# Preregistration: *Group Status and Acceptability of Collective Actions*August 16, 2019

## What's the main question being asked or hypothesis being tested in this study?

We examine whether observers apply different standards when judging the acceptability of collective actions performed by lower-status and higher-status actors. We operationalize social status as people in working-class (low status) and professional (high status) jobs. Our study uses a 2 (experimental) x 2 (quasi-experimental) between-participants factorial design. We randomly assign participants to one of two conditions in which they judge the same actions performed by either a lower-status or higher-status group (actors' status: high vs. low). We recruit participants from lower-status backgrounds (people with working-class jobs) and higher-status backgrounds (people with middle-class/professional jobs) in the UK (participants' status: high vs low). Participants will be presented with a short vignette in which people in working-class or professional occupations face an identically-described grievance. Participants then decide which of a list of collective actions would be an acceptable means for the relevant group to take in response to that grievance.

We test two hypotheses: *i.* that participants will judge the same action as more acceptable when performed by the higher-status group than when performed by the lower-status group, and *ii.* that participants will judge the same action as more acceptable when performed by their ingroup than when performed by either the higher-status or lower-status outgroup.

# Describe the key dependent variable(s) specifying how they will be measured.

Participants decide for each of twenty-five collective actions, presented in random order, whether they believe that action to be an acceptable means for people in [working-class jobs/professional jobs] to protest against the government bill (1 = yes, 0 = no):

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

- 22. paste up posters with political messages in places where it is not allowed or encouraged
- 23. hold meetings to influence the public
- 24. refuse to cooperate with the police and other government agencies
- 25. participate in a public meeting of representatives and elected officials

# How many and which conditions will participants be assigned to?

This study uses a 2 (actors' status: high vs. low) x 2 (participants' status: high vs. low) factorial design whereby the first factor is a randomized between-participant manipulation and the second factor is an observed participant variable. We consider each of the four combinations a separate "condition" in the following sections.

# Specify exactly which analyses you will conduct to examine the main question/hypothesis.

We model participants' responses as a function of the experimental condition they are in (see above) using a two-parameter logistic (2PL) item-response model. For each item i, we estimate its difficulty ( $\beta_i$ ) and discrimination ( $\alpha_i$ ). For each participant j, we estimate their unique attitude toward collective action ( $\theta_i$ ). For each condition k, we estimate the participants' average attitude toward collective action ( $\eta_k$ ).

Model parameters are latent variables that do not have an intuitive interpretation. To test our hypotheses, we derive three estimated quantities from the model. First, we compare the standardized latent attitude scores for each group, the differences between which correspond to Cohen's *d*. Second, we report the estimated number of actions that the average participant in each condition would consider acceptable. Third, we report the estimated proportion of participants in each group who responded "yes" for each of the collective actions. Table 1 shows the patterns of results predicted by our hypotheses. If results fall in between those patterns (for example, if we find that participants are more supportive of collective action by their own group but that this is effect is less strong for low-status participants), we conclude that both social identity and group status play a role when determining how people judge the acceptability of collective action.

*Table 1.* Predicted pattern of results for the two hypotheses. Results that support hypothesis 1 would show that participants were more supportive of collective actions by the high-status group than of the same actions by the low-status group, regardless of their own group membership. Results that support hypothesis 2 would show that participants were more supportive of collective actions by their own group, regardless of the status of that group.

Actors' status

		Low status	High status
Participants' status	Low status	-/+	+/-
	High status	-/-	+/+

We estimate a 2PL item-response model in RStan (Stan Development Team, 2019) using Bayesian statistical methods. We derive the likelihood of participants' responses from a Bernoulli likelihood function with the following logistic regression equation:  $Pr(y_{ijk} = 1) = logit^{-1}(\alpha_i \times (\theta_i + \eta_k - \beta_i))$  where  $\eta_k = \delta_1 x_{1k} + \delta_2 x_{2k} + \delta_3 x_3$ , where  $x_{1k}$  codes whether the actors in the vignette are from the high-status (1) or low-status (0) group (hypothesis 1),  $x_{2k}$  codes whether the actors

in the vignette are from (1) or not from (0) the participant's own group (hypothesis 2),  $x_{3k}$  codes whether actors in the vignette are from the same high-status group as the participant (1) or whether either the actors in the vignette or the participant are from the low-status group (0), and  $\delta_1$  to  $\delta_3$  are the corresponding regression coefficients. To identify the model, we constrain  $\theta_j$  to have a mean of zero and constrain  $\alpha_i$  to have a fixed mean and to be non-negative. We use partial pooling to estimate  $\alpha_i$ ,  $\theta_j$ , and  $\beta_i$ . We assign weakly informative prior distributions to the corresponding standard deviations, (Half-)Cauchy(0, 3), to the mean item difficulty, Normal(0, 3), and to all regression coefficients, Normal(0, 3). We report point estimates and 95% uncertainty intervals for relevant model parameters and predictions.

# Any secondary analyses?

In exploratory analyses, we might check whether the effect of the manipulation is stronger for participants who score high (vs. low) on status-legitimizing beliefs. We might also check whether the effect of the manipulation interacts with identification with working class or professional class.

How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We will recruit 500 participants (125 per condition) following sample size recommendations by DeMars (2010, p. 36).

Anything else you would like to pre-register? (e.g., data exclusions, variables collected for exploratory purposes, unusual analyses planned?)

# Demographics:

- Gender
- Age
- Nationality

#### Other measures:

- Social dominance orientation (8 items, e.g., "Some groups of people are simply inferior to other groups."; 1 = strongly oppose, 7 = strongly favour; Ho et al., 2015)
- System justification (8 items, e.g., "Everyone has a fair shot at wealth and happiness.";
  1 = strongly disagree, 7 = strongly agree; Kay & Jost, 2003)
- Experience with collective action ("How often, if at all, have you participated in protest actions such as the ones we have asked about earlier?"; 1 = never to 5 = often)
- Manipulation checks (e.g., "To what extent do you identify with the people affected by the proposed government bill?")
- Attention check (open response: "At the start of this study, you read about a bill that the government planned to introduce and that some people objected to. Who were the people most affected by this measure?")

#### **Data exclusions**

We will exclude all participants who have failed to accurately answer the attention check question (see above).

### Participant recruitment

We will employ a two-step selection process to recruit a sample of 250 low-status (working class) and 250 high-status (professional class) participants. We will only recruit UK participants.

### Step 1: Prolific selection criteria:

## Group working class ('low status')

Pre-selection criteria:

- Not current students
- No formal qualifications, secondary school/GCSE, or college/A levels as the highest level of education completed.
- Self-reported low socio-economic status (based on income, education, and job; 1-3 out of 10 on the ladder).
- 25 years old or older
- Nationality: United Kingdom

## Group professional class ('high status')

Pre-selection criteria:

- Not current students
- Undergraduate degree, graduate degree, or doctoral degree as highest level of education completed.
- Self-reported high socio-economic status (based on income, education, and job; 7-10 out of 10 on the ladder).
- 25 years old or older
- Nationality: United Kingdom

## Step 2: Screening survey

We will add a screening survey as an additional filter to prevent that we will have people who were pre-selected as professional status [based on the Prolific selection criteria] but reported having a working-class job or vice versa.

We will ask a larger pool of 800 pre-selected participants to self-categorize as members of the working or professional class, based on their current employment as well as their past or future employment:

The workforce is often divided in two kinds of jobs: working-class and middle-class/professional jobs. What we call working-class jobs are jobs done by skilled, semi-skilled, unskilled manual workers or by casual workers. These jobs do not usually require a university degree. What we call middle-class or professional jobs are administrative, managerial, or professional jobs that usually require a university degree.

- 1. Do you currently have a job? (0 = No, 1 = Yes)
- 2. (If Yes) Keeping in mind how we described these jobs, do you consider your current job a working-class job or a middle-class/professional job? (1 = working-class job, 2 = middle-class/professional job, 3 = neither)
- 3. (If No) Think of jobs you have had in the past or will have in the future. Do you think these jobs are working-class jobs or middle-class/professional jobs? (1 = working-class job, 2 = middle-class/professional job, 3 = neither)

We will only select participants whose self-categorization matches their status based on the Prolific selection criteria described above. If we do not reach our intended sample size (of 250 low-status and 250 high-status participants), we will recruit more people for our screening survey.

In addition, we will ask for participants' political orientation (self-reported on a scale from 1 = *left* to 7 = *right*) and their identification with working class and professional class groups (e.g., "having a working-class job reflects an important part of how I see myself"; 1 = *strongly disagree* to 7 = *strongly agree*; Becker, Tausch, Spears, & Christ, 2011)

No informed consent for the screening survey will be used. Instead, we will ask for participants' consent to use the data from the screening survey in the main study.

#### References

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