Trust in the time of coronavirus: longitudinal evidence from the United States

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Abstract
The COVID-19 pandemic has exposed most countries to an unexpected crisis, with unclear consequences for citizens' trust in others and in public authorities. This study shed lights on how social and political trust changed during the pandemic. We conducted a longitudinal survey in the US of about 1000 respondents at three points in time during the pandemic. We elicited respondents' trust towards other people and towards different institutional authorities, along with attribution of responsibility for the current situation. Results show that institutional trust fell, while interpersonal trust slightly increased, especially during the peak of the first pandemic wave. This dynamic was mainly driven by Republicans, whose institutional trust decreased, especially when exposed to COVID-19, along with growth in social trust. Considering that Republicans attributed, at the time, more responsibilities to their political leader, we argue that institutional trust was crowded out by social trust. Disappointed voters felt unprotected by institutions and looked for support elsewhere in society. Consistent with this, though, in the reverse direction, experimental results from the third wave show that Republicans increased institutional trust. However, social trust slightly fell when primed with positive information about the pandemic. Overall, these findings suggest that societal shocks may induce people to exchange formal with informal institutions as a coping strategy, with social and political trust moving in opposite directions.

Keywords: Political trust, Social trust, Survey experiment, COVID-19, Trust in institutions, Polarization, Formal vs. informal institutions, Social-political trust substitution.

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1. Introduction

The COVID-19 pandemic has exposed most countries to an unexpected crisis, in which the health risk was the major but not the only source of worry for citizens. Among many other issues, the pandemic brought out anxiety regarding the stability of current and prospective jobs (de Pedraza et al., 2020; Kawohl and Nordt, 2020) and limitations on social interactions (Banerjee and Ray, 2020; Hwang et al, 2020; Usher et al., 2020). More generally, it influenced our way of dealing with strangers (Devakumar et al., 2020; Esaiasson et al., 2020; Gambetta & Morisi, 2020), and our attitudes towards institutions (Esaiasson et al., 2020; Schraff, 2020; Sibley et al., 2020).
By affecting relationships among citizens, and between them and their institutions, the pandemic shock might have played a non-negligible role in political and social trust. These are, of course, two well-known ingredients for societal and individual success (e.g. Fukuyama, 2002; Guiso et al., 2004; Hutchinson and Johnson, 2011).

Through a longitudinal survey administered during the first pandemic wave in the United States, this paper aims to provide empirical and experimental evidence tracking social and political trust in the time of coronavirus.

By analyzing political and social trust jointly through panel-data methods and experimental techniques, this research provides a comprehensive assessment of the dynamics of trust during shocks, thereby offering new insights into a much debated topic.
Indeed, the extant literature offers competing hypotheses, and shows mixed findings. For instance, a strand of the literature claims that no changes in social trust should occur during a crisis (e.g. Erikson, 1950; Uslaner, 2002). Political trust, meanwhile, may vary depending, for instance, on the perceived performance of politicians (e.g. Quaranta and Martini, 2016; Margalit, 2019), and on whether citizens “rally round the flag” (Mueller, 1970). Another strand of literature, suggests that, by changing expectations about others’ behavior, unexpected events can also influence social trust. The direction of change may reflect how much the shock: affected socio-economic and psychological resources (Putnam, 2000; Subramaniam et al., 2002); boosted empathy, social cohesion, cooperation (Gilligan et al., 2014; Bethlehem et al., 2017; Bauer et al., 2016); and stimulated an outward search for social support (Gambetta and Morisi, 2020).

To further understand these complex trust dynamics in the context of a global health threat, we administered a longitudinal survey in the United States (US) at three points in time: before the peak of the first pandemic wave; right after the first pandemic peak; and towards the beginning of the second pandemic wave, and before the 2020 federal elections. The subject pool was composed of respondents recruited through Amazon Mechanical Turks. Subjects were asked standard questions measuring trust towards others and towards different institutional targets. We also asked about attribution of responsibility for the pandemic to a variety of social and institutional targets. In the third wave, to provide a more causal interpretation to longitudinal results, we implemented an experiment in which we primed participants with positive or negative information about the COVID-19 epidemic, and then we elicited their social and political preferences.

Importantly, in the first round of the survey, we also measured respondents' voting behavior in the last presidential elections. A growing number of studies has shown that Democrats and Republicans behave differently with respect to compliance with COVID-19 restrictions and perceived health risks (e.g. Alcott et al., 2020; Makridis and Rothwell, 2020; Gadarian et al. 2021; Cornelson and Miloucheva, 2020). They also react differently to partisan or neutral media messages about COVID-19 (e.g. Ash et al., 2020; Bursztyn et al., 2020; Simonov et al., 2020; Grossman et al., 2020). We build on these recent results, and test whether social and institutional trust follow partisan trends.

Our fixed-effects panel estimates document that, overall, institutional trust declined over time, while social trust slightly increased when the first pandemic wave peaked, before declining thereafter. However, these trends are heterogenous by political affiliation: the decline in political trust was mainly driven by Republicans, who lost trust in their political leader (Trump), the federal government, science, and the media more than Democrats. This decline was particularly pronounced from the first to the second round, i.e. during the peak of the first pandemic wave. While social trust stayed constant over time for Democrats, Republicans became slightly more trusting. These partisanship effects are magnified by personal exposure to COVID-19 as measured through COVID-19 diagnosed cases within the respondent's network. Attribution of responsibility about the COVID-19 situation followed the same pattern. There was – especially among Republicans – increased disappointment in the political forces from which respondents expected support.

The experimental data gathered in the third wave show a reverse, yet consistent dynamic of social and political trust. Trump voters slightly reduced their social trust and increased trust in federal government when they were primed with positive information about the COVID-19 pandemic.

Overall, neither "rally round the flag" nor the increase in the partisans' optimistic evaluation of policy responses seem to drive our findings. On the contrary, taking the dynamics on social and political trust together, we argue that Republicans became disappointed in their leader during the pandemic's first peak, and lost trust in those institutions that were expected to protect them against the crisis. Hence, they might have started to rely on other people as a source of support, their expectations about the trustworthiness of other persons going up. This behavior is consistent with the 'outward exposure' hypothesis, which is grounded in the more general 'emancipation theory of trust' developed by Yamagishi et al. (1994, 1998). It has been extended, note, to the pandemic crisis by Gambetta and Morisi (2020).

Our results suggest that, during crises, social capital is used as a coping strategy when a policy response is perceived as weak, thereby potentially crowding out institutional trust. More generally, in hard times, and in a highly polarized environment such as that of the US, dissatisfaction about governmental responses might lead people to substitute formal institutions with more informal institutions. Informal institutions might be judged to be more effective in providing support and protection against perceived uncertainty and health risks. Hence, during crises, social and political trust may go in opposite directions, operating as 'substitutes' rather than 'complements' when individuals look for support.

The remainder of the paper is organized as follows. Section 2 reviews the relevant academic literature. Section 3 goes through the survey design and presents sample statistics, while Section 4 explains statistical models and shows results. Section 5 provides robustness checks and discuss the magnitude of the effects and Section 6 concludes.

2. Background

Different theories, corroborated by empirical regularities, offer competing hypotheses on possible trust dynamics in times of crisis. A first strand of literature postulates that social trust is formed in childhood, and changes only slowly thereafter as a result of experience (e.g. Erikson, 1950; Uslaner, 2002). Social trust tends, from this perspective, to be rather stable during shocks, whereas political trust is more volatile. Since governments are evaluated more strictly during extraordinary (especially negative) events (Quaranta and Martini, 2016; Margalit, 2019), citizens' trust in institutions and politicians might vary depending on the perceived performance of state actors.

Voters might, on the other hand, have lower political trust when authorities are deemed responsible for the crisis and/or for inadequate policy responses (Hetherington and Rudolph, 2008; Torcal, 2014). On the other, in the midst of a shared misfortune, voters might look for political stability, unity and competence, and, therefore, their political trust might rise; in other words, when it comes to a fight against a collective threat, voters "rally round the flag" (Mueller, 1970; Oneal and Bryan, 1993).

Social trust is conceptualized in another strand of literature as the belief that others behave trustworthily (e.g., Gambetta, 1988; Yamagishi and Yamagishi, 1994; Glanville and Paxton, 2007). By providing clues on the other's behavior, contextual experiences can change individuals' propensity to take the risk of dealing with strangers, and hence to trust others. Low generalized trust can emerge if, for instance, the pandemic makes self-regarding coping strategies more appealing. As such there is social isolation and people close themselves within tight circles of acquaintances (Putnam et al., 2004; Bauer et al., 2014). Low social trust could also emerge if the pandemic shock jeopardizes one's own health, financial, and psychological resources: these are among the factors that are positively correlated with prosocial behavior (Putnam, 2000; Subramaniam et al., 2002; Knack and Zak, 2003; Jen et al., 2010). Studies on post-disaster and post-conflict contexts highlight, however, an opposite pattern: social trust heightens, most likely because of increased empathy with unknown people (Batson et al., 2002; Bethlehem et al., 2017), social cohesion – people feel themselves to be "in the same boat" (e.g. Gilligan et al., 2014). There is also extended cooperation as a recovery strategy (e.g. Bauer et al., 2016), and an intensified search for social support outside one's own network of trusted persons (Yamagishi and Yamagishi, 1994; Yamagishi et al., 1998; Gambetta and Morisi, 2020).

This paper contributes to the recent literature on the relationships between the COVID-19 pandemic and trust. Previous studies focused on the importance of social and political trust for the effectiveness of policy responses to the pandemic (e.g. Bargain and Aminjonov, 2020; Borgonovi and Andrieu, 2020; Durante et al., 2021; Jørgensen et al., 2020). With this paper, we examine, instead, the opposite side of this effect chain: how trust has changed during the pandemic crisis. The empirical literature on the pandemic and trust is still rather scant, and often offers contradictory findings (see Devine et al., 2020 for a review). For instance, individuals experiencing COVID-19 in Spain showed lower levels of political trust (Amat et al., 2020), whereas trust in institutions seemed to be higher in European countries because of lockdown measures (Bol et al., 2020). Conversely, in the Netherlands, trust dynamics were influenced not so much by lockdown policies, but rather by a

“rally round the flag” phenomenon (Schraff, 2020). These findings highlight how satisfaction with governmental responses, together with the need for unity and political stability, were among the key factors that influenced political trust during the pandemic.
With respect to social trust, Gambetta and Morisi (2020) show that interpersonal trust increased in response to COVID-19 exposure in Italy. A few studies investigate the effects of the COVID-19 pandemic on both social and political trust. For instance, Daniele et al. (2020) found that in four European countries social and political trust fell as a result of a priming on COVID-19. But results are heterogeneous by the target of trust and by the topic reported in the priming. Different results are provided by Esaiasson et al. (2020) for Sweden, where interpersonal and institutional trust increased even for groups that are politically distant from the ruling parties. This suggests that the rally effect might go beyond political affiliation.

Our paper contributes to this debate, first, by providing survey evidence both on social and political trust using longitudinal data. This allows us to observe how, across time and space, the pandemic and the policy responses correlated with citizens’ attitudes towards others and towards institutions, and to test whether these two variables co-moved or diverged over time. Relatedly, the use of fixed-effects panel methods, also allows us to net out the confounding effect of unobserved, time-invariant personal characteristics in the estimation of trust dynamics.

Second, in a highly polarized country such as the US, we examine whether these dynamics vary by respondents’ political orientation, and whether they mirror variations in attribution of responsibility about the pandemic crisis. In line with the theory of “hyper-accountability” (Roberts, 2008), we conjecture that Trump voters became more critical about the performance of the political forces they voted for, especially if they felt threatened by the pandemic. Disappointed Trump voters might have reduced institutional trust more than non-Trump voters if they felt abandoned by the institutions from which they expected protection. Conversely, when socio-economic uncertainty arises, identification with a political party may shape the way individuals interpret reality. More specifically, in periods of crisis, supporters of the ruling parties might evaluate policies in a way that is mostly consistent with their own political views (e.g. Bisgaard, 2015; Pennycock et al., 2021). Hence, the political trust of Trump voters might increase as they optimistically expect that the policies introduced by their leaders would eventually benefit all citizens, and protect their own interests (Altiparmakis et al., 2021). A third competing hypothesis hinges on the “rally round the flag” dynamic (Mueller, 1970; Oneal and Bryan, 1993), and predicts a non-partisan increase in political trust. In periods of crisis, political trust may raise uniformly across different groups, suggesting that the rally effect might not depend on one's own political distance from government authorities (Esaiasson et al., 2020). In the light of these diverging hypotheses, our study brings further evidence on whether rally or disappointment emerges through time, and whether the latter, together with the perceived increased in health risks, gives rise to an outward search for support.

Third, we combine our survey-based observational data with the data obtained from the priming experiment. We do so to assess whether the hypothesized mechanisms in the panel estimates are still at play when unobserved heterogeneity and reverse causality issues are mitigated, which is guaranteed by the random assignment of our experimental conditions.

3. Methods

Our longitudinal study follows a panel of 974 Amazon MTurk respondents[1], from the US, through three waves. More precisely, we started with a panel of 1041 participants, and responses from 67 participants (6.44%) were dropped because they failed one of the five attention checks items inserted in different points throughout the three waves. The first round was conducted from April 6th to April 16th 2020; the second wave was collected between April 29th and May 22nd 2020; while the last round took place from October 21st to November 2nd 2020, just prior to the US presidential elections.

Respondents were asked their sociodemographic characteristics during the first wave, including age, gender, race, household composition, education, employment, income, health, political ideology and their voting affiliation in the 2016 elections. Some additional individual characteristics were collected during the second and third wave[2].

The survey included questions on trust, jointly with experiences of, and opinions about the COVID-19 pandemic. These questions were repeated in all the three waves of the survey. They can be divided into a trust section and a COVID-19 section.

[1] Amazon Mechanical Turk (MTurk) is a platform which allows requesters to distribute tasks to a workforce who could perform them virtually. It is commonly used to distribute surveys for academic research because it allows for the recruitment of samples in short time, that, even if they are not nationally representative, have demonstrated solid reliability (Follmer et al., 2017). In particular, 93.56 percent of our panel sample passed the attention checks. This is in line with previous research which shows that MTurk workers are highly attentive responding to surveys (Hauser and Schwartz, 2016). Supplementary materials, including questionnaires and the survey flow are available at the following repository: https://osf.io/mxgzr/

[2] Baseline sociodemographic information were collected only once during the study. In the second wave new questions on political ideology and wealth were asked, while the third round featured additional questions on income, media use, voting intentions and opinions on income inequality (not used in this study).

The trust section of the survey measured, on a scale from one (1) to five (5), social trust through the following standard questions: “Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people?”, “Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?”, and “Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?” Trust towards institutions was asked on a scale from one (1) to five (5), and included: the President of the United States (Donald Trump, in all waves); social media; Centers for Disease Control and Prevention (CDCs); the mass media; scientists; WHO; pharmaceutical companies; and local and federal government.
In the COVID-19 section respondents were asked whether they, their family, friends or acquaintances have been diagnosed with COVID-19 and whether they work in the health sector, how much they comply with specific forms of health protective behavior, and questions on the attribution of responsibility for COVID-19[3].
Sample statistics are reported and discussed in Section 1 of the Appendix, where we also report a detailed description of all variables used in the analysis (Table A1).

The first outcome variable we consider is *institutional trust*, which is obtained by extracting the first factor from a principal component analysis including trust towards all institutional targets we elicited in the survey. The trust variable we use in the analysis is *social trust*, obtained through a principal component analysis of three aforementioned survey items aimed at capturing social trust, as widely used in other surveys, e.g., the European Social Survey (Reeskens and Hooghe, 2008). With respect to attribution of responsibility, respondents on average deemed m the Chinese government most responsible for the pandemic, followed by the WHO and the US government. In general, it seems that respondents attributed more responsibilities to the institutions than to the public.

Regarding panel attrition, Table A4 in Appendix shows that 504 respondents were present in all waves, 17.04% of respondents left the sample after the first wave, while 22.07% of respondents left the sample in the third wave. There is a share of 9.14% of respondents who did not complete the survey in the second wave, but who were back for the third. Our models control for attrition through the inverse-probability weighting strategy (see below).

[3] The order of questions was randomized across respondents. Some of them received first the COVID section before the trust section, while others received surveys following the opposite order. This ordering is assigned in wave one and it is maintained right through the survey.

4. Results

Our main econometric strategy is based on a panel fixed-effects OLS estimation of social and political trust across survey waves, including attrition weights[4]. The trend in the outcome variables of interest is captured by wave indicators. In some models, we control for indirect COVID-19 exposure, i.e. cumulative deaths in the respondent's county, or for direct exposure to COVID-19.

4.1. Social and institutional trust dynamics and exposure to COVID-19

Table 1 and Figure 1 show the dynamics of institutional trust. Table 1 features a fixed-effects panel model, in which we regress measures of institutional trust on wave indicators, weighting for attrition. Variables are standardized, and coefficients represent the change in standard deviations of trust from the first wave. Figure 1 displays predictions from regressions in Table 1, while Figure A7 in Appendix shows a graphical representation of coefficients. In general, we observe that trust in institutions declines over time. An exception is trust in science which, in the third wave, went back to the values of the first wave. Trust in pharmaceutical companies and in the WHO does not vary significantly over time.

Table 2 shows results for the same fixed-effects panel model applied to variables measuring the extent respondents attribute responsibility to a specific actor, reported in column title. Figure 2 shows predictions of attribution of responsibility by round and for each target actor (see also Figure A8 in Appendix). We can observe a general decline in attribution of responsibility to all actors in wave two. Attribution of responsibility to the Chinese Government and the Chinese public reduced in the third wave, and the same occurred for attribution of responsibility to Trump. In the third wave, respondents started to attribute more responsibility to the US Government, WHO and the US public, while responsibility of CDCs, after a decline in wave two, went back up to the first wave's values. In general, respondents started to shift blaming towards domestic actors at the onset of the second pandemic wave.

We estimate social trust with the same fixed-effects panel model as Table 1 and 2. Table 3, jointly with Figure 3 (and Figure A9), show results of this analysis. In general, social trust was quite

[4] See Section 2 of Appendix for further details on the attrition model.

steady, with a slight increase in wave two. Item 1 and Item 2 were the ones that mostly drove these results, while Item 3 did not show any substantial variation.

To control for the heterogeneity of exposure to COVID-19, in Table 4 we repeat the previous analysis regressing the institutional and social variables on wave indicators, controlling also for indirect and direct COVID-19 exposure. The inclusion of controls for COVID-19 exposure does not change coefficients on wave indicators significantly. However, the two exposure variables do not correlate significantly with institutional trust, while they are highly associated with social trust, albeit in a different way. Indirect exposure is negatively correlated with social trust, while direct exposure is positively associated with it. A possible explanation for this difference is that direct COVID-19 exposure pushed people to seek external support, when they felt unprotected by institutions: their social trust consequently increased. Indeed, institutional trust appears – although with low significance – negatively related to direct exposure. On the other hand, indirect exposure, which is a sign of the deeper territorial spread of the disease, could add to social distrust as others can come to be seen as vehicles of contagion.

4.2. Social and institutional trust dynamics and partisanship

The dynamics of political and social trust as well as of disappointment and attribution of responsibility can be heterogeneous depending on one's own political orientation. In Table 5, we use a fixed-effects panel regression to model dynamics of our synthetic institutional trust measure social trust, allowing for differential trends by political affiliation. A clear partisan trend emerges (Figure 4 and Figure A10 in Appendix) as Trump voters' institutional trust fell (especially in the second wave), while their social trust, which remains stable in wave 3, grew. Non-Trump voters showed a slight reduction in social and political trust only in the third wave.

In the light of these results, it seems that the dynamics observed in section 2, especially concerning the reduction in institutional trust and the (mild) increase in social trust, were mainly driven by Trump voters.

Table 6 replicates the model of column (1) and (4) of Table 5 for institutional trust in different actors (see also Figure 5 and Figure A11). The decline in institutional trust for Trump voters apply to all the institutional targets considered in the survey, except for social media. Importantly, among governmental institutions Trump voters lost trust in Trump and the federal government but not in local governments.

This pattern should be considered jointly with results from Table 7 (Figure 6), which replicate model specifications in Table 6 on attribution of responsibilities. In general, Trump voters tended to change attribution of responsibility less than non-Trump voters. The most interesting result here is that Trump voters were more likely to attribute responsibility to Trump in the second wave of the survey (during the peak of the first pandemic wave). This mirrored the fall in their institutional trust. Trump voters, on average, blamed the US Government less and Chinese actors more, which is consistent with their nationalistic preferences and, potentially, differential media exposure. These results again suggest that they might have felt unprotected by institutions, and hence looked for support elsewhere in society. Trump voters were, in facts, among those respondents who were least likely to attribute responsibility to the US public for the pandemic[5].

To assess whether this behavior is indeed related to heightened perception of pandemic risks, we test whether Trump voters exposed to COVID-19 reacted differently from non-Trump voters. Results in Table 8 show that Trump voters directly exposed to COVID-19 were more likely to see their institutional trust fall and their social trust rise than non-Trump voters exposed to COVID-19. Similar results are obtained with respect to indirect exposure, which was negatively associated with institutional trust for Trump voters, and positively for non-Trump voters (although in the latter case the interaction is not statistically significant).

An alternative interpretation of results in Table 8 hinges on possibility that Trump voters might have become less prone to adhere to social distancing (or to implement other forms of protective behavior) and were more open to social interactions. These features may explain the increase in social trust and the decrease in institutional trust found in previous estimates. This kind of behavior, however, might also have increased direct exposure to COVID-19. While the experimental results reported in Section 4.3 partially rule out this alternative mechanism, additional results reported in Section 3 of the Appendix help in excluding that COVID-19 exposure is driven by the aspects of political affiliation that are correlated with social and political trust.

4.3. Social and political trust in the priming experiment: disentangling the mechanisms

In order to interpret the association between COVID-19 exposure and trust in a more causal way, in the third round we carried out a randomized experiment based on priming. Respondents were randomly assigned to three groups. The first group received a *positive* priming message, explaining the economic and health improvements achieved by the US in November, relative to April 2020. A

[5] A graphical representation of coefficients of Table 7 in provided also in Figure A12 in Appendix.

second group received a *negative* priming, i.e. they were shown a message reporting how the US underperformed economically with respect to 2019, and witnessed the worst health consequences compared with the rest of the world. Finally, a third group received *no priming* (control group). The exact wording of these messages is reported in Figure 7.

We then measured respondents' level of social trust through the question: "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?". We also measured their degree of trust in the federal government. Finally, respondents were asked questions about their own opinions regarding the economic and public health situation, as well as on the perceived negativity of the priming stimulus, which we used as manipulation checks.

To test whether the COVID-19 priming conditions affected trust differently, we regress social and political trust measures on: socio-demographic characteristics[6]; direct and indirect COVID-19 exposure; and on a dummy indicating whether the respondent was part of the panel or not. Results are shown in Table 9. Dependent variables are social trust in column (1), measured by the same question of Item 1 in the panel study, and trust in the federal government in column (2)[7]. Results show that Trump voters displayed on average higher social trust and lower trust in the Federal Government. However, the coefficient of the interaction between the Trump-voter dummy and the positive priming indicator is significant, yet with an opposite sign with respect to the previous longitudinal results. When exposed to positive information about the pandemic, Trump voters reduced social trust and increased institutional trust, thus reversing the 'institutions-people substitution' dynamic observed in the panel estimates. This result strengthens our interpretation of the observational results discussed above.

The negative priming, however, does not seem to have had any effect on trust. A first possible explanation for this is that, when the third round was conducted, citizens were already used to negative narratives of the pandemic; for this reason, they were not so responsive to the facts shown in the negative priming condition as they were to the facts shown in the positive priming condition.

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[6] More specifically, we control for age, gender, ethnicity, religion, attendance to religious events, employment, marital status, number of people in the household, self-declared political leaning, having health insurance and being a US citizen.

[7] Differently from panel data analysis, post-treatment measures of social and political trust were based on just one question; for this reason we use Item 1 and Trust in the Federal Government as dependent variables. However, the main results from the previous sections, i.e. those in Table 5, are robust to the use of Item 1 and Trust in the Federal Government as a dependent variable.

In order words, it may be possible that, while the positive priming message represented an ‘information shock’, the negative priming did not. Second, individuals’ response to information provision might depend on whether the valence of the message matches with their own political orientation. The negative information provided in our experiment might have been perceived by Trump voters as a pessimistic judgment on the performance of their preferred party. For this reason, they might have engaged in motivated reasoning, responding only to the positive message on the pandemic, as it better matched with their own (partisan) representation of how the health crisis was managed. Results from manipulation checks – further discussed in the next section – show that Trump voters, indeed, perceived the negative message as being less negative than non-Trump voters. This suggests that partisan-motivated reasoning (e.g. Bisgaard, 2015) might have played in role: Trump-voters reconciled an ‘uncongenial truth’ with their political beliefs, thereby perceiving a negative stimulus to be less negative, and changing political trust only in response to a positive (more congenial) stimulus.

Lastly, we test whether results are heterogeneous by social-media exposure. Section 4 of the Appendix summarizes the theoretical hypothesis motivating this analysis. We re-estimate the model in Table 9 separately for heavy and not-heavy social media users. The former group includes participants with an above-median score for frequent social-media use, considering the overall time they usually spend on Twitter, Facebook, Instagram, YouTube, Reddit and Tiktok[8]. Results show that our main findings are driven by intensive social-media users (Table 10). The increase (decrease) in institutional (social) trust in response to positive information on the pandemic was mainly driven by the share of Trump voters who were exposed particularly to social media[9]. As in the full sample, we do not find any significant effect of the negative priming condition for intensive social-media users. These results suggest that the two hypothesized effects for intensive social-media users may coexist, i.e. both habituation and responsivity to social-media content might be at play. Habituation can occur only for news articles that are uncongenial to one’s own political ideology (i.e. the negative message for Trump voters in our experiment), while the responsivity can emerge only for news articles that are aligned with one’s own prior beliefs (i.e. the positive message for Trump voters in our setting). In the next section, we provide suggestive evidence that the changes in trust induced by the congenial message for Trump voters are likely driven by an emotional response rather than by a change in beliefs.

[8] Respondents were asked the frequency they used each of a series of social media throughout the week on a scale from 1 to 8. We calculated for frequency of social media use summing frequency of all considered social media.

[9] In our sample, 42.69% (289) of non-Trump voters were among heavy social-media users (46.86%), while there were 55.95% (174) of Trump voters.

5. Effect size, discussion and further robustness checks

Overall, our longitudinal results document a decline in institutional trust of 0.118 standard deviations from the first to the last wave (equivalent to a 162.2% degrowth from baseline levels), with no sizeable changes in social trust. The decline in institutional trust, however, is mainly driven by Trump voters, who – differently from non-Trump voters – not only had less trust in their political leader, but were also more likely to trust others (i.e. social trust). For Trump voters institutional trust reduced from the first to the second wave by 0.285 standard deviations, while social trust increased by 0.110 standard deviations. The change in institutional trust for Trump voters is 0.221 standard deviations larger than that for non-Trump voters. The change in social trust for Trump voters generates a 0.167 standard deviations difference with respect to non-Trump voters[10]. Due to the lack of a proper pre-pandemic baseline, we may interpret these estimates in a conservative way. When we carried out the first round of the survey, the pandemic was already spreading. Thus, we can assume that pre-pandemic levels of both types of trust were consistent with the levels (and the trends) we measure in our survey: i.e. higher (or equal to the) level in the first round for institutional trust, and lower than (or equal to that) for social trust.

Moreover, the aforementioned estimates bring out a sizeable change between the first and the second pandemic wave. This is reasonable since that period was characterized by the first, highly unexpected and unpredictable, pandemic wave, which peaked between the first and second round[11]. Indeed, since the discovery of the first COVID-19 case, there has been extensive social media coverage of the topic. Krawczyk et al. (2020) estimated that in the US roughly 25.91% of front-page articles on news media were about COVID-19 against 15.29% discussing Trump as sitting president. However, COVID-19 media coverage peaked in the first week of April in the US, and has declined since then regardless of the number of COVID-19 confirmed cases (Pearman et al., 2021). Pearman et al. (2021) provide different explanations for the phenomenon, including

[10] Note also that the correction of p-values for multiple hypotheses testing provide very similar results (see Section 5 in Appendix).

[11] On 10-04-2021 the seven-day moving average peaked at 31,709 COVID-19 cases, while deaths reached record seven-day average of 2,232 a week later and restrictions in most states were at their maximum between the first week of April and the first week of May. The period between the second and third round was characterized by a second pandemic wave in the summer with a higher number of cases but lower deaths than the first wave: COVID-19 cases peaked the July 16 with a seven-day moving average of 75,687 while deaths reached a moving average of "only" 1,229 individuals the 1st of August. Moreover, a third pandemic wave started few weeks before the third survey wave was carried, the last day of the survey, the November 2, experienced a seven-day average of 85,605 cases and 826 deaths.

"COVID fatigue" (exhaustion from hearing about the pandemic), the presidential elections and the debates around systemic racism.

A possible limit to our study concerns the external validity of the results, because the Amazon MTurk sample is non representative of the US population. To mitigate this concern, we repeat the empirical analysis using post-stratification weights, together with attrition weights to observe whether results change when we make our sample similar to the US population. Results and trends suffer negligible changes after the introduction of post-stratification weights, suggesting that our results might hold for the entire population (see Section 6.1 in Appendix).

A key finding of our study is the presence of partisan dynamics in social and institutional trust, with Trump voters driving the observed changes over time. However, the difference between Trump and non-Trump voters, rather than capturing the political leaning of respondents, might entail differences in socio-demographic characteristics between the two groups. These might, in turn, predict the observed changes in social and political trust. To mitigate this concern, we replicate our main estimates (Table 5 and 8) replacing the 'Trump Voter' dummy with the residuals from a logistic regression, where the probability of being a Trump voter is used as dependent variable. Results confirm that institutional trust decreased while social trust increased for individuals with higher residuals; at the same time, we do not find changes for other voters (see Section 6.2 in Appendix for further details).

Another potential concern refers to the validity of the stimuli used in the experiment. Hence, we verified whether priming messages really yielded this effect through *ad hoc* manipulation checks, and found that this was the case (see Section 6.3 in Appendix). Furthermore, an additional manipulation check shows confirm that respondents in the positive priming group indeed perceived the positive message having a positive valence, while respondents in the negative priming understood the pessimistic attitude of the message they read. However, the positive message had a stronger influence than the negative one: the latter was perceived as more negative than the former was perceived as positive (see Section 6.3 in Appendix). Incidentally, this last result can also offer an additional explanation to the partisan trust responses in the *positive* priming condition: relative to the negative message, the positive message was indeed more effective in moving respondents' perceptions. This might be due, as suggested above, to habituation to the negative narratives about the pandemic that circulated, on a very large scale, in the media before our experiment. Indeed, most news articles regarding COVID-19 were evoking negative sentiments and this negative media tone was more present in the US than in other Western democracies (Sacerdote et al., 2020); for instance, the US media were more likely to talk about areas of the countries where cases were increasing than areas where the pandemic was slowing down. They were also less likely to report news of advances in vaccine or medical developments (Aslam et al., 2020; Sacerdote et al., 2020). Finally, relying on these manipulation checks, we further explore the mechanisms driving our experimental results. An explanation to the partisan effects on trust might rest on *partisan* perceptions of the *valence* of the stimuli and on partisan *opinion changes* in response to such stimuli. First, when looking at the impact of the stimuli on participants' beliefs, we do not find sizeable partisan differences. Second, and consistent with the aforementioned findings for the entire sample, the manipulation checks by political affiliation highlight that the positive message was perceived as 'stronger' than the negative one *equally* by the Trump and by the non-Trump voters (see Section 6.3 in Appendix).

In sum, our stimuli were effective enough to change beliefs for both groups of voters. But it is reasonable to conclude that the negative message was not perceived as 'negative enough' for them to also induce a change in trust. As argued above, a possible explanation for this finding may hinge on habituation to negative narratives about the pandemic. All our stimuli were nonetheless effective in moving the opinions of both groups of voters in the expected direction, but not also their trust. That varied only for Trump voters assigned to the positive priming condition. Hence, why did the non-Trump voters' trust not change in response to the positive message, so as to mirror the change in their opinions?

A first possible answer comes from recent studies showing that American conservatives are more susceptible to misinformation than liberals (Baron and Jost, 2019; Garret and Bond, 2021; Pennicook and Rand, 2021). However, if this was the main driving force in our experiment, we should have observed larger changes in opinions for Trump voters than for non-Trump voters. This did not occur in our experiment. A second, more likely, answer can be that the observed changes in trust stemmed from the *emotional* reactions (motivated reasoning) induced by the messages, rather than from a change in beliefs. Due to the length of the survey, however, we did not include direct questions aimed at capturing positive or negative affect, which could have been then related to the stimuli received. However, interpreting results from our manipulation checks jointly with those from the panel, the 'emotional' mechanism seems to better fit our data. It was the negative emotions induced by the health threat, rather than a change in beliefs, that lifted political discontent and distrust (together with higher social trust) during the harshest phase of the first pandemic wave.

Similarly, the positive emotions induced by the positive message in our experiment moved trust in an opposite, though consistent, way with respect to what we found in the panel estimates. Our negative priming condition might not have been ‘strong’ enough to recall the emotional distress that participants witnessed during the pandemic, most likely because of habituation to the negative media narratives. This would also explain why the negative stimulus was not as effective in changing trust as the emotionally-intense experience of the pandemic threat.

6. Conclusions

Previous studies focused on the relevance of trust for compliance with non-pharmaceutical interventions and/or governmental policies to contrast COVID-19 pandemic (Bargain and Aminjonov, 2020; Borgonovi and Andrieu, 2020; Durante et al., 2021; Jørgensen et al., 2020). This paper, instead, investigates the other side of this relationship, i.e. how social and institutional trust evolved during the first pandemic wave. This is a key question in a time of strong polarization and mistrust across party affiliation lines (Finkel et al. 2020).

Through a survey conducted in three points in time during the COVID-19 pandemic in the US, we show that social trust increased, while institutional trust decreased. This dynamic was mainly driven by disappointed Republicans, especially when directly exposed to COVID-19. These results are in line with the literature arguing that trust in others may increase in periods of crisis, when fragile citizens or, more generally, people in need search for support outside their own network (Yamagishi 1994 and 1998; Gambetta and Morisi, 2020). At the same time, our results support the hypothesis that institutional trust decreases when institutional authorities are perceived as being responsible for the crisis, or as not adequately responding to it (Hetherington and Rudolph, 2008; Torcal, 2014).

To provide further insights about the causal effects of COVID-19 exposure on trust, and on the potentially heterogeneous effects by political orientations, our survey also featured an experiment in the third wave. The experiment was based on the provision of positive vs. negative COVID-19 related information, followed by the elicitation of social and institutional trust attitudes. Relative to Democrats, when exposed to positive priming on COVID-19, Republicans reported higher trust in the federal government and lower trust in other people. These results confirm the inverse relationship between social and political trust highlighted in the panel estimates, where these two types of trust diverged in response to COVID-19 exposure. Yet, they show a reverse pattern: social trust increased while political trust declined. This result suggests that when citizens are primed with positive narratives of the crisis, they tend to rely more on institutions and less on other people for support. This effect is statistically significant only for Republicans, who also appeared to be mostly disappointed about the federal government during the pandemic. For them, a positive narrative of the virus was enough to reverse the declining trend in institutional trust, coupled with the increasing trend in social trust, that had emerged during the first pandemic wave.

Our study is not free of limits. First, results for social trust can be led by framing the question used to capture trust in unknown others (item 1, in our questionnaire), that is: “Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people?” While this question is widely used in large-scale, representative surveys, in the specific context of the pandemic crisis it might evoke personal safety in interpersonal relations. In other terms, “can’t be too careful” when interacting with strangers might not (only) entail lack of trust, but also avoidance of health risks. Future studies should disentangle social risks from health risks when measuring interpersonal trust, since these two types of risks can induce different forms of behavior. During a pandemic, one might need to trust unknown persons as a source of support, but at the same time be careful and protect oneself from potential infections when dealing with them. The diverging findings on social trust shown by recent studies on trust and COVID-19, might also be explained by the different meanings that the generalized trust question takes on during health emergency. Such ambiguity might also be the reason behind the milder changes in social trust relative to institutional trust we found in this study.

A second limit comes from the experimental results in the third wave, where the negative priming condition turned out to be ineffective though the valence of the message was indeed perceived as being negative. This might be at odds with the so-called “negativity bias”, which predicts that humans react more promptly to negative than to positive stimuli (e.g. Soraka et al. 2019). The inefficacy of the pandemic-related negative stimulus in our experiment, however, can be explained by several factors, including habituation to negative news articles on the pandemic and the framing of the stimuli. The valence of the latter was, in fact, “asymmetrically” perceived by our respondents. Indeed, our post-experimental manipulation checks highlight that the positively-framed message was perceived as more positive than its negative counterpart was perceived as being negative. A future replication of our experiment should identify and send stimuli with positive or negative valence that are perceived with the same intensity in the relevant domain.

Finally, future studies aiming at studying the interplay between political and social trust in response to shocks should further explore whether trust dynamics are driven by emotional responses or by changes in beliefs. To this purpose, they might need to elicit not only belief changes but also (as in our experiment) trust changes.

In spite of these limitations, our results suggest that in a highly polarized context such as the US, dissatisfaction about institutional responses could lead people to seek support outside institutions and their narrow networks, and therefore to trust other persons. However, when the perceived health threat gives the stage to more positive judgements about government performance, this pattern might be reversed: social trust decreases and institutional trust increases. These findings imply that when perceived health risks increase, social trust might crowd out institutional trust. Disappointed voters may experience reduced trust in the ruling institutions and increased trust in other people. This is most likely because, when looking for support, they ‘substitute’ institutions with people.

Further research is needed to explore the interplay between formal and informal institutions as alternative or complementary resources during unexpected shocks. Understanding how different types of trust respond to a health crisis might provide important insights to policy makers, not only for the design and enforcement of policies (e.g. mobility restrictions, immunizations, social distancing, etc.), but also for their own political success. After all, the unfavorable electoral outcomes for the incumbents, which could be predicted by the trust dynamics highlighted in this study, were, at least for the US, confirmed by the voting booths.

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Figure 1. Institutional trust dynamics.

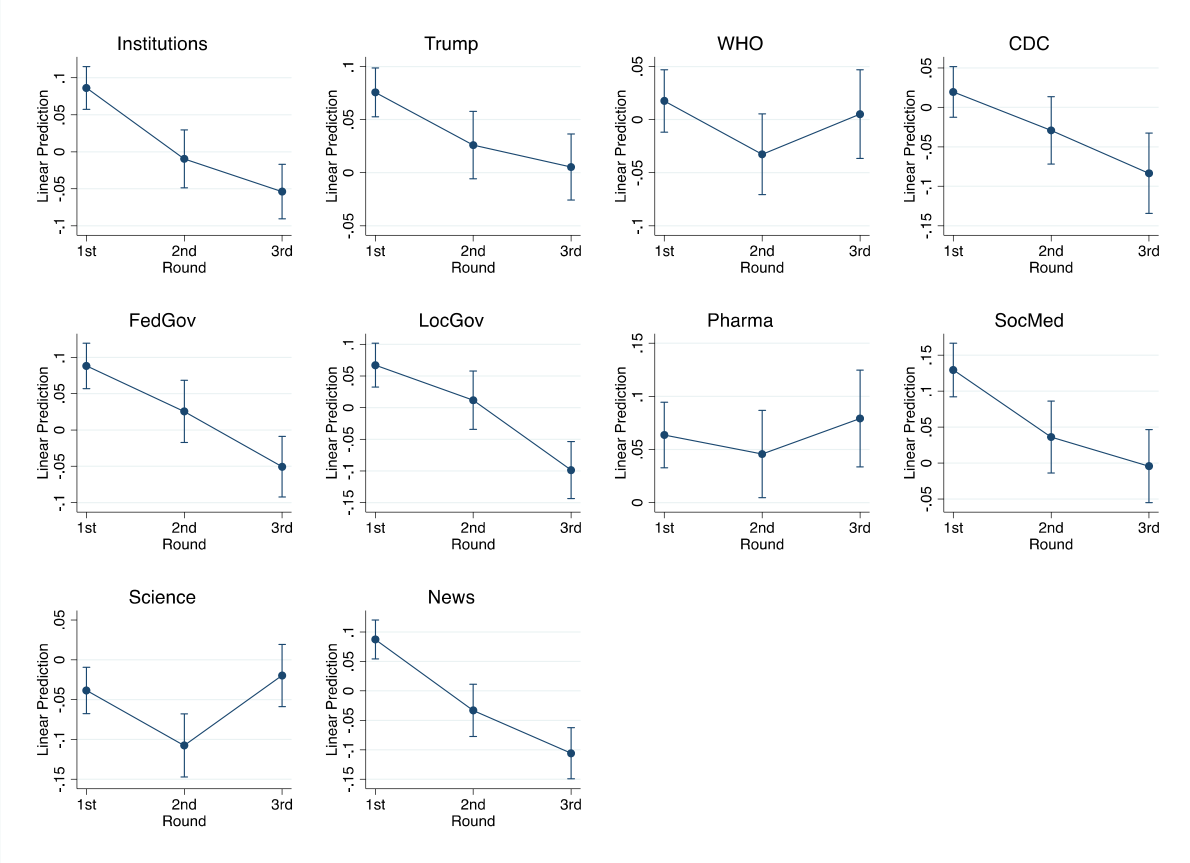

Figure 2. Dynamics of attribution of responsibility

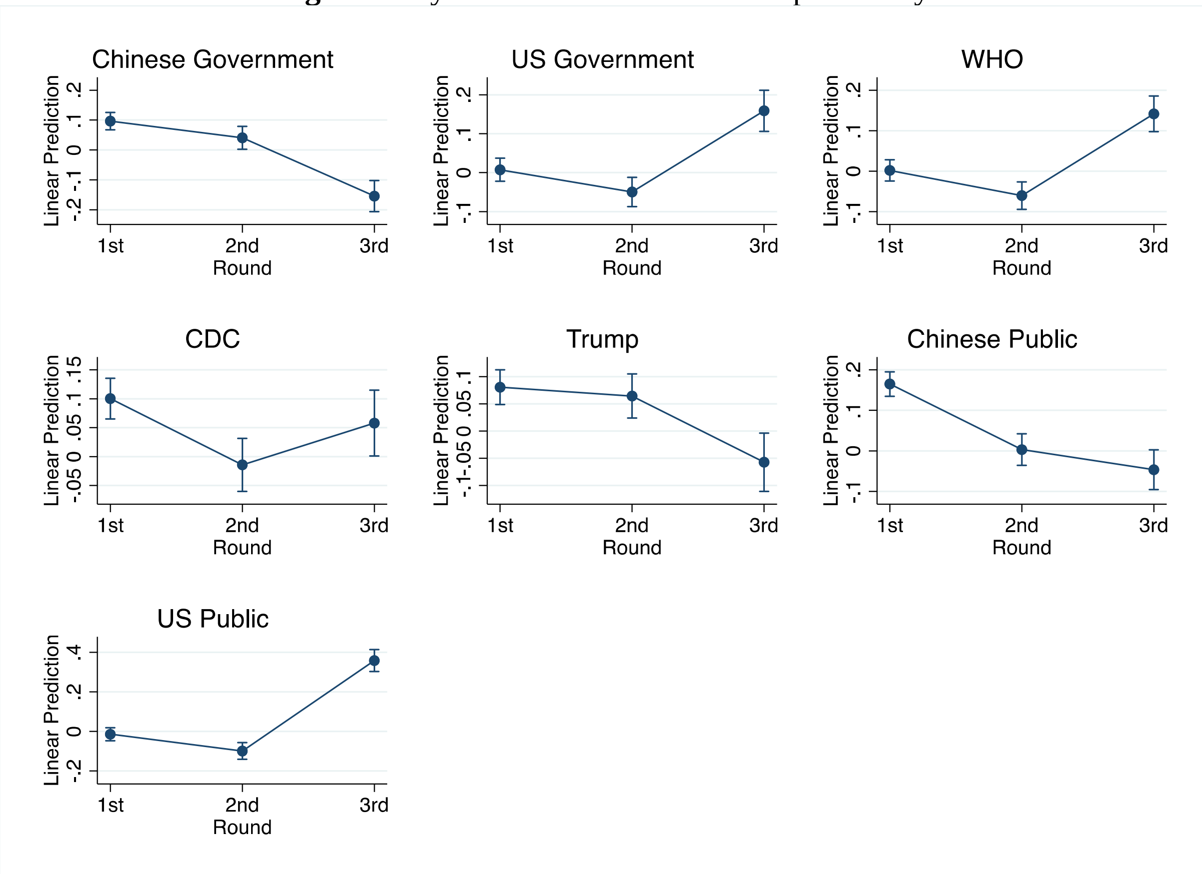

Figure 3. Social trust dynamics.

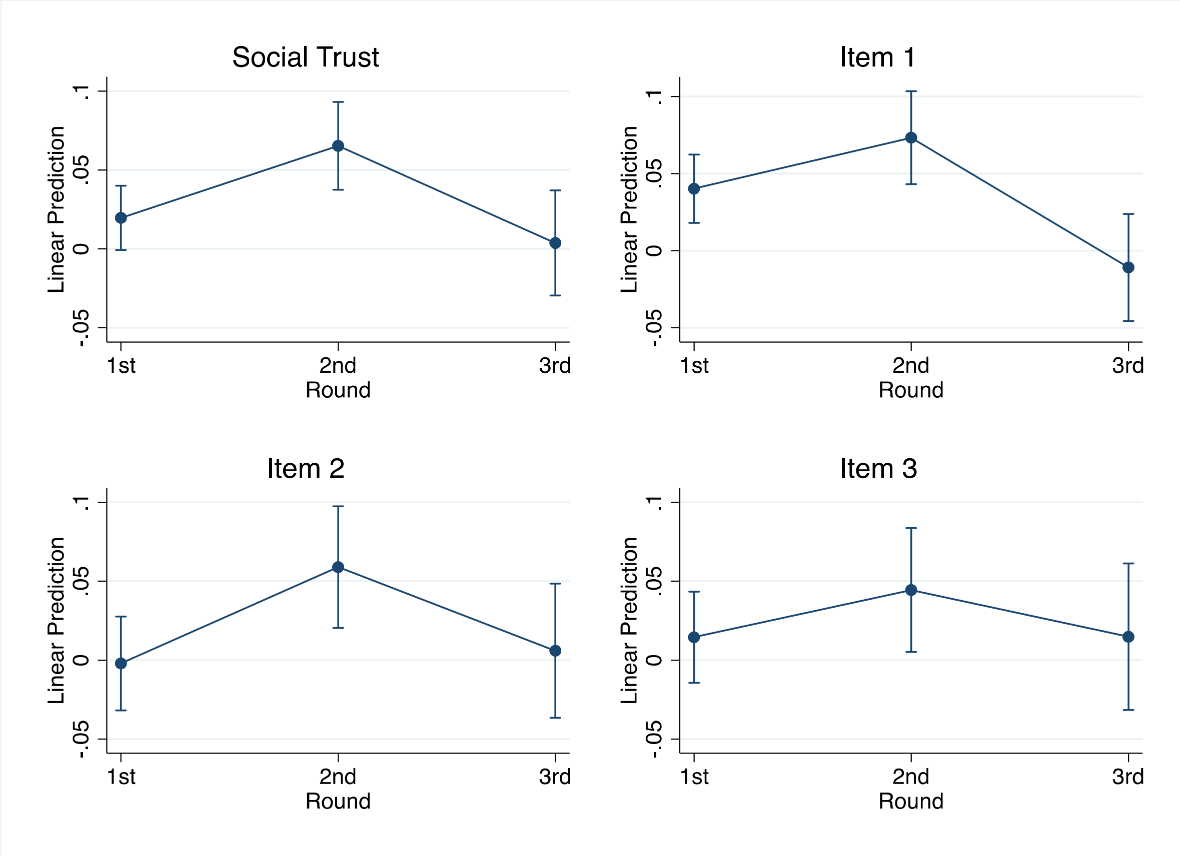

Figure 4. Trust dynamics by voting behavior.

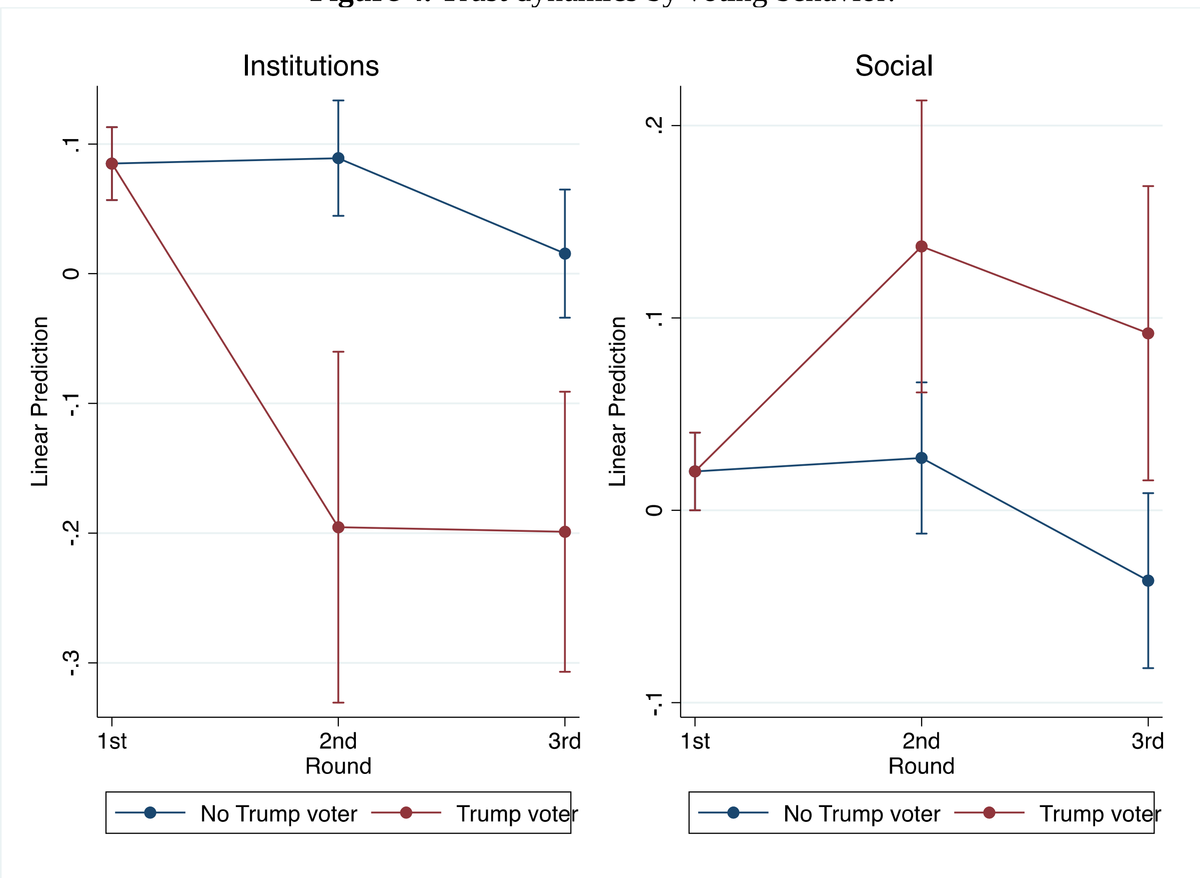

Figure 5. Partisan dynamics of institutional trust

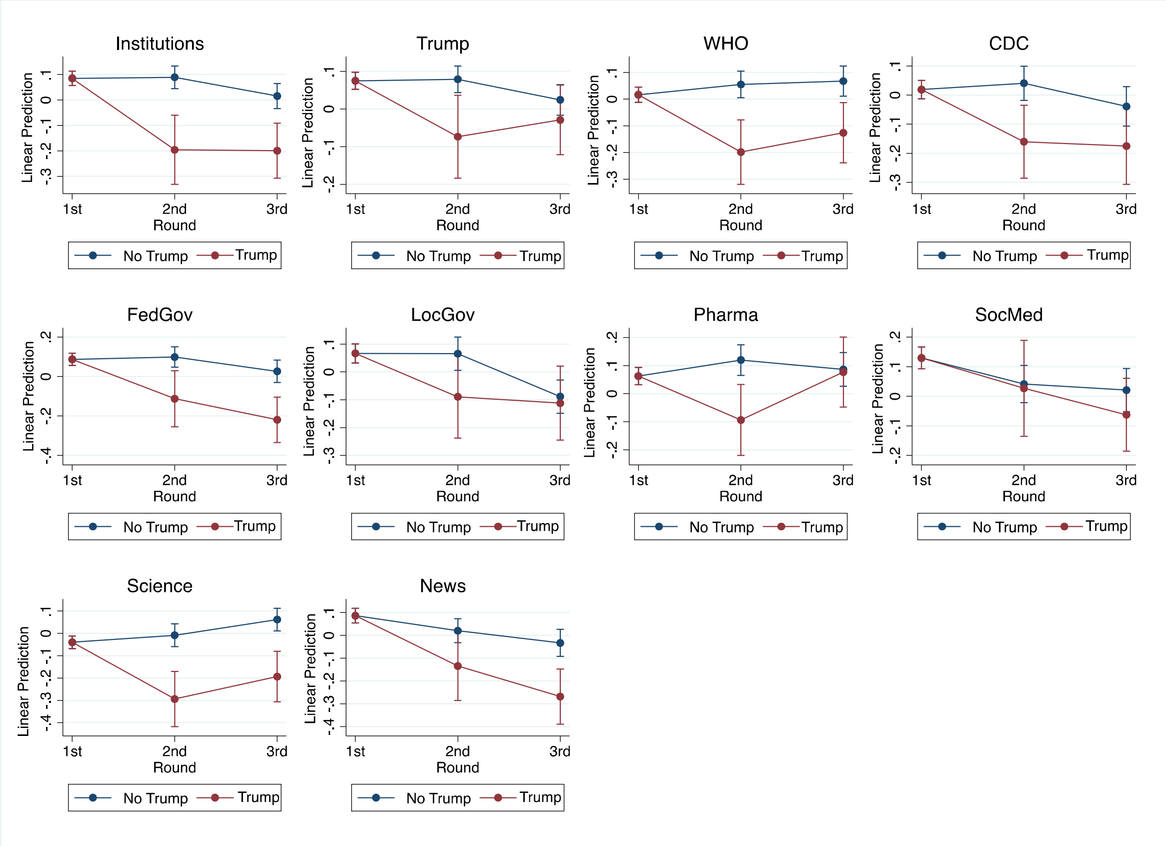

Figure 6. Partisan dynamics of attribution of responsibility

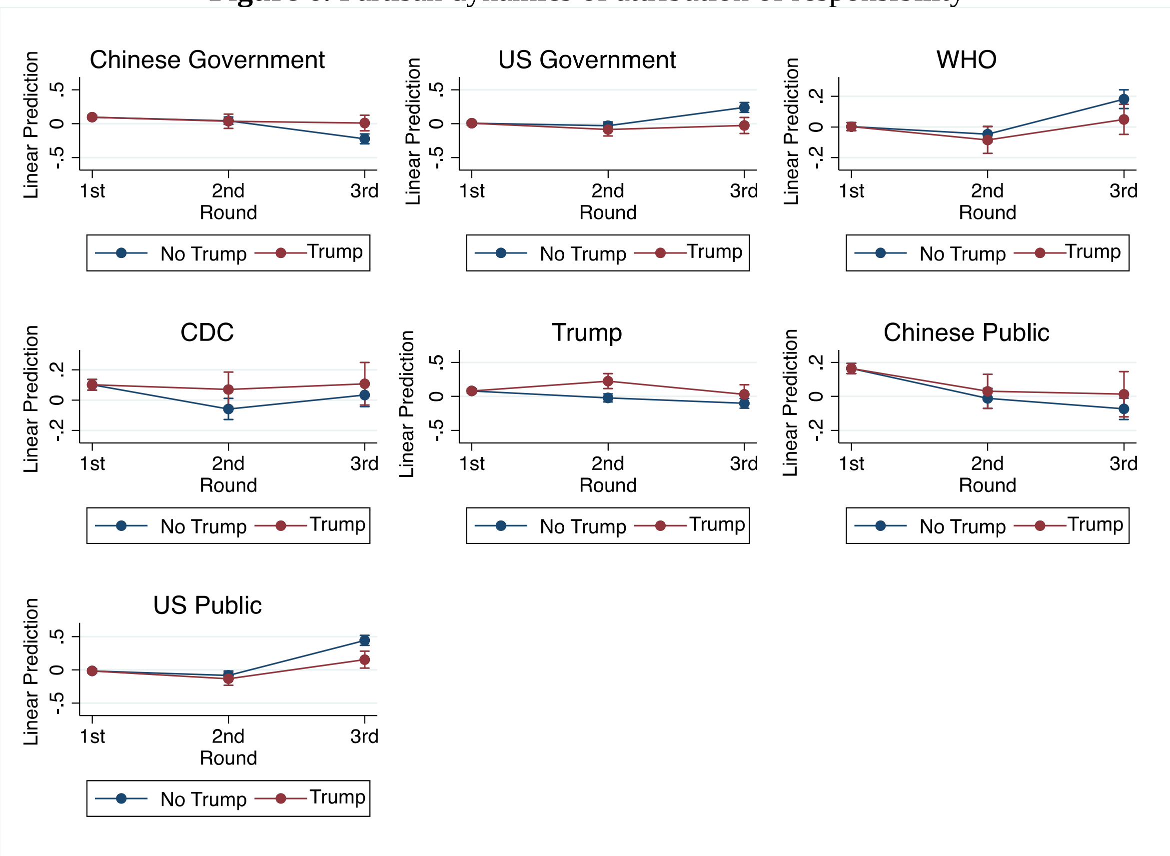

Figure 7. Experimental priming messages

Negative	Positive
Till October 20, 2020, the United States had 8.26 million confirmed cases of COVID-19 and over 220,000 COVID-19 deaths (U.S. CDC, 2020). While the US has 4% of the world population, it accounts for around 20% of confirmed COVID-19 cases and deaths in the world. During the COVID-19 pandemic, the United States recorded its largest quarterly drop in economic output on record, a decrease of 9.1% in the second quarter of 2020 (compared to the first quarter). To put this contraction into a historical context, the second steepest drop in quarterly GDP since 1947 was during the 2007-2009 recession of 3%. Moreover, in April 2020, the monthly unemployment rate was 14.7%, compared to 3.5% in February 2020 (U.S. Census Bureau 2020).	In the United States, the current case fatality rate for COVID-19 has dropped to around 2.7% in October compared to the peak of 6.1% in May. (Case fatality rate is the percentage of death cases diagnosed of COVID-19 over total confirmed cases of COVID-19). Only around 5% of the viral tests are positive in October, while around 20% of the viral tests were positive in late April (U.S. CDC 2020). Ten million workers have found jobs since the high point of unemployment in April. Moreover, in April 2020 the U.S. personal savings rate reached its highest recorded level. Retail sale also has been growing since early May: by August, retail sales were 2.6 percent above their August 2019 level (U.S. Census Bureau 2020).

The control group did not receive any priming message.

Table 1. Institutional trust dynamics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Institutional	Trump	WHO	CDC	FedGov	LocGov	Pharma	SocMed	Science	News
Wave 2	-0.0958***	-0.0497*	-0.0503	-0.0487	-0.0627*	-0.0553	-0.0179	-0.0933**	-0.0690**	-0.120***
	(0.0332)	(0.0265)	(0.0324)	(0.0355)	(0.0360)	(0.0392)	(0.0345)	(0.0421)	(0.0333)	(0.0376)
Wave 3	-0.140***	-0.0703***	-0.0125	-0.103***	-0.139***	-0.166***	0.0155	-0.134***	0.0187	-0.193***
	(0.0282)	(0.0231)	(0.0314)	(0.0367)	(0.0312)	(0.0345)	(0.0335)	(0.0381)	(0.0293)	(0.0329)
Constant	0.0863***	0.0757***	0.0176	0.0196	0.0882***	0.0671***	0.0636***	0.130***	-0.0384***	0.0874***
	(0.0148)	(0.0117)	(0.0150)	(0.0164)	(0.0159)	(0.0177)	(0.0158)	(0.0190)	(0.0148)	(0.0169)
Observations	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283
R-squared	0.019	0.007	0.003	0.006	0.013	0.015	0.001	0.010	0.007	0.025
Participants	973	973	973	973	973	973	973	973	973	973
Test Wave 3-Wave 2=0	-0.0442	-0.0207	0.0378	-0.0544	-0.0762**	-0.111***	0.0334	-0.0405	0.0877***	-0.0728**
	(0.0299)	(0.0253)	(0.0314)	(0.0381)	(0.0338)	(0.0355)	(0.0349)	(0.0399)	(0.0314)	(0.0345)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Column (1) uses as a dependent variable the result of principal component analysis comprising all other institutional trust variables. Column (2)-(10) use as dependent variable trust in a specific institution indicated by the column heading. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table 2. Dynamics of attribution of responsibility

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Chinese Government	US Government	WHO	CDC	Trump	Chinese Public	US Public
Wave 2	-0.0557*	-0.0569*	-0.0623**	-0.115***	-0.0161	-0.162***	-0.0848**
	(0.0309)	(0.0309)	(0.0281)	(0.0382)	(0.0338)	(0.0325)	(0.0348)
Wave 3	-0.251***	0.151***	0.140***	-0.0424	-0.138***	-0.212***	0.373***
	(0.0366)	(0.0375)	(0.0316)	(0.0411)	(0.0386)	(0.0356)	(0.0399)
Constant	0.0965***	0.00742	0.00193	0.100***	0.0806***	0.165***	-0.0141
	(0.0148)	(0.0151)	(0.0134)	(0.0180)	(0.0163)	(0.0154)	(0.0167)
Observations	2,281	2,281	2,278	2,281	2,281	2,280	2,280
R-squared	0.038	0.024	0.029	0.008	0.010	0.035	0.093
Participants	973	973	972	973	973	973	973
Test Wave 3 – Wave 2=0	-0.195***	0.208***	0.202***	0.0721*	-0.122***	-0.0496	0.457***
	(0.0375)	(0.0374)	(0.0321)	(0.0418)	(0.0384)	(0.0358)	(0.0401)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Dependent variables represent to what extent respondents attribute responsibility for the current COVID-19 situation in the US to the actor indicated in the column heading. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table 3. Dynamics of social trust

	(1)	(2)	(3)	(4)
	Social	Item 1	Item 2	Item 3
Wave 2	0.0456**	0.0331	0.0610*	0.0299
	(0.0227)	(0.0249)	(0.0328)	(0.0322)
Wave 3	-0.0159	-0.0510**	0.00806	0.000313
	(0.0236)	(0.0249)	(0.0319)	(0.0331)
Constant	0.0197*	0.0402***	-0.00207	0.0145
	(0.0104)	(0.0113)	(0.0152)	(0.0147)
Observations	2,283	2,283	2,283	2,283
R-squared	0.006	0.008	0.004	0.001
Participants	973	973	973	973
Test Wave 3 – Wave 2=0	-0.0615**	-0.0841***	-0.0530*	-0.0296
	(0.0253)	(0.0266)	(0.0320)	(0.0353)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in column (1) is a principal component analysis variable that is based on three items, which are used as dependent variables in column (2)-(4). Item 1 indicates the extent respondents believe "most people can be trusted" vs "you can not be too careful". Item 2 indicates to what extent "most people would try to take advantage of me" vs "most people would try to be fair" according to the respondent. Item 3 represents how much respondents believe that "people mostly look out for themselves" vs "people mostly try to be helpful". Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table 4. Trust dynamics and exposure to COVID-19

	(1)	(2)	(3)	(4)
	Trust in Institutions		Social Trust	
Wave 2	-0.104***	-0.0932***	0.0621***	0.0426*
	(0.0346)	(0.0330)	(0.0238)	(0.0225)
Wave 3	-0.173***	-0.118***	0.0393	-0.0415*
	(0.0432)	(0.0316)	(0.0342)	(0.0251)
Cumulative COVID-19 Deaths	0.0267		-0.0422**	
	(0.0258)		(0.0199)	
Direct COVID-19 Exposure		-0.121*		0.143***
		(0.0662)		(0.0476)
Constant	0.0955***	0.104***	0.00311	-0.00109
	(0.0188)	(0.0172)	(0.0137)	(0.0128)
Observations	2,272	2,283	2,272	2,283
R-squared	0.019	0.023	0.009	0.015
Participants	966	973	966	973
Test Wave 3 – Wave 2=0	-0.0685*	-0.0253	-0.0228	-0.0841***
	(0.0378)	(0.0326)	(0.0305)	(0.0272)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Columns (1)-(2) use a pca variable of trust in institutions, comprising trust in different institutions, as a dependent variable, while columns (3)-(4) use a pca variable of social trust, comprising three items for the evaluation of generalized social trust. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table 5. Partisan trust dynamics

	(1)	(2)	(3)	(4)	(5)	(6)
		Trust in Institutions			Social Trust	
Wave 2	0.00420	-0.00253	0.00721	0.00700	0.0258	0.00347
	(0.0263)	(0.0276)	(0.0263)	(0.0256)	(0.0265)	(0.0254)
Wave 3	-0.0694**	-0.0942**	-0.0467	-0.0568**	-0.00227	-0.0833***
	(0.0283)	(0.0423)	(0.0312)	(0.0281)	(0.0367)	(0.0298)
Wave 2*Trump voter	-0.285***	-0.283***	-0.286***	0.110**	0.101**	0.111**
	(0.0840)	(0.0844)	(0.0832)	(0.0507)	(0.0506)	(0.0503)
Wave 3*Trump voter	-0.214***	-0.214***	-0.216***	0.129**	0.121**	0.131***
	(0.0692)	(0.0694)	(0.0691)	(0.0509)	(0.0507)	(0.0504)
Cumulative COVID-19 Deaths		0.0202			-0.0397**	
		(0.0256)			(0.0201)	
Direct COVID-19 Exposure			-0.124*			0.145***
			(0.0651)			(0.0471)
Constant	0.0849***	0.0913***	0.103***	0.0202**	0.00470	-0.000756
	(0.0143)	(0.0180)	(0.0165)	(0.0103)	(0.0136)	(0.0127)
Observations	2,283	2,272	2,283	2,283	2,272	2,283
R-squared	0.040	0.040	0.044	0.013	0.015	0.022
Participants	973	966	973	973	966	973
Test Wave 3 – Wave 2=0	-0.0736**	-0.0917**	-0.0539*	-0.0638**	-0.0280	-0.0868***
	(0.0294)	(0.0373)	(0.0316)	(0.0294)	(0.0330)	(0.0312)
Test (Wave 3 – Wave 2)*Trump=0	0.0701	0.0696	0.0693	0.0186	0.0198	0.0195
	(0.0740)	(0.0742)	(0.0740)	(0.0562)	(0.0562)	(0.0558)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Columns (1)-(2) use a pca variable of trust in institutions, comprising trust in different institutions, as a dependent variable, while columns (3)-(4) use a pca variable of social trust, comprising three items for the evaluation of generalized social trust. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table 6. Partisan dynamics of institutional trust

	(1) Institutions	(2) Trump	(3) WHO	(4) CDCs	(5) FedGov	(6) LocGov	(7) Pharma	(8) SocMed	(9) Science	(10) News
Wave 2	0.00420	0.00390	0.0388	0.0219	0.0116	-0.000911	0.0571*	-0.0882**	0.0313	-0.0660**
	(0.0263)	(0.0204)	(0.0312)	(0.0376)	(0.0313)	(0.0376)	(0.0344)	(0.0394)	(0.0320)	(0.0317)
Wave 3	-0.0694**	-0.0508**	0.0512	-0.0578	-0.0606*	-0.155***	0.0235	-0.109**	0.101***	-0.119***
	(0.0283)	(0.0227)	(0.0344)	(0.0413)	(0.0326)	(0.0361)	(0.0364)	(0.0438)	(0.0303)	(0.0346)
Wave 2*Trump voter	-0.285***	-0.152**	-0.253***	-0.201**	-0.211**	-0.155	-0.214***	-0.0146	-0.285***	-0.155
	(0.0840)	(0.0680)	(0.0775)	(0.0821)	(0.0893)	(0.0950)	(0.0815)	(0.103)	(0.0790)	(0.0946)
Wave 3*Trump voter	-0.214***	-0.0533	-0.193***	-0.136	-0.246***	-0.0234	-0.00938	-0.0834	-0.255***	-0.235***
	(0.0692)	(0.0583)	(0.0733)	(0.0848)	(0.0746)	(0.0845)	(0.0797)	(0.0844)	(0.0711)	(0.0786)
Constant	0.0849***	0.0749***	0.0164	0.0187	0.0872***	0.0664***	0.0626***	0.129***	-0.0398***	0.0866***
	(0.0143)	(0.0115)	(0.0147)	(0.0163)	(0.0156)	(0.0175)	(0.0155)	(0.0188)	(0.0145)	(0.0165)
Observations	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283
R-squared	0.040	0.016	0.018	0.013	0.025	0.019	0.011	0.011	0.029	0.034
Participants	973	973	973	973	973	973	973	973	973	973
Test Wave 3 - Wave 2=0	-0.0736**	-0.0547**	0.0124	-0.0797*	-0.0723**	-0.154***	-0.0336	-0.0204	0.0702**	-0.0535
	(0.0294)	(0.0249)	(0.0344)	(0.0429)	(0.0354)	(0.0362)	(0.0376)	(0.0448)	(0.0323)	(0.0354)
Test (Wave 3 – Wave 2)*Trump=0	0.0701	0.0991	0.0600	0.0649	-0.0345	0.132	0.204**	-0.0688	0.0303	-0.0804
	(0.0740)	(0.0629)	(0.0730)	(0.0879)	(0.0807)	(0.0876)	(0.0823)	(0.0901)	(0.0764)	(0.0834)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Column (1) uses as a dependent variable the result of principal component analysis comprising all other institutional trust variables. Column (2)-(10) use as dependent variable trust in a specific institution indicated by the column heading. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table 7. Partisan dynamics of attribution of responsibilities

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Chinese Government	US Government	WHO	CDC	Trump	Chinese Public	US Public
Wave 2	-0.0536	-0.0368	-0.0489	-0.160***	-0.103***	-0.177***	-0.0668
	(0.0340)	(0.0372)	(0.0338)	(0.0463)	(0.0380)	(0.0391)	(0.0438)
Wave 3	-0.320***	0.232***	0.180***	-0.0677	-0.184***	-0.239***	0.461***
	(0.0434)	(0.0448)	(0.0384)	(0.0485)	(0.0431)	(0.0399)	(0.0476)
Wave 2*Trump voter	-0.00647	-0.0568	-0.0380	0.129	0.247***	0.0421	-0.0505
	(0.0704)	(0.0664)	(0.0604)	(0.0811)	(0.0750)	(0.0699)	(0.0722)
Wave 3*Trump voter	0.233***	-0.265***	-0.133**	0.0742	0.133	0.0864	-0.291***
	(0.0780)	(0.0798)	(0.0667)	(0.0916)	(0.0901)	(0.0840)	(0.0856)
Constant	0.0965***	0.00709	0.00172	0.101***	0.0819***	0.165***	-0.0144
	(0.0147)	(0.0150)	(0.0133)	(0.0179)	(0.0161)	(0.0154)	(0.0167)
Observations	2,281	2,281	2,278	2,281	2,281	2,280	2,280
R-squared	0.046	0.033	0.032	0.010	0.021	0.036	0.101
Participants	973	973	972	973	973	973	973
Test Wave 3 – Wave 2=0	-0.267***	0.269***	0.229***	0.0922*	-0.0803*	-0.0616	0.528***
	(0.0453)	(0.0453)	(0.0390)	(0.0489)	(0.0439)	(0.0401)	(0.0494)
Test (Wave 3 – Wave 2)*Trump=0	0.239***	-0.208***	-0.0945	-0.0545	-0.114	0.0443	-0.241***
	(0.0788)	(0.0794)	(0.0684)	(0.0936)	(0.0880)	(0.0843)	(0.0839)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Dependent variables represent to what extent respondents attribute responsibility for the current COVID-19 situation in the US to the actor indicated in the column heading. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table 8. Social and political trust by exposure to COVID-19 and political orientation

	(1)	(2)	(3)	(4)
	Trust in Institutions		Social Trust	
Wave 2	-0.103***	-0.0944***	0.0619***	0.0431*
	(0.0346)	(0.0328)	(0.0238)	(0.0225)
Wave 3	-0.169***	-0.128***	0.0387	-0.0374
	(0.0429)	(0.0310)	(0.0343)	(0.0252)
Direct COVID-19 Exposure		0.0292		0.0761
		(0.0568)		(0.0562)
Direct COVID-19 Exposure*Trump voter		-0.351***		0.157*
		(0.130)		(0.0926)
Cumulative COVID-19 Deaths	0.0548**		-0.0469**	
	(0.0237)		(0.0221)	
Cumulative COVID-19 Deaths*Trump voter	-0.107**		0.0177	
	(0.0444)		(0.0289)	
Constant	0.0898***	0.115***	0.00406	-0.00602
	(0.0189)	(0.0184)	(0.0137)	(0.0134)
Observations	2,272	2,283	2,272	2,283
R-squared	0.024	0.031	0.009	0.018
Participants	966	973	966	973
Test Wave 3 – Wave 2=0	-0.0656*	-0.0331	-0.0233	-0.0805***
	(0.0378)	(0.0319)	(0.0305)	(0.0272)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Columns (1)-(2) use a pca variable of trust in institutions, comprising trust in different institutions, as a dependent variable, while columns (3)-(4) use a pca variable of social trust, comprising three items for the evaluation of generalized social trust. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table 9. COVD-19 and trust, by political orientation; results from the priming experiment

	(1)	(2)	(3)	(4)
	Baseline		Interaction with Trump voter dummy	
	Social Trust	Trust in the Federal Government	Social Trust	Trust in the Federal Government
Positive Priming	-0.0735	-0.0181	0.0484	-0.103
	(0.0758)	(0.0704)	(0.0928)	(0.0802)
Negative Priming	0.0261	-0.0146	0.0553	-0.0395
	(0.0778)	(0.0717)	(0.0929)	(0.0814)
Trump voter			0.287**	-0.604***
			(0.118)	(0.111)
Positive Priming*Trump voter			-0.393**	0.296*
			(0.160)	(0.151)
Negative Priming*Trump voter			-0.112	0.120
			(0.168)	(0.156)
Cumulative COVID-19 Deaths	-0.0222	-0.00145	-0.0201	-0.00804
	(0.0308)	(0.0313)	(0.0303)	(0.0302)
Direct COVID-19 Exposure	0.0693	0.0665	0.0681	0.0701
	(0.0687)	(0.0673)	(0.0685)	(0.0652)
Took part in the previous waves	-1.238***	0.836**	-1.318***	0.948**
	(0.218)	(0.402)	(0.236)	(0.368)
Constant	1.010	0.537	1.053	0.371
	(0.776)	(0.834)	(0.777)	(0.792)
Observations	958	958	958	958
R-squared	0.107	0.226	0.115	0.267
Test Negative Priming – Positive Priming=0	0.0997	0.00345	0.00687	0.0633
	(0.0781)	(0.0726)	(0.0939)	(0.0858)
Test (Negative Priming – Positive Priming)*Trump=0			0.281*	-0.176
			(0.170)	(0.155)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in column (1) and (3) represents the extent respondents believe that "most people can be trusted" vs "you cannot be too careful". The dependent variable in column (2) and (4) represents how much respondents think that the Federal Government can be trusted to do what is right. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations. Regressions control for socio-demographic characteristics including age, gender, education, religion, attendance to religious services, ethnicity, employment status, marital status, number of people in the household, whether respondents have US citizenship, their income and whether they are insured. Additional controls include direct COVID-19 exposure, i.e. whether the respondent or one of their loved ones got a COVID-19 diagnosis, and a panel dummy indicating whether the respondent was part of the panel.

Table 10. COVD-19 and trust, by political orientation and social media exposure

	(1)	(2)	(3)	(4)
	High Social Media Exposure		Low Social Media Exposure	
	Social Trust	Trust in the Federal Government	Social Trust	Trust in the Federal Government
Positive Priming	0.213	-0.136	-0.0699	0.0121
	(0.150)	(0.117)	(0.128)	(0.111)
Negative Priming	0.243	-0.0115	-0.0620	-0.0556
	(0.153)	(0.130)	(0.119)	(0.104)
Trump voter	0.522***	-0.680***	0.0177	-0.422***
	(0.169)	(0.174)	(0.166)	(0.145)
Positive Priming*Trump voter	-0.770***	0.597***	0.0116	-0.145
	(0.228)	(0.224)	(0.234)	(0.205)
Negative Priming*Trump voter	-0.303	0.181	-0.0302	0.0514
	(0.235)	(0.226)	(0.237)	(0.222)
Cumulative COVID-19 Deaths	-0.0693	0.0642	0.0291	-0.0776*
	(0.0455)	(0.0416)	(0.0451)	(0.0453)
Direct COVID-19 Exposure	-0.0292	0.167*	0.146	-0.0307
	(0.0996)	(0.0921)	(0.0973)	(0.0950)
Took part in the previous waves	-1.020***	1.121***	-1.250***	-0.379*
	(0.257)	(0.217)	(0.213)	(0.210)
Constant	1.295	-0.875	0.769	2.256**
	(1.182)	(1.066)	(1.029)	(0.906)
Observations	444	444	514	514
R-squared	0.191	0.407	0.132	0.160
Test Negative Priming – Positive Priming=0	0.0302	0.125	0.00785	-0.0677
	0.140	0.119	0.131	0.120
Test (Negative Priming – Positive Priming)*Trump=0	0.467**	-0.416*	-0.0419	0.196
	0.236	0.218	0.240	0.229

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. The sample in column (1) and (2) are individuals who reported a social media exposure score above the median, column (3) and (4) are based on individuals with social media exposure below the median. The dependent variable in column (1) and (3) represents the extent respondents believe that "most people can be trusted" vs "you cannot be too careful". The dependent variable in column (2) and (4) represents how much respondents think that the Federal Government can be trusted to do what is right. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations. Regressions control for socio-demographic characteristics including age, gender, education, religion, attendance to religious services, ethnicity, employment status, marital status, number of people in the household, whether respondents have US citizenship, their income and whether they are insured. Additional controls include direct COVID-19 exposure, i.e. whether the respondent or one of their loved ones got a COVID-19 diagnosis, and a panel dummy indicating whether the respondent was part of the panel.

APPENDIX

1. Descriptive statistics

The age of respondents ranges from 19 to 75, with an average of 38.33. There are more male than female respondents (56.98% vs 42.71%); most respondents are white, and the best represented ethnic minorities are Hispanic, black and Asian; almost half of respondents have a bachelor's degree while only 14.58% of respondents have a higher level of education. As to political leaning, the biggest group of respondents voted for Hillary Clinton in the 2016 elections (41.07% of the sample) while 22.9% voted "Other" candidates in the 2016 election, which underrepresents Trump voters as is often the case with MTurk surveys. Lastly, 13.38% of respondents reported having had a *direct* exposure to COVID-19, i.e. either the respondent, a member of their family or a friend have been diagnosed with COVID-19. Table A3 contains descriptive statistics of continuous variables, i.e. cumulative COVID-19 related deaths in the respondent's county, institutional trust, social trust and attribution of responsibility.

2. Attrition model

Since attrition could be a possible source of bias, in all models we weighted the sample for attrition using inverse probability weighting. In particular, we weighted each observation by the inverse probability that the respondent participates in all survey waves. Hence, higher weights are assigned to respondents that are more likely to drop out of the survey at some point across waves. We used an attrition logit model to estimate the probability of attrition, i.e. the probability that a respondent takes part in all waves of the survey. The attrition model uses respondents' baseline characteristics to explain attrition. Age, gender, ethnicity, religion, education, health status, income, voting in 2016, social and institutional trust in the first non-missing wave are used as explanatory variables; the R^2 of the model is 0.2564. Results of the model are displayed in Table A5.

3. Descriptive statistics

An alternative interpretation of results in Table 8 hinges on possibility that Trump voters might have become less prone to adhere to social distancing (or to implement other forms of protective behavior) and were more open to social interactions. These features may explain the increase in social trust and the decrease in institutional trust found in previous estimates. This kind of behavior, however, might also have increased direct exposure to COVID-19. While the experimental results partially rule out this alternative mechanism, results in Table A6 help in excluding that COVID-19 exposure is driven by the aspects of political affiliation that are correlated with social and political trust.

Through a panel fixed-effects linear probability model, we predict the likelihood that a respondent received a COVID-19 diagnosis, and that either the respondent herself, one of her relatives or friends had been diagnosed with COVID-19. We observe that a better predictor of direct COVID-19 exposure is wave three, most likely because the more time having passed since the beginning of the pandemic, the most likely it is to report direct exposure to (or contact with persons who contracted) the virus. The probability that the respondent had been diagnosed with COVID-19 is also slightly influenced by the strictness of containment measures[12]. Trump voters, however, do not show a different pattern of infection than non-Trump voters. This suggests that, in our sample, there are no partisan-specific trends in COVID-19 exposure.

4. Hypotheses behind the heterogeneity analysis by social-media exposure

Social media were used intensively as a source of information during the pandemic (Banerjee & Meena, 2021; Nielsen et al., 2021); importantly, they also played a significant role in shaping socio-economic and political attitudes (Alatas et al. 2019; Allcott et al., 2020a-b-c; Banerjee et al. 2020; Zhuravskaya et al. 2020). On the one hand, heavy social-media users may be more sensitive to information provision than less intensive users. First, their social-media platforms are frequently fed with news articles/comments on salient topics, and therefore they might be more receptive (and responsive) to information provision. Second, they might change or reinforce their own ideas depending on, among other factors, whether (and how much) the information received matches with their own prior beliefs, the level of endorsement it received and how polarizing the topic is (Conzo et al. 2021). On the other hand, we might also conjecture that intensive social-media users are less sensitive to information provision on a very popular topic. They might have been exposed to a large number of pandemic-related articles and opinions prior to our experiment. As such our messages might not be powerful enough to alter their consolidated beliefs or to induce significant emotional reactions.

5. Correction for multiple-hypotheses testing

[12] Strictness of containment policies is measured by the Oxford COVID-19 Government Response Tracker Containment and Health Index, which considers the presence and extent of restrictions, closures, testing, contact tracing, healthcare investments and investments in a vaccine.

Using the Romano-Wolf p-values, all results in Table 5 hold (adjusted p-values are all below 0.05). All models in Table 8 are also robust to this correction, except the one, i.e. the model in which the outcome is social trust and, among controls, direct exposure to COVID-19 is interacted with an indicator for being a Trump voter (Table 8, column 4). On this interaction, the uncorrected p-value was 0.0894, while the Romano-Wolf correction yelds a p-value of 0.1881. Regarding Table 9, Romano-Wolf p-values increase to 0.01 the level of significance on the coefficient of the interaction between the positive priming and the Trump-voter indicator when the oucome is institutional trust (unadjusted p-value = 0.0144; adjusted p-value=0.0099). However, when the outcome is social trust, for such interaction, Romano-Wold correction yelds a p-value equal to 0.1089 (unadjusted p-value = 0.0506).

6. Additional robustness checks

6.1 Using an alternative measure for being a Trump voters

A possible limit to our study concerns the external validity of the results, because the Amazon MTurk sample is non representative of the US population. To mitigate this concern, we repeat the empirical analysis using post-stratification weights, together with attrition weights to observe whether results change when we make our sample similar to the US population. Post-stratification weights are built comparing the distribution of gender, white people, black people, Asian people and college graduate in the sample to the one of the US population as in the American Community Survey (ACS). Tables A7-A16 replicate Tables 1-10, while Figures A1-A6 replicate Figures 1-6. Results and trends suffer negligible changes after the introduction of post-stratification weights, suggesting that our results might hold for the entire population. Generally speaking, including post-stratification weights does not change the main results: Trump voters' social trust grows, while institutional trust in the period considered falls. Moreover, using post-stratification weights does not change the important result showing that Trump voters who were directly exposed to COVID-19 gradually lost institutional trust and gained social trust, while the negative effect on institutional trust is no longer present for the entire sample. Experimental results tend to be robust to sample weighting as well. While the positive priming does not have an effect on Trump voters' trust in the federal government, the effect of negative priming and results on respondents highly exposed to social media are indeed confirmed.

6.2 Using an alternative measure for being a Trump voters

A key finding of our study is the presence of partisan dynamics in social and institutional trust, with Trump voters driving the observed changes over time. However, the difference between Trump and non-Trump voters, rather than capturing the political leaning of respondents, might entail differences in socio-demographic characteristics between the two groups. These might, in turn, predict the observed changes in social and political trust. To mitigate this concern, we replicate our main estimates (Table 5 and 8) replacing the 'Trump Voter' dummy with the residuals from a logistic regression, where the probability of being a Trump voter is used as dependent variable. This allows us to check whether the reduction (increase) of institutional (social) trust is confirmed when we use an alternative measure of political orientation, i.e. a measure that is 'cleaned' from the potential association between the (observed) socio-demographic characteristics with trust and the likelihood of voting for Trump. The residuals are derived from a model that predicts the probability of being Trump Voter using, as controls, age, gender, religion, ethnic group, working status, number of people in the household, number of diseases, and insurance status. Residuals should, therefore, represent ideological/political preferences in a much neater way than the 'Trump Voter' dummy. Regarding the interpretation, higher values of the unexplained probability of voting Trump (i.e. the residuals) imply stronger preference for Trump than what is predicted by socio-demographic factors. Results indeed confirm that institutional trust decreased while social trust increased for individuals with higher residuals; at the same time, we do not find changes for other voters. This effect is significant only between the first and the second wave. Results are summarized in Figure A13 and A14 in the Appendix. Moreover, Figures A15 and A16 show that for people who are ideologically closer to Trump, the loss of institutional trust and the rise in social trust are associated to direct COVID-19 exposure. Overall, results in Table 5 and 8 are robust to an alternative measure of being a Trump voter, which nets out the potential role of socio-demographic characteristics in explaining estimated partisan dynamics.

6.3 The effects of our stimuli on opinions and percptions

Another potential concern refers to the validity of the stimuli used in the experiment. The validity of the experimental results hinges on the assumption that priming conditions impacted on the respondent's perception in a direction that is consistent with the valence of the message. Hence, we verified whether priming messages really yielded this effect through *ad hoc* manipulation checks. Consistent with the content of message received, respondents in the negative priming group were asked whether they think that the COVID-19 situation was better in the US or in the rest of the world and whether the US economy was doing better in April 2020 than in the last quarter of 2019. Respondents in the positive priming received questions on whether the COVID-19 situation was better in November than in April and whether the economy was doing better than in April. The control group received all four questions. Manipulation checks confirm that our priming did affect the way respondents perceived the economic and COVID-19 situation. More positive evaluations were provided in the positive priming condition than in the control condition. On the contrary, respondents in the negative priming group were very critical. Results are summarized in Figure A17.

As an additional manipulation check, we measured the perceived valence of the stimulus, i.e. how much the piece of information received was perceived as positive (10) or negative (0). As shown in Figure A18, results confirm that respondents in the positive priming group indeed perceived the statement having a positive valence, while respondents in the negative priming understood the pessimistic attitude of the message they read. However, both Figures A17 and A18 suggest that the positive message had a stronger influence than the negative one. In other words, the negative message was perceived as more negative than the positive message was perceived as positive.

Finally, we further explore the mechanisms driving our experimental results. An explanation to the partisan effects on trust might rest on partisan perceptions of the *valence* of the stimuli and on partisan *opinion changes* in response to such stimuli. First, when looking at the impact of the stimuli on participants' beliefs, we do not find sizeable partisan differences. Relative to the control condition, Trump and non-Trump voters exposed to the priming conditions tended to report beliefs about the economic and health situation that were in line with the valence of the message received (Figure A19)[13]. Incidentally, this piece of evidence also suggests that our priming conditions were effective in changing opinions. Second, and consistent with the aforementioned findings for the entire sample, the manipulation checks by political affiliation highlight that the positive message was perceived as 'stronger' than the negative one *equally* by the Trump and by the non-Trump voters (Figure A20)[14].

[13] A partisan difference seems to emerge, however, with respect to the magnitude of the change in opinions. Interpreting the differences in opinions between the priming conditions and the control condition as within-person changes, the negative message generated larger changes in the beliefs of Trump voters than in those of non-Trump voters. The opposite occurs for the positive message, with larger opinion changes observed for non-Trump voters than for Trump voters. In other terms, with respect to the control condition, reading the negative (positive) message had a stronger (weaker) effect on the beliefs of Trump voters than for those of non-Trump voters. This can, however, be explained by more optimistic opinions on the health and economic situation held by the former, as shown in the control condition.

[14] The negative message was perceived, however, as being less negative by Trump voters, most likely because of partisan-motivated beliefs (Bisgaard, 2015). In other words, to reduce the distance between the message valence and their prior beliefs, Trump voters might have adjusted the perceived valence of the former in a way that is consistent with the latter.

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Table A1. Description of variables.

Variable	Description
Synthetic (pca) Institutional trust	Result of principal component analysis on all institutional trust variables: trust in Trump, the WHO, CDCs, federal government, local government, pharmaceutical companies, social media, science and news.
Synthetic (pca) Social trust	Result of principal component analysis on Item 1-3.
Trust in Trump, the WHO (World Health Organization), CDCs (Centres for Disease Control and Prevention), Federal Government, local government, pharmaceutical companies, social media, science and news	Asked through the following question "How much would you say you trust the following…(institution name)?" Answers are scaled from 1 (Not at all) to 5 (A great deal).
Item 1 (Social trust)	Answer to the question: "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?", where 5 (maximum value) represents "Most people can be trusted".
Item 2 (Social trust)	Answer to the question: "Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?", where 5 represents "Most people would try to be fair".
Item 3 (Social trust)	Answer to the question: "Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?, where 5 is "People mostly try to be helpful".
Attribution of responsibility to Chinese Government, US Government, the WHO, CDCs, Trump, Chinese public and US public.	Answer to the question: "To what extent do you think each of the following is responsible for the current situation of COVID-19 in the US?". Answers are scaled from 0 to 100, with 100 being "Most responsible". To the purpose of this research answers are rescaled from 0 to 10.
Trump voter indicator	It is one (1) if the respondent voted for Trump at the 2016 elections and zero (0) otherwise. It is zero if respondents voted either for Clinton or Other.
Direct COVID-19 Exposure	It is an indicator variable which is one (1) if either the respondent, one of their friends or members of immediate or extended family, has been diagnosed with COVID-19. It is zero (0) otherwise.
Cumulative COVID-19 Deaths	Measure indirect exposure to COVID-19. It is the relative number of deaths in the county of the respondent since the pandemic started, expressed in percentage.

Table A2. Descriptive statistics, socio-demographic characteristics.

Gender	%
Male	56.98
Female	42.71
Other	0.31

Direct Exposure	%
Yes	13.38
No	86.62

Voting 2016	%
Trump	36.04
Clinton	41.07
Other	22.90

Race	%
White	71.66
Hispanic	9.24
Black	11.91
Asian	6.37
Other	0.82

Education	%
Less than high school	0.10
High school	10.37
Some college	15.91
Associate degree	10.99
Bachelor's degree	48.05
Master	12.22
PhD	1.03
JD MD	1.33

Table A3. Descriptive statistics, continuous variables

Variable	Mean (Std. Err.)	Min	Max
Cumulative COVID-19 Deaths	0.0265 (0.0465)	0	0.3519
Institutional Trust (pca)	0.0000 (0.0399)	-4.5745	6.5152
Trust Trump	2.0201 (1.2293)	1	5
Trust WHO	3.0232 (1.2319)	1	5
Trust CDCs	3.2240 (1.1162)	1	5
Trust federal government	2.1063 (0.9419)	1	5
Trust local government	2.6474 (1.0388)	1	5
Trust pharmaceutical companies	2.1382 (1.0377)	1	5
Trust social media	2.0687 (0.9439)	1	5
Trust science	3.9103 (1.0910)	1	5
Trust news	2.7528 (1.0071)	1	5
Social Trust (pca)	0.0000 (1.5683)	-0.4470	0.1445
Item 1	3.1629 (1.1817)	1	5
Item 2	3.3115 (1.1042)	1	5
Item 3	3.2117 (1.1785)	1	5
Attribution to Chinese Gov.	5.8607 (3.2430)	0	10
Attribution to US Gov.	5.5656 (3.1543)	0	10
Attribution to WHO	5.6812 (3.5519)	0	10
Attribution to CDCs	3.4939 (2.9472)	0	10
Attribution to Trump	4.0060 (3.2632)	0	10
Attribution to Chinese Pub.	3.3639 (3.3341)	0	10
Attribution to US Pub.	4.2090 (3.1181)	0	10

Table A4. Attrition

Attrition	N°	%
Present in all waves	504	51.75
Only wave 1 and 2	215	22.07
Only wave 1	166	17.04
Only wave 1 and 3	89	9.14

Table A5. Attrition logit Model

	Probability of Attrition
Age	-0.000937
	(0.00373)
Female	-0.0350
	(0.0726)
White	0.127
	(0.185)
Black	0.127
	(0.193)
Asian	0.237
	(0.238)
Hispanic	-0.258***
	(0.0937)
Catholic	0.182
	(0.134)
Protestant	0.0197
	(0.140)
Not religious	-0.169
	(0.130)
Graduate	0.0150
	(0.0881)
Married	0.174*
	(0.0923)
Divorced	0.0294
	(0.214)
Separated	-0.481
	(0.648)
Cohabiting	0.159
	(0.138)
Insured	0.0661
	(0.0746)
Voted Trump	-0.103
	(0.0810)
N° Diseases	-0.0929**
	(0.0438)
Income	0.0553
	(0.0358)
Missing Income	-2.505***
	(0.236)
Social Trust before attrition	-0.00301
	(0.0280)
Institutional Trust before attrition	-0.0173
	(0.0173)
Constant	2.514***
	(0.348)
Observations	2,919

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<01

Table A6. Dynamics of being exposed to COVID-19.

	(1)	(2)
	Fixed-effects Linear Probability Model	
	Diagnosed Self	Direct Exposure
Wave 2	-0.000750	0.0155
	(0.00813)	(0.0119)
Wave 3	0.00775	0.157***
	(0.0107)	(0.0332)
Wave 2*Trump voter	-0.00267	-0.00526
	(0.0218)	(0.0330)
Wave 3*Trump voter	0.0171	-0.00948
	(0.0183)	(0.0416)
Containment policy	0.000947*	7.94e-05
	(0.000497)	(0.00145)
Protective behavior	-0.00279	0.00829
	(0.00636)	(0.0104)
Cumulative COVID-19 Deaths	0.168	0.554
	(0.122)	(0.347)
Constant	0.00827	0.135
	(0.0292)	(0.0843)
Observations	2,239	2,271
R-squared	0.009	0.092
Number of participants	962	965
Test Wave 3-Wave 2=0	0.00850	0.141***
	(0.0105)	(0.0314)
Test (Wave 3-Wave 2)*Trump=0	0.0198	-0.00422
	(0.0200)	(0.0436)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns (1)-(2) are indicators of whether the respondent has been diagnosed with COVID-19 or not, and whether the respondent or one of their loved ones (relatives or friends) has been diagnosed with COVID-19, respectively. Regressions control for the strength of containment policies, measured by the Oxford COVID-19 policy response tracker, the extent respondents complied with forms of protective behavior - including work from home, washing hands, buying masks and social distancing – and cumulative COVID-19 deaths in the county of the respondent.

Table A7 Model Table 1 with post-stratification weights

	(1) Institutional	(2) Trump	(3) WHO	(4) CDC	(5) FedGov	(6) LocGov	(7) Pharma	(8) SocMed	(9) Science	(10) News
Wave 2	-0.0840**	-0.0362	-0.0540	-0.0507	-0.0372	-0.0489	0.0186	-0.124***	-0.0526*	-0.117***
	(0.0340)	(0.0234)	(0.0366)	(0.0422)	(0.0343)	(0.0396)	(0.0383)	(0.0417)	(0.0319)	(0.0366)
Wave 3	-0.121***	-0.0391*	0.0125	-0.0931**	-0.122***	-0.151***	0.0484	-0.165***	-0.00619	-0.170***
	(0.0329)	(0.0223)	(0.0365)	(0.0425)	(0.0360)	(0.0398)	(0.0397)	(0.0470)	(0.0330)	(0.0379)
Constant	-0.0373**	-0.0190*	-0.0365**	-0.00219	-0.0530***	-0.0248	-0.0868***	0.0677***	-0.0249	-0.0143
	(0.0161)	(0.0108)	(0.0176)	(0.0198)	(0.0165)	(0.0189)	(0.0188)	(0.0204)	(0.0152)	(0.0180)
Observations	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283
R-squared	0.016	0.004	0.004	0.005	0.012	0.015	0.002	0.018	0.003	0.024
Participants	973	973	973	973	973	973	973	973	973	973
Test Wave 3 – Wave 2=0	-0.0374	-0.00293	0.0665*	-0.0423	-0.0847**	-0.103**	0.0297	-0.0410	0.0464	-0.0528
	(0.0338)	(0.0243)	(0.0368)	(0.0460)	(0.0370)	(0.0413)	(0.0385)	(0.0487)	(0.0345)	(0.0364)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Column (1) uses as a dependent variable the result of principal component analysis comprising all other institutional trust variables. Column (2)-(10) use as dependent variable trust in a specific institution indicated by the column heading. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table A8 Model Table 2 with post-stratification weights

	(1) Chinese Government	(2) US Government	(3) WHO	(4) CDC	(5) Trump	(6) Chinese Public	(7) US Public
Wave 2	-0.0438	-0.0601*	-0.0484	-0.158***	-0.0255	-0.197***	-0.0997**
	(0.0346)	(0.0358)	(0.0352)	(0.0489)	(0.0458)	(0.0365)	(0.0403)
Wave 3	-0.261***	0.170***	0.144***	-0.0659	-0.183***	-0.246***	0.378***
	(0.0434)	(0.0473)	(0.0389)	(0.0510)	(0.0460)	(0.0435)	(0.0486)
Constant	0.115***	-0.0166	-0.0234	0.0363	0.0611***	0.103***	-0.0896***
	(0.0176)	(0.0185)	(0.0171)	(0.0241)	(0.0221)	(0.0184)	(0.0203)
Observations	2,281	2,281	2,278	2,281	2,281	2,280	2,280
R-squared	0.045	0.030	0.027	0.014	0.019	0.049	0.105
Participants	973	973	972	973	973	973	973
Test Wave 3 - Wave 2=0	-0.217***	0.230***	0.192***	0.0916*	-0.158***	-0.0490	0.478***
	(0.0443)	(0.0483)	(0.0409)	(0.0490)	(0.0456)	(0.0437)	(0.0490)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Dependent variables represent to what extent respondents attribute responsibility for the current COVID-19 situation in the US to the actor indicated in the column heading. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table A9 Model Table 3 with post-stratification weights

	(1)	(2)	(3)	(4)
	Social	Item 1	Item 2	Item 3
Wave 2	0.0167	0.0137	0.0240	0.00759
	(0.0242)	(0.0263)	(0.0358)	(0.0364)
Wave 3	-0.0207	-0.0554*	-0.00453	0.00406
	(0.0297)	(0.0308)	(0.0389)	(0.0415)
Constant	-0.0707***	-0.0727***	-0.0772***	-0.0425**
	(0.0123)	(0.0132)	(0.0179)	(0.0179)
Observations	2,283	2,283	2,283	2,283
R-squared	0.002	0.006	0.001	0.000
Participants	973	973	973	973
Test Wave 3 – Wave 2=0	-0.0374	-0.0690**	-0.0285	-0.00352
	(0.0297)	(0.0307)	(0.0368)	(0.0427)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in column (1) is a principal component analysis variable that is based on three items, which are used as dependent variables in column (2)-(4). Item 1 indicates the extent respondents believe “most people can be trusted” vs “you can not be too careful”. Item 2 indicates to what extent “most people would try to take advantage of me” vs “most people would try to be fair” according to the respondent. Item 3 represents how much respondents believe that “people mostly look out for themselves” vs “people mostly try to be helpful”. Dependent variables are standardized, coefficients represent outcome’s change in terms of standard deviations.

Table A10 Model Table 4 with post-stratification weights

	(1)	(2)	(3)	(4)
	Trust in Institutions		Social Trust	
Wave 2	-0.0985***	-0.0826**	0.0241	0.0143
	(0.0352)	(0.0340)	(0.0260)	(0.0239)
Wave 3	-0.177***	-0.107***	0.00414	-0.0441
	(0.0467)	(0.0363)	(0.0419)	(0.0315)
Cumulative COVID-19 Deaths	0.0455*		-0.0194	
	(0.0254)		(0.0236)	
Direct COVID-19 Exposure		-0.0755		0.123**
		(0.0571)		(0.0589)
Constant	-0.0191	-0.0288*	-0.0787***	-0.0845***
	(0.0201)	(0.0165)	(0.0167)	(0.0144)
Observations	2,272	2,283	2,272	2,283
R-squared	0.018	0.018	0.003	0.009
Participants	966	973	966	973
Wave 3 vs Wave 2	-0.0782*	-0.0245	-0.0200	-0.0584*
	(0.0415)	(0.0358)	(0.0358)	(0.0324)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Columns (1)-(2) use a pca variable of trust in institutions, comprising trust in different institutions, as a dependent variable, while columns (3)-(4) use a pca variable of social trust, comprising three items for the evaluation of generalized social trust. Dependent variables are standardized, coefficients represent outcome’s change in terms of standard deviations.

Table A11 Model Table 5 with post-stratification weights

	(1)	(2)	(3)	(4)	(5)	(6)
	Trust in Institutions			Social Trust		
Wave 2	0.0275	0.0135	0.0292	-0.0184	-0.0102	-0.0212
	(0.0353)	(0.0359)	(0.0353)	(0.0286)	(0.0306)	(0.0283)
Wave 3	-0.0628*	-0.115**	-0.0470	-0.0556	-0.0311	-0.0806**
	(0.0364)	(0.0467)	(0.0392)	(0.0357)	(0.0470)	(0.0378)
Wave 2*Trump voter	-0.365***	-0.364***	-0.366***	0.115**	0.111**	0.116**
	(0.0791)	(0.0792)	(0.0788)	(0.0527)	(0.0528)	(0.0523)
Wave 3*Trump voter	-0.195**	-0.194**	-0.197**	0.119*	0.116*	0.123**
	(0.0778)	(0.0778)	(0.0777)	(0.0634)	(0.0633)	(0.0627)
Cumulative COVID-19 Deaths		0.0428*			-0.0184	
		(0.0237)			(0.0245)	
Direct COVID-19 Exposure			-0.0795			0.126**
			(0.0549)			(0.0582)
Constant	-0.0380**	-0.0211	-0.0291*	-0.0705***	-0.0781***	-0.0846***
	(0.0156)	(0.0194)	(0.0158)	(0.0122)	(0.0167)	(0.0142)
Observations	2,283	2,272	2,283	2,283	2,272	2,283
R-squared	0.050	0.052	0.051	0.008	0.009	0.016
Participants	973	966	973	973	966	973
Test Wave 3 – Wave 2=0	-0.0903**	-0.129***	-0.0762**	-0.0371	-0.0209	-0.0594
	(0.0372)	(0.0431)	(0.0387)	(0.0348)	(0.0399)	(0.0370)
Test (Wave 3 – Wave 2)*Trump=0	0.170**	0.170**	0.168**	0.00420	0.00494	0.00710
	(0.0791)	(0.0792)	(0.0793)	(0.0665)	(0.0664)	(0.0661)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Columns (1)-(2) use a pca variable of trust in institutions, comprising trust in different institutions, as a dependent variable, while columns (3)-(4) use a pca variable of social trust, comprising three items for the evaluation of generalized social trust. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table A12 Model Table 6 with post-stratification weights

	(1) Institutions	(2) Trump	(3) WHO	(4) CDCs	(5) FedGov	(6) LocGov	(7) Pharma	(8) SocMed	(9) Science	(10) News
Wave 2	0.0275	0.0136	0.0585	0.0389	0.0459	0.0142	0.0984**	-0.103**	0.0165	-0.0569
	(0.0353)	(0.0208)	(0.0415)	(0.0489)	(0.0359)	(0.0450)	(0.0456)	(0.0470)	(0.0370)	(0.0379)
Wave 3	-0.0628*	-0.0208	0.0676*	-0.0398	-0.0582	-0.148***	0.0334	-0.139**	0.0553	-0.0992**
	(0.0364)	(0.0213)	(0.0393)	(0.0478)	(0.0401)	(0.0462)	(0.0449)	(0.0575)	(0.0356)	(0.0407)
Wave 2*Trump voter	-0.365***	-0.163***	-0.368***	-0.293***	-0.272***	-0.206**	-0.261***	-0.0691	-0.226***	-0.196**
	(0.0791)	(0.0626)	(0.0799)	(0.0925)	(0.0810)	(0.0895)	(0.0814)	(0.0969)	(0.0709)	(0.0897)
Wave 3*Trump voter	-0.195**	-0.0595	-0.182**	-0.178*	-0.216**	-0.00568	0.0614	-0.0889	-0.209**	-0.242***
	(0.0778)	(0.0600)	(0.0887)	(0.0993)	(0.0842)	(0.0903)	(0.0918)	(0.0981)	(0.0815)	(0.0926)
Constant	-0.0380**	-0.0193*	-0.0372**	-0.00277	-0.0535***	-0.0252	-0.0874***	0.0676***	-0.0253*	-0.0147
	(0.0156)	(0.0106)	(0.0171)	(0.0195)	(0.0161)	(0.0187)	(0.0186)	(0.0204)	(0.0151)	(0.0178)
Observations	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283
R-squared	0.050	0.015	0.033	0.019	0.030	0.023	0.019	0.019	0.018	0.036
Participants	973	973	973	973	973	973	973	973	973	973
Test Wave 3 – Wave 2=0	-0.0903**	-0.0344	0.00917	-0.0786	-0.104**	-0.162***	-0.0650	-0.0363	0.0388	-0.0423
	(0.0372)	(0.0246)	(0.0435)	(0.0537)	(0.0417)	(0.0466)	(0.0439)	(0.0595)	(0.0374)	(0.0391)
Test (Wave 3 – Wave 2)*Trump=0	0.170**	0.103*	0.186**	0.115	0.0561	0.200**	0.322***	-0.0198	0.0167	-0.0457
	(0.0791)	(0.0627)	(0.0799)	(0.103)	(0.0859)	(0.0952)	(0.0851)	(0.102)	(0.0844)	(0.0886)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Column (1) uses as a dependent variable the result of principal component analysis comprising all other institutional trust variables. Column (2)-(10) use as dependent variable trust in a specific institution indicated by the column heading. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table A13 Model Table 7 with post-stratification weights

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Chinese Government	US Government	WHO	CDC	Trump	Chinese Public	US Public
Wave 2	-0.0500	-0.0381	-0.0495	-0.196***	-0.113**	-0.221***	-0.0875*
	(0.0403)	(0.0438)	(0.0442)	(0.0629)	(0.0552)	(0.0448)	(0.0518)
Wave 3	-0.346***	0.222***	0.153***	-0.124**	-0.241***	-0.281***	0.442***
	(0.0508)	(0.0559)	(0.0483)	(0.0611)	(0.0505)	(0.0513)	(0.0600)
Wave 2*Trump voter	0.0206	-0.0716	0.00333	0.124	0.286***	0.0772	-0.0397
	(0.0780)	(0.0758)	(0.0719)	(0.0956)	(0.0957)	(0.0768)	(0.0792)
Wave 3*Trump voter	0.299***	-0.179*	-0.0327	0.201*	0.194*	0.120	-0.224**
	(0.0944)	(0.105)	(0.0797)	(0.110)	(0.111)	(0.0966)	(0.0995)
Constant	0.115***	-0.0168	-0.0234	0.0366	0.0617***	0.103***	-0.0898***
	(0.0175)	(0.0185)	(0.0171)	(0.0240)	(0.0218)	(0.0184)	(0.0203)
Observations	2,281	2,281	2,278	2,281	2,281	2,280	2,280
R-squared	0.057	0.033	0.028	0.018	0.031	0.051	0.110
Participants	973	973	972	973	973	973	973
Test Wave 3 – Wave 2=0	-0.296***	0.260***	0.203***	0.0714	-0.128**	-0.0601	0.530***
	(0.0536)	(0.0596)	(0.0500)	(0.0586)	(0.0522)	(0.0499)	(0.0622)
Trump (Wave 3 – Wave 2)*Trump=0	0.278***	-0.107	-0.0360	0.0773	-0.0918	0.0427	-0.184*
	(0.0918)	(0.101)	(0.0862)	(0.107)	(0.107)	(0.102)	(0.0963)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Dependent variables represent to what extent respondents attribute responsibility for the current COVID-19 situation in the US to the actor indicated in the column heading. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table A14 Model Table 8 with post-stratification weights

	(1)	(2)	(3)	(4)
	Trust in Institutions		Social Trust	
Wave 2	-0.0978***	-0.0833**	0.0242	0.0149
	(0.0352)	(0.0340)	(0.0260)	(0.0239)
Wave 3	-0.174***	-0.111***	0.00437	-0.0405
	(0.0449)	(0.0364)	(0.0419)	(0.0316)
Direct COVID-19 Exposure		0.00327		0.0560
		(0.0654)		(0.0700)
Direct COVID-19 Exposure*Trump voter		-0.228**		0.196*
		(0.114)		(0.115)
Cumulative COVID-19 Deaths	0.0728***		-0.0171	
	(0.0236)		(0.0247)	
Cumulative COVID-19 Deaths*Trump voter	-0.105***		-0.00893	
	(0.0402)		(0.0378)	
Constant	-0.0223	-0.0237	-0.0790***	-0.0889***
	(0.0198)	(0.0166)	(0.0168)	(0.0145)
Observations	2,272	2,283	2,272	2,283
R-squared	0.024	0.022	0.003	0.013
Participants	966	973	966	973
Test Wave 3 – Wave 2=0	-0.0762*	-0.0280	-0.0198	-0.0554*
	(0.0398)	(0.0357)	(0.0357)	(0.0323)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Columns (1)-(2) use a pca variable of trust in institutions, comprising trust in different institutions, as a dependent variable, while columns (3)-(4) use a pca variable of social trust, comprising three items for the evaluation of generalized social trust. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations.

Table A15 Model Table 9 with post-stratification weights

	(1)	(2)	(3)	(4)
	Baseline		Interaction Trump voter dummy	
	Social Trust	Trust in the Federal Government	Social Trust	Trust in the Federal Government
Positive Priming	-0.0193	-0.0262	0.0958	-0.0827
	(0.0882)	(0.0763)	(0.107)	(0.0880)
Negative Priming	0.0525	-0.0180	0.0486	-0.0187
	(0.0893)	(0.0822)	(0.105)	(0.0971)
Trump voter			0.239*	-0.516***
			(0.139)	(0.119)
Positive Priming*Trump voter			-0.402**	0.228
			(0.191)	(0.169)
Negative Priming*Trump voter			-0.00340	0.0412
			(0.200)	(0.173)
Cumulative COVID-19 Deaths	-0.0183	-0.0130	-0.0167	-0.0182
	(0.0343)	(0.0360)	(0.0341)	(0.0354)
Direct COVID-19 Exposure	0.0535	0.0713	0.0550	0.0681
	(0.0822)	(0.0747)	(0.0816)	(0.0735)
Took part in previous waves	-1.283***	0.493	-1.385***	0.624
	(0.223)	(0.403)	(0.250)	(0.419)
Constant	0.372	0.604	0.406	0.476
	(0.966)	(0.950)	(0.957)	(0.945)
Observations	958	958	958	958
R-squared	0.123	0.215	0.132	0.250
Test Negative Priming – Positive Priming=0	0.0717	0.00815	-0.0473	0.0640
	(0.0942)	(0.0813)	(0.114)	(0.0960)
Test (Negative Priming – Positive Priming)*Trump=0			0.398**	-0.187
			(0.200)	(0.176)

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in column (1) and (3) represent the extent respondents believe that "most people can be trusted" vs "you cannot be too careful". The dependent variable in column (2) and (4) represent how much respondents think that the Federal Government can be trusted to do what is right. Dependent variables are standardized, coefficients represent outcome's change in terms of standard deviations. Regressions control for socio-demographic characteristics including age, gender, education, religion, attendance to religious services, ethnicity, employment status, marital status, number of people in the household, whether respondents have US citizenship, their income and whether they are insured. Additional controls include direct COVID-19 exposure, i.e. whether the respondent or one of their loved ones got a COVID-19 diagnosis, and a panel dummy indicating whether the respondent was part of the panel.

Table A16 Model Table 10 with post-stratification weights

	(1)	(2)	(3)	(4)
	High Social Media Exposure		Low Social Media Exposure	
	Social Trust	Trust in the Federal Government	Social Trust	Trust in the Federal Government
Positive Priming	0.325*	-0.0661	-0.0616	0.0217
	(0.170)	(0.134)	(0.144)	(0.120)
Negative Priming	0.237	-0.0429	-0.0422	0.0330
	(0.172)	(0.145)	(0.132)	(0.125)
Trump voter	0.442**	-0.497**	0.0483	-0.404***
	(0.190)	(0.206)	(0.193)	(0.154)
Positive Priming*Trump voter	-0.886***	0.474*	0.0533	-0.171
	(0.264)	(0.260)	(0.265)	(0.225)
Negative Priming*Trump voter	-0.142	0.0133	0.0292	-0.00338
	(0.273)	(0.250)	(0.272)	(0.242)
Cumulative COVID-19 Deaths	-0.0741	0.0707	0.0487	-0.0756
	(0.0470)	(0.0488)	(0.0570)	(0.0525)
Direct COVID-19 Exposure	-0.0794	0.0873	0.132	0.0106
	(0.115)	(0.104)	(0.115)	(0.103)
Took part in the previous waves	-0.969***	0.917***	-1.298***	-0.373
	(0.267)	(0.280)	(0.243)	(0.227)
Constant	0.300	-0.0666	0.259	1.736*
	(1.180)	(1.146)	(1.299)	(0.980)
Observations	444	444	514	514
R-squared	0.228	0.399	0.171	0.212
Test Negative Priming – Positive Priming	-0.0885	0.0232	0.0194	0.0114
	0.161	0.129	0.149	0.133
Test (Negative Priming – Positive Priming)*Trump=0	0.744***	-0.460*	-0.0241	0.168
	0.278	0.238	0.266	0.250
p1	0.00780	0.0537	0.928	0.503

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. The sample in column (1) and (2) are individuals who reported a social media exposure score above the median, column (3) and (4) are based on individuals with social media exposure below the median. The dependent variable in column (1) and (3) represent the extent respondents believe that “most people can be trusted” vs “you cannot be too careful”. The dependent variable in column (2) and (4) represent how much respondents think that the Federal Government can be trusted to do what is right. Dependent variables are standardized, coefficients represent outcome’s change in terms of standard deviations. Regressions control for socio-demographic characteristics including age, gender, education, religion, attendance to religious services, ethnicity, employment status, marital status, number of people in the household, whether respondents have US citizenship, their income and whether they are insured. Additional controls include direct COVID-19 exposure, i.e. whether the respondent or one of their loved ones got a COVID-19 diagnosis, and a panel dummy indicating whether the respondent was part of the panel.

Figure A1 Model Figure 1 with post-stratification weights

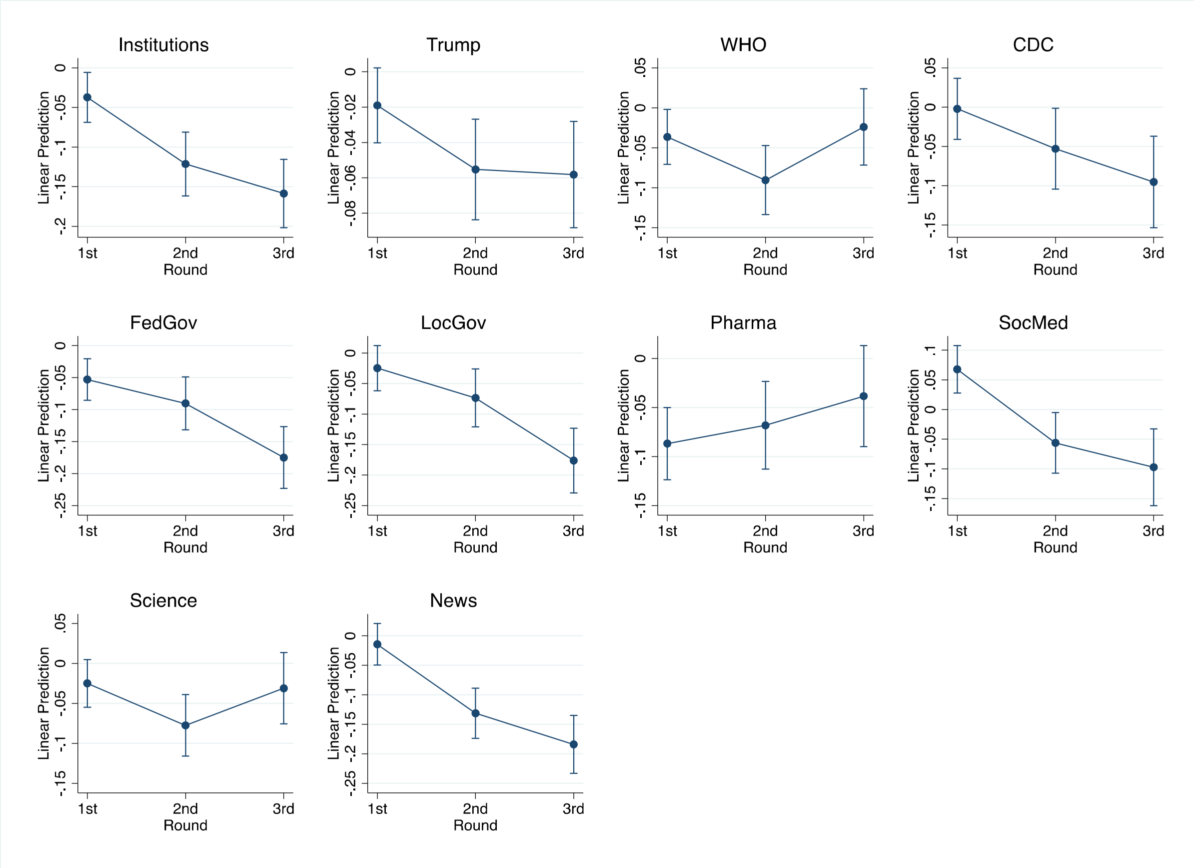


Figure A2 Model Figure 2 with post-stratification weights

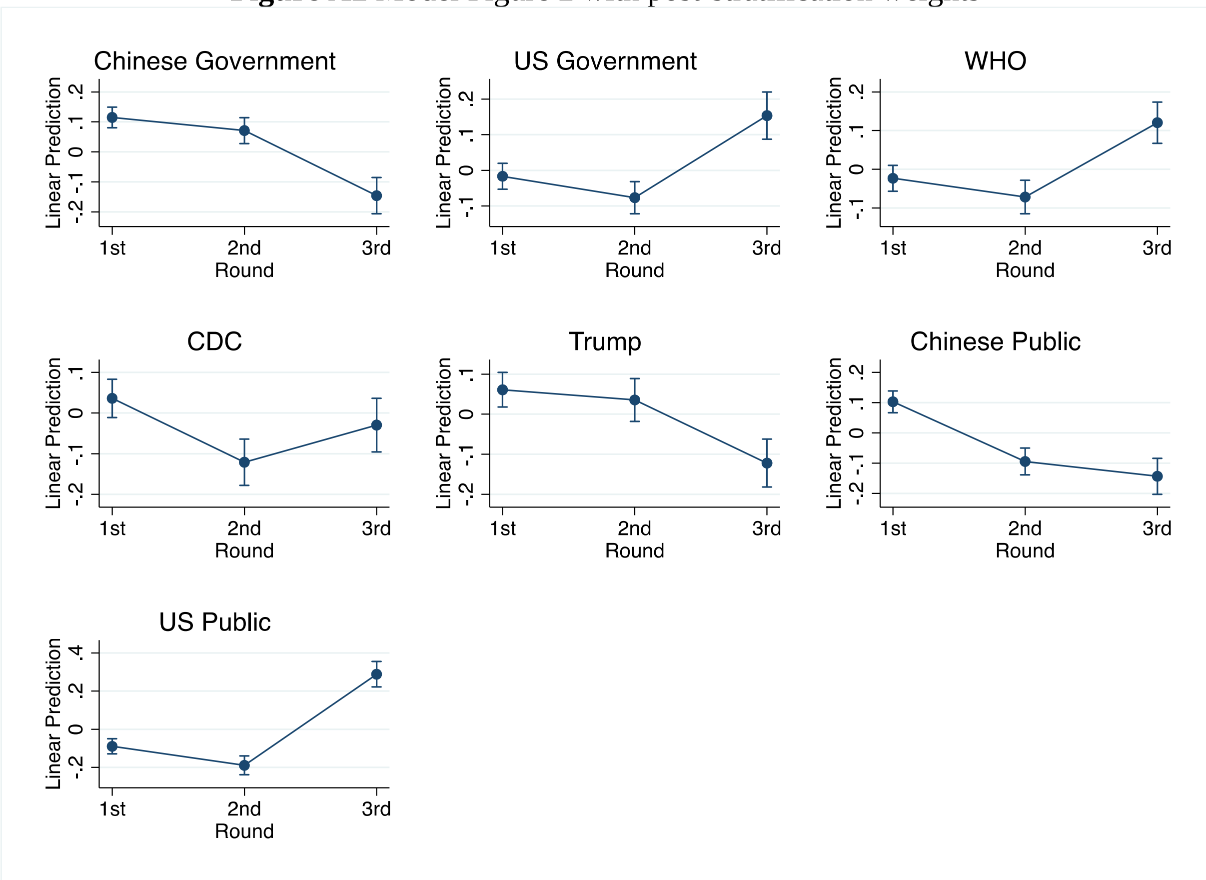


Figure A3 Model Figure 3 with post-stratification weights

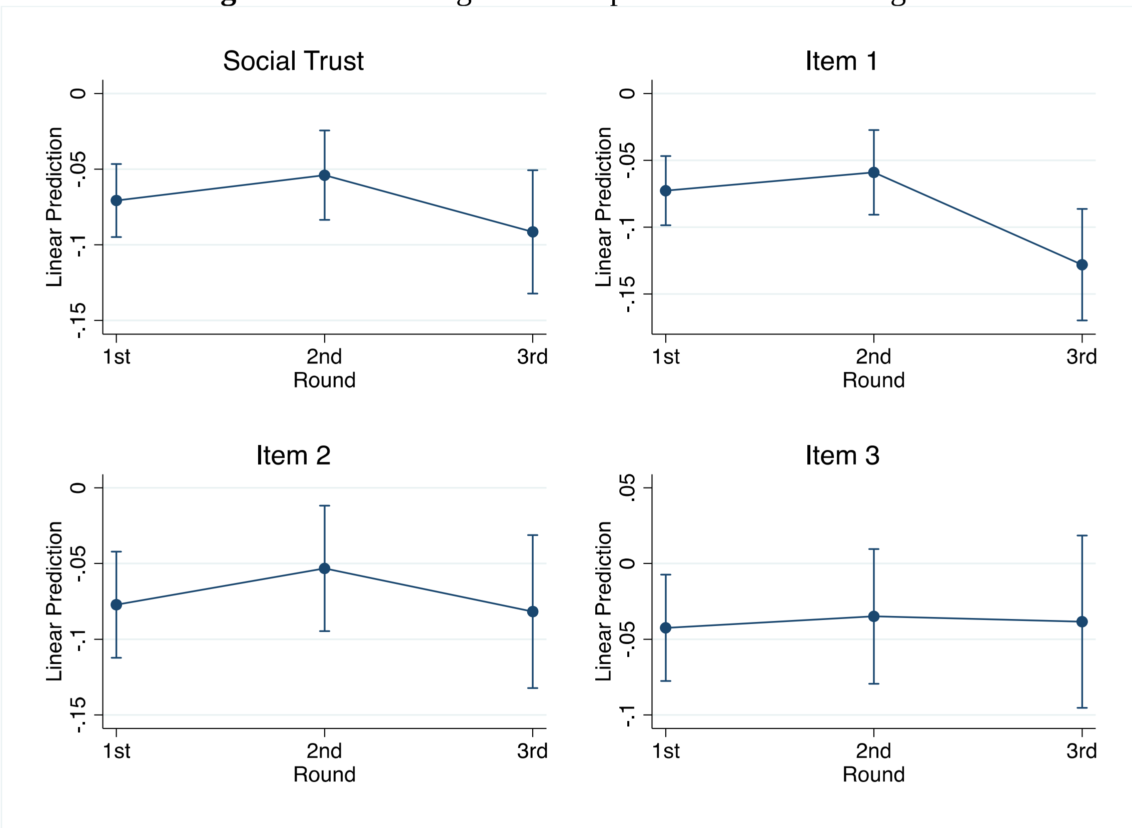


Figure A4 Model Figure 4 with post-stratification weights (Panel A) and alternative version with representation of coefficients (Panel B)

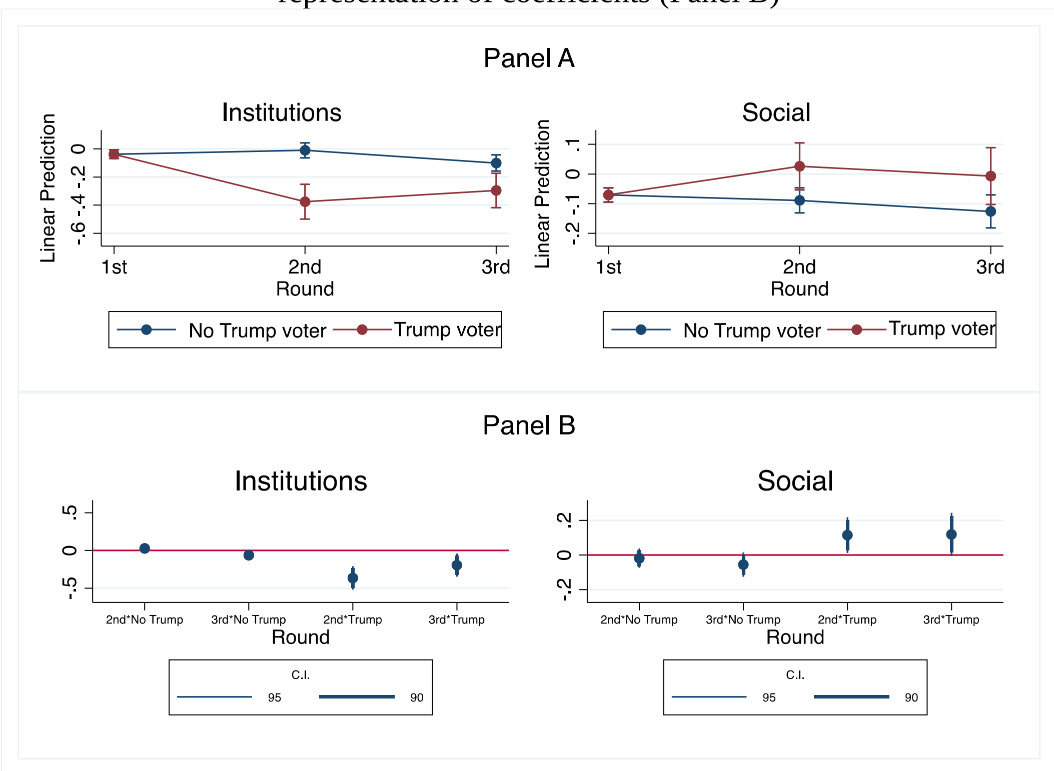


Figure A5 Model Figure 5 with post-stratification weights

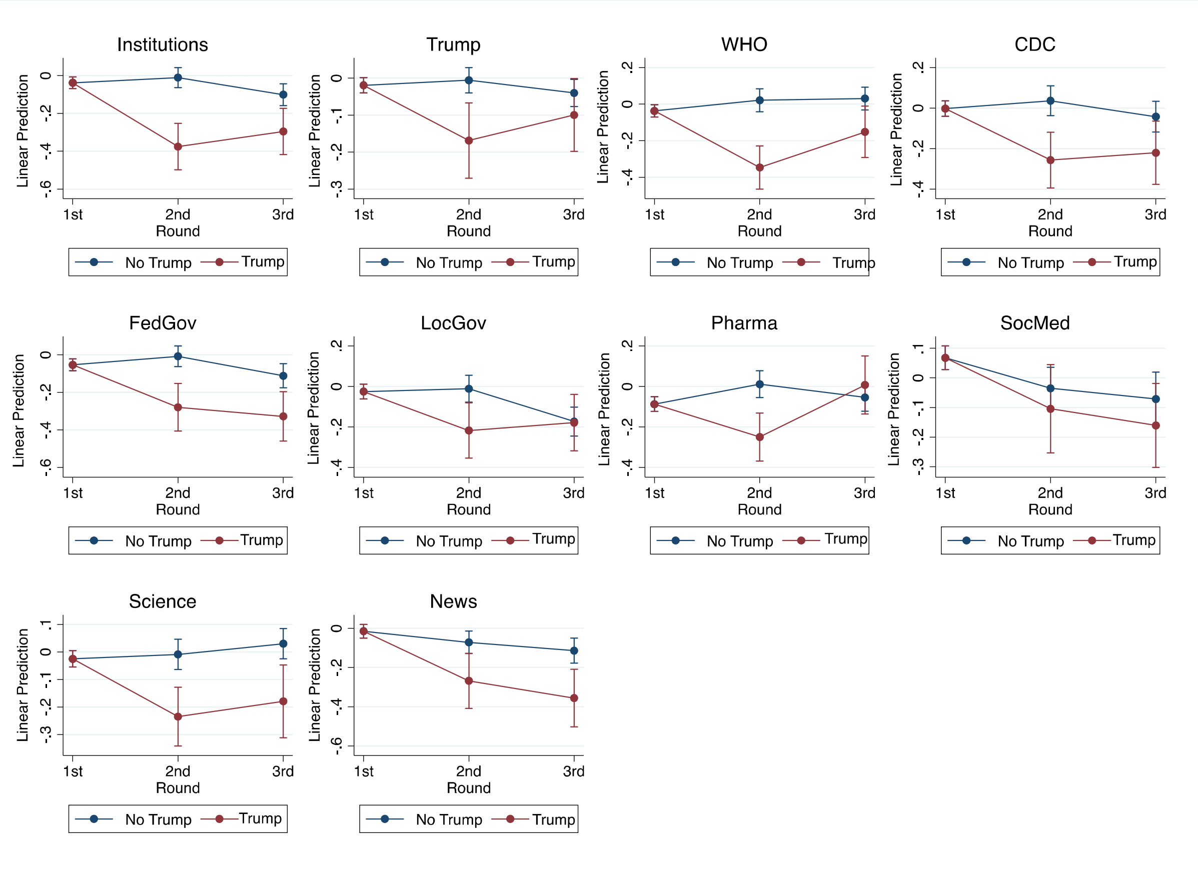


Figure A6 Model Figure 6 with post-stratification weights

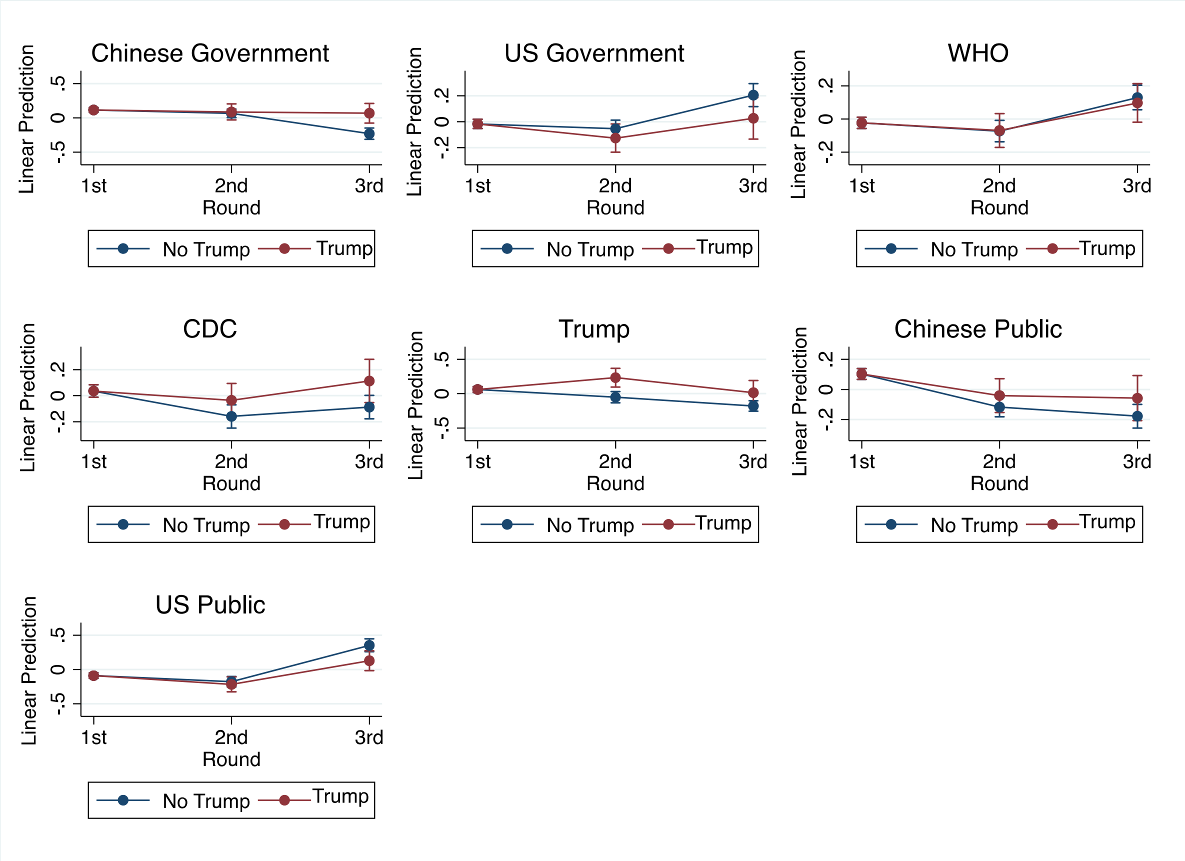


Figure A7. Graphical visualization of coefficients from Table 1

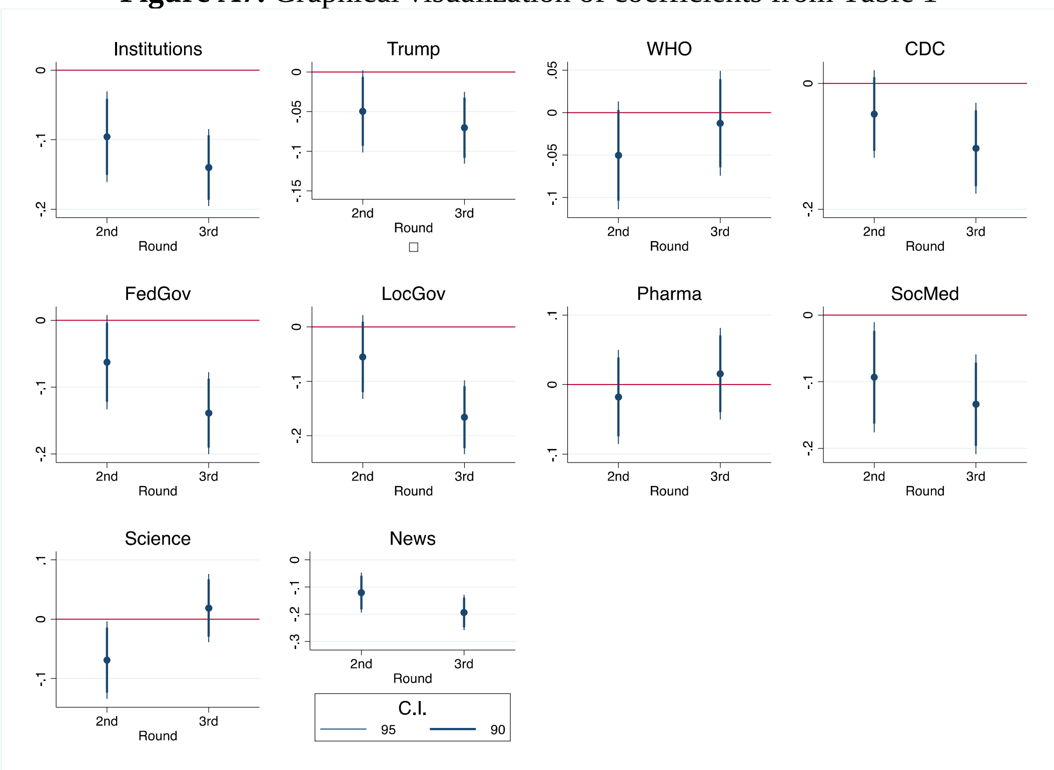


Figure A8. Graphical visualization of coefficients from Table 2

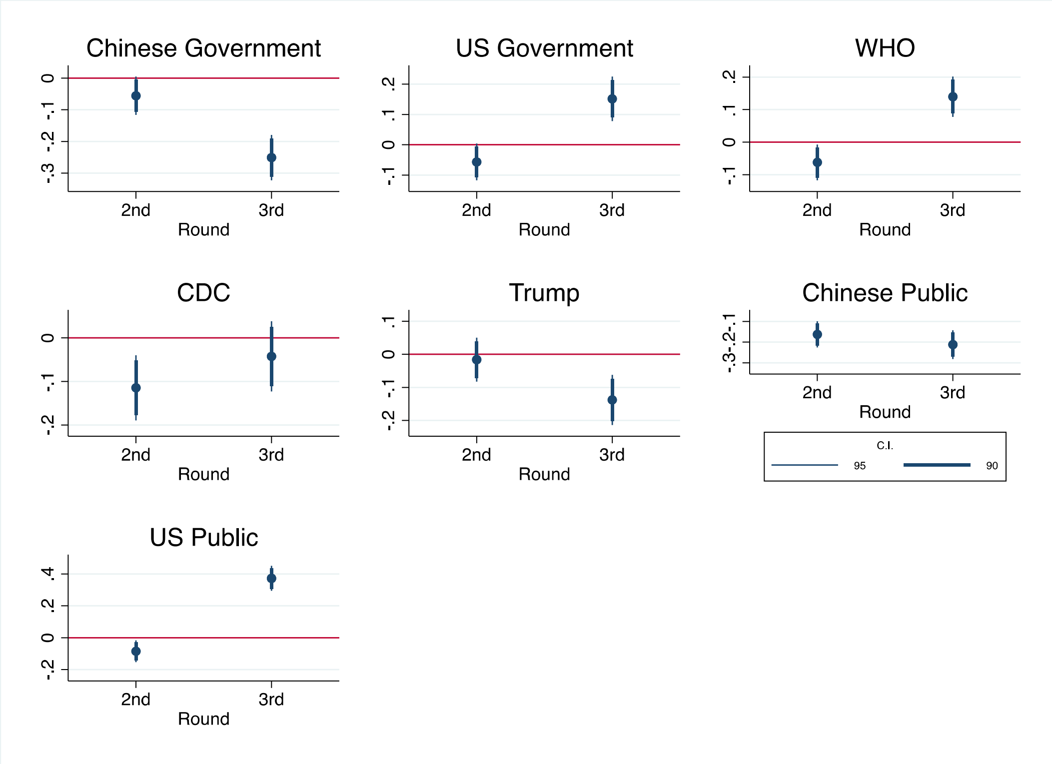


Figure A9. Graphical visualization of coefficients from Table 3

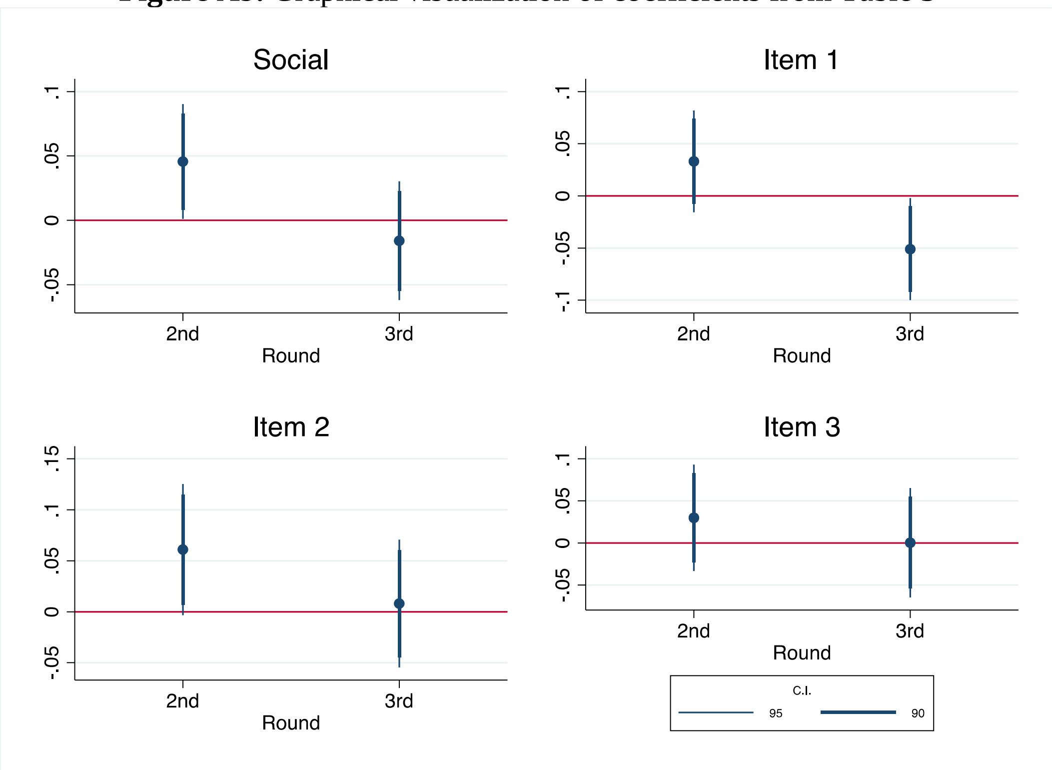


Figure A10. Graphical visualization of coefficients from Table 5

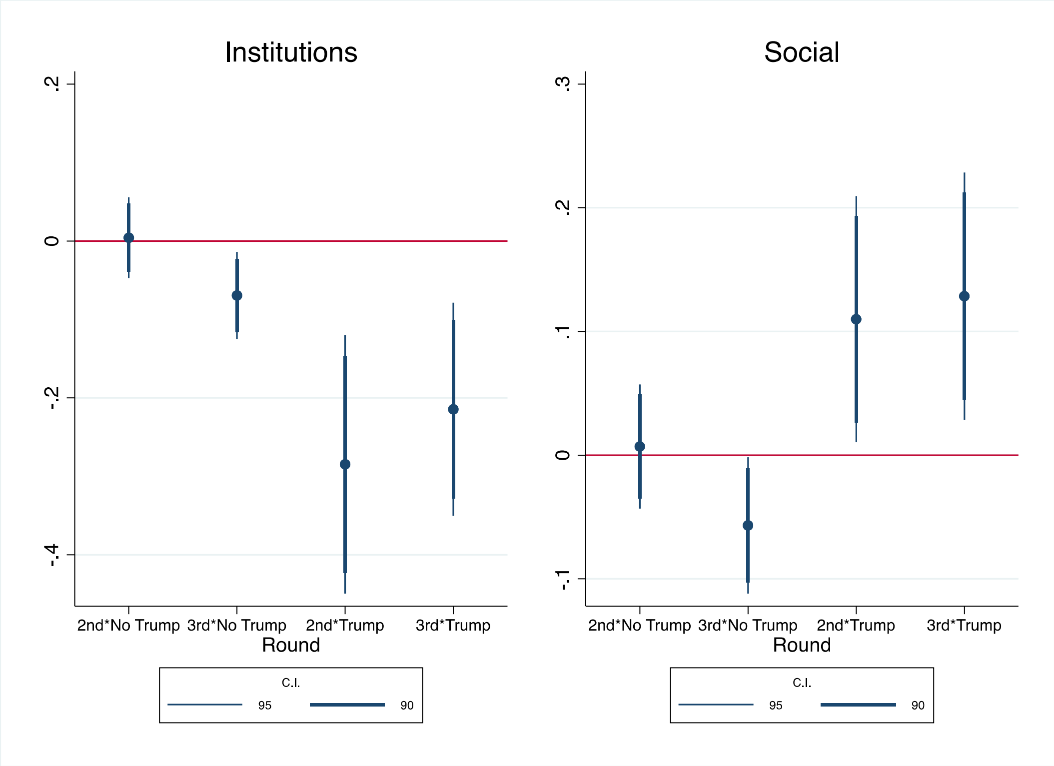


Figure A11. Graphical visualization of coefficients from Table 6

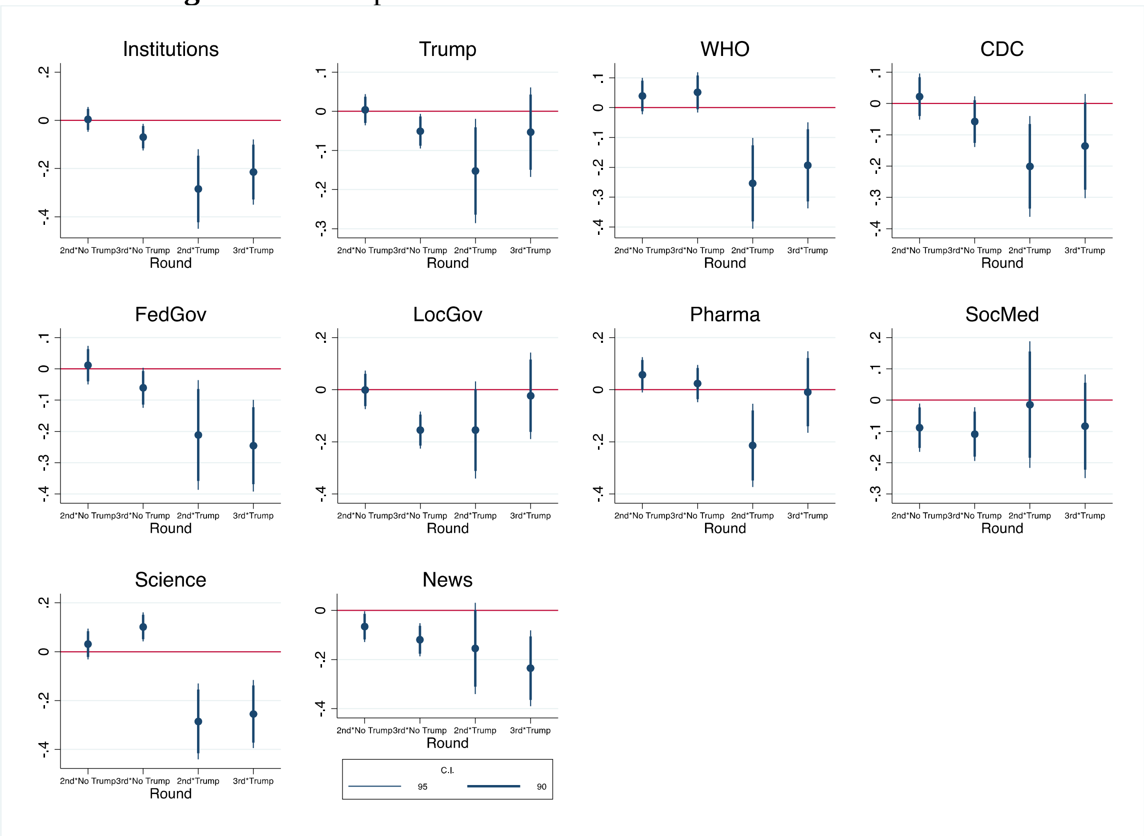


Figure A12. Graphical visualization of coefficients from Table 7

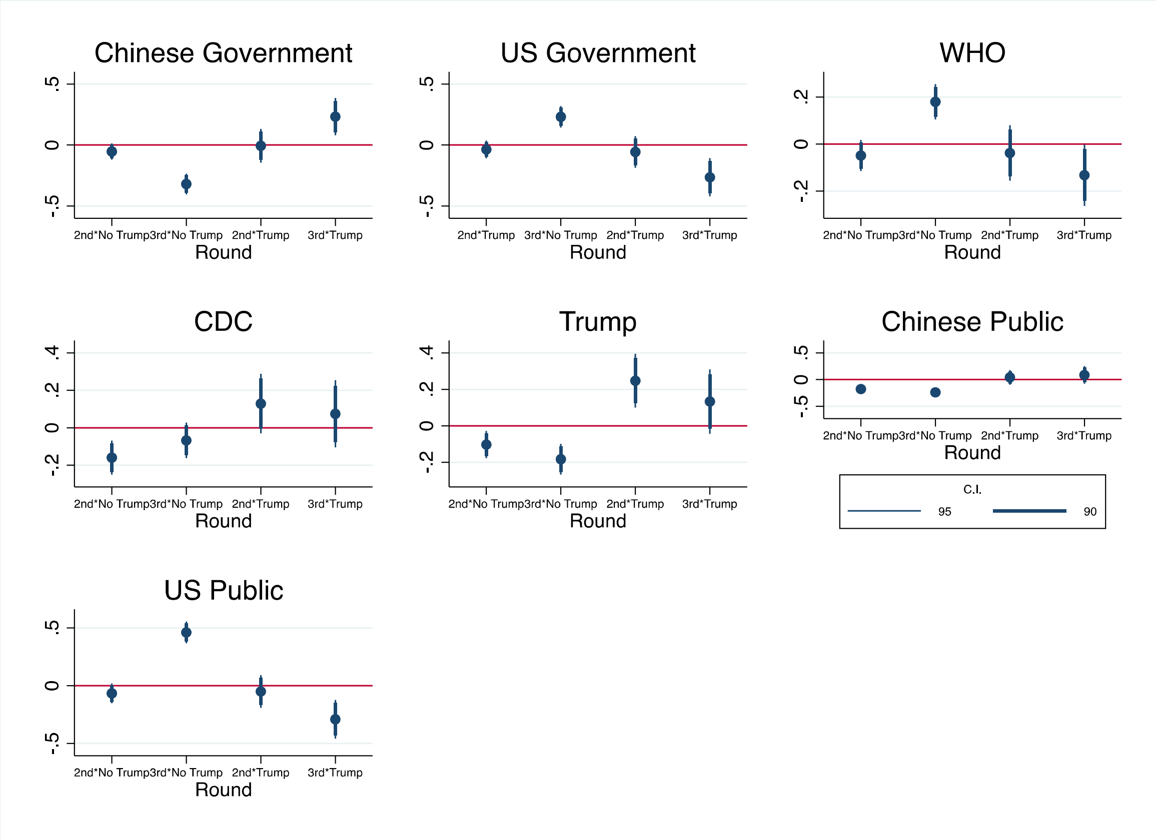
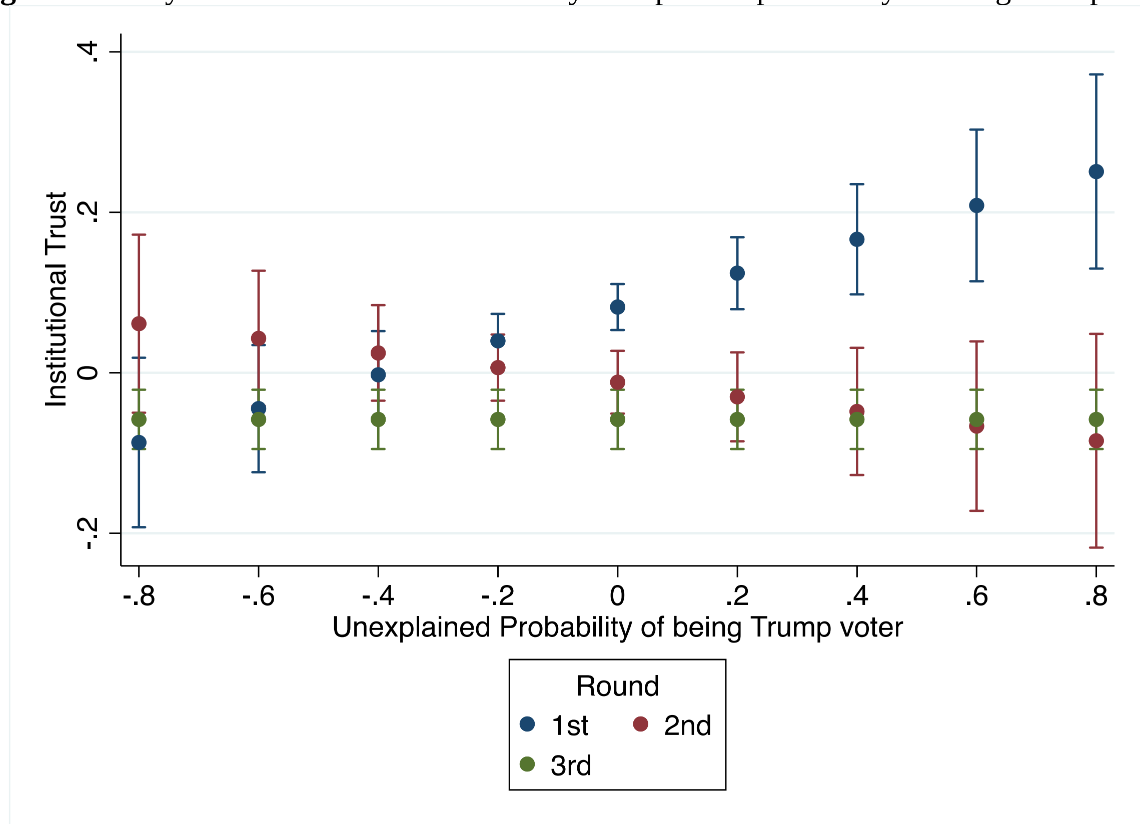
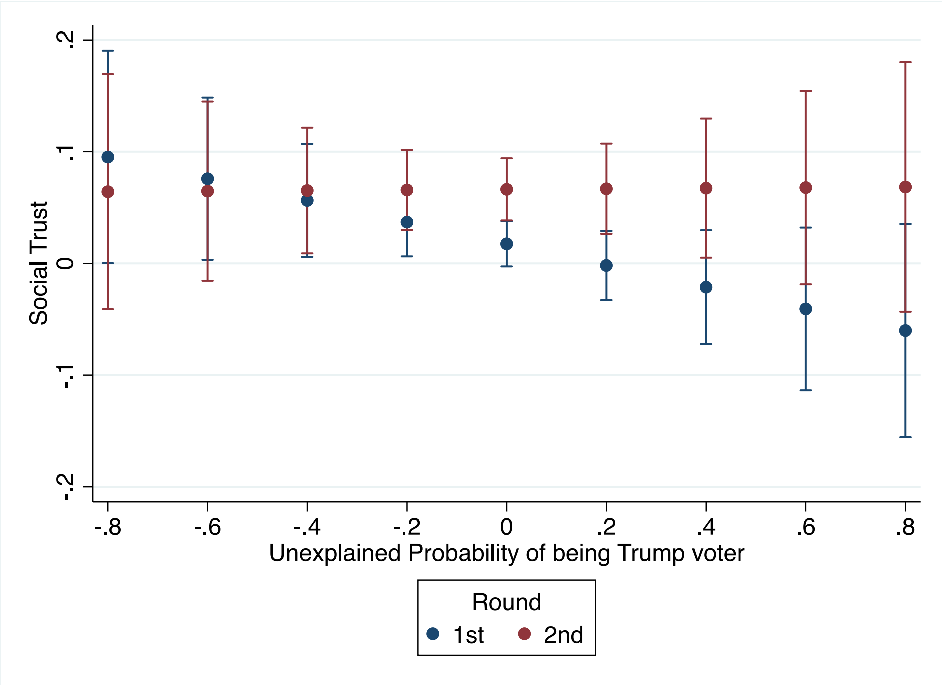


Figure A13. Dynamics of Institutional Trust by unexplained probability of being Trump voter



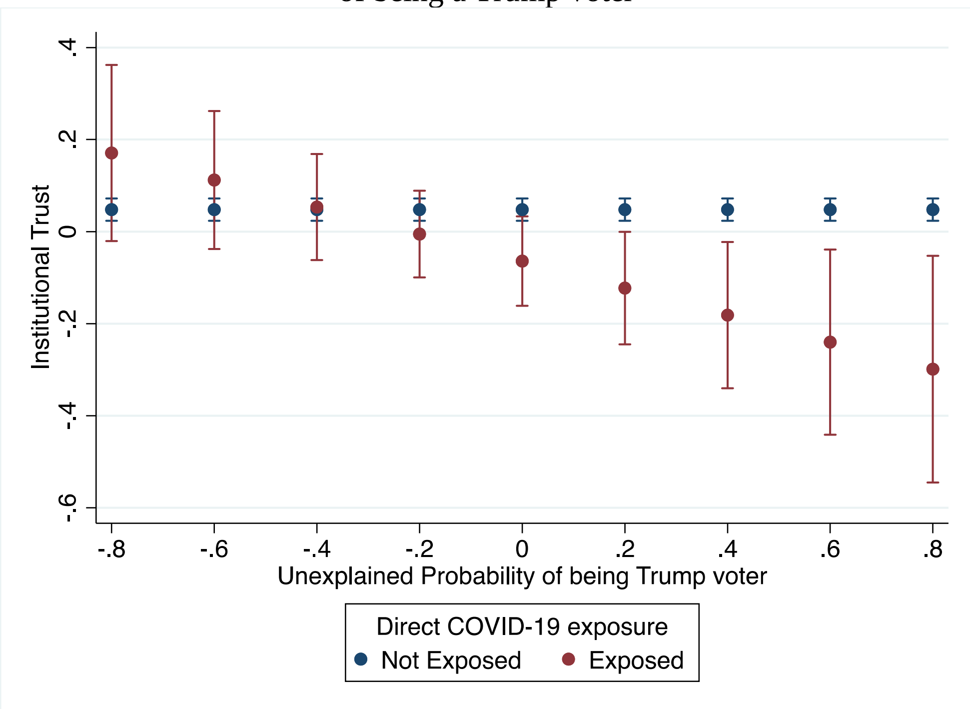
Notes: Margins from the fixed effect regression of institutional trust on round fixed effects and on the interaction between round dummies and Trump voter residuals (unexplained probability of being Trump voter). Bars represent the marginal effect of round on institutional trust for the level of unexplained probability of being Trump voter.

Figure A14. Dynamics of Social Trust by unexplained probability of being Trump voter



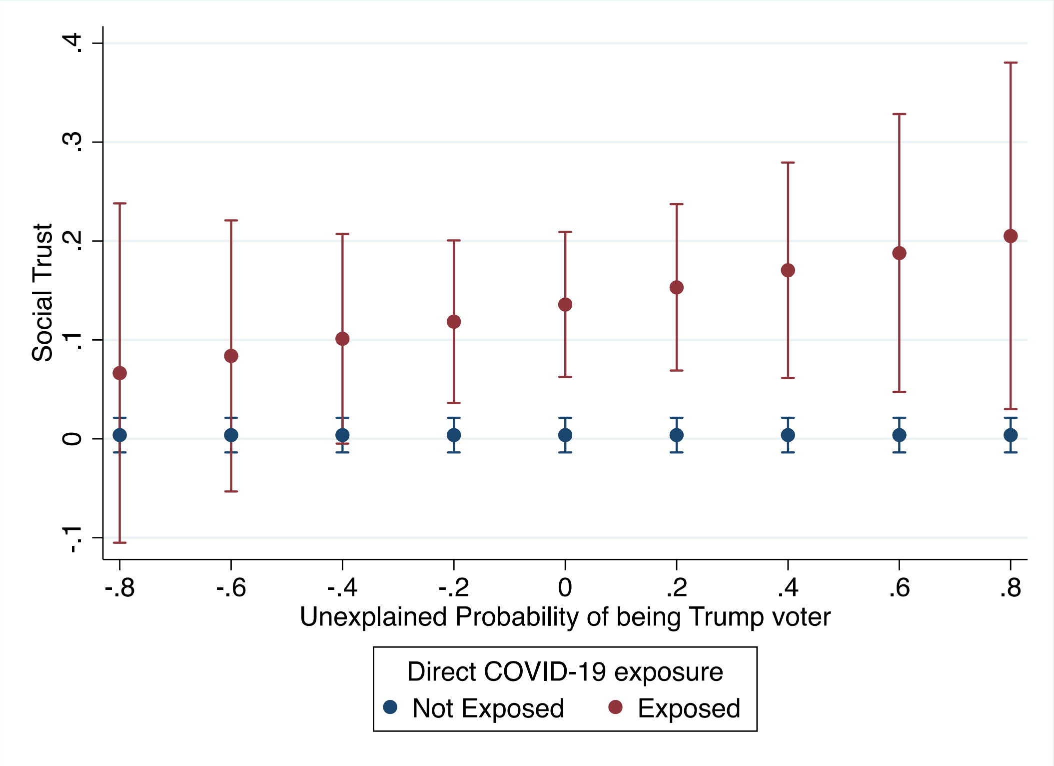
Notes: Margins from the fixed effect regression of social trust on round fixed effects and on the interaction between round dummies and Trump voter residuals (unexplained probability of being Trump voter). Bars represent the marginal effect of round on social trust for the level of unexplained probability of being Trump voter.

Figure A15. Effect of Direct COVID-19 Exposure on Institutional Trust by unexplained probability of being a Trump voter



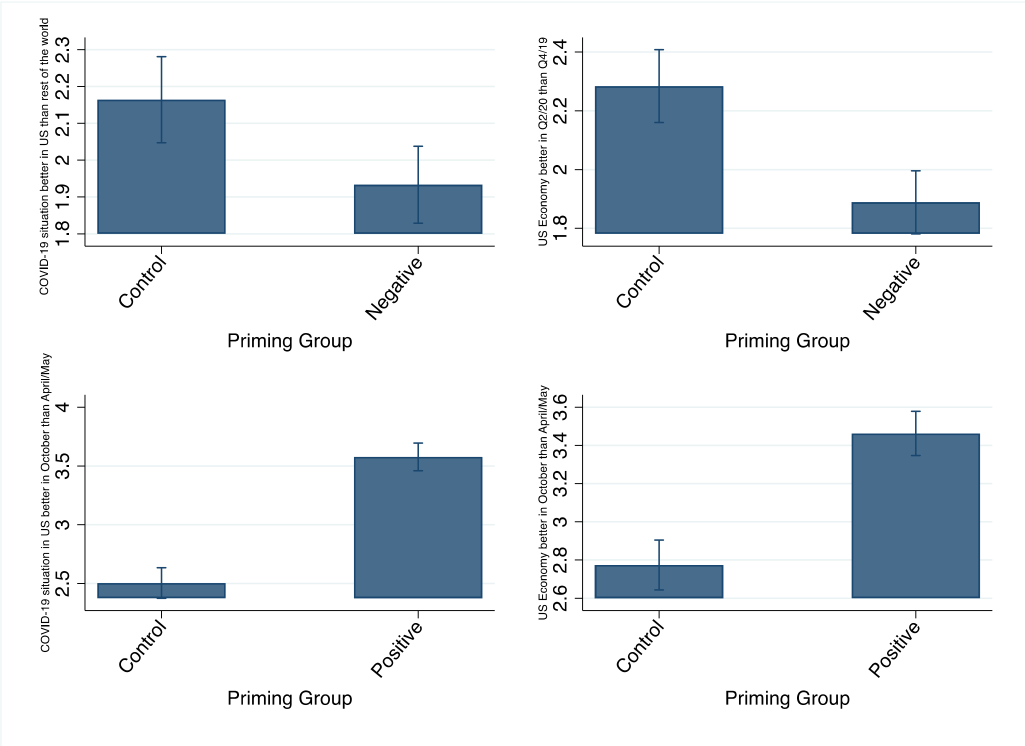
Notes: Margins from the fixed effect regression of institutional trust on round fixed effects, direct COVID-19 exposure and on the interaction between direct COVID-19 exposure and Trump voter residuals (unexplained probability of being Trump voter).
Bars represent the marginal effect of direct COVID-19 exposure on institutional trust for the level of unexplained probability of being Trump voter.

Figure A16. Effect of Direct COVID-19 Exposure on Social Trust by unexplained probability of being Trump voter



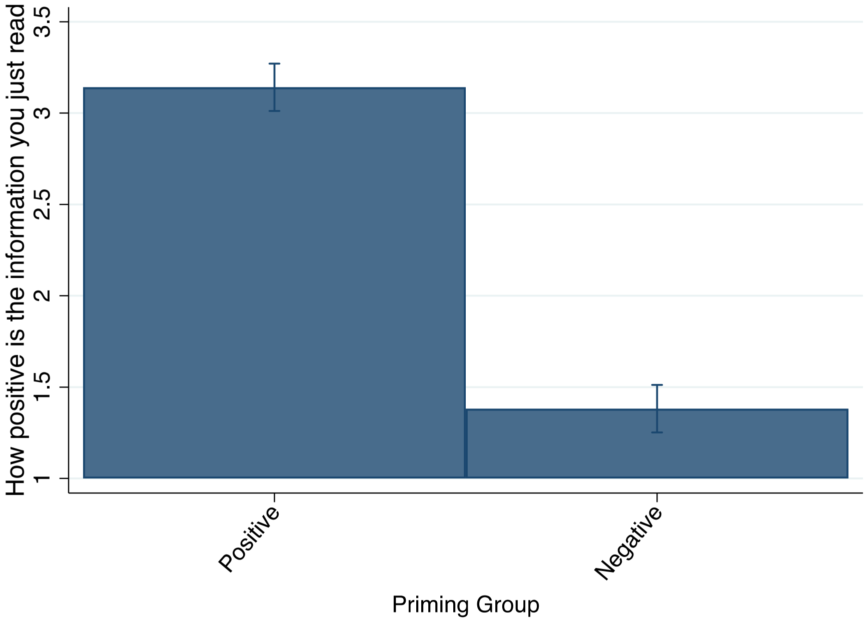
Notes: Margins from the fixed effect regression of social trust on round fixed effects, direct COVID-19 exposure and on the interaction between direct COVID-19 exposure and Trump voter residuals (unexplained probability of being Trump voter). Bars represent the marginal effect of direct COVID-19 exposure on social trust for the level of unexplained probability of being Trump voter.

Figure A17. Impact of priming conditions on the perception of the health and economic situation



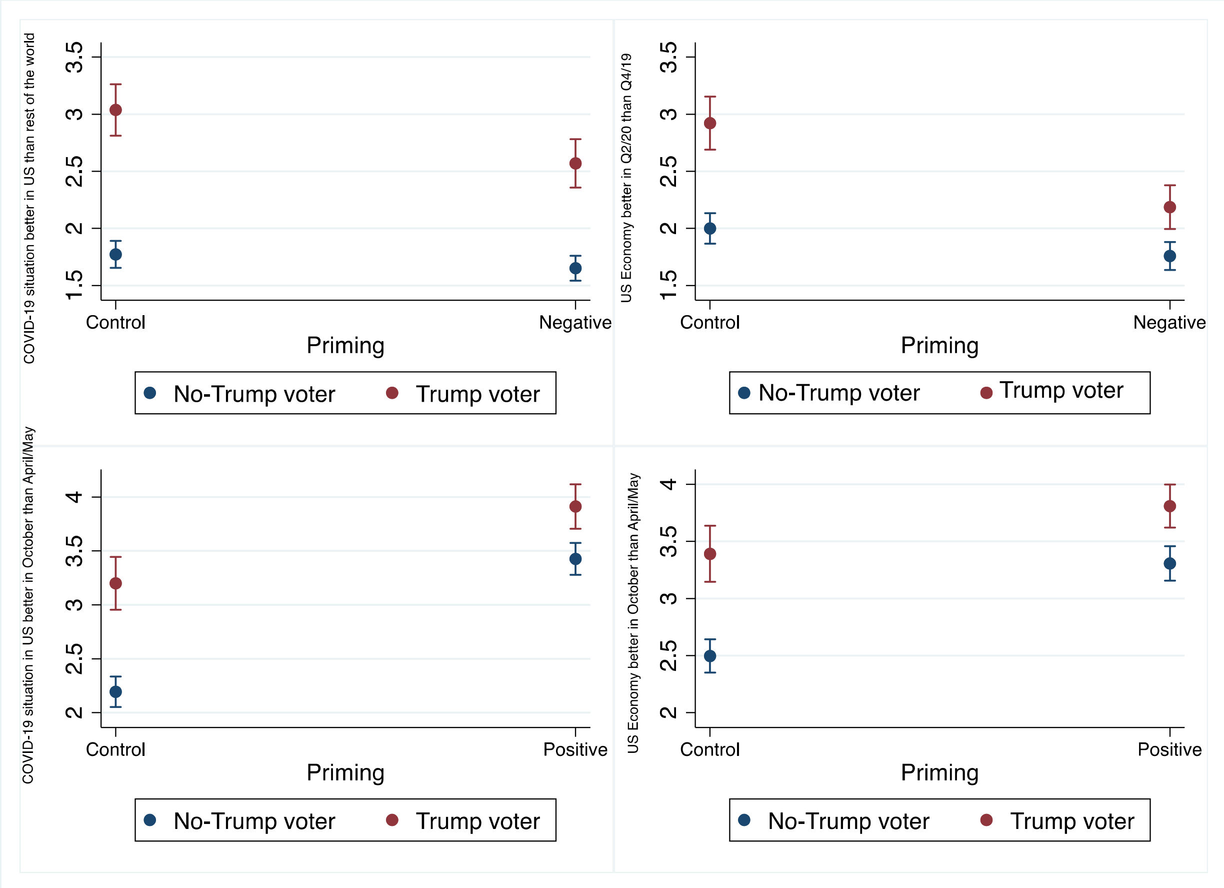
Notes: Margins measure fact perception ("Would you say that the COVID-19 situation in the US is better, about the same, or worse than the COVID-19 situation in the rest of the world?" in the top left; "Would you say that the nation's economy during the second quarter of 2020 has gotten better, stayed about the same, or gotten worse compared to the economy during the last quarter of 2019?" in the top right; "Would you say that the recent COVID-19 situation in the US has improved, stayed about the same, or worsened compared to that in the April/May?" in the bottom left; "Would you say that the nation's economy in more recent times has improved, stayed about the same, or worsened compared to that in the March/April?" in the bottom right), where answers vary from "Very much improved" (5) to "Very much worsened" (1), in the different priming groups. Regressions that generated margins controlled for age, gender, ethnicity, religion, voting, education, working status, income, marital status, N° people in the household, insurance status, medical conditions, income and both direct and indirect COVID-19 exposure.
Each question was asked in the control group and one of the treatment groups.

Figure A18. Positive vs Negative message perception of priming



Notes: Margins measure "How positive or negative is the information you just read on describing how the US has been coping with the COVID-19 pandemic?", where answers are rescaled from "very negative" (0) to "very positive" (5) in the two treatment groups. The regression that generated margins controlled for age, gender, ethnicity, religion, voting, education, working status, income, marital status, N° people in the household, insurance status, medical conditions, income and both direct and indirect COVID-19 exposure.

Figure A19. Partisan effects of priming conditions on the perception of the health and economic situation



Notes: Margins measure fact perception ("Would you say that the COVID-19 situation in the US is better, about the same, or worse than the COVID-19 situation in the rest of the world?" in the top left; "Would you say that the nation's economy during the second quarter of 2020 has gotten better, stayed about the same, or gotten worse compared to the economy during the last quarter of 2019?" in the top right; "Would you say that the recent COVID-19 situation in the US has improved, stayed about the same, or worsened compared to that in the April/May?" in the bottom left; "Would you say that the nation's economy in more recent times has improved, stayed about the same, or worsened compared to that in the March/April?" in the bottom right), where answers vary from "Very much improved" (5) to "Very much worsened" (1), in the different priming groups for Trump voters and non-Trump voters. Regressions that generated margins controlled for age, gender, ethnicity, religion, voting, education, working status, income, marital status, N° people in the household, insurance status, medical conditions, income and both direct and indirect COVID-19 exposure. Each question was asked in the control group and one of the treatment groups.

Figure A20. Positive vs Negative message perception of priming, by political orientation

Notes: Margins measure "How positive or negative is the information you just read on describing how the US has been coping with the COVID-19 pandemic?", where answers are rescaled from "very negative" (0) to "very positive" (5) for Trump voters versus non-Trump voters in the two treatment groups. The regression that generated margins controlled for age, gender, ethnicity, religion, voting, education, working status, income, marital status, N° people in the household, insurance status, medical conditions, income and both direct and indirect COVID-19 exposure.