Who Deserves Protection? How Naming Potential Beneficiaries Influences COVID-19 Vaccine Intentions

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Abstract
Typically, vaccination is perceived as self-interested act, but it is also a community-oriented action that benefits other members in society, as high vaccine uptake reduces disease transmission. Drawing on the notion of deservingness, the authors ran an online experiment (n = 516) to assess whose interests motivate people from across the political spectrum to engage in a community-oriented action: the intention to receive a coronavirus disease 2019 vaccine. Results show that liberals and conservatives resonate with self-oriented and community-oriented message frames differently. When a community-oriented message focuses on hard-hit groups such as racial minorities, this increases vaccine intent among liberals but decreases vaccine intent among conservatives. A message focusing on community in a generic sense is the only message frame that increases vaccine intent among moderates and the message that induces the least resistance among conservatives. The findings suggest that members of racial and ethnic minority groups are still excluded from boundaries of moral concern.

Keywords
culture, health, deservingness, symbolic boundary, COVID-19

In the midst of the coronavirus disease 2019 (COVID-19) pandemic, efforts to distribute vaccines are making headway. Epidemiologists agree that widespread vaccination is necessary to contain the disease (Weintraub et al. 2020), but the vaccination rate in the United States has slowed considerably (Holder and Walker 2021). Typically, vaccination is perceived as self-interested behavior to protect oneself. But it is also a community-oriented action that benefits other members in society, as high vaccine uptake protects society at large by reducing disease transmission (Betsch et al. 2016). An urgent societal need for widespread vaccination, combined with fears of a rushed COVID-19 vaccine (De Pinto 2020), provides us a unique opportunity to study a classic coordination dilemma in which the social benefit outweighs the (perceived) individual benefit (Simpson and Willer 2015).

From past research, we know that putting emphasis on collective interests may motivate community-oriented actions (Lindenberg et al. 2006). However, studies in this line of research focus on generic process of how emphasizing collective interests encourages social actions (Grant and Hofmann 2011; Jordan, Yoeli, and Rand 2020; Luttrell and Petty 2021; Vietri et al. 2012) but do not examine whose interests actually matter. We thus still know little about the concrete meaning of collective interests and how they are interpreted by social actors.

In this study, we examine whose interests are most relevant to the decision to engage in a community-oriented action such as receiving a COVID-19 vaccine. In doing so, we bring in sociological insights of how understandings of who is more worthy of resources shape social action. Indeed, durable inequality along the lines of race/ethnicity, gender, and class are reproduced via cultural understandings of who is a deserving beneficiary of empathy and social programs (Haselwerdt 2022; Mohr 1994; Mohr and Duquenne 1997; Patterson 2009). As some social groups are considered more worthy of protection than others (Durkheim [1912] 2001; Lamont and Molnár 2002; Mohr and Duquenne 1997; Patterson 2009), this may inform decisions about whether to engage in a social action such as getting vaccinated.

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We further contend that internalized values, which are often overlooked in studies of culture in action (Hitlin and Piliavin 2004; Miles 2015), are critical factors motivating social action. We view political ideology as deep-seated values that may inform the perceived deservingness of different social groups. As political conservatives and liberals tend to draw on different moral values (Haidt, Graham, and Joseph 2009; Hitlin and Vaisey 2013), they may also draw different boundaries of moral concern around (and have different levels of empathy toward) members of different ethnoracial and national groups (Takamatsu forthcoming; Waytz et al. 2016).

To test these ideas, we use an online survey experiment to investigate whether and how deep-seated values moderate the link between perceived potential beneficiary and the decision to take community-oriented action. We first assess that whether self-oriented or community-oriented message frames better motivate people from across political spectrum to get vaccinated. We also test whether the potential beneficiary (e.g., a hard-hit racial minority) mentioned in a message matters. Self-oriented frames highlight oneself and family, whereas community-oriented frames focus on others: community, hard-hit communities of racial minorities, and America. When “deserving” social groups are mentioned in a community-oriented message, this should prompt feelings of empathy and thereby influence intentions to receive a vaccine.

**Background and Hypotheses**

**Deservingness and Group Memberships**

Sociologists have long been interested in how understandings of who is more worthy of resources shape social action. Past research has documented that the cultural understandings of who is a deserving beneficiary of empathy and social programs is a critical mechanism reproducing race/ethnicity, gender, and class inequality (Mohr 1994; Mohr and Duquenne 1997; Patterson 2009). For instance, scholars have found that negative bias against potential beneficiaries of welfare programs such as racial minorities (Haselswerdt 2022), unmarried single mothers (Moffitt 2015), and the poor (Applebaum 2001, Reid 2013) decreases the public’s positive attitudes toward relevant social policy.

This key sociological insight about variation in perceived deservingness is overlooked in scholarship that compares the relative efficacy of self- and community-oriented message frames (Favero and Pedersen 2020; Feiler, Tost, and Grant 2012; Luttrell and Petty 2021) and in research that examines the community-oriented implications of health decisions and behavior (Grant and Hofmann 2011; Jordan et al. 2020; Kelly and Hornik 2016). The vaccine hesitancy literature tends to assume self-interest (e.g., risk perception) as a dominant motive for vaccination decisions (Bish et al. 2011; Dubé, Vivion, and MacDonald 2015). When social implications are invoked, it is typically the social position of the decision makers (often mothers), rather than the social position of groups who will benefit most from the collective action of widespread vaccination, that is highlighted (Reich 2016). Even research that examines community-oriented motives fails to address how highlighting different beneficiaries of vaccine uptake may influence vaccine intent (Frew et al. 2011; Janks et al. 2012; Shim et al. 2012).

To extend prior literature, we aim to unpack the concept of “community” in community-oriented message frames by incorporating insights about the perceived deservingness of different social groups. We compare a community-oriented message that highlights protecting community in a generic sense with messages that highlight the protection of specific groups: hard-hit minority communities and America. Building on race scholarship that documents how prototypical Americans are assumed to be white Anglo-Saxon (e.g., Alba and Nee 2005; Doane 1997), we expect that racial minorities are likely excluded from boundaries of moral concern and perceived as less deserving of protection. We thus expect a community-oriented message that emphasizes hard-hit minority communities to be less effective in increasing vaccine intent than messages that emphasize community more generally, including the entire nation.

**Hypothesis 1:** Messaging that mention the potential beneficiaries of vaccination (to self and family or other social groups, such as hard-hit minorities and America) will increase vaccine intent compared with messaging that does not mention beneficiaries.

**Hypothesis 2:** Community-oriented messaging that highlights hard-hit minorities will be less effective in increasing vaccine intent compared with community-oriented messaging that highlights community in a generic sense, or our national community.

**Political Ideology and Boundaries of Moral Concerns**

Given political polarization in perceptions of the pandemic (Graham et al. 2020; Janning et al. 2021; Shepherd, MacKendrick, and Mora 2020) and COVID-19 vaccine attitudes (Cowan, Mark, and Reich 2021; Whitehead and Perry 2020), previous research on differences in values and community orientations between liberals and conservatives is also foundational to our study. We expect that political ideology will moderate the effectiveness of self-oriented and community-oriented messaging frames, as moral boundaries drawn along lines of group memberships are likely to depend upon deep-seated values.

Prior research has shown that liberals and conservatives tend to have different boundaries for moral concerns
Although both groups show in-group favoritism (Balliet et al. 2018), liberals empathize with larger and more distant social circles, whereas conservatives save their concerns for close social circles such as family (Jost, Nosek, and Gosling 2008; Takamatsu 2020). The differences are likely due to the former being more egalitarian and the latter embracing the rationale for seeking self-interests and unequal rewards (Erikson and Tedin 2015:71). Indeed, liberals tend to report having more empathy toward those who are less privileged than themselves, whereas conservatives tend to view individuals as responsible for their own suffering (Zettler and Hilbig 2010). In this regard, previous research suggests that conservatives are more responsive to notions of deservingness and racial bias (Reyna et al. 2006).

Together, previous research suggests that a self-oriented message will be more effective among conservatives, as their boundary of moral concerns are more in-group focused than that of liberals. Community-oriented messages in general (including the message regarding racial minorities), on the other hand, will be more effective among liberals who tend to empathize with larger social circles, unless they are framed as a patriotic message to appeal conservatives’ value of in-group loyalty (Graham, Haidt, and Nosek 2009; Kidwell, Farmer, and Hardesty 2013, Wolsko, Ariceaga, and Seiden 2016).1 We thus test whether political ideology moderates the effectiveness of self-oriented and community-oriented message frames and whether the effects are mediated by empathy (Figure 1).

**Hypothesis 3:** The effects of self-oriented and community-oriented message frames on vaccine intent will be moderated by political ideology.

**Hypothesis 3a:** Self-oriented messaging that mentions self and family will be more effective in increasing vaccine intent among conservatives than liberals.

**Hypothesis 3b:** Community-oriented messaging that mentions community in a generic sense will be more effective in increasing vaccine intent among liberals than conservatives.

**Hypothesis 3c:** Community-oriented messaging that mentions hard-hit minorities will be more effective in increasing vaccine intent among liberals than conservatives.

**Hypothesis 3d:** Community-oriented messaging that mentions America will be more effective in increasing vaccine intent among conservatives than liberals.

**Hypothesis 4:** Moderation effects of political ideology and message frames on vaccine intent will be mediated by empathy.

### Data and Methods

#### Research Design

To test these hypotheses, we conducted an online survey experiment. An experimental design allows us to manipulate messaging about who will likely benefit from vaccine uptake—unspecified (the control condition), one’s self and family, community (in a generic sense), minority communities hit hardest by COVID-19, and America—all while keeping potential confounders neutralized (see details in Appendix A).

#### Sampling

Participants were recruited online through Amazon Mechanical Turk (MTurk). MTurk is a Web-based platform that enables researchers to crowdsource survey participants. It is a popular way to find respondents to participate in social and behavioral sciences (Levay, Freese, and Druckman 2016). Multiple studies report that samples from the MTurk platform are not fundamentally different from samples from the general population (Weinberg, Freese, and McElhattan 2014). We recruited a total of 550 individuals (110 per condition) on January 19, 2021. Participants were restricted to those whose Internet protocol addresses were based in the United States. After omitting respondents who were already vaccinated and those who left some questions unanswered, we retained a sample size of 516 for all analyses. The mean of political ideology (on a 7-point Likert-type scale) is 3.424. Slightly fewer than half (47.7 percent) of participants are male, and 13.4 percent of participants are Black or Hispanic. The mean age is 40.547 years.

1Our argument pertains to hypothetical example of Christian conservatives. This is because religion does not necessarily imply a greater range of moral concerns. Past research has found that religiosity increases community orientation, but the effect is limited to proximal targets such as close social circles (Błogowska and Saroglou 2011; Hall, Matz, and Wood 2010). Furthermore, religious fundamentalism tends to increase prejudice and discrimination against members of outgroups (Błogowska and Saroglou 2013; Hall et al. 2010; Johnson, Rowatt and LaBouff 2010). In this respect, we contend that religious conservatives are still more likely to have narrower moral boundaries than liberals and thus are less likely to be affected by community-oriented messaging when the potential beneficiary is an outgroup.
Survey Procedure

Willing participants were first presented with a brief introduction to the study and a consent form. By clicking a provided link, participants were randomly assigned to one of five prompts (control condition, oneself and family, community, minority communities hit hardest by COVID-19, and America). Participants were also asked to perform a check to demonstrate that they were not automated. After reading a short message, participants indicated the extent to which they were willing to receive a COVID-19 vaccine using a 7-point Likert-type scale. In subsequent questions, we asked about factors that informed their reasoning (e.g., cost, risks), level of enthusiasm, and empathy toward COVID-19 victims. Respondents were also asked questions about experience receiving the flu vaccine, levels of trust (in science, government, and media), political ideology, and their demographic characteristics. After completing the questionnaire, participants were shown a debriefing form about the research purpose and the study design.

Measures

Vaccine Intent

We measure our dependent variable, vaccine intent, using a 7-point Likert-type scale (“Do you think you will get a COVID-19 vaccine when one becomes available?” 1 = “definitely not,” 7 = “yes, definitely”). Because the raw Likert-scaled variable and common transformations (log, square root) were not normally distributed (and the same was true for the residuals from preliminary analyses), we decided to dichotomize it. We performed a median split of vaccine intent, grouping those who answered “yes” (6) and “yes, definitely” (7) (coded 1) and all other responses (coded 0) (see details in Appendix A).

Political Ideology

Our moderator is political ideology. We measure political ideology (1 = “extremely liberal,” 7 = “extremely conservative”) using a 7-point Likert-type scale as a moderator. We center this variable on its mean in statistical models for ease of interpretation.

Empathy

To assess whether levels of empathy mediate the relationship between vaccine intent and interaction of experimental conditions and political ideology, we ask, “After reading the message, how much empathy do you have for those who have severely suffered or died from COVID-19?” Responses are recorded on a 7-point Likert-type scale ranging from 1 = “none,” 7 = “very much.”

Control Variables

Random assignment of respondents to different conditions rules out most alternative explanations, but we measure and incorporate a few control variables as well. Indeed, previous research has found that men are more willing to receive the COVID-19 vaccine (Liu and Li 2021), so to account for expected gender differences, we control for gender (male = 1, all others = 0). Other control variables include education, race/ethnic group, age, and previous experience receiving the flu vaccine (see Appendix A for details). Education level is captured by three categories: high school or less (reference), some college, and bachelor’s degree or higher. Race/ethnic group is captured by a binary variable indicating whether a respondent is Black or Hispanic (1) or not (0).

Additionally, we measure trust in the media (“How much of the time do you think you can trust the media to report the news fairly?”), science (“How much of the time do you think you can trust the scientists to do what is right?”) using a 4-point Likert-type scale (1 = “just about always,” 4 = “almost never”). We also ask about respondents’ previous experience receiving a flu vaccine (4-point Likert-type scale: 1 = “every year,” 4 = “never”). We reverse-code the trust measures and the flu vaccine measure so that higher values represent higher trust in the respective institution and higher frequency of getting the flu vaccine.

Analytical Strategy

We use a linear probability model because it permits comparisons of the size of coefficients across models and provides more straightforward interpretations of interaction effects (Breen, Karlson, and Holm 2018; Mize 2019) than logistic regression. We follow the suggestion of Breen et al. (2018): apply ordinary least squares regression to a binary outcome, and interpret coefficients in terms of predicting the probability of $Y = 1$.

We first fit linear probability model of vaccine intent on the experimental condition to test effects of varying self-oriented and community-oriented frames (hypotheses 1 and 2). Second, we add interactions of the experimental condition and political ideology to test how political ideology moderates the effects of message frames (hypothesis 3). After examining interaction effects, we proceed to the last model, which incorporates control variables. Additionally, we run the same analysis on subsample of respondents who are not Black or Hispanic. This is because we expect that hard-hit minority message frames may have different effects on respondents from such communities relative to those who are not, and this may have disguised effects of message that highlight hard-hit minority communities. Last, we conduct moderated mediation analysis using empathy as a mediator to test hypothesis 4.
Results

Descriptive Statistics

Table 1 presents descriptive statistics for all variables. As intended, the randomization process ensures roughly equal cell sizes across the five conditions. The number of respondents ranges from 99 in the control condition to 107 in the self and family condition.

There is variation in vaccine intentions and, to a lesser extent, empathy, across conditions. In the full sample, 62.6 percent of respondents report that they will or definitely will receive the vaccine. This percentage falls to its lowest value (57.6 percent) in the control condition and rises to its highest value (67.6 percent) in the community condition. There is less variation in empathy across conditions. Empathy is highest (6.57) in the America condition and lowest (6.22) in the community condition.

Unlike vaccine intent and empathy, other variables, such as political ideology, race, gender, age, education, flu vaccine experience, and trust in institutions (government, media, science), should not be affected by experimental conditions, and should be randomly distributed across conditions. This is what we see in Table 1.

Regression Results

Here we present and interpret results from a linear probability model with a binary outcome that indicates vaccine intent (definitely yes and yes = 1, else = 0). First, we specify all three models of interest using our full sample. Model 1a includes experimental conditions. We add interactions of conditions and political ideology in the model 2a. In model 3a, we incorporate control variables. We then specify the same models using the subsample of respondents who do not identify as Black or Hispanic (model 1b, model 2b, and model 3b). All model results are presented in Table 2.

Surprisingly, not all self-oriented and community-oriented message frames are more effective than the control condition (hypothesis 1). Consistent with hypothesis 1, we see that the community condition increases vaccine intent when we restrict the sample to participants who are not Black or Hispanic (model 1b and model 2b). Relative to the control condition, model 1b shows that talk of community (in a generic sense) increases the probability of showing vaccine intent by 14.3 percent (SE = 0.0725). Model 2b reveals that this probability increases even more (to 15.1 percent) (SE = 0.0709). The effects are statistically significant at α = .05.

But we also see effects that do not support hypothesis 1. For example, the America condition, the hard-hit condition, and the self and family condition does not reach statistical significance in any model. Thus, we find mixed support for hypothesis 1.

In general, the hard-hit minority condition is less effective than conditions that mention community in a generic sense. Consistent with our expectations (hypothesis 2), the coefficient associated with the hard-hit condition is always smaller than the coefficient for community (though these do not reach statistical significance). Talk of community (in general) does reach statistical significance in the subsample analysis that excludes Black and Hispanic respondents. The effect of the community condition is significant at α = .05 in models 1b and 2b, while it is significant at α = .10 in

| Variable | Total (N = 516) | Control (N = 99) | Self and Family (N = 107) | Community (N = 102) | Hard-Hit (N = 103) | America (N = 105) |
|----------|----------------|-----------------|--------------------------|---------------------|-------------------|-------------------|
| Mean     | SD             | Mean            | SD                       | Mean                | Mean              | Mean              |
| Dependent variable | | | | | | |
| Vaccine Intent (definitely yes, yes = 1) | 0.626 | 0.484 | 0.576 | 0.497 | 0.636 | 0.484 | 0.676 | 0.470 | 0.612 | 0.490 | 0.629 | 0.486 |
| Mediator | | | | | | |
| Empathy | 6.310 | 1.131 | 6.384 | 0.955 | 6.234 | 1.300 | 6.216 | 1.256 | 6.262 | 1.180 | 6.457 | 0.899 |
| Moderator | | | | | | |
| Political ideology (7-point Likert-type) | 3.424 | 1.793 | 3.576 | 1.802 | 3.103 | 1.485 | 3.49 | 1.779 | 3.515 | 1.96 | 3.457 | 1.907 |
| Control variables | | | | | | |
| Black and Hispanic (%) | 13.37 | — | 12.12 | — | 11.22 | — | 16.67 | — | 12.62 | — | 14.29 | — |
| Male (%) | 47.67 | — | 49.50 | — | 56.08 | — | 45.10 | — | 46.60 | — | 40.95 | — |
| Age (y) | 40.547 | 14.126 | 40.636 | 13.211 | 37.897 | 13.509 | 39.833 | 14.009 | 42.379 | 15.239 | 42.057 | 14.353 |
| Education | | | | | | |
| High school or less (%) | 12.02 | — | 14.14 | — | 16.82 | — | 10.78 | — | 10.68 | — | 7.62 | — |
| Some college (%) | 29.65 | — | 24.24 | — | 29.91 | — | 29.41 | — | 33.98 | — | 30.48 | — |
| BA or more (%) | 58.33 | — | 61.62 | — | 53.27 | — | 59.80 | — | 55.34 | — | 61.90 | — |
| Flu vaccine | 2.824 | 1.201 | 2.788 | 1.223 | 2.832 | 1.209 | 2.892 | 1.193 | 2.689 | 1.268 | 2.914 | 1.119 |
| Institutional trust (scale) | 2.443 | 0.620 | 2.354 | 0.649 | 2.452 | 0.589 | 2.431 | 0.625 | 2.492 | 0.592 | 2.483 | 0.649 |
| Media trust | 2.130 | 0.839 | 2.051 | 0.813 | 2.215 | 0.869 | 2.118 | 0.848 | 2.107 | 0.791 | 2.152 | 0.875 |
| Science trust | 3.078 | 0.772 | 2.960 | 0.82 | 3.14 | 0.758 | 3.000 | 0.783 | 3.117 | 0.745 | 3.162 | 0.748 |
| Government trust | 2.122 | 0.715 | 2.051 | 0.734 | 2 | 0.659 | 2.176 | 0.737 | 2.252 | 0.696 | 2.133 | 0.735 |
model 3b. The community condition increases the probability of showing vaccine intent by 15.1 percent in model 2b ($SE = 0.0709$). Hard-hit condition, on the other hand, increases the probability of showing vaccine intent by 4.78 percent in model 2b ($SE = 0.0711$). The coefficients of the hard-hit condition are generally smaller than coefficients of the America condition except in multivariate contexts (model 3a and model 3b). We therefore find mixed support for hypothesis 2.

Furthermore, the positive effects of the hard-hit condition on vaccine intent decrease as respondents get more conservative, providing support for hypothesis 3c. This is one of our most robust findings. Controlling for other variables, the interaction term of political ideology and the hard-hit condition is negative and statistically significant (at the .05 level) in model 2b and even in the face of controls (see models 3a and 3b). Among respondents assigned to the hard-hit condition, the probability of showing vaccine intent decreases by 8 percent as political ideology increases by one unit (the coefficient for the interaction effects is $-0.08$ in model 3b), with a standard error of 0.0323. This suggests that compared with moderates and liberals, conservatives are less likely to show community-oriented intent when the potential beneficiaries are members of hard-hit minority communities such as Blacks and Hispanics.

Other anticipated interactions with political ideology are not supported empirically. Self-oriented messaging,
indicated by the self and family condition, is not more effective among conservatives, failing to support hypothesis 3a. The negative interaction effects of political ideology and other community-oriented messaging (such as community in a generic sense and America) do not appear, or only reach statistical significance at $\alpha = .10$, contrary to expectations (hypotheses 3b and 3d). This suggests that hard-hit minorities fall outside the moral boundaries of “deservingness” that conservatives draw.

To illustrate the interaction effects of experimental conditions and political ideology, we plot linear predictions of vaccine intent from model 3a (full sample) and model 3b (subsample) in Figure 2. Overall, the figure shows that liberals’ vaccine intent is higher in every message frame than it is in the control condition, though not all effects are statistically significant. In contrast, moderates’ vaccine intent increases only in the community condition. And conservatives’ vaccine intent is not enhanced when any kind of beneficiary is named, even one’s self and family. For conservatives, any message frame, whether self- or community oriented, decreases vaccine intent, and the hard-hit condition decreases vaccine intent the most.

In contrast to expectations (hypothesis 4), we find that the interaction between political ideology and message frame on vaccine intent is not mediated by empathy. To determine this, we use postestimation commands provided by the medsem package in Stata to test a moderated mediation model using Baron and Kenny’s (1986) approach and an alternative approach proposed by Zhao et al. (2010) (Mehmetoglu 2018). Although empathy has a significant and positive effect on vaccine intent, Table 3 reveals that it does not mediate the moderated relationship between message frame and political ideology on one hand and vaccine intent on the other.

**Discussion**
In this study, we unpacked the meaning of community in community-oriented action. We conducted an online experiment about a specific community-oriented action (intention to receive a COVID-19 vaccine) and assessed whether the specific community (i.e., the group likely to benefit from community-oriented action) mentioned in messaging matters. This expands upon previous work, which has found that
emphasizing collective interests motivates community-oriented action (e.g., Lindenberg et al. 2006) but neglects the concrete meaning of community to the relevant actors (Grant and Hofmann 2011; Jordan et al. 2020; Luttrell and Petty 2021; Vietri et al. 2011). Drawing on the sociological concept of “deservingness,” we hypothesized that when “deserving” social groups are mentioned in a community-oriented message, this should prompt feelings of empathy and thereby increase intentions to receive a vaccine. We also examine whether respondents’ political ideology moderates the efficacy of different messaging frames, as conservatives and liberals have different boundaries of moral concerns (Takamatsu 2020; Waytz et al. 2016).

As expected, liberals and conservatives resonate with self-oriented and community-oriented message frames differently. One of our most robust findings is that when the community mentioned is “hard-hit minority groups like Blacks and Hispanics,” vaccine intent increases among liberals but decreases among conservatives. Overall, our findings suggest that liberals are responsive to all message frames (both self- and community-oriented), whereas only certain types of framing matters for moderates and conservatives. Contrary to our expectations, a self-oriented frame focused on protecting one’s self and family is not effective in increasing vaccine intent among conservatives. The general and vague “community” condition is the only message frame that is effective in increasing vaccine intent among moderates and induces the least resistance to vaccination among conservatives.

Our study informs a long-standing question in sociology and public policy: how do notions of which groups of people are deserving influence social action? By unpacking the meaning of community, we find that racial minorities such as Blacks and Hispanics are excluded from boundaries of moral concern. Such exclusion, however, is not univocal. When participants are shown a message about protecting hard-hit racial minorities, conservatives’ vaccine intent decreases, whereas liberals’ vaccine intent increases. Building on scholarship on culture and race that documents how racial minorities are excluded from notions of a prototypical American (e.g., Alba and Nee 2005; Doane 1997), we document how the extent of exclusion varies across political groups.

Our research has implications for sociological theory. Since Durkheim’s ([1897] 2005) early writings on anomie, sociologists have asked, how do broader cultural understandings guide actions in times of social upheaval? More contemporary theorists have argued that during unsettled times, people latch on to polarized values and framings as they construct strategies for action (Abramson 2012; Sewell 1996; Swidler 2001). Yet global events that truly disrupt the operation of society have been rare in the post–World War II era (Fischer 2010). The COVID-19 pandemic and associated vaccine developments provide us a rare opportunity to empirically test the proposed connection between culture and action.

Our study also has practical implications. On December 20, 2021, Judy Woodruff of PBS NewsHour questioned Francis Collins, the director of the National Institutes of Health, whether there was anything the agency could have done better during the pandemic. “You know, maybe we underinvested in human behavior research,” Collins responded (Woodruff 2021). Despite the vaccines’ being highly effective and widely available, 60 million Americans have still refused to take them. Understanding how the extent of moral boundaries may or may not motivate intentions to get vaccinated, our findings help policy makers devise effective interventions to motivate vaccinations.

Our findings prompt more questions for further research. First, subsequent scholars can investigate possible mechanisms to flesh out the process we identify here. As this study does not directly measure perceived deservingness, future studies might examine the mediating role of assessment of worth of different social groups. Second, further research is needed to understand how different types of self-oriented and community-oriented frames resonate differently with studies of culture in action (Hitlin and Piliavin 2004; Miles 2015). Indeed, cultural sociologists have extensively analyzed discourse that draws symbolic boundaries: conceptual distinctions that categorize objects, people, and practices to include or exclude them from a domain (Lamont and Molnár 2002). To avoid pitfalls of reductionism, however, studies in this area of research tend to highlight social structure and situational context more than internalized values (Lamont and Molnár 2002). Our findings emphasize the critical role of deep-seated values in enacting exclusion on the basis of symbolic boundaries.

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members of racial minority. The main effect of community condition and the interaction effect between the hard-hit condition and political ideology appear more clearly in our subsample of respondents who are neither Black nor Hispanic. This suggests that Black and Hispanic respondents are likely to show different patterns of response to our experimental conditions, which could be investigated with samples larger than ours \( (n = 66) \). Last, replicating our study using a nationally representative sample will assess the generalizability of our findings. By using a larger and more diverse sample, future research may be able to assess how people from varying demographic groups react to self-oriented and community-oriented frames differently.

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**Supplemental Material**

Supplemental material for this article is available online.

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