latter questionnaire, we embedded three further attention checks (e.g., “To show that you are paying attention and giving your best effort, please select ‘moderately describes me’”).

## Results

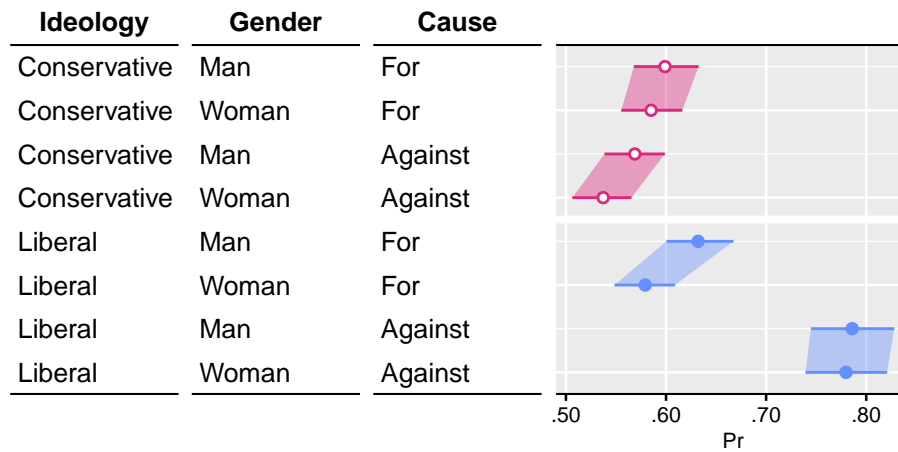
### *Reactions to the Manipulation*

As expected, conservative participants tended to endorse system-justifying beliefs ( $M = 5.10, SD = 0.95$ ) while liberal participants tended to reject system-justifying beliefs ( $M = 2.86, SD = 1.03; d = 2.26$ ). Indeed, in 93.5% of all possible pairings of conservative and liberal participants, the conservative participant reported stronger system-justifying beliefs. This shows that ideological self-placement was an effective quasi-experimental approach to varying system justification.

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 ( $d = -0.02$ ).

**Figure 6**

Results from the preregistered analyses for Experiment 3



*Note.* Results show the predicted proportion (Pr) of actions a participant would consider acceptable means of protest for or against restricting abortion as a function of the participants' ideology and gender.

### *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 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 double standard was more pronounced among liberal participants ( $d = 0.66, [0.41, 0.92]$ ). In this way, Experiment 3 provided evidence for both ideological symmetry and asymmetry in judging collective action for and against restricting abortion.

We found some evidence for gender-based double standards: Female participants



considered protest actions *against* restricting abortion to be more acceptable, on average, than male participants or protest actions *for* restricting abortion ( $d = 0.14, [0.00, 0.29]$ ). This pattern was, however, overshadowed by stronger ideology-based double standards that were consistent across subsamples: 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 both liberal women ( $d = 1.04, [0.78, 1.32]$ ) and liberal men ( $d = 0.76, [0.49, 1.03]$ ) considered the same protest actions to be more acceptable when protesters *opposed* restricting abortion. In this way, Experiment 3 provided more consistent evidence for ideology-based than for gender-based double standards in judging collective action. Across conditions, men tended to consider more protest actions acceptable than women ( $d = 0.16, [0.02, 0.30]$ ).

### ***Non-Preregistered Analyses***

We explored whether group identification moderated participants' judgments. We found, however, that gender identification neither affected how women judged protesters opposing ( $\beta_{xy} = -0.04, [-0.14, 0.07]$ ) or supporting ( $\beta_{xy} = -0.06, [-0.17, 0.03]$ ) abortion restrictions nor how men judged protesters opposing ( $\beta_{xy} = -0.05, [-0.14, 0.04]$ ) or supporting ( $\beta_{xy} = -0.04, [-0.12, 0.06]$ ) abortion restrictions. Our non-preregistered analyses thus suggested that gender identification did not moderate gender-based double standards in judging collective action concerning reproductive rights.

### **Discussion**

Experiment 3 tested for double standards in judging collective action for and against restricting abortion in a sample balanced by gender and political orientation. As hypothesized, participants judged the same protest actions to be more acceptable when the protesters' cause aligned with their ideological orientation. While participants in Experiment 2 judged protests opposing or supporting a progressive cause (defunding police), participants in Experiment 3 considered protests opposing or supporting a conservative cause (restricting abor-

tion). As both conservative and liberal participants judged protests for a cause aligned with their ideological orientation to be more acceptable and as this double standard was stronger among liberal participants, Experiment 3 provided evidence for both symmetry and asymmetry in ideology-based double standards in judging collective action.

In contrast to Experiments 1–2, Experiment 3 provided some evidence for group-based double standards distinct from ideology-based double standards, although any gender differences in judging protests for or against restricting abortion were overshadowed by more consistent ideology-based double standards. Our finding that conservative women considered collective action in support of restricting abortion to be more acceptable while liberal women considered collective action in opposition to restricting abortion to be more acceptable aligned with Mikolajczak et al.’s (2022) argument that, by itself, gender identity is too broad to explain support for collective action. Instead, we need to consider the content of those identities—for example, identification with feminism or with traditional women—to understand support for, and opposition to, progressive and reactionary collective action.

### 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 group-based double standards, participants in three preregistered experiments did not show consistent ingroup bias in terms of social class when judging protests for workers’ rights (Experiment 1), in terms of race when judging protests for and against defunding the police (Experiment 2), and in terms of gender when judging protests for and against restricting abortion (Experiment 3). Instead, we found that members of advantaged groups—middle-class (Experiment 1), White (Experiment 2), and male (Experiment 3) participants—tended to consider all protest actions more acceptable than members of relatively disadvantaged groups. That is, our findings showed that partici-

pants' judgments of protest actions depended on their group memberships—but not in the directions implied by the hypothesized group-based double standards.

Supporting our hypothesis of ideology-based double standards, progressive participants who rejected system-justifying beliefs judged the same controversial protest actions to be more acceptable when the protesters' cause—for workers' rights (Experiment 1), for defunding the police (Experiment 2), against restricting abortion (Experiment 3)—aligned with their own ideological position. While conservative participants who endorsed system-justifying beliefs considered the same actions somewhat more acceptable when protesters supported, rather than opposed, restricting abortion (Experiment 3), they were more consistent than liberal participants and considered all protest actions, for and against defunding the police (Experiment 2), less acceptable than progressive participants. In this way, our findings provided evidence for asymmetrical ideology-based double standards.

In the remainder of this General Discussion, we discuss theoretical and practical implications for understanding the often divided response to collective action as well as limitations that constraint the generality of our findings.

## **Implications**

### ***Theoretical Implications***

Growing evidence shows that, in many situations, observers apply a more lenient standard when judging moral transgressions by ingroup members (Abrams et al., 2013; Endevelt et al., 2021). And yet, our findings suggested that, unlike judgments in other domains, judgments about collective action are not subject to double standards based on ascribed group memberships such as class, race, or gender. We did not find evidence for those double standards even though we examined social categories that are central to most people's identities, even when we considered only highly identified group members, and even though participants' reactions to the manipulation showed that, at least in Experiments 1–2, they understood the protesters' causes in ingroup–outgroup terms.

Instead, our findings showed that progressives and, to a lesser extent, conservatives judge the same controversial protest actions to be more acceptable when the protesters' cause aligns with their own ideological position. We consider social, political, and moral psychological explanations for the observed ideology-based double standards.

First, we might understand ideology-based double standards as an expression of in-group bias based on partisan identities (Finkel et al., 2020; Harris et al., 2022). This explanation aligns with Verkuyten et al.'s (2022) finding that participants were more tolerant of transgressive protest actions when taken by their most-liked, rather than their least-liked, political group. Indeed, researchers argued that opinion-based identities are more proximate and important predictors of collective action than social categories such as gender and race (Bliuc et al., 2007). Supporting this argument, meta-analyses found that politicized identification—that is, identifying with a social movement or activist group—has a stronger association with collective action than identification with other social categories (Agostini & Zomer, 2021; Zomer, 2008). An identity-based account, however, implies that both conservatives and progressives would show ingroup bias and cannot, on its own, explain the observed asymmetry in the two groups' judgments.

Second, we might explain ideology-based double standards, as we have done so far, as resulting from conservatives being motivated to defend the system, progressives being motivated to challenge the system, and both being motivated to support collective action to those effects (Jost et al., 2017; Osborne et al., 2019). An ideology-based account could also explain the asymmetry in how progressives and conservatives judged collective action for various causes. Political conservatism can be understood as uniting two motives, to resist social change and to maintain social inequality (Jost et al., 2003; Jost, 2021). If conservatives perceive disruptive protest actions as inherently threatening to the social order, they will be motivated to condemn such actions even when the protesters' cause supports the unequal status quo (e.g., protesting *against* defunding the police).

Lastly, we might consider that collective action, even in its controversial forms, is not

judged as a moral transgression (as in previous research on identity-based double standards, e.g., Abrams et al., 2013)—but is instead understood as a means to an end and judged in relation to its end (“the end justifies the means”). Their different moral concerns (Graham et al., 2009; Kivikangas et al., 2021) might lead progressives and conservatives to see their support of certain causes as a fundamental matter of right or wrong (Skitka et al., 2021) and, by thus moralizing those causes, to accept more extreme means to achieving them. This explanation aligns with Richardson and Conway’s (2022) finding that moral concerns explained why liberals rated protesting for liberal causes as more moral than conservatives (and vice versa). A values-based account could also explain why conservatives who, more so than liberals, endorse moral concerns related to loyalty and authority tend to reject disruptive protest actions even when the protesters’ cause otherwise aligns with their moral concerns.

Future research should, across different causes, contexts, and cultures, seek to disentangle which of the proposed social, political, and moral psychological processes best explains partisan differences in judging collective action.

### ***Practical Implications***

Our findings showed that, for many protest actions (e.g., blocking roads), there is no consensus on whether they are acceptable means to advance a cause. This confirms our contention that the distinction between normative and non-normative 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 provide a paradigm that we hope will stimulate research on when and why people differ in making this distinction.

After all, this distinction is consequential. Research on how people respond to collective action showed that disruptive yet non-violent collective action might be most effective at gaining concessions from those resistant to social change (Shuman et al., 2021, 2023). If, as our research suggests, people believe that even non-violent actions are unacceptable means to advance a cause they oppose, they might support stifling dissent. This 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. In this way, our research complements, and adds to, the growing program of research on how people respond to different kinds of collective action.

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. For example, 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. Recent research, most of it by political scientists, investigated support for partisan violence (Kalmoe & Mason, 2022), albeit with mixed results (Westwood et al., 2022). While our research focused on controversial but non-violent actions, we encourage researchers to adapt our paradigm to investigate when and why people apply different standards when judging violent and non-violent collective action for different causes.

### **Constraints on Generality**

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 has several limitations that constrain the generality of our findings. 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. Both contexts are marked by severe political polarization which limits how well our findings generalize to less polarized contexts. Likewise, both contexts are liberal democracies which limits how well our findings generalize to more repressive contexts in which even peaceful protest might violate laws and social norms.

### 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 members of the same class, race or gender or for a cause aligned with their own group’s interests. Instead, our research demonstrated that progressives and, less so, conservatives consider the same protest actions to be more acceptable when the cause of the protest aligns with their own ideological position. In other words, we found partisan double standards in judging collective action.

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## 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.