



**The politicized pandemic:
Ideological polarization and
the behavioral response to
COVID-19**

**Gianluca Grimalda
Fabrice Murtin
David Pipke
Louis Putterman
Matthias Sutter**





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Abstract

We investigate the relationship between political attitudes and prosociality in a survey of a representative sample of the U.S. population during the first summer of the COVID-19 pandemic. We find that an experimental measure of prosociality correlates positively with adherence to protective behaviors. Liberal political ideology predicts higher levels of protective behavior than conservative ideology, independently of the differences in prosociality across the two groups. Differences between liberals and conservatives are up to 4.4 times smaller in their behavior than in judging the government's crisis management. This result suggests that U.S. Americans are more polarized on ideological than behavioral grounds.

JEL Codes: D01, D72, D91, I12, I18, H11, H12

Keywords: Polarization, Ideology, Trust in politicians, COVID-19, Prosociality, Health behavior, Worries

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1 Introduction

Political polarization is on the rise in the US as well as Western democracies (Waller and Anderson, 2021; Pew Research Center, 2019) and has been blamed to be a disruptive force for democracies worldwide (Iyengar et al., 2019; Svobik, 2019; Gidron, Adams and Horne, 2020; Foa and Mounk, 2017, 2021; McCoy and Somer, 2021). The share of World Value Survey respondents thinking that a political system with “a strong leader who does not have to bother with parliament and elections” is “very good” or “fairly good” has been growing in most Western countries (see Table B.13 in the Online Appendix). In the U.S., the share achieved an all-time high of 37.1% in 2017, close to the share found in Russia (39.4%).¹ Political polarization has also been evident during the COVID-19 pandemic (Bobba and Hubé, 2021; Bruine de Bruin, Saw and Goldman, 2020; Kerr, Panagopoulos and van der Linden, 2021), in spite of calls not to politicize the virus.² Political leaders and partisan media have spread conflicting messages and misinformation about the virus threat, which have likely affected their followers’ views (Simonov et al., 2020; Bursztyn et al., 2020). Political polarization has then been blamed for impeding efforts to fight the pandemic (Allcott et al., 2020; Gollwitzer et al., 2020) The reason is that adherence to public health policies to control the virus - such as wearing face masks or obeying stay-at-home policies - is fundamentally a large-scale cooperation problem (van Bavel et al., 2020; Nielsen and Lindvall, 2021; Campos-Mercade et al., 2021). Both reduced trust in politicians and reduced prosociality may thus negatively affect the capacity to fight the COVID-19 pandemic (Bargain and Aminjonov, 2020).

This study contributes to understanding the interplay between political polarization, prosociality and trust in politicians, and compliance with COVID-19-related behavioral restrictions, using data from an online experiment run on a representative sample of 1,120 U.S. Americans. The survey was conducted during the summer of 2020 when cases and deaths in the U.S. reached a second peak. At the psychological and behavioral levels, we find that participants with conservative political orientation, on average, worried less about the spread of the virus and reported lower levels of both self-quarantining and face masks wearing than participants with liberal political orientation. However, when it comes to assessing trust in the political elite and their crisis management capacity, we observe considerably higher polarization across ideological camps. For example, differences between conservatives and liberals in judging the political control of the pandemic are up to five times as large as differences in self-reported worries and the behavioral measures. This result suggests that political polarization is considerably larger than behavioral polarization. We also find that experimental measures of prosociality obtained in standard dictator games and public good games correlate positively with protective behavior and worries about the local spread. Previous studies analyzed the impact of either political ideology or (experimentally measured) prosociality on

¹The share of respondents agreeing that a system with a strong leader is good for one’s country ranges from 72.6% in Romania to 14.6% in Norway (see Table B.13). Again, compared with other highly developed countries, the U.S. stands out for its high share of respondents accepting the idea of a strong leader. For instance, in Germany and Spain, such shares are 20.9% and 22.9%, respectively.

²Tedros Ghebreyesus, Director-General of the WHO, said yet in April 2020 “Please don’t politicize this virus. It exploits the differences you have at the national level. [...] The unity of your country will be very important to defeat this dangerous virus.” (WHO, 2020*b*).

protective behavior separately. Our data enable us to investigate both aspects simultaneously. Remarkably, prosociality and political ideology are somewhat independent in affecting health-related behavior. This finding suggests that liberals' higher compliance with COVID-19 regulations is not due to their different degrees of prosociality. Instead, more prosocial people show a stronger tendency to comply with regulations independently of their political ideology.

As for studies focusing on the relationship between political polarization and COVID-19-health related behavior, several studies use aggregated data comparing the development of cases and deaths in geographical areas differing in their average political preferences (Gollwitzer et al., 2020; Grossman et al., 2020; Allcott et al., 2020). For example, Gollwitzer et al. (2020) use geo-tracking data of 14 million smartphones finding that counties voting for Donald Trump over Hillary Clinton in the 2016's election engage in less physical distancing. Similarly, Grossman et al. (2020) found that state governments' leaders' recommendations to stay at home to reduce mobility were more effective in Democratic-leaning counties. Interestingly, stay-at-home recommendations by Republican governors reduced mobility in Democratic-leaning counties relatively more strongly than recommendations by a Democratic governor. Results by Allcott et al. (2020) confirm this. Gadarian, Goodman and Pepinsky (2021) analyzed survey data from the early days of the pandemic in March 2020, finding that Republicans were less likely to follow health guidelines, were less worried, but yet supported presidential proclamations to limit entry to the United States to a more considerable extent than Democrats. Similarly, Bruine de Bruin, Saw and Goldman (2020) find Democrats to perceive risks associated with the pandemic higher than Republicans. Kerr, Panagopoulos and van der Linden (2021) provide further evidence that liberals engage in a more significant number of health-protective behaviors than conservatives and are more critical about the response by the government. Overall, our investigation of differences across political ideology confirms these results, offering evidence for polarized engagement in protective behavior and, to an even more significant extent, in the assessment of political crisis management. An essential extension of this literature is that our results suggest that the effects of political ideology on the outcome variables are relatively independent of prosociality as both mediate the other only to a minor extent.

Several studies examine the interplay between economic preferences and COVID-19-health related behavior (Huynh, 2020; Campos-Mercade et al., 2021; Müller and Rau, 2021; Cappelen et al., 2021; Chavarría et al., 2021; Romano et al., 2021; Thunström et al., 2021).³ Campos-Mercade et al. (2021) show that an experimental measure of prosociality can explain several dimensions of COVID-relevant health behavior (physical distancing, follow stay home requirements, and face mask buying). Their measure is based on a game where other people can be put at risk for personal benefit, thus resembling the individual decision situation whether one follows public health guidelines

³Chavarría et al. (2021) do not find predictive power of trust, risk, and time preferences on protective behavior, namely physical distancing, hygiene rules, and wearing of face masks, in Indonesia. Thunström et al. (2021) conduct a survey experiment to investigate COVID-19 testing behavior finding that people who have more contacts – potential superspreaders – are more inclined to do a costless test. A treatment increasing potential private costs of testing (due to an obligatory quarantine away from home in case of a positive result) does not affect testing behavior. The authors conclude that COVID-19 testing is a largely selfless behavior. Cappelen et al. (2021) show that priming respondents with information about the COVID-19 crisis affects preferences for redistribution.

that aim to reduce the spread of COVID-19. Based on another index of prosociality from a survey conducted two years before on a subgroup of the same broadly representative sample from Sweden, they find that prosociality is a stable long-term predictor of this behavior. Concordantly, Müller and Rau (2021) study whether non-monetarily incentivized survey measures of pre-crisis economic preferences and social responsibility in a student sample of 185 subjects can predict pandemic behavior and compliance with COVID-19 containment policies. They find that risk preferences are negatively related to physical distancing and panic buying while finding no significant association of protective behavior with measures of trust and honesty. On the contrary, a measure of social responsibility is positively related to physical distancing (Müller and Rau, 2021).

Our paper complements this literature in two directions, adding to the evidence of social preferences and their implications for real-world behavior (Levitt and List, 2007; Franzen and Pointner, 2013; Galizzi and Navarro-Martinez, 2019). First, we measure prosociality in standard economic games (dictator and public goods games) and find that our measure of prosociality positively correlates with protective behavior and worries about the pandemic. Second, however, our findings document that this correlation is mainly independent of political ideology, a fact that has not been established before to the best of our knowledge.

The remainder of this paper is structured as follows. Section 2 explains the design of the study and lays out our hypotheses. Section 3 outlines the results. Section 4 discusses the findings and concludes.

2 Study design and hypotheses

2.1 Design and data

Our analysis primarily draws from data of the second wave of the Trustlab initiative conducted in the United States (Murtin et al., 2018). This initiative combines large-scale incentivized economic experiments with a survey on a broad range of questions on the determinants of trust. The data collection of the second wave of the Trustlab started on the 12th of June 2020, at a time when Corona cases and deaths in the U.S. were quickly growing and was completed on the 7th of September in the same year. The questionnaire of this second wave of the Trustlab captured a set of questions related to the COVID-19 pandemic which constitute our main variables of interest, ranging from self-reported (protective) behavior over worries about the spread in the local community to opinions about the political management of the crisis.⁴The sample contains 1,120 participants and is broadly representative of the U.S. working-age population⁵ in terms of age, gender, and income, thus overcoming a frequent criticism of experimental approaches relying on, e.g., student samples (Cappelen et al., 2015). Summary statistics for demographic characteristics are provided in Table 1.

We retrieved additional data from several sources to control for variables related to the pandemic intensity and the political environment. To control for local and temporal

⁴See the Online Appendix Section B.5 for details.

⁵Table A.2 in the Appendix provides a detailed overview on the sample characteristics along with population means taken from representative sources.

Table 1: Sample Characteristics

Variable	Mean	SD	Min	Max	N
<i>Demographics</i>					
Female	0.55	0.50	0	1	1120
Age	47.96	16.50	18	80	1120
<i>Income</i>					
Low income category	0.43	0.50	0	1	1120
Medium income category	0.22	0.42	0	1	1120
High income category	0.35	0.48	0	1	1120

Notes: Table shows means, standard deviations, minimum and maximum values, and number of observations for the Trustlab (second wave) sample characteristics. Female is a dummy for female sex. Age is the age in years. The medium income category is the third quintile. Low (high) income category refers to the two bottom (top) income quintiles.

infection rates, we matched the data from the Trustlab based on participants’ ZIP codes⁶ with COVID-19 statistics on cases and deaths from the New York Times⁷ at the level of counties (where the Trustlab participants live) using the R package “covdata” (Healy, 2020).⁸ We also matched the Trustlab data with data on general election results at the county level compiled by McGovern et al. (2020) and added indicators for whether the state governor was from the Democrats or Republicans at the time of the survey.

Outcome variables. — This paper focuses on the correlational analysis of a set of COVID-19 related variables. More specifically, we explore the domain of protective behavior by two questions that asked participants whether they engaged in self-quarantine and how often they wore a face mask when going out. Another item asks whether they were worried about the spread in their local community. Finally, three questions on a 0-to-10 Likert scale focused on assessing the policy response to the pandemic. We asked participants to state whether the provision of adequate relief, has been timely and efficient, where 0 was “Not at all timely and efficient” and 10 “Extremely timely and efficient.” In two questions, we asked how respondents’ trust in politicians evolved for handling the crisis, both at the state and the national level, where respondents could place their views between 0 (“Decreased”), 5 (“Stayed stable”), and 10 (“Increased”).

Our main explanatory variables are an index of prosociality measured by economic

⁶Seven participants in the second wave of the Trustlab did not enter a valid ZIP code. We were able to recover the location of 6 of them by using an IP-based geolocation tool. The remaining participant is excluded from analyses controlling for geographical variables.

⁷The New York Times provides data on cumulative coronavirus cases and deaths at the county level. The five boroughs (the counties New York, Kings, Queens, Bronx, and Richmond) of New York City are aggregated to an artificial county, which we have to follow.

⁸The counties where participants live were obtained via the crosswalk between 5-digit ZIP codes and counties provided by the R package “zipcodeR” (Rozzi, 2021). We retrieved data on counties’ total numbers of population which allows us to compute the number of cases and deaths per 100,000 inhabitants, and data on population density (population per square mile) from the United States Census Bureau (2021).

games and self-reported political ideology. Furthermore, we control for a broad set of demographic and environmental variables such as gender and the local and temporal intensity of the COVID-19 pandemic measured by the reported number of deaths per 100,000 inhabitants at the level of counties in the seven days preceding the survey.

Prosociality. — The index of prosociality is based on the decisions in standard versions of the dictator game (DG) and the public goods game (PGG). In the DG, the participants had an initial endowment of 10 USD, of which they could transfer any share in multiples of 1 USD to another participant from the U.S. In the PGG, participants had an endowment of 10 USD and were informed that they played with three other participants who could transfer any share of their endowment into a joint project. The total amount of money transferred to the joint project would be multiplied by 1.6 and split equally between all 4 group members independent of their contribution. To construct the index of prosociality, we standardized both original variables, took the average, and standardized again.

Political ideology. — Political ideology was measured by the question “In political matters, people often talk of ‘Liberal’ and ‘Conservative.’ Generally speaking, how would you place your views on this scale?” where participants could place themselves between 0 (“very liberal”) and 10 (“very conservative”).⁹ To ensure a straightforward interpretation, we dichotomized the ideology scale. We categorized respondents who placed their ideology below or equal to 3 as “Liberals”. Participants with a score of 7 or above were labeled as “Conservatives” and the rest as “Moderates.”

The economic games were placed before the survey questions. There was no mention of the COVID-19 pandemic before the last module of the survey to minimize any repercussions of the COVID-19 crisis on the measurement of social preferences. The survey instruments and experiment instructions are available at <https://osf.io/ebnm8>.

2.2 Hypotheses

The data analyzed in this paper are part of a project aiming to compare prosociality and ingroup bias before and during the COVID-19 pandemic. We pre-registered hypotheses relative to this project at the AEA repository (AEARCTR-0005995). The hypotheses relative to the present paper only refer to the second wave of this project and have not been pre-registered. They are, however, straightforward inferences from existing theory and empirical evidence.

From the beginning of the pandemic, protective measures such as self-quarantining and wearing a face mask were linked to prosocial behavior (Betsch et al., 2020; van Bavel et al., 2020) as public messaging about them emphasized the protection they offered to others as well as to oneself (WHO, 2020a; CDC, 2021).¹⁰ These measures, if carefully followed, have the potential to strongly decrease the spread of the virus in a society (Mitze et al., 2020; Wellenius et al., 2021; Howard et al., 2021) but, undoubt-

⁹Our results are equivalent using the scale “In political matters, people often talk of “the left” and “the right.” How would you place your views on this scale, generally speaking?” where 0 is “left” and 10 is “right”. However, this variable contains a larger number of missing values. Corresponding results using this alternative question are available upon request.

¹⁰Early WHO guidelines even advised against using masks for the general public because they could provide a false sense of security, whereas later guidelines recommended their use primarily to protect others (WHO, 2020b,a).

edly, also imposed costs on individuals, like discomfort when wearing a face mask, and selfish people may be inclined to free-riding on other people's selfless behavior. The connection of prosociality with worrying about the virus' spread in the local community is likely multi-faceted. On the one hand, these worries can be purely selfish as one wants to protect one's health. On the other hand, we expect that this measure also captures motives related to caring about other people. Therefore, we expect that prosociality is positively associated with protective behavior and worrying about the local community's spread. However, we do not predict the effect of prosociality on how respondents assess the political management of the crisis.

- *Hypothesis 1: Stronger prosociality is positively correlated with protective behavior and worries about the spread in participants' local communities.*

Political polarization in the United States has deepened over the last decades (Boxell, Gentzkow and Shapiro, 2020; Pew Research Center, 2014). Ideological differences are remarkable over a wide range of (socio-economic) topics (Sterling, Jost and Hardin, 2019) as well as in faith in science (Pittinsky, 2015; Jost et al., 2018). Deepened affective polarization has increased distrust between parties and hostility between political opponents (Iyengar et al., 2019). In the COVID-19 pandemic, adherents of the Democrats and the Republicans often use different information channels, likely resulting in diverging beliefs about its threat (Simonov et al., 2020). For instance, recent studies found strong polarization in how newspapers in the U.S. covered the COVID-19 pandemic (Hart, Chinn and Soroka, 2020; Motta, Stecula and Farhart, 2020). In addition, political leaders of both parties sent conflicting messages, likely influencing their supporters (Grossman et al., 2020). For instance, former President Donald Trump repeatedly downplayed the riskiness of COVID-19 (Yamey and Gonsalves, 2020). This attitude is consistent with previous research findings that Republicans perceive lower health risks from COVID-19 than Democrats (Dryhurst et al., 2020; Bruine de Bruin, Saw and Goldman, 2020; Kerr, Panagopoulos and van der Linden, 2021). As such, we expect that political ideology is an important predictor of (protective) behavioral variables, worries about the spread in the local community, and the assessment of political crisis management.

- *Hypothesis 2a: Conservatives report lower adherence with self-quarantine and face mask wearing than liberals.*
- *Hypothesis 2b: Conservatives worry less about the spread of the coronavirus in their local community than liberals.*
- *Hypothesis 2c: Conservatives assess the political management and relief provision by the government more positively than liberals, in particular at the national level.*
- *Hypothesis 2d: Within groups of political ideology, conservatives (liberals) assess the political management at the state-level more positively (negatively) in case their governor is from the Republican party.*

3 Results

3.1 Descriptive statistics

Table A.1 in the Appendix presents descriptive statistics for the variables serving as dependent variables in our regression analysis as well as for the variables used as explanatory variables therein. Histograms are provided in Section B.2 of the Online Appendix.

A brief glimpse at our dependent variables indicates that the COVID-19 pandemic had a high impact on people’s lives at the time of the survey. 79.9% of the participants reported to have engaged in self-quarantine to at least a limited extent and 81.6% stated that they often or always wear their face masks. 54.3% stated to worry most of the time or always about the spread of COVID-19 in their local community. From the whole sample perspective, the assessment of how the political elite managed the crisis seems to be relatively neutral on average. The mean score of the 0-to-10 Likert scale variable for the assessment of the relief provided by the government lies slightly to the left of the center with a mean value of 4.81 (sd = 3.2). On average, participants stated a higher score in the question asking for the evolution of trust in politicians (whether it increased, decreased, or stayed stable for the handling of the crisis) at the state-level (mean = 5.3, sd = 2.9) than at the national level (mean = 4.3, sd = 3.1) ($p < 0.001$, two-sided t-test).

On average, participants sent almost half of their 10 USD endowment in the DG (mean = 4.9, sd = 2.9) and contributed roughly 61 percent of their endowment to the common project in the PGG (mean = 6.1, sd = 3.2). In both games, sending half of the endowment is the modal choice, and only a small share of people keeps everything for themselves (9.1 percent in the DG and 5.1 percent in the PGG).

A potential concern is that prosociality itself might have been significantly affected by the COVID-19 pandemic (Campos-Mercade et al., 2021; Cappelen et al., 2021; Grimalda et al., 2021; Terrier, Chen and Sutter, 2021). We address this concern by comparing the prosociality index in the second wave to the index based on the same experimental decisions from the first wave of the Trustlab conducted in 2017. We find that the prosociality index is only marginally larger in the second wave than in the first (pre-COVID) wave ($p = 0.265$, two-sided t-test). Reported income changes because of COVID-19 and expectations about the financial situation of the participants’ households indicate a considerable level of economic instability affecting the survey respondents’ lives. 38.8% of the participants report that they lost income during the COVID-19 pandemic whereas 53.3% of the sample report that their income stayed stable. On average, expectations about the household income in the next year are worse “now that the COVID-19 pandemic has arrived” than the value when asking them for their expectations “prior to the COVID-19 pandemic” ($p < 0.001$, two-sided t-test). According to the political ideology scale, our sample mean is slightly leaning toward conservatism (mean = 5.6, sd = 2.9).¹¹ Applying the dichotomization to simplify the interpretation of results, 24.5 (40.7) percent of the sample are counted as liberals (conservatives).

¹¹Similarly, the alternative scale of political orientation between 0 (left) and 10 (right) has a mean value of 6.06 with a standard deviation of 2.92.

3.2 Main results

We address our hypotheses through a linear regression model having as dependent variable each of the outcome variables described in Section 2.1. Each regression includes the prosociality, liberal, and conservative ideology variables, a set of control variables, and a constant. In addition, we control for the participant’s age in years, the age-squared, a dummy for the female gender, dummies for ethnic groups (African Americans, Hispanics, and other ethnicities, relative to white ethnicity) dummies for the high (low) income categories defined as the top (bottom) two quintiles of household income, dummies for medium (vocational education or community college degree) and high education (University degree), two dummies for the highest education level attained by participants’ parents, a dummy for parents being immigrants, two dummies for urbanization categories (town and city, relative to rural), and the date of the survey. We further control for the natural logarithm of deaths per 100,000 inhabitants during the last 7 days in the participant’s county as a measure of the current intensity of the pandemic, the natural logarithm of the county’s total population, and the natural logarithm of the county’s population density (people per square mile).

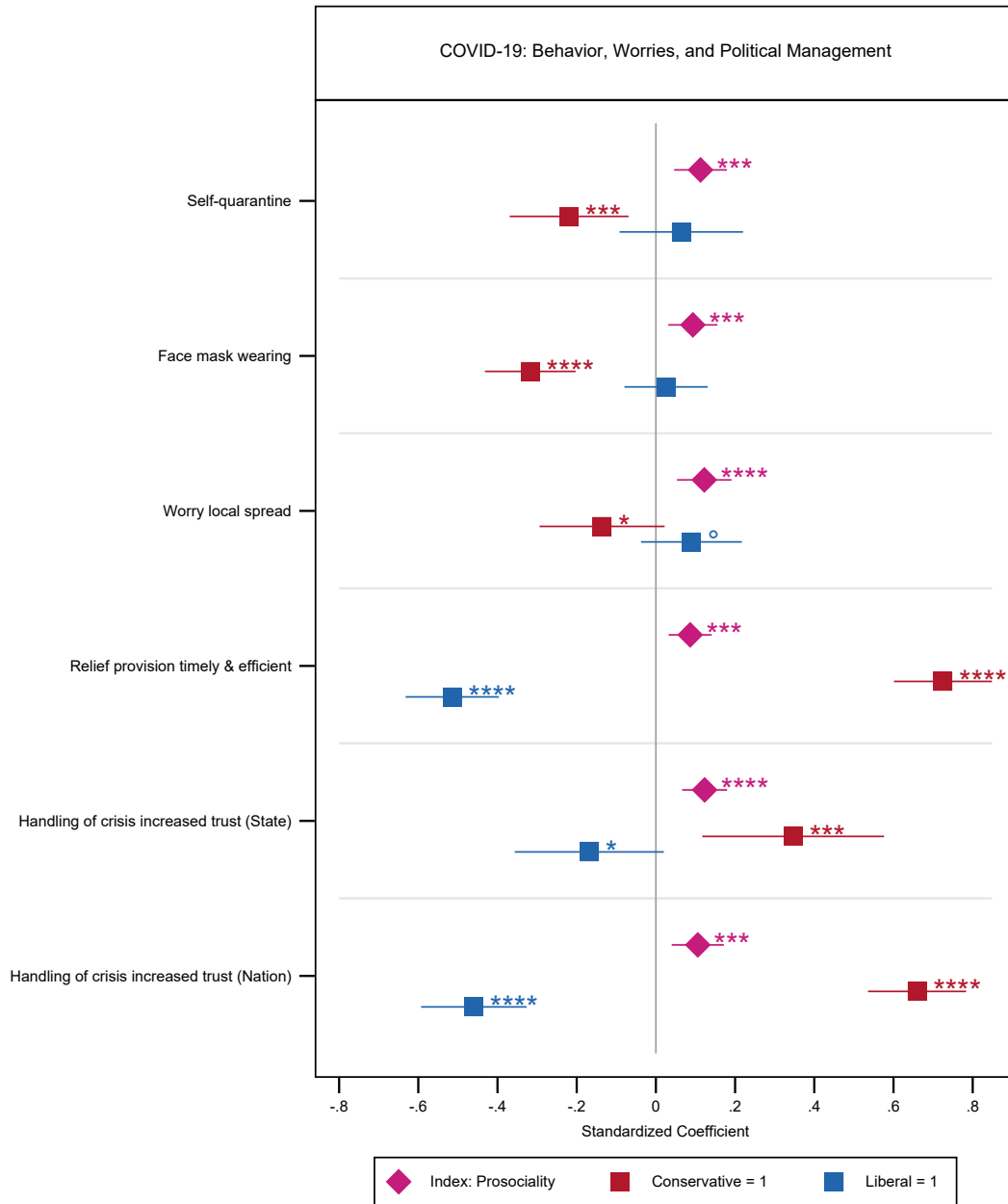
Figure 1 depicts OLS regression coefficients and their 95 percent confidence intervals for the prosociality index, liberal political ideology, and conservative political ideology. The dependent and explanatory variables are standardized, except for the political ideology indicator variables, thus contrasting “conservatives” and “liberals” relative to “moderates”. In the following, coefficients named b (β) indicate standardization of the dependent (and explanatory) variable. Standard errors are clustered at the state level.

Beginning with the prosociality index, we note a statistically significant, positive association with all the dependent variables. A one standard deviation increase in prosociality is associated with a 0.11 standard deviation increase in engagement in self-quarantine ($\beta = 0.11$, $p = 0.001$). The effects are of comparable size for the wearing of face masks ($\beta = 0.09$, $p = 0.004$), and worrying about the virus’ spread in the local community ($\beta = 0.12$, $p = 0.001$), thus supporting our first hypothesis. There is also a positive and statistically significant correlation of prosociality with the assessment of political crisis management, i.e. respondents who are more prosocial, *ceteris paribus*, report higher satisfaction with politics (see Table B.4 for the underlying regressions).

- Result 1: Prosociality is positively associated with protective behavior and worrying about the local spread of COVID-19 (Hypothesis 1 confirmed). Stronger prosociality also correlates with a more positive assessment of political crisis management.

Along the political ideology scale, we observe strong signs of polarization. Consistent with Hypotheses 2a, conservatives report significantly lower engagement in self-quarantine ($b = -0.22$, $p = 0.005$) and wearing of face masks ($b = -0.32$, $p < 0.001$) than moderates, with the differences relative to liberals being also statistically significant ($p < 0.001$ for both dependent variables, Wald tests). The effect of conservative ideology on worrying about the local spread only reaches marginal statistical significance relative to moderates ($b = -0.14$, $p = 0.090$) but statistical significance at the 5 percent level relative to liberals ($p = 0.023$, Wald test), hence overall supporting Hypothesis 2b. Liberal ideology does not reveal any significant effect relative to moderate ideology for the three items.

Figure 1: Regression Coefficients of Core Variables



Note: This figure shows OLS regression coefficients and 95 percent confidence intervals (standard errors clustered at the state-level) for the set of explanatory variables listed in the legend. The dependent variables are indicated on the y-axis. All regressions include individual-level controls for age, sex, ethnicity, education, income, and urbanization level at the respondents' places of residence. Environmental and situational controls for the natural logarithm of the county population and population density (people per square mile), date of survey, and the natural logarithm of the number of deaths due to COVID-19 per 100k inhabitants during the last 7 days. (****, ***, **, *, °) indicate two-sided p-values below 0.001, 0.01, 0.05, 0.1, and 0.2, respectively

- Result 2: Conservatives report lower levels of protective behavior (self-quarantine, wearing of face masks) and worry less about the spread in their local community than liberals (Hypotheses 2a and 2b confirmed).

The differences between political camps are most strongly pronounced in the realm of questions related to the political management of the crisis. Liberals assess the relief provided by the government as being significantly less timely and efficient than moderates ($b = -0.51$, $p < 0.001$). Conservatives assess the relief significantly more timely and efficient than moderates ($b = 0.73$, $p < 0.001$). The difference of 1.2 standard deviations between liberals and conservatives is highly significant ($p < 0.001$, Wald test). The results are very similar concerning the evolution of trust in politicians (whether it increased, decreased, or stayed stable) at the national level. Liberals (conservatives) score significantly lower (higher) than moderates ($b = -0.46$, $p < 0.001$, $b = 0.66$, $p < 0.001$, respectively). Therefore, differences between liberals and conservatives are up to roughly four (five) times as large when assessing the government’s crisis management as when reporting their behavior (worry) in response to the crisis.¹² In other words, liberals and conservatives appear much closer in their behavior than in their opinions about the government.

- Result 3: Conservatives and liberals differ strongly in their assessment of political crisis management, with the conservatives being more positive (Hypothesis 2c confirmed). Differences between conservatives and liberals in their assessment of politics are larger than in the measures of protective behavior and worrying.

The third result also holds for the evolution of trust in politicians at the state level to a minor degree. Conservatives report a significantly more positive evolution of trust in politicians than moderates ($b = 0.35$, $p = 0.004$). Liberals report a slightly more negative score than moderates ($b = -0.17$, $p = 0.078$), with the difference relative to conservatives being highly significant ($p = 0.003$, Wald test). However, this difference of roughly 0.5 of a standard deviation in the dependent variable masks substantial heterogeneity concerning the party affiliation of the contemporary governor. We explored this heterogeneity by adding interactions of the dummies for liberal and conservative ideology with a variable equal to one in case the governor in the participant’s state was from the Republican party at the time of the survey (see Online Appendix Table B.9). We find that in states with a Democratic governor, there is virtually no difference between conservatives and liberals in the evolution of trust in politicians ($b = 0.024$ for both ideological groups relative to moderates, $p = 0.995$). On the contrary, when the governor is from the Republican party, liberals report a significantly lower score than conservatives (1.1 of a standard deviation in the dependent variable, $p < 0.001$).

- Result 4: There is no significant difference in the reported evolution of trust in politicians at the state level between liberals and conservatives when the current governor is from the Democratic party.
- Result 5: When the state’s governor is from the Republican party, conservatives report a significantly more favorable evolution of trust in politicians at the state level than liberals.

¹²Differences in the dependent variables between conservatives and liberals are 0.28 of a standard deviation for self-quarantine, 0.23 for worries about the local spread, and 1.24 in assessing the relief provided by the government (see Table B.4).

There is also substantial heterogeneity within the camps of political ideology. Liberals living in a Republican-controlled state report a significantly lower score for the evolution of trust in politicians due to their handling of the crisis than liberals in a Democratic-controlled state ($b = -0.41$, $p = 0.014$). Inversely, conservatives report higher increases in trust if their governor is from the Republicans instead of the Democratic party ($b = 0.69$, $p < 0.001$).¹³

- Result 6: Conservatives (liberals) living in a state whose current governor is from the Republicans (Democrats) assess the political crisis management more positively than conservatives (liberals) whose governor is from the Democrats (Republicans) (Hypothesis 2d confirmed).

We further show (in Table B.11 in the Online Appendix) that the effects of prosociality and political ideology are each only very slightly mediated by the presence of the other in the regression model, suggesting that both are relatively independent in their explanatory power on the outcome variables. In particular, the differences in protective behavior between liberals and conservatives do not seem to be driven by differences in prosociality. Interaction effects (see Table B.9) of the prosociality index with ideology dummies do not reveal statistically significant differences in the effect of prosociality on protective behavior. The only statistically significant heterogeneity concerning our main outcome variables is that conservatives entirely drive the positive effect of prosociality on worrying about the local spread ($b = -0.06$ vs. $b = 0.20$, $p = 0.004$, for liberals and conservatives, respectively).

3.3 Robustness checks

Our main results are robust to different model specifications and estimators.¹⁴ We show that our results are qualitatively equivalent in terms of the direction of effects and their statistical significance applying ordered logit regressions (see Online Appendix Table B.10) as well as when only the core variables prosociality and political ideology are included in the regression model (see Online Appendix Table B.5). Figures B.8 and B.9 in the Online Appendix depict the means of the dependent variables for each quartile of the core explanatory variables alongside a linear fit of the dependent variables on the explanatory variables, illustrating the correlational relationship, e.g. that higher levels of prosociality are associated with more self-reported engagement in self-quarantining.

The data allows us to show that our results are stable using an alternative measure of prosociality. Participants in the Trustlab were asked whether they would like to donate any part of their earnings to UNICEF. As earnings are not equal across participants, we use the share of earnings that participants chose to donate. The average share donated was 0.31 ($sd = 0.41$, $N = 685$).¹⁵ Consistent with our previous results,

¹³There is also some heterogeneity concerning the question whether the relief provided by the government has been timely and efficient. This question does not explicitly state whether it refers to the state's or national government. Conservatives report a larger score ($b = 0.28$, $p = 0.021$) when the governor is from the Republicans than when he or she is not.

¹⁴In the Online Appendix, we also show in Section B.1 that potential experimenter demand effects are unlikely to have had an influence on our results.

¹⁵The voluntary donation variable has 485 missing values. Results are equivalent and remain statistically significant coding missing values as zero donations.

voluntary donations show positive correlations that are statistically significant on self-quarantining ($\beta = 0.07$, $p = 0.025$), wearing of face masks ($\beta = 0.12$, $p = 0.003$), and worries about the local spread ($\beta = 0.15$, $p < 0.001$).

We also show that the effect of prosociality on self-quarantining, wearing of face masks, and worries about the local spread is partially moderated when controlling for contextual factors, i.e. self-reported vulnerability and worrying about getting infected (see Table B.8). Self-reported vulnerability to COVID-19 is strongly correlated with self-quarantine engagement ($\beta = 0.19$, $p < 0.001$), wearing of face masks ($\beta = 0.22$, $p < 0.001$), and worries about the local spread ($\beta = 0.20$, $p < 0.001$). While worries about getting infected show no statistically significant effect on self-quarantine behavior ($\beta = 0.03$, $p = 0.442$), it strongly correlates with wearing of face masks ($\beta = 0.26$, $p < 0.001$) and worries about the local spread ($\beta = 0.66$, $p < 0.001$). Nevertheless, even after controlling for both items, prosociality remains a (largely) statistically significant predictor for the outcome variables of self-quarantine behavior, wearing of face masks, and worries about the local spread ($p = 0.007$, $p = 0.122$, and $p = 0.007$, respectively). As we are only reporting correlations which do not require to uncover causal pathways between our measures, it is beyond the scope of this paper to explain the interdependencies of prosociality with worries about infection and vulnerability. However, the fact that prosociality is itself positively correlated with self-reported vulnerability (Pearson’s $r = 0.11$, $p < 0.001$) and worries about getting infected with COVID-19 (Pearson’s $r = 0.10$, $p < 0.001$) may indicate that prosocial individuals have higher levels of health awareness. Prosociality may potentially be related to fears about getting infected due to considering the risk of transmitting the virus to other people.

3.4 Further results

Previous research found that the adherence to protective behavior and perceptions of the COVID-19 pandemic differed along the line of demographic characteristics, e.g. between males and females (Pedersen and Favero, 2020; Zickfeld et al., 2020; Alsharawy et al., 2021; Zettler et al., 2021). In regressions with only demographic and county-level variables included, we find that women report to be more engaging in self-quarantine ($b = 0.11$, $p = 0.084$) and stated more frequently wearing their face masks ($b = 0.15$, $p = 0.028$) than men (see Table B.5). Interestingly, the gender difference becomes insignificant when adding the indicators for liberal and conservative political ideology, suggesting that a substantial part of the difference may be attributable to ideology. In fact, women are significantly less conservative than men as measured on the 0-to-10 Likert scale (MD = -0.87, $p < 0.001$, $N = 1041$).

Consistently, when controlling for the measures for prosociality and political ideology, there is no gender difference in self-quarantine, wearing a face mask, and the degree to which women or men worry about the spread in the local community. However, even controlling for prosociality and political ideology, the assessment of the political performance by female respondents remains statistically significantly less positive than that of male respondents ($b = -0.15$, $p = 0.002$ for the question on relief provision; $b = -0.16$, $p = 0.022$ for the evolution of trust at the state-level; and $b = -0.25$, $p < 0.001$ at the national level, respectively, see Table B.4).

Furthermore, African American participants report (relative to Whites) to be less engaged in self-quarantine ($b = -0.29$, $p = 0.054$) but to wear their face masks more

often ($b = 0.27$, $p = 0.006$). This result may be due to African Americans being more likely to be active in occupations that cannot be conducted from home (Almagro and Orane-Hutchinson, 2020). African Americans report a lower degree of satisfaction with the relief provided by the government than do Whites ($b = -0.25$, $p = 0.005$) and report a less positive evolution of trust in politicians due to the crisis management ($p < 0.01$) (see Table B.4).¹⁶

Several studies reported that political ideology explains substantial parts of the perceived risk from a COVID-19 infection (Bruine de Bruin, Saw and Goldman, 2020; Gadarian, Goodman and Pepinsky, 2021). Although we found that conservatives worry less about the spread in their local community than liberals, our data reveals only marginal differences in the more self-centered items concerning self-reported vulnerability (0.18 of a SD in the dependent variable, $p = 0.065$) and worries about getting infected. In fact, the difference between conservatives and liberals in the latter (amounting up to 0.1 of a standard deviation) is far from reaching statistical significance ($p = 0.332$). Finally, we find that reporting to be negatively affected by the COVID-19 crisis in the economic domain correlates negatively with the assessment of political crisis management (see Online Appendix Table B.7), relating to the literature showing that negative economic experiences have potentially strong and long-lasting effects on attitudes, behavior, and political preferences (Margalit, 2013; Giuliano and Spilimbergo, 2014; Fisman, Jakiela and Kariv, 2015).¹⁷

4 Concluding remarks

This study uses data from a large-scale online experiment run on a broadly representative sample of the U.S. population during the summer of 2020. We examined differences between those on opposite ends of the ideological spectrum and correlations of prosociality measured in experimental economic games concerning COVID-19 related behavior, worries about the pandemic, and an assessment of its political management.

We document profound polarization, which has been trending upward in the U.S. for a long time (Iyengar et al., 2019), between liberals and conservatives. Both extremes of the ideological spectrum are substantially more polarized in their judgments of the political efforts to manage the crisis than their reported behavior and worries. Respondents who state to be relatively more conservative on the political ideology scale report to a lower extent to be engaged in self-quarantine, wear their face masks less often than liberals and worry less about the local spread of the virus. While differences between liberals and conservatives range between 0.2 standard deviations and 0.35 standard deviations for the variables measuring protective behavior and worries about the local spread, the polarization is considerably more substantial when assessing political crisis management. E.g., the difference between liberals and conservatives concerning the

¹⁶All ethnicity-related results we report are from regressions underlying figure 1 controlling for prosociality and political ideology.

¹⁷In Table B.7 we show that the index for economic affectedness (construction explained below the regression table) shows a negative effect on the evaluation of the relief provided by the government ($\beta = -0.11$, $p < 0.001$), on the development of trust in politicians at the state-level ($\beta = -0.11$, $p = 0.002$), as well as at the national level ($\beta = -0.13$, $p < 0.001$). The estimated coefficients of the index on self-quarantine, face mask-wearing, and worries about the local spread are all positive and statistically significant.

question of whether trust in politicians and the national level increased for their handling of the crisis amounts up to 1.1 standard deviations. This finding may suggest that Donald Trump’s communication which was overall more dividing people than trying to foster solidarity above party lines (Hatcher, 2020) had more potent polarizing effects on political opinions than on actual behavior during the first summer of the COVID-19 pandemic.

Consistent with previous studies, we find that prosociality is positively correlated with protective behavior and worrying about the virus’ spread in respondents’ local communities, suggesting that prosocial behavior in economic games is related to caring more about others in the real world (Levitt and List, 2007). An important difference to previous studies on the topic of COVID-19 related behavior and prosociality (Campos-Mercade et al., 2021; Müller and Rau, 2021; Dinić and Bodroža, 2021) is that we use standard versions of experimental games. We can thus pin down real-life prosocial behavior to standard measures of prosociality, ruling out additional effects related to risk tolerance. Although the standard dictator and public goods games come without a possibility of imposing risks on others or any reference to health issues, we nevertheless find a statistically significant correlation with behavior and worries about the COVID-19 pandemic, supporting findings from previous studies.

An important contribution of our study is that our data enable us to jointly investigate the role of political ideology and prosociality whereas previous studies focused on one factor at a time (Bruine de Bruin, Saw and Goldman, 2020; Campos-Mercade et al., 2021; Kerr, Panagopoulos and van der Linden, 2021; Müller and Rau, 2021). While we replicate the patterns of preceding articles, our analyses show that both factors are correlated with protective behavior in an autonomous way and do not lead to a significant mediation on each other, suggesting that there are profound differences between liberal and conservative ideology concerning following behavioral guidelines intended to control the pandemic which cannot be attributed to differences in prosocial behavior. This finding is underpinned by the fact that we do not observe any significant heterogeneity in the effect of prosociality on protective behavior between liberals and conservatives.

We believe that our results can help to inform the political debate on current troubles in fighting the ongoing pandemic. Despite effective vaccines being available in the industrialized countries, cases and deaths due to COVID-19 are on a high level again in the U.S. and many other countries. Apart from more transmissible virus variants, plateaued vaccine uptake and relatively careless behavior by large parts of the population have contributed to this new surge.¹⁸ Recent studies suggest that prosociality not only strengthens people’s adherence to protective behavior but is also related to COVID-19 vaccination intentions (Yu et al., 2021; Lindholt et al., 2021; Jørgensen et al., 2021), which further amplifies the need to promote prosocial behavior by calling on people’s prosociality, promoting altruistic and cooperative behavior (van Bavel et al., 2020).¹⁹ The political polarization which is reinforced by those politicians who deny the need to engage in protective measures such as mask-wearing mandates and social-distancing measures impedes the efforts to suppress the virus’ spread. Promoting protective behavior will likely remain necessary for a longer time to avoid stress on the

¹⁸Andersson et al. (2021) argue that anticipation of vaccine availability even led to lower adherence to protective behavior, increasing the spread of COVID-19.

¹⁹See Böhm and Betsch (2021) for a review on the topic of prosocial vaccination.

healthcare system given large shares of the population not being vaccinated or having acquired immunity from natural infection and to protect people who either cannot be vaccinated (e.g. young children) or for which the vaccines do not offer the same level of protection, e.g. for immunocompromised people or due to other underlying health conditions. Further research is necessary to guide policies to find ways to cope with existing and emerging threats in this and future pandemics, not losing sight of increasing polarization along ideological lines.

References

- Allcott, Hunt, Levi Boxell, Jacob Conway, Matthew Gentzkow, Michael Thaler, and David Yang. 2020. "Polarization and public health: Partisan differences in social distancing during the coronavirus pandemic." *Journal of Public Economics*, 191: 104254.
- Almagro, Milena, and Angelo Orane-Hutchinson. 2020. "JUE Insight: The determinants of the differential exposure to COVID-19 in New York city and their evolution over time." *Journal of Urban Economics*, 107(3): 103293.
- Alsharawy, Abdelaziz, Ross Spoon, Alec Smith, and Sheryl Ball. 2021. "Gender Differences in Fear and Risk Perception During the COVID-19 Pandemic." *Frontiers in psychology*, 12: 689467.
- Andersson, Ola, Pol Campos-Mercade, Armando N. Meier, and Erik Wengström. 2021. "Anticipation of COVID-19 Vaccines Reduces Willingness to Socially Distance." *Journal of Health Economics*, 86(11): 102530.
- Bargain, Olivier, and Ulugbek Aminjonov. 2020. "Trust and compliance to public health policies in times of COVID-19." *Journal of Public Economics*, 192: 104316.
- Betsch, Cornelia, Lars Korn, Philipp Sprengholz, Lisa Felgendreiff, Sarah Eitze, Philipp Schmid, and Robert Böhm. 2020. "Social and behavioral consequences of mask policies during the COVID-19 pandemic." *Proceedings of the National Academy of Sciences of the United States of America*, 117(36): 21851–21853.
- Bobba, Giuliano, and Nicolas Hubé, ed. 2021. *Populism and the Politicization of the COVID-19 Crisis in Europe*. Cham:Springer International Publishing.
- Böhm, Robert, and Cornelia Betsch. 2021. "Prosocial vaccination." *Current opinion in psychology*, 43: 307–311.
- Boxell, Levi, Matthew Gentzkow, and Jesse Shapiro. 2020. "Cross-Country Trends in Affective Polarization."
- Bruine de Bruin, Wändi, Htay-Wah Saw, and Dana P. Goldman. 2020. "Political polarization in US residents' COVID-19 risk perceptions, policy preferences, and protective behaviors." *Journal of Risk and Uncertainty*, 1–18.
- Bursztyn, Leonardo, Aakaash Rao, Christopher Roth, and David Yanagizawa-Drott. 2020. "Misinformation During a Pandemic."
- Campos-Mercade, Pol, Armando N. Meier, Florian H. Schneider, and Erik Wengström. 2021. "Prosociality predicts health behaviors during the COVID-19 pandemic." *Journal of Public Economics*, 195: 104367.
- Cappelen, Alexander W., Knut Nygaard, Erik Ø. Sørensen, and Bertil Tungodden. 2015. "Social Preferences in the Lab: A Comparison of Students and a Representative Population." *The Scandinavian Journal of Economics*, 117(4): 1306–1326.

- Cappelen, Alexander W., Ranveig Falch, Erik Ø. Sørensen, and Bertil Tungodden.** 2021. “Solidarity and fairness in times of crisis.” *Journal of Economic Behavior & Organization*, 186(2): 1–11.
- CDC.** 2021. “Guidance for Wearing Masks: Help Slow the Spread of COVID-19.”
- Chavarría, Eliana, Farah Diba, Maja E. Marcus, Marthoenis, Anna Reuter, Lisa Rogge, and Sebastian Vollmer.** 2021. “Knowing Versus Doing: Protective Health Behaviour Against COVID-19 in Aceh, Indonesia.” *The Journal of Development Studies*, 57(8): 1245–1266.
- de Quidt, Jonathan, Johannes Haushofer, and Christopher Roth.** 2018. “Measuring and Bounding Experimenter Demand.” *American Economic Review*, 108(11): 3266–3302.
- Dinić, Bojana M., and Bojana Bodroža.** 2021. “COVID-19 Protective Behaviors Are Forms of Prosocial and Unselfish Behaviors.” *Frontiers in psychology*, 12: 647710.
- Dryhurst, Sarah, Claudia R. Schneider, John Kerr, Alexandra L. J. Freeman, Gabriel Recchia, Anne Marthe van der Bles, David Spiegelhalter, and Sander van der Linden.** 2020. “Risk perceptions of COVID-19 around the world.” *Journal of Risk Research*, 23(7-8): 994–1006.
- Falco, Paolo, and Sarah Zaccagni.** 2021. “Promoting social distancing in a pandemic: Beyond good intentions.” *PloS one*, 16(12): e0260457.
- Fieldstadt, Elisha, Natalie Obregon, and Doha Madani.** 10.9.2021. “Gov. DeSantis’ ban on mask mandates in Florida schools reinstated for now.” *NBC News*.
- Fisman, Raymond, Pamela Jakiela, and Shachar Kariv.** 2015. “How did distributional preferences change during the Great Recession?” *Journal of Public Economics*, 128: 84–95.
- Foa, Roberto Stefan, and Yascha Mounk.** 2017. “The Signs of Deconsolidation.” *Journal of Democracy*, 28(1): 5–15.
- Foa, Roberto Stefan, and Yascha Mounk.** 2021. “America after Trump: From “clean” to “dirty” democracy?” *Policy Studies*, 42(5-6): 455–472.
- Franzen, Axel, and Sonja Pointner.** 2013. “The external validity of giving in the dictator game.” *Experimental Economics*, 16(2): 155–169.
- Gadarian, Shana Kushner, Sara Wallace Goodman, and Thomas B. Pepinsky.** 2021. “Partisanship, health behavior, and policy attitudes in the early stages of the COVID-19 pandemic.” *PloS one*, 16(4): e0249596.
- Galizzi, Matteo M., and Daniel Navarro-Martinez.** 2019. “On the External Validity of Social Preference Games: A Systematic Lab-Field Study.” *Management Science*, 65(3): 976–1002.
- Gidron, Noam, James Adams, and Will Horne.** 2020. *American Affective Polarization in Comparative Perspective*. Cambridge University Press.

- Giuliano, P., and A. Spilimbergo.** 2014. “Growing up in a Recession.” *The Review of Economic Studies*, 81(2): 787–817.
- Gollwitzer, Anton, Cameron Martel, William J. Brady, Philip Pärnamets, Isaac G. Freedman, Eric D. Knowles, and Jay J. van Bavel.** 2020. “Partisan differences in physical distancing are linked to health outcomes during the COVID-19 pandemic.” *Nature human behaviour*, 4(11): 1186–1197.
- Grimalda, Gianluca, Nancy R. Buchan, Orgul D. Ozturk, Adriana C. Pinate, Giulia Urso, and Marilynn B. Brewer.** 2021. “Exposure to COVID-19 is associated with increased altruism, particularly at the local level.” *Scientific reports*, 11(1): 18950.
- Grossman, Guy, Soojong Kim, Jonah M. Rexer, and Harsha Thirumurthy.** 2020. “Political partisanship influences behavioral responses to governors’ recommendations for COVID-19 prevention in the United States.” *Proceedings of the National Academy of Sciences of the United States of America*, 117(39): 24144–24153.
- Hart, P. Sol, Sedona Chinn, and Stuart Soroka.** 2020. “Politicization and Polarization in COVID-19 News Coverage.” *Science Communication*, 42(5): 679–697.
- Hatcher, William.** 2020. “A Failure of Political Communication Not a Failure of Bureaucracy: The Danger of Presidential Misinformation During the COVID-19 Pandemic.” *The American Review of Public Administration*, 50(6-7): 614–620.
- Healy, Kieran.** 2020. “covdata: COVID-19 Case and Mortality Time Series.”
- Howard, Jeremy, Austin Huang, Zhiyuan Li, Zeynep Tufekci, Vladimir Zdimal, Helene-Mari van der Westhuizen, Arne von Delft, Amy Price, Lex Fridman, Lei-Han Tang, Viola Tang, Gregory L. Watson, Christina E. Bax, Reshama Shaikh, Frederik Questier, Danny Hernandez, Larry F. Chu, Christina M. Ramirez, and Anne W. Rimoin.** 2021. “An evidence review of face masks against COVID-19.” *Proceedings of the National Academy of Sciences of the United States of America*, 118(4).
- Huynh, Toan Luu Duc.** 2020. ““If You Wear a Mask, Then You Must Know How to Use It and Dispose of It Properly! ”: A Survey Study in Vietnam.” *Review of Behavioral Economics*, 7(2): 145–158.
- Inglehart, R., C. Haerpfer, A. Morena, Christian Welzel, K. Kizilova, H. Diez-Medrano, M. Lagos, P. Norris, E. Ponarin, and B. Puranten.** 2021. “World Values Survey (WVS): Rounds 3-7 (1995-2020).”
- Iyengar, Shanto, Yphtach Lelkes, Matthew Levendusky, Neil Malhotra, and Sean J. Westwood.** 2019. “The Origins and Consequences of Affective Polarization in the United States.” *Annual Review of Political Science*, 22(1): 129–146.
- Jørgensen, Frederik, Alexander Bor, Marie Fly Lindholt, and Michael Bang Petersen.** 2021. “Public support for government responses against COVID-19: Assessing levels and predictors in eight Western democracies during 2020.” *West European Politics*, 44(5-6): 1129–1158.

- Jost, John T., Sander van der Linden, Costas Panagopoulos, and Curtis D. Hardin.** 2018. “Ideological asymmetries in conformity, desire for shared reality, and the spread of misinformation.” *Current opinion in psychology*, 23: 77–83.
- Kerr, John, Costas Panagopoulos, and Sander van der Linden.** 2021. “Political polarization on COVID-19 pandemic response in the United States.” *Personality and individual differences*, 179(5): 110892.
- Levitt, Steven D., and John A. List.** 2007. “What Do Laboratory Experiments Measuring Social Preferences Reveal About the Real World?” *Journal of Economic Perspectives*, 21(2): 153–174.
- Lindholt, Marie Fly, Frederik Jørgensen, Alexander Bor, and Michael Bang Petersen.** 2021. “Public acceptance of COVID-19 vaccines: Cross-national evidence on levels and individual-level predictors using observational data.” *BMJ open*, 11(6): e048172.
- Margalit, Yotam.** 2013. “Explaining Social Policy Preferences: Evidence from the Great Recession.” *American Political Science Review*, 107(1): 80–103.
- McCoy, Jennifer, and Murat Somer.** 2021. “Overcoming Polarization.” *Journal of Democracy*, 32(1): 6–21.
- McGovern, Tony, Stephen Larson, Bill Morris, and Matt Hodges.** 2020. “United States General Election Presidential Results by County from 2008 to 2020.”
- Mitze, Timo, Reinhold Kosfeld, Johannes Rode, and Klaus Wälde.** 2020. “Face masks considerably reduce COVID-19 cases in Germany.” *Proceedings of the National Academy of Sciences of the United States of America*, 117(51): 32293–32301.
- Motta, Matt, Dominik Stecula, and Christina Farhart.** 2020. “How Right-Leaning Media Coverage of COVID-19 Facilitated the Spread of Misinformation in the Early Stages of the Pandemic in the U.S.” *Canadian Journal of Political Science*, 53(2): 335–342.
- Müller, Stephan, and Holger A. Rau.** 2021. “Economic preferences and compliance in the social stress test of the COVID-19 crisis.” *Journal of Public Economics*, 194(5): 104322.
- Murtin, Fabrice, Lara Fleischer, Vincent Siegerink, Arnstein Aassve, Yann Algan, Romina Boarini, Santiago González, Zsuzsanna Lonti, Gianluca Grimalda, Rafael Hortala Vallve, Soonhe Kim, David Lee, Louis Putterman, and Conal Smith.** 2018. “Trust and its determinants.”
- Nielsen, Julie Hassing, and Johannes Lindvall.** 2021. “Trust in government in Sweden and Denmark during the COVID-19 epidemic.” *West European Politics*, 44(5-6): 1180–1204.
- Pedersen, Mogens Jin, and Nathan Favero.** 2020. “Social Distancing During the COVID-19 Pandemic: Who Are the Present and Future Non-compliers?” *Public administration review*.

- Pew Research Center.** 2014. “Political Polarization in the American Public.”
- Pew Research Center.** 2019. “Partisan Antipathy: More Intense, More Personal.”
- Pittinsky, Todd L.** 2015. “America’s crisis of faith in science.” *Science*, 348(6234): 511–512.
- Romano, Angelo, Giuliana Spadaro, Daniel Balliet, Jeff Joireman, Caspar van Lissa, Shuxian Jin, Maximilian Agostini, Jocelyn J. Bélanger, Ben Gützkow, Jannis Kreienkamp, N. Pontus Leander, and PsyCorona Collaboration.** 2021. “Cooperation and Trust Across Societies During the COVID-19 Pandemic.” *Journal of Cross-Cultural Psychology*, 1–21.
- Rozzi, Gavin C.** 2021. “zipcodeR: Advancing the analysis of spatial data at the ZIP code level in R.” *Software Impacts*, 9: 100099.
- Simonov, Andrey, Szymon K. Sacher, Jean-Pierre H. Dubé, and Shirsho Biswas.** 2020. “The persuasive effect of fox news: non-compliance with social distancing during the covid-19 pandemic.”
- Sterling, Joanna, John T. Jost, and Curtis D. Hardin.** 2019. “Liberal and Conservative Representations of the Good Society: A (Social) Structural Topic Modeling Approach.” *SAGE Open*, 9(2): 215824401984621.
- Svolik, Milan W.** 2019. “Polarization versus Democracy.” *Journal of Democracy*, 30(3): 20–32.
- Terrier, Camille, Daniel L. Chen, and Matthias Sutter.** 2021. “COVID-19 within families amplifies the prosociality gap between adolescents of high and low socioeconomic status.” *Proceedings of the National Academy of Sciences of the United States of America*, 118(46).
- Thunström, Linda, Madison Ashworth, Jason F. Shogren, Stephen Newbold, and David Finoff.** 2021. “Testing for COVID-19: Willful ignorance or selfless behavior?” *Behavioural Public Policy*, 5(2): 135–152.
- United States Census Bureau.** 2021. “County Population Totals: 2010-2020.”
- van Bavel, Jay J., Katherine Baicker, Paulo S. Boggio, Valerio Capraro, Aleksandra Cichocka, Mina Cikara, Molly J. Crockett, Alia J. Crum, Karen M. Douglas, James N. Druckman, John Drury, Oeindrila Dube, Naomi Ellemers, Eli J. Finkel, James H. Fowler, Michele Gelfand, Shihui Han, S. Alexander Haslam, Jolanda Jetten, Shinobu Kitayama, Dean Mobbs, Lucy E. Napper, Dominic J. Packer, Gordon Pennycook, Ellen Peters, Richard E. Petty, David G. Rand, Stephen D. Reicher, Simone Schnall, Azim Shariff, Linda J. Skitka, Sandra Susan Smith, Cass R. Sunstein, Nassim Tabri, Joshua A. Tucker, Sander van der Linden, Paul van Lange, Kim A. Weeden, Michael J. A. Wohl, Jamil Zaki, Sean R. Zion, and Robb Willer.** 2020. “Using social and behavioural science to support COVID-19 pandemic response.” *Nature human behaviour*, 4(5): 460–471.

- Waller, Isaac, and Ashton Anderson.** 2021. “Quantifying social organization and political polarization in online platforms.” *Nature*.
- Wellenius, Gregory A., Swapnil Vispute, Valeria Espinosa, Alex Fabrikant, Thomas C. Tsai, Jonathan Hennessy, Andrew Dai, Brian Williams, Krishna Gadepalli, Adam Boulanger, Adam Pearce, Chaitanya Kamath, Arran Schlosberg, Catherine Bendebury, Chinmoy Mandayam, Charlotte Stanton, Shailesh Bavadekar, Christopher Pluntke, Damien Desfontaines, Benjamin H. Jacobson, Zan Armstrong, Bryant Gipson, Royce Wilson, Andrew Widdowson, Katherine Chou, Andrew Oplinger, Tomer Shekel, Ashish K. Jha, and Evgeniy Gabrilovich.** 2021. “Impacts of social distancing policies on mobility and COVID-19 case growth in the US.” *Nature communications*, 12(1): 3118.
- WHO.** 2020*a*. “Advice on the use of masks in the context of COVID-19: Interim guidance 5 June 2020.”
- WHO.** 2020*b*. “COVID-19 virtual press conference: Transcript, 8 April, 2020.”
- Yamey, Gavin, and Gregg Gonsalves.** 2020. “Donald Trump: A political determinant of covid-19.” *BMJ (Clinical research ed.)*, 369: m1643.
- Yu, Yanqiu, Sitong Luo, Phoenix Kit-Han Mo, Suhua Wang, Junfeng Zhao, Guohua Zhang, Lijuan Li, Liping Li, and Joseph Tak-Fai Lau.** 2021. “Prosociality and Social Responsibility Were Associated With Intention of COVID-19 Vaccination Among University Students in China.” *International journal of health policy and management*.
- Zettler, Ingo, Christoph Schild, Lau Lilleholt, Lara Kroencke, Till Utesch, Morten Moshagen, Robert Böhm, Mitja D. Back, and Katharina Geukes.** 2021. “The Role of Personality in COVID-19-Related Perceptions, Evaluations, and Behaviors: Findings Across Five Samples, Nine Traits, and 17 Criteria.” *Social Psychological and Personality Science*, 194855062110016.
- Zickfeld, Janis H., Thomas W. Schubert, Anders Kuvaas Herting, Jon Grahe, and Kate Faasse.** 2020. “Correlates of Health-Protective Behavior During the Initial Days of the COVID-19 Outbreak in Norway.” *Frontiers in psychology*, 11: 564083.

A Appendix

A.1 Descriptive Statistics

Table A.1: Descriptive Statistics

	Mean	SD	Min	Max	N
Dependent Variables					
Self-quarantine	1.360	0.795	0	2	1120
Face mask wearing	3.273	1.124	0	4	1120
Worry local spread	2.463	1.348	0	4	1120
Relief timely & efficient	4.808	3.214	0	10	1061
Handling of crisis (State)	5.320	2.938	0	10	1072
Handling of crisis (Nation)	4.348	3.051	0	10	1069
Explanatory variables					
Index: Prosociality	0.00	1	-2.10	1.72	1120
Altruism (DG)	4.97	2.86	0	10	1120
Cooperation (PGG)	6.09	3.24	0	10	1120
Index: Econ. Affectedness	0.00	1	-3.26	3.38	1039
Income Loss/Gain	3.23	1.62	0	8	1120
HH Expectations pre-COVID	6.18	2.38	0	10	1067
HH Expectations during COVID	5.15	2.53	0	10	1048
Political ideology (Conservatism)	5.60	2.89	0	10	1041
Liberal (≤ 3)	0.24	0.43	0	1	1041
Conservative (≥ 7)	0.41	0.49	0	1	1041
ln(pop. density)	6.500	1.696	1.065	11.149	1114
ln(county pop.)	13.041	1.497	8.365	16.122	1114
ln(deaths per 100k last 7 days)	0.667	0.587	0	3.517	1113

Notes: The table shows number of observations, means, standard deviations, and minimum and maximum values for the variables.

A.2 Sample Characteristics and Corresponding Population Values

Table A.2: Sample Characteristics

	Sample mean	Standard deviation	Population mean
White	0.743	(0.437)	0.601
African-American	0.112	(0.315)	0.134
Hispanic	0.088	(0.284)	0.163
Asian American	0.028	(0.164)	0.059
Other race	0.008	(0.089)	0.043
Female	0.550	(0.498)	0.508
Age	47.96	(16.50)	
Age (median)	48.50		38.50
Age 15-24	0.083	(0.276)	0.158*
Age 25-54	0.544	(0.498)	0.477*
Age 55-64	0.185	(0.388)	0.158*
Age 65 and above	0.188	(0.391)	0.207*
Low income	0.432	(0.496)	0.400
Med income	0.222	(0.416)	0.200
High income	0.346	(0.476)	0.400
High-school or less	0.172	(0.378)	0.376
Some college	0.327	(0.469)	0.276
Tertiary diploma	0.501	(0.500)	0.348
Employed	0.489	(0.500)	0.532
Self-employed	0.090	(0.287)	0.036
Unemployed	0.160	(0.367)	0.050
Out of the labor force	0.261	(0.439)	0.383
Obs	1120		

Notes: Table shows means and standard deviations of the Trustlab sample characteristics (column title "Sample mean") and respective population values (column title "Population mean"). All variables except Age and Age (median) are binary. (*) Population age group shares were adjusted to the working age population (15 years and above). Labor force population statistics from U.S. Bureau of Labor Statistics (<https://www.bls.gov/cps/cpsaat01.htm>). Ethnicity statistics from United States Census Bureau (<https://www.census.gov/quickfacts/fact/table/US/PST045219>). Gender and age statistics from the CIA World Factbook (<https://www.cia.gov/the-world-factbook/countries/united-states/>).

B Online Appendix

B.1 Experimenter demand effects

The results of this study are based on self-reported behavior rather than real-life observations. In addition to self-reported behavior being possibly inconsistent with actual actions (Falco and Zaccagni, 2021), self-reported measures of behavior are prone to experimenter demand effects. That is, participants may feel urged to report behavior that aligns with what they perceive to be the researchers' expectations (de Quidt, Haushofer and Roth, 2018). This problem arises mainly when the survey enquires about behavior that may affect other people and is highly politicized. Therefore, we tried to measure experimenter demand effects through a question placed at the end of the survey, following the approach by de Quidt, Haushofer and Roth (2018).

The question asked participants whether they believed that researchers had a preference on their choices in the experimental module about interethnic relationships. Even if this question does not pertain to any outcome variables in the present paper, it may be taken as a general proxy to identify those participants who thought that researchers had expectations over their answers to the survey. Therefore, we construct a desirability dummy equal to one (labeled "Desirability" in table B.1) for participants answering that the researchers had certain expectations on their behavior. Participants who believed that researchers preferred specific allocations are more likely to be conservatives and less likely to be Liberals (see table B.1). They also worry more about the local spread of the virus and are more likely to state that their trust in national politicians increased because of their crisis management. In addition, such participants are somewhat more likely to adhere to self-quarantine. However, they do not differ significantly from others in terms of their prosociality score, face mask-wearing, and the variables related to political crisis management. In table B.2, we introduce the desirability dummy alongside our core explanatory variables. The mediation of the political ideology and prosociality coefficients on the outcome variables is negligible. This result suggests that experimenter demand effects may have had no crucial impact on our results.

Table B.1: Effect of Experimenter Demand on Prosociality, Ideology, and Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Prosociality	Self-quarantine	Face mask wearing	Worry local spread	Relief timely and efficient	Trust increased (State)	Trust increased (Nation)	Liberal	Conservative
Desirability	-0.0129 (0.086)	0.127* (0.064)	0.127 (0.080)	0.163*** (0.055)	0.0321 (0.081)	-0.0188 (0.067)	0.120** (0.054)	-0.252**** (0.055)	0.317**** (0.060)
Obs.	1039	1039	1039	1039	1005	1013	1011	1039	1039
Clusters	50	50	50	50	50	50	50	50	50
R2	0.056	0.073	0.138	0.080	0.336	0.134	0.342	0	0
Adj. R2	0.035	0.053	0.120	0.060	0.321	0.114	0.327	0.042	0.067

Notes: The table shows regression results. The dependent variables in the respective columns are (1) Prosociality index (2) Self-quarantine, (3) Face mask wearing, (4) Worry local spread, (5) Relief timely and efficient, (6) Trust increased (State), (7) Trust increased (Nation), (8) Liberal ideology dummy, (9) Conservative ideology dummy. Variables (except dummies) are standardized. Each regression includes controls for age, age-squared, sex, ethnicities, income categories, education categories (respondent's and parents' attainment), dummy for parents immigrated, population, density, deaths per 100k in the last 7 days, date of survey. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively.

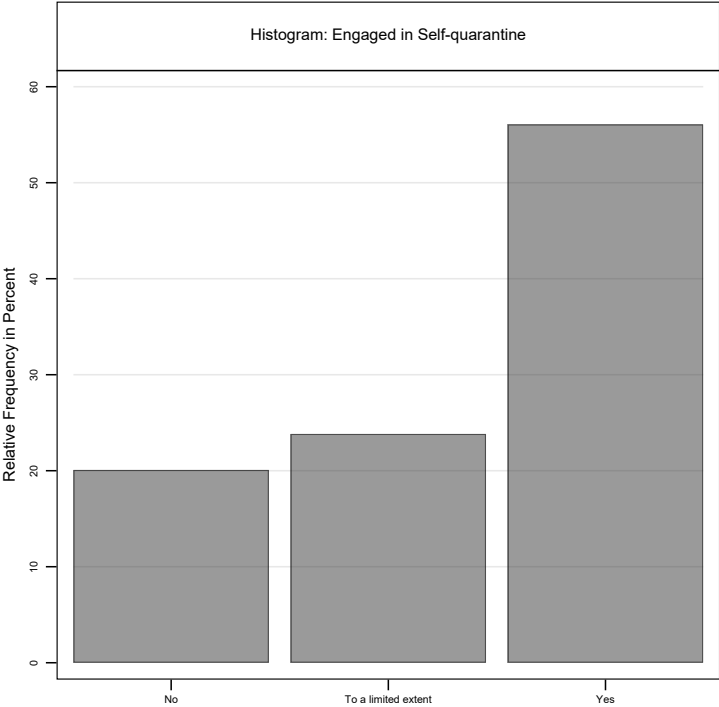
Table B.2: Mediation: Experimenter Demand

Without Desirability Question	Prosociality		Liberal		Conservative	
Self-quarantined	0.113***	(0.03)	0.064	(0.08)	-0.219***	(0.08)
Facemask wearing	0.093***	(0.03)	0.026	(0.05)	-0.317****	(0.06)
Worry local spread	0.122****	(0.03)	0.09	(0.06)	-0.136*	(0.08)
Relief timely and efficient	0.087***	(0.03)	-0.514****	(0.06)	0.725****	(0.06)
Trust increased (State)	0.123****	(0.03)	-0.168*	(0.09)	0.347***	(0.11)
Trust increased (Nation)	0.106***	(0.03)	-0.460****	(0.07)	0.660****	(0.06)
With Desirability Question	Prosociality		Liberal		Conservative	
Self-quarantined	0.113***	(0.03)	0.073	(0.08)	-0.234***	(0.07)
Facemask wearing	0.094***	(0.03)	0.034	(0.05)	-0.332****	(0.06)
Worry local spread	0.123****	(0.03)	0.101	(0.06)	-0.155*	(0.08)
Relief timely and efficient	0.087***	(0.03)	-0.512****	(0.06)	0.721****	(0.06)
Trust increased (State)	0.123****	(0.03)	-0.170*	(0.09)	0.349***	(0.11)
Trust increased (Nation)	0.106***	(0.03)	-0.452****	(0.07)	0.645****	(0.06)

Notes: The table shows regression coefficients of the variables in the heading row on the dependent variable indicated in the first column. The first 6 rows after the heading show coefficients from regressions where we do not control the experimenter demand dummy (1 = Respondent thinks that the researchers had a preference on what they should transfer in the interethnic games). The last 6 rows show coefficients from regressions with a dummy for the experimenter demand question included. All regressions include the same control variables as the main regressions. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively.

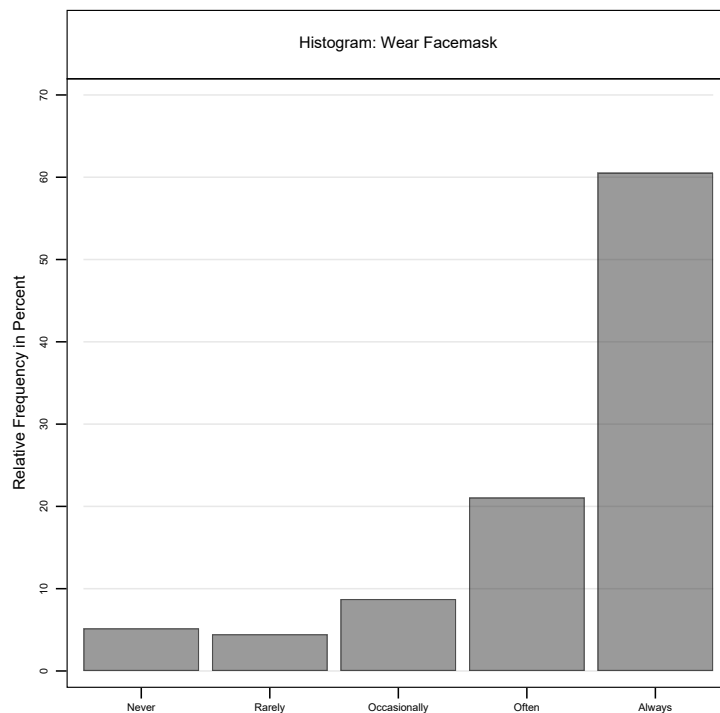
B.2 Histograms of selected variables

Figure B.1: Self-quarantine



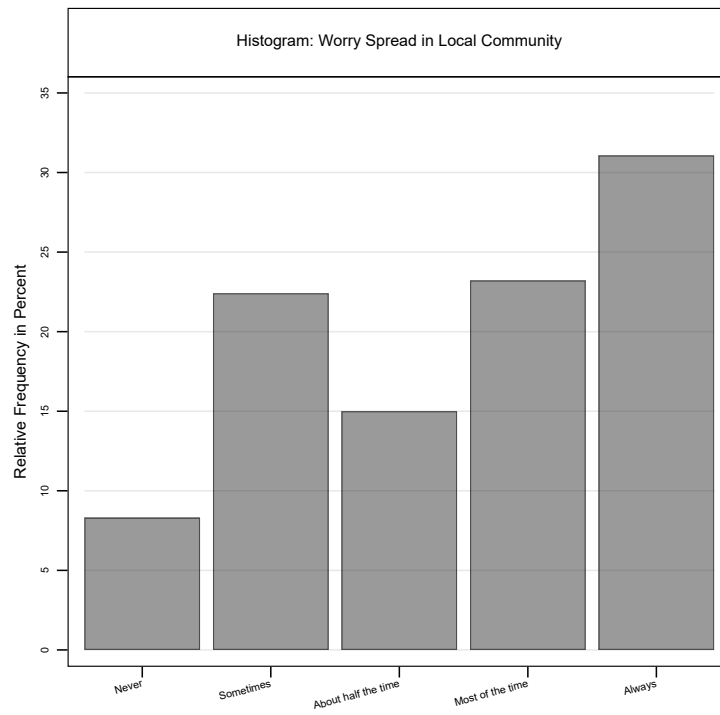
Note: This figure shows the histogram referring to the question "Did you (perhaps with family or roommates) self-quarantine or self-isolate for a week or longer during the COVID-19 pandemic?". Possible answers: "Yes, I (we) self-quarantined", "To a limited extent, only" "No, I (we) engaged in no self-quarantine".

Figure B.2: Face mask



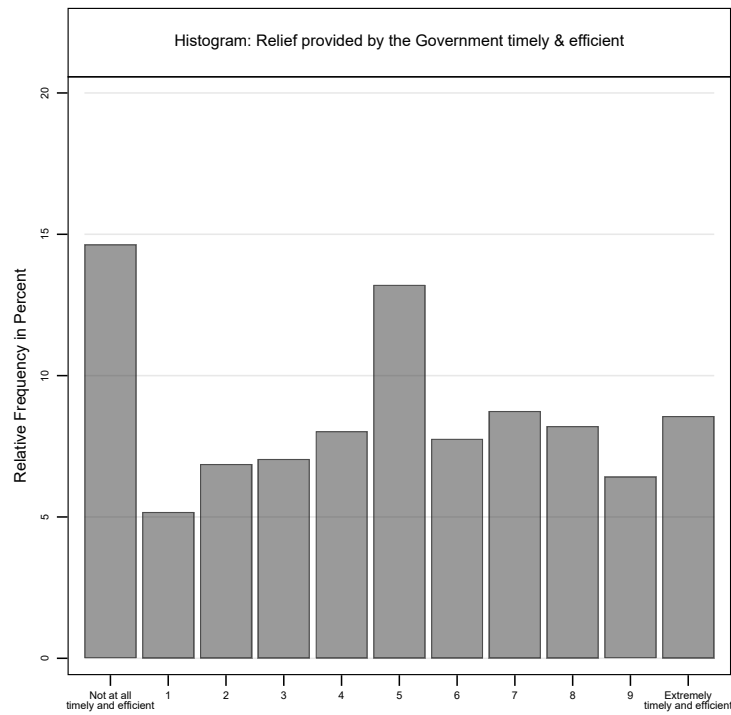
Note: This figure shows the histogram referring to the question "Do you or did you wear a face mask when going out because of the COVID-19 pandemic?". Possible answers: "Always", "Often", "Occasionally", "Rarely", "Never".

Figure B.3: Worry local spread



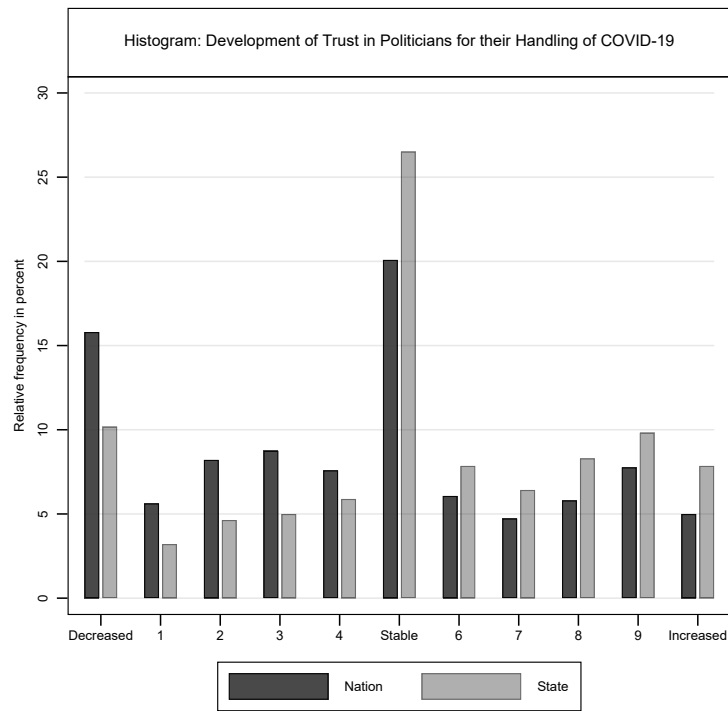
Note: This figure shows the histogram referring to the question "I worry about Covid-19 spreading in my local community". Possible answers: "Always", "Most of the time", "About half the time", "Sometimes", "Never".

Figure B.4: Relief timely and efficient



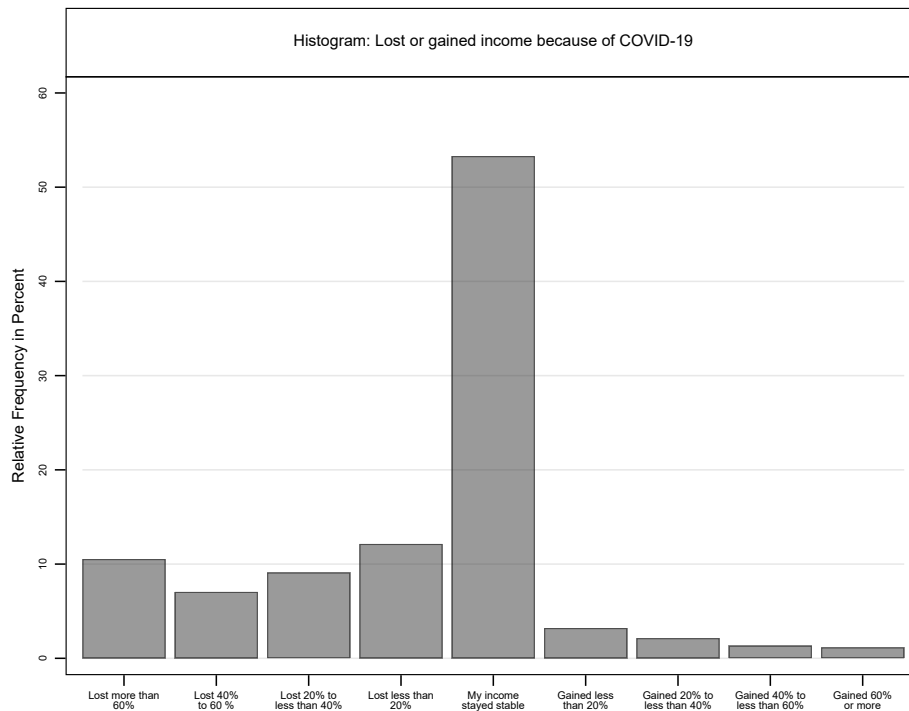
Note: This figure shows the histogram referring to the question "Now that the COVID-19 epidemic has occurred, do you think that the provision by government of adequate relief has been timely and efficient?". Possible answers between 0 "Not at all timely and efficient" and 10 "Extremely timely and efficient".

Figure B.5: Trust Development Politicians (State and Nation)



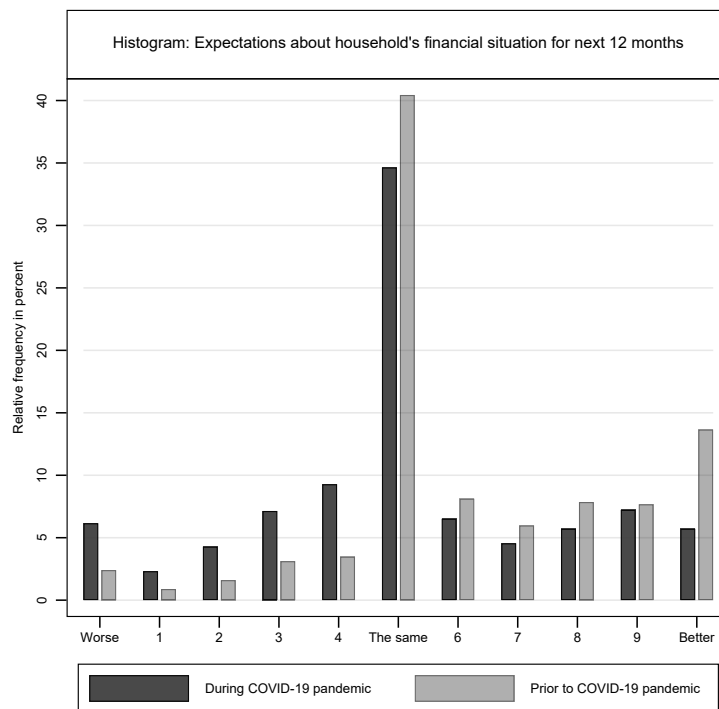
Note: This figure shows the histogram referring to the questions "Has your trust in politicians in your state (nationally) increased, decreased, or stayed stable for their handling of COVID-19?". Possible answers between 0 "Decreased", 5 "Stable", and 10 "Increased".

Figure B.6: Income change because of COVID-19



Note: This figure shows the histogram referring to the question "Have you lost income or gained income because of COVID-19, or has your income stayed stable? Please check the option that best describes your situation."

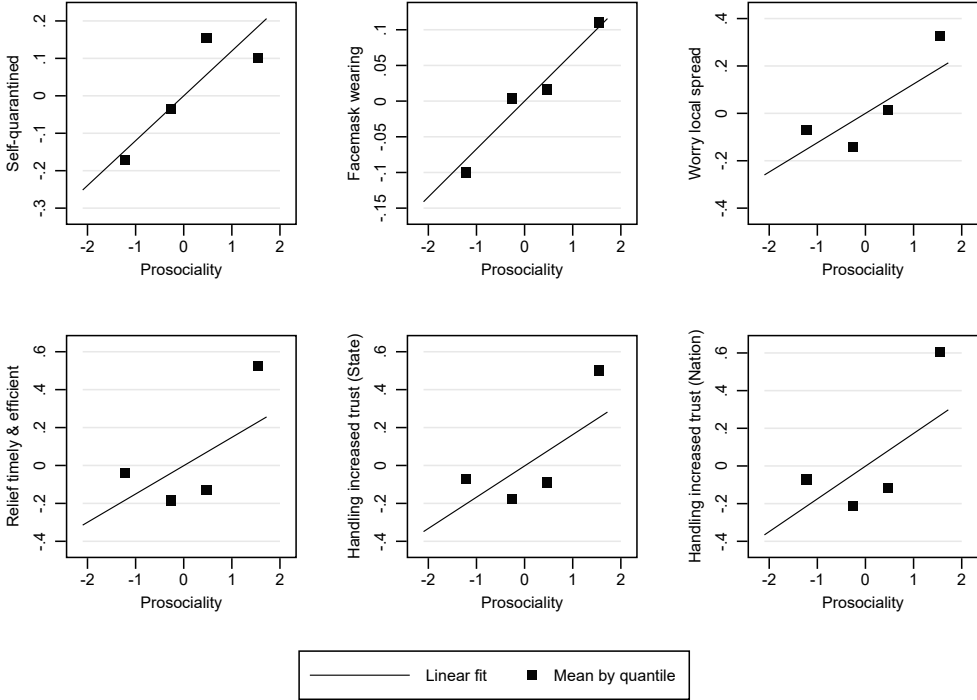
Figure B.7: Expectations about the financial situation of the household



Note: This figure shows the histogram referring to the questions "Prior to the COVID-19 pandemic, when it came to the financial situation of your household, what were your expectations for the 12 months to come? Were you then expecting that the next 12 months be: better, worse, or the same?" and "Now that the COVID-19 pandemic has arrived, when it comes to the financial situation of your household, what are your expectations for the 12 months to come, will the next 12 months be better, worse, or the same?".

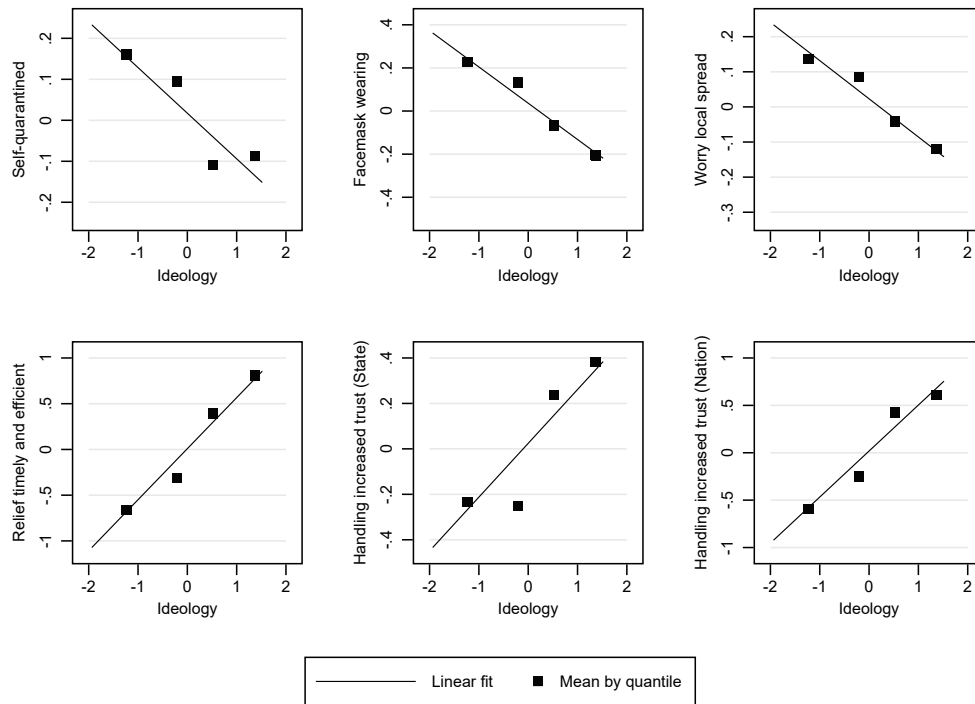
B.3 Scatterplots

Figure B.8: Prosociality index



Note: This figure shows a linear regression fit of the standardized outcome variable on the y-axis on the standardized explanatory variable on the x-axis. Dots mark the means of the standardized outcome variable for each quartile of the standardized explanatory variable.

Figure B.9: Political ideology



Note: This figure shows a linear regression fit of the standardized outcome variable on the y-axis on the standardized explanatory variable on the x-axis. Dots mark the means of the standardized outcome variable for each quartile of the standardized explanatory variable.

B.4 Group differences (political ideology and gender) in explanatory variables

Table B.3: Group differences in means of explanatory variables

	Con.	Lib.	N	p-val.	Male	Fem.	N	p-val.
High income	0.406	0.341	679	0.094	0.438	0.269	1120	0.000
Medium income	0.248	0.227	679	0.552	0.250	0.200	1120	0.044
Low income	0.347	0.431	679	0.028	0.312	0.531	1120	0.000
Low education	0.165	0.110	679	0.047	0.135	0.203	1120	0.003
Medium education	0.262	0.337	679	0.036	0.240	0.398	1120	0.000
High education	0.573	0.553	679	0.608	0.625	0.399	1120	0.000
Rural	0.226	0.180	679	0.154	0.183	0.255	1120	0.004
Town	0.186	0.227	679	0.196	0.181	0.244	1120	0.011
City	0.587	0.592	679	0.900	0.637	0.502	1120	0.000
Political ideology	8.450	1.584	679	0.000	6.076	5.206	1041	0.000
Index: Prosociality	0.146	-0.060	679	0.012	0.066	-0.054	1120	0.045
Index: Economic affectedness	-0.184	0.170	642	0.000	-0.117	0.099	1039	0.001

Notes: The table shows means, number of observations, and p-values from two-sided t-tests of the null hypothesis of equal means for the contrasted groups of conservatives vs. liberals and males vs. females.

B.5 Selected questionnaire items

The complete questionnaire from the second wave of the Trustlab has been deposited under <https://osf.io/ebnm8>.

- In political matters, people often talk of 'Liberal' and 'Conservative.' Generally speaking, how would you place your views on this scale?
 - Very Liberal - 0 1 2 3 4 5 6 7 8 9 10 - Very Conservative
- Did you (perhaps with family or roommates) self-quarantine or self-isolate for a week or longer during the COVID-19 pandemic?
 - • Yes, I (we) self-quarantined • To a limited extent, only • No, I (we) engaged in no self-quarantine
- Do you or did you wear a face mask when going out because of the COVID-19 pandemic?
 - • Always • Often • Occasionally • Rarely • Never
- I worry about getting infected with Covid-19:
 - • Always • Most of the time • About half the time • Sometimes • Never
- I feel vulnerable to Covid-19 infection:
 - • Strongly agree • Agree • Neither agree nor disagree • Somewhat disagree • Strongly disagree
- I worry about Covid-19 spreading in my local community.
 - • Always • Most of the time • About half the time • Sometimes • Never
- Have you lost income or gained income because of COVID-19, or has your income stayed stable? Please check the option that best describes your situation.
 - • Lost more than 60% • Lost 40% to 60% • Lost 20% to less than 40% • Lost less than 20% • My income has stayed stable. • Gained less than 20% • Gained 20% to less than 40% • Gained 40% to less than 60% • Gained 60% or more
- Prior to the COVID-19 pandemic, when it came to the financial situation of your household, what were your expectations for the 12 months to come? Were you then expecting that the next 12 months be: better, worse, or the same?
 - Worse - 0 1 2 3 4 5 - The same 6 7 8 9 10 - Better Don't know
- Now that the COVID-19 pandemic has arrived, when it comes to the financial situation of your household, what are your expectations for the 12 months to come, will the next 12 months be better, worse, or the same?
 - Worse - 0 1 2 3 4 5 - The same 6 7 8 9 10 - Better Don't know
- Now that the COVID-19 epidemic has occurred, do you think that the provision by government of adequate relief has been timely and efficient ?

– Not at all timely and efficient - 0 1 2 3 4 5 6 7 8 9 10 - Extremely timely and efficient
Don't know

- Has your trust in politicians in your state increased, decreased, or stayed stable for their handling of COVID-19?

– Decreased - 0 1 2 3 4 5 - Stable 6 7 8 9 10 - Increased Don't know

- Has your trust in politicians nationally increased, decreased, or stayed stable for their handling of COVID-19?

– Decreased - 0 1 2 3 4 5 - Stable 6 7 8 9 10 - Increased Don't know

- Do you think that the researchers had any preference on how you should transfer money to some groups – among non-Hispanic Whites, African Americans, and Hispanics, in comparison to others?

– Yes No

B.6 Regression Tables

Table B.4: Regressions (OLS): Main Results

	(1)	(2)	(3)	(4)	(5)	(6)
Prosociality	0.113*** (0.03)	0.093*** (0.03)	0.122**** (0.03)	0.087*** (0.03)	0.123**** (0.03)	0.106*** (0.03)
Liberal	0.064 (0.08)	0.026 (0.05)	0.09 (0.06)	-0.514**** (0.06)	-0.168* (0.09)	-0.460**** (0.07)
Conservative	-0.219*** (0.08)	-0.317**** (0.06)	-0.136* (0.08)	0.725**** (0.06)	0.347*** (0.11)	0.660**** (0.06)
Female	0.057 (0.06)	0.113* (0.07)	-0.007 (0.08)	-0.146*** (0.05)	-0.160** (0.07)	-0.243**** (0.06)
Age	-0.688**** (0.20)	0.115 (0.19)	0.195 (0.27)	0.121 (0.16)	-0.117 (0.19)	-0.185 (0.21)
Age squared	0.582*** (0.18)	-0.068 (0.17)	-0.255 (0.26)	-0.213 (0.14)	0.054 (0.19)	0.041 (0.21)
High income	0.053 (0.07)	0.005 (0.08)	-0.017 (0.12)	0.002 (0.06)	-0.06 (0.06)	-0.115 (0.09)
Low income	-0.035 (0.08)	-0.153* (0.09)	-0.067 (0.10)	-0.085 (0.08)	-0.064 (0.09)	-0.066 (0.08)
Med. Educ.	0.101 (0.09)	-0.025 (0.09)	-0.07 (0.10)	-0.114 (0.09)	-0.077 (0.07)	-0.129* (0.07)
High Educ.	0.065 (0.11)	0.05 (0.11)	-0.089 (0.08)	-0.061 (0.11)	0.106 (0.09)	-0.102 (0.09)
Parents med.	-0.124* (0.07)	-0.016 (0.10)	-0.075 (0.11)	0.107 (0.07)	0.022 (0.07)	0.157** (0.06)
Parents high	-0.01 (0.09)	0.015 (0.11)	0.131 (0.10)	0.082 (0.08)	0.061 (0.07)	0.160* (0.09)
Parents imm.	-0.101 (0.07)	0.241**** (0.06)	0.111 (0.08)	-0.019 (0.06)	-0.033 (0.09)	-0.063 (0.08)
Town	0.102 (0.11)	0.196* (0.11)	0.115 (0.08)	0.073 (0.10)	0.124 (0.08)	0.023 (0.10)
City	0.187 (0.12)	0.255** (0.11)	0.205* (0.10)	0.197* (0.10)	0.220*** (0.08)	0.211** (0.09)
ln(Deaths)	-0.033 (0.04)	-0.027 (0.03)	0.046 (0.03)	0.004 (0.04)	-0.019 (0.03)	-0.024 (0.03)
ln(county pop.)	0.038 (0.05)	0.081 (0.06)	0.066 (0.06)	0.029 (0.06)	-0.01 (0.05)	0.034 (0.05)
ln(pop. den.)	0.033 (0.04)	0.103 (0.06)	-0.008 (0.06)	-0.042 (0.04)	0.092 (0.06)	0.058 (0.05)
Date survey	-0.019 (0.05)	0.085*** (0.02)	0.105*** (0.03)	-0.001 (0.03)	0.003 (0.03)	0.002 (0.02)
African American	-0.286* (0.15)	0.265*** (0.09)	0.042 (0.10)	-0.245*** (0.08)	-0.198* (0.12)	-0.257*** (0.08)
Hispanic	-0.198	-0.01	-0.035	-0.03	-0.144	-0.049

Table B.4: Regressions (OLS): Main Results

	(1)	(2)	(3)	(4)	(5)	(6)
	(0.15)	(0.13)	(0.12)	(0.13)	(0.14)	(0.10)
Other Ethnicities	0.005	-0.052	0.082	-0.211*	-0.274*	-0.224**
	(0.11)	(0.13)	(0.20)	(0.11)	(0.16)	(0.09)
Constant	-0.055	-0.155	-0.059	-0.136	-0.126	-0.034
	(0.13)	(0.15)	(0.15)	(0.11)	(0.15)	(0.12)
Obs.	1039	1039	1039	1005	1013	1011
No. Clusters	50	50	50	50	50	50
R2	0.082	0.143	0.088	0.343	0.148	0.350
Adj. R2	0.062	0.125	0.069	0.328	0.129	0.335
Tests (p-values)						
Lib. = Con.	0.000	0.000	0.023	0.000	0.003	0.000

Notes: The table shows OLS regression results. The dependent variables in the respective columns are (1) Self-quarantine, (2) face mask wearing, (3) Worry local spread, (4) Relief timely and efficient, (5) Trust increased (State), (6) Trust increased (Nation). The dependent and independent variables (except dummies) are standardized. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively.

Table B.5: Regressions (OLS): Control Variables Only

	(1)	(2)	(3)	(4)	(5)	(6)
Female	0.105*	0.153**	0.042	-0.289****	-0.228****	-0.360****
	(0.06)	(0.07)	(0.08)	(0.07)	(0.06)	(0.08)
Age	-0.718****	0.107	0.223	0.109	-0.056	-0.11
	(0.17)	(0.18)	(0.24)	(0.20)	(0.19)	(0.24)
Age squared	0.611****	-0.06	-0.283	-0.182	0.002	-0.013
	(0.16)	(0.17)	(0.23)	(0.19)	(0.19)	(0.25)
High income	0.041	0.014	-0.009	0.006	-0.045	-0.104
	(0.07)	(0.07)	(0.12)	(0.07)	(0.06)	(0.10)
Low income	-0.057	-0.174**	-0.078	-0.162*	-0.089	-0.123
	(0.09)	(0.08)	(0.09)	(0.09)	(0.10)	(0.10)
Med. Educ.	0.146*	0.032	0.008	-0.222**	-0.126**	-0.215***
	(0.08)	(0.08)	(0.10)	(0.08)	(0.06)	(0.07)
High Educ.	0.083	0.068	-0.027	-0.159	0.075	-0.171*
	(0.10)	(0.11)	(0.09)	(0.10)	(0.08)	(0.10)
Parents med.	-0.056	-0.012	-0.045	0.111	0.038	0.174**
	(0.07)	(0.09)	(0.10)	(0.08)	(0.07)	(0.07)
Parents high.	0.06	0.006	0.129	0.11	0.08	0.191**
	(0.09)	(0.11)	(0.11)	(0.09)	(0.06)	(0.08)
Parents imm.	-0.084	0.273****	0.127*	0.035	0	-0.003
	(0.08)	(0.05)	(0.07)	(0.09)	(0.09)	(0.10)
Town	0.11	0.128	0.096	0.033	0.111	-0.011
	(0.11)	(0.12)	(0.09)	(0.10)	(0.09)	(0.10)
City	0.215*	0.188	0.169	0.209**	0.256****	0.238**
	(0.11)	(0.12)	(0.11)	(0.08)	(0.07)	(0.09)
ln(Deaths per 100k)	-0.025	-0.016	0.054*	0.034	0.012	0.011
	(0.03)	(0.03)	(0.03)	(0.05)	(0.03)	(0.04)
ln(county pop.)	0.016	0.077	0.06	0.007	-0.019	0.013
	(0.05)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
ln(population density)	0.043	0.110*	0.003	-0.064	0.073	0.037
	(0.05)	(0.06)	(0.07)	(0.04)	(0.06)	(0.06)
Date survey	-0.037	0.064*	0.073**	0.001	0.003	0.003
	(0.05)	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)
African American	-0.244*	0.281***	0.101	-0.474****	-0.332**	-0.481****
	(0.13)	(0.10)	(0.09)	(0.10)	(0.13)	(0.10)
Hispanic	-0.12	0.069	0.057	-0.183	-0.224	-0.188*
	(0.15)	(0.13)	(0.11)	(0.11)	(0.14)	(0.11)
Other Ethnicities	0.034	-0.046	0.061	-0.357**	-0.351**	-0.360***
	(0.13)	(0.15)	(0.19)	(0.14)	(0.16)	(0.13)
Constant	-0.238*	-0.274*	-0.17	0.259**	0.044	0.279**
	(0.13)	(0.15)	(0.15)	(0.11)	(0.14)	(0.13)
Obs.	1118	1118	1118	1059	1070	1067
No. Clusters	50	50	50	50	50	50
R2	0.063	0.108	0.061	0.093	0.091	0.136

Table B.5: Regressions (OLS): Control Variables Only

	(1)	(2)	(3)	(4)	(5)	(6)
Adj. R2	0.047	0.092	0.044	0.076	0.074	0.12

Notes: The table shows OLS regression results. The dependent variables in the respective columns are (1) Self-quarantine, (2) face mask wearing, (3) Worry local spread, (4) Relief timely and efficient, (5) Trust increased (State), (6) Trust increased (Nation). The dependent and independent variables (except dummies) are standardized. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively.

Table B.6: Regressions (OLS): Only Core Variables

	(1)	(2)	(3)	(4)	(5)	(6)
Prosociality	0.127**** (0.03)	0.085** (0.03)	0.133**** (0.04)	0.112**** (0.03)	0.143**** (0.03)	0.142**** (0.04)
Liberal	0.1 (0.08)	0.097 (0.06)	0.119* (0.06)	-0.515**** (0.07)	-0.131 (0.10)	-0.435**** (0.07)
Conservative	-0.186** (0.08)	-0.315**** (0.06)	-0.136* (0.08)	0.776**** (0.06)	0.423**** (0.11)	0.718**** (0.08)
Constant	0.051 (0.05)	0.104** (0.05)	0.026 (0.04)	-0.193**** (0.05)	-0.140** (0.07)	-0.184**** (0.05)
Controls	1040	1040	1040	1006	1014	1012
Obs.	50	50	50	50	50	50
No. Clusters	0.027	0.036	0.025	0.299	0.085	0.256
R2	0.024	0.033	0.023	0.297	0.082	0.253
Adj. R2						
Tests (p-values)						
Lib. = Con.	0.000	0.000	0.008	0.000	0.001	0.000

Notes: The table shows OLS regression results. The dependent variables in the respective columns are (1) Self-quarantine, (2) face mask wearing, (3) Worry local spread, (4) Relief timely and efficient, (5) Trust increased (State), (6) Trust increased (Nation). The dependent and independent variables (except dummies) are standardized. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively.

Table B.7: Regressions (OLS): Economic affectedness

	(1)	(2)	(3)	(4)	(5)	(6)
Prosociality	0.097*** (0.03)	0.101*** (0.03)	0.120*** (0.04)	0.092*** (0.03)	0.134**** (0.03)	0.116**** (0.03)
I: Econ. aff.	0.129*** (0.04)	0.086*** (0.03)	0.079** (0.03)	-0.107**** (0.02)	-0.106*** (0.03)	-0.127**** (0.02)
Liberal	0.032 (0.08)	-0.02 (0.06)	0.056 (0.07)	-0.510**** (0.06)	-0.143 (0.10)	-0.418**** (0.07)
Conservative	-0.204*** (0.07)	-0.335**** (0.06)	-0.118 (0.09)	0.688**** (0.07)	0.306** (0.13)	0.621**** (0.06)
Constant	-0.05 (0.13)	-0.118 (0.16)	-0.069 (0.16)	-0.091 (0.12)	-0.092 (0.16)	-0.027 (0.12)
Controls	yes	yes	yes	yes	yes	yes
Obs.	974	974	974	949	960	953
No. Clusters	50	50	50	50	50	50
R2	0.096	0.156	0.091	0.357	0.164	0.368
Adj. R2	0.075	0.136	0.069	0.341	0.143	0.353
Tests (p-values)						
Lib. = Con.	0.000	0.001	0.120	0.000	0.014	0.000

Notes: The table shows OLS regression results. The dependent variables in the respective columns are (1) Self-quarantine, (2) face mask wearing, (3) Worry local spread, (4) Relief timely and efficient, (5) Trust increased (State), (6) Trust increased (Nation). The dependent and independent variables (except dummies) are standardized. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively. The index for economic affectedness is based on three survey items related to the respondents' financial situation. The first of them asks whether respondents experienced changes of their income because of COVID-19 ("Have you lost income or gained income because of COVID-19, or has your income stayed stable?"), allowing for the answers "Lost more than 60 percent", "Lost 40 percent to 60 percent", "Lost 20 percent to less than 40 percent", "Lost less than 20 percent", "My income has stayed stable.", "Gained less than 20 percent", "Gained 20 percent to less than 40 percent", "Gained 40 percent to less than 60 percent", and "Gained 60 percent or more". Two further questions focus on the expectations (prior to the COVID-19 pandemic and currently) about the financial situation of the respondents' household for the next year ("Prior to the COVID-19 pandemic, when it came to the financial situation of your household, what were your expectations for the 12 months to come? Were you then expecting that the next 12 months be: better, worse, or the same?" and the second question "Now that the COVID-19 pandemic has arrived, when it comes to the financial situation of your household, what are your expectations for the 12 months to come, will the next 12 months be better, worse, or the same?"). Respondents could place their answer between 0 "Worse", 5 "The same", and 10 "Better". We calculated the difference between the expectations prior and during the pandemic for each individual in the sample, such that larger numbers correspond to worsened expectations. We multiplied the question on income changes by (-1) to align the meaning with the change in expectations, i.e. that larger numbers are associated with a worse economic situation. To build the index, we standardized the difference in expectations as well as the inversed score in the question on income changes, took the average of both standardized measures and standardized again. Due to 81 missing values in this variable, we do not add it in our main specification. However, results are equivalent as shown in the table.

Table B.8: Regressions (OLS): Vulnerability and Worries about Infection

	(1)	(2)	(3)	(4)	(5)	(6)
I: Prosociality	0.089*** (0.03)	0.044 (0.03)	0.036** (0.01)	0.083*** (0.03)	0.098**** (0.03)	0.095*** (0.03)
Liberal	0.059 (0.08)	0.02 (0.05)	0.083* (0.04)	-0.513**** (0.06)	-0.168* (0.10)	-0.457**** (0.07)
Conservative	-0.194** (0.07)	-0.272**** (0.05)	-0.063 (0.05)	0.727**** (0.06)	0.371*** (0.11)	0.668**** (0.06)
Vulnerability	0.189**** (0.04)	0.221**** (0.04)	0.205**** (0.03)	-0.034 (0.04)	0.113** (0.06)	-0.001 (0.04)
Worry Infection	0.032 (0.04)	0.257**** (0.04)	0.656**** (0.02)	0.074* (0.04)	0.120** (0.05)	0.102*** (0.04)
Controls	yes	yes	yes	yes	yes	yes
Obs.	1039	1039	1039	1005	1013	1011
No. Clusters	50	50	50	50	50	50
R2	0.125	0.326	0.702	0.346	0.191	0.359
Adj. R2	0.104	0.310	0.695	0.330	0.172	0.344
Tests (p-values)						
Lib. = Con.	0.000	0.000	0.003	0.000	0.002	0.000

Notes: The table shows OLS regression results. The dependent variables in the respective columns are (1) Self-quarantine, (2) face mask wearing, (3) Worry local spread, (4) Relief timely and efficient, (5) Trust increased (State), (6) Trust increased (Nation). The dependent and independent variables (except dummies) are standardized. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively.

Table B.9: Regressions (OLS): Heterogeneity State Governor Party Affiliation

	(1)	(2)	(3)
	Relief timely and efficient	Trust increased (State)	Trust increased (Nation)
Prosociality	0.085*** (0.03)	0.120**** (0.03)	0.106*** (0.03)
Liberal	-0.566**** (0.07)	0.024 (0.09)	-0.462**** (0.07)
Conservative	0.613**** (0.09)	0.024 (0.10)	0.627**** (0.09)
GOP Governor	-0.115 (0.10)	-0.322*** (0.10)	-0.06 (0.08)
Liberal x GOP Governor	0.111 (0.12)	-0.406** (0.16)	0.007 (0.14)
Conservative x GOP Governor	0.240** (0.11)	0.691**** (0.14)	0.072 (0.12)
Constant	-0.09 (0.11)	-0.003 (0.16)	-0.013 (0.13)
Controls	yes	yes	yes
Obs.	1005	1013	1011
No. Clusters	50	50	50
R2	0.346	0.201	0.35
Adj. R2	0.329	0.181	0.334
Tests (p-values)			
Lib. = Con.	0.000	0.995	0.000
Lib. x GOP = 0	0.343	0.014	0.961
Con. x GOP = 0	0.036	0.000	0.546
GOP + Con. x GOP = 0	0.217	0.001	0.900
GOP + Lib. x GOP = 0	0.965	0.000	0.636
GOP = 0	0.239	0.002	0.453

Notes: The table shows OLS regression results. The dependent variables in the respective columns are (1) Relief timely and efficient, (2) Trust increased (State), (3) Trust increased (Nation). The dependent and independent variables (except dummies) are standardized. Each regression includes controls for age, age-squared, sex, ethnicities, income categories, education categories (respondent's and parents' attainment), dummy for parents immigrated, population, density, deaths per 100k in the last 7 days, date of survey. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively.

Table B.10: Ordered Logit Regressions: Main Results

	(1)	(2)	(3)	(4)	(5)	(6)
Prosociality	1.249*** (0.09)	1.226*** (0.09)	1.265**** (0.09)	1.170*** (0.07)	1.272**** (0.07)	1.274*** (0.10)
Liberal	1.184 (0.20)	1.028 (0.15)	1.234* (0.16)	0.321**** (0.04)	0.720* (0.13)	0.353**** (0.05)
Conservative	0.647*** (0.10)	0.498**** (0.06)	0.787* (0.11)	4.823**** (0.67)	2.043**** (0.42)	4.106**** (0.55)
Female	1.134 (0.13)	1.25 (0.18)	0.983 (0.16)	0.720*** (0.07)	0.681*** (0.09)	0.582**** (0.07)
Controls	yes	yes	yes	yes	yes	yes
Obs.	1039	1039	1039	1005	1013	1011
No. Clusters	50	50	50	50	50	50
Tests						
Lib. Vs. Con.	0.000	0.000	0.017	0.000	0.001	0.000

Notes: The table shows ordered logit regression results. Odds ratios reported. The dependent variables in the respective columns are (1) Self-quarantine, (2) face mask wearing, (3) Worry local spread, (4) Relief timely and efficient, (5) Trust increased (State), (6) Trust increased (Nation). The independent variables (except dummies) are standardized. Each regression includes controls for age, age-squared, sex, ethnicities, income categories, education categories (respondent's and parents' attainment), dummy for parents immigrated, population, density, deaths per 100k in the last 7 days, date of survey. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively.

Table B.11: Mediation: Ideology and Prosociality

Separately	Prosociality		Liberal		Conservative	
Self-quarantine	0.108****	(0.03)	0.069	(0.08)	-0.196**	(0.07)
face mask wearing	0.081***	(0.03)	0.03	(0.05)	-0.299****	(0.06)
Worry local spread	0.121****	(0.03)	0.095	(0.06)	-0.111	(0.08)
Relief timely and efficient	0.114****	(0.03)	-0.511****	(0.06)	0.742****	(0.06)
Trust increased (State)	0.140****	(0.03)	-0.164*	(0.10)	0.371***	(0.11)
Trust increased (Nation)	0.129***	(0.04)	-0.454****	(0.07)	0.679****	(0.06)
Jointly	Prosociality		Liberal		Conservative	
Self-quarantine	0.113***	(0.03)	0.064	(0.08)	-0.219***	(0.08)
face mask wearing	0.093***	(0.03)	0.026	(0.05)	-0.317****	(0.06)
Worry local spread	0.122****	(0.03)	0.09	(0.06)	-0.136*	(0.08)
Relief timely and efficient	0.087***	(0.03)	-0.514****	(0.06)	0.725****	(0.06)
Trust increased (State)	0.123****	(0.03)	-0.168*	(0.09)	0.347***	(0.11)
Trust increased (Nation)	0.106***	(0.03)	-0.460****	(0.07)	0.660****	(0.06)

Notes: The table shows regression coefficients of the variables in the heading row on the dependent variable indicated in the first column. The first 6 rows after the heading show coefficients from regressions where either only the prosociality index or only the ideology dummies are included. The last 6 rows show coefficients from regressions with both, the prosociality index and the ideology dummies, included. All regressions include the same control variables as the main regressions. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively.

Table B.12: Heterogeneity of Prosociality w.r.t. Ideology

	(1)	(2)	(3)
	Self-quarantine	face mask wearing	Worry local spread
Prosociality	0.155*** (0.05)	0.081 (0.05)	0.101* (0.05)
Liberal x Prosociality	-0.036 (0.08)	-0.037 (0.07)	-0.163** (0.07)
Conservative x Prosociality	-0.068 (0.07)	0.037 (0.05)	0.097 (0.07)
Liberal	0.06 (0.08)	0.024 (0.06)	0.08 (0.06)
Conservative	-0.221*** (0.08)	-0.319**** (0.06)	-0.142* (0.08)
Controls	yes	yes	yes
Obs.	1039	1039	1039
No. Clusters	50	50	50
Tests			
Prosociality: Con vs. Lib	0.641	0.206	0.004

Notes: The table shows regressions where the prosociality index is interacted with the dummies for liberal and conservative ideology. Below tests we report p-values of the tests against the null hypothesis that the effect of prosociality is equal for liberals and conservatives. All regressions include the same control variables as the main regressions. Standard errors (clustered at the state-level) in parentheses. (****, ***, **, *) indicate two-sided p-values below 0.001, 0.01, 0.05, and 0.1 respectively.

Table B.13: WVS: Strong Leader Question

Country	Wave 3	Wave 7	Diff.	Rel. Diff.
United States	23.7	37.1	13.4	0.57
Albania	34.8	22.7	-12.1	-0.35
Belarus	48.5	61.6	13.1	0.27
Bulgaria	48.2	51.6	3.4	0.07
Croatia	28.8	38.2	9.4	0.33
Czech Rep.	14.8	24.7	9.9	0.67
Finland	25.8	14.6	-11.2	-0.43
Germany	13.4	20.9	7.5	0.56
United Kingdom	25.1	27.6	2.5	0.10
Hungary	17	21.1	4.1	0.24
Lithuania	57	50.5	-6.5	-0.11
Montenegro	21.7	66.9	45.2	2.08
Norway	13.8	14.6	0.8	0.06
Romania	40	72.6	32.6	0.82
Russia	42.6	39.4	-3.2	-0.08
Serbia	27.7	52	24.3	0.88
Slovakia	17.7	26.2	8.5	0.48
Slovenia	23.5	28.1	4.6	0.20
Spain	25.3	22.9	-2.4	-0.09
Sweden	25.7	18.9	-6.8	-0.26
Switzerland	26.2	20.9	-5.3	-0.20
Turkey	35.8	49.4	13.6	0.38
Ukraine	38.6	60.4	21.8	0.56

Notes: The table shows the share of respondents answering "Very good" or "Fairly good" to the question "I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad, or very bad way of governing this country?" by country and wave of the WVS as well as the difference between both waves (Diff.) and the difference relative to the share in the third wave (Rel. Diff.). The type of political system to be evaluated was "Having a strong leader who does not have to bother with parliament and elections". The third (seventh) wave of the WVS was conducted between 1995 and 1998 (2017 and 2020). Apart from the U.S., we included only European countries who were part of both the third and the seventh wave of the WVS.