

Effects of cooperative and uncooperative narratives on trust and health attitudes during the COVID-19 pandemic: Experimental evidence

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Abstract

To help contain the COVID-19 pandemic, many policymakers and health experts and the media have promoted responsible health behavior by using public narratives highlighting uncooperative behavior, including the lack of social distancing and resistance to various pandemic restrictions and COVID-19 vaccination. However, whether these uncooperative narratives have detrimental consequences on trust is unclear. We conducted an online experiment to explore how the exposure to both uncooperative and cooperative pandemic narratives affects people's trust in each other. We hypothesized that the exposure to uncooperative and cooperative narratives will decrease and increase people's trust in others, respectively. However, our results showed that neither of the narratives had any effect on trust. Nevertheless, the uncooperative narrative made people to be more concerned about the pandemic and more in favor of vaccination in general than did the absence of a narrative.

Keywords: narratives, trust, trust game, COVID-19 pandemic, social norms, health attitudes, vaccines, experiment

JEL codes: C91, D9, D91, I12, Z1

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“This is a pandemic of the unvaccinated. ... The unvaccinated overcrowd our hospitals, are overrunning the emergency rooms and intensive care units, leaving no room for someone with a heart attack, or pancreatitis, or cancer.”

Joe Biden, the US President, September 9, 2021

1. Introduction

The COVID-19 pandemic has cost numerous lives (Adam, 2022) and yielded unprecedented changes in human behavior (Koh, 2020; Kwon et al., 2021). To promote responsible health practices, many policymakers and health experts and the media have engaged in active communication (The Economist, 2020). Communication from government officials and the media has often included the sharing of narratives. In a broad sense, narratives are “stories people tell themselves, and each other, to make sense of human experience - that is, to organize, explain, justify, predict and sometimes influence its course” (Bénabou et al., 2018, p. 1). Narratives do not necessarily have to be entirely true—according to Bruner (1991), narratives “are a version of reality whose acceptability is governed by convention and ‘narrative necessity’ rather than by empirical verification and logical requiredness” (p. 4).

Many pandemic narratives have been expressed as messages or stories evaluating society’s behavior during the pandemic in terms of (non)compliance to pandemic norms. Such narratives are referred to as “norm-based narratives.” During the pandemic, narratives depicting behaviors that violate pandemic social norms (uncooperative narratives) were often more common than narratives depicting behaviors that support pandemic social norms (cooperative narratives) (Ryoo and Kim, 2021). Uncooperative narratives highlight the widespread non-compliance to pandemic health measures, such as violations of social distancing and mask-wearing requirements (BBC, 2021) and resistance to pandemic restrictions and COVID-19 vaccination (Goldstein, 2021; Hill, 2022; The Guardian, 2022).

However, it is unclear how effective such norm-based communication is in changing people’s health attitudes and whether it can reach its intended goal without affecting people’s

trust in each other, as changes in trust could eventually impact many economic outcomes (Guiso et al., 2004; Guiso et al., 2006; Guiso et al., 2009; Algan and Cahuc, 2010; Tabellini, 2010; Bloom et al., 2012). This study seeks to investigate the manner by which norm-based (cooperative and uncooperative) pandemic narratives affect people's trust in strangers as well as their attitudes toward the pandemic emergency and vaccination. To the best of our knowledge, the effects of such narratives on people's trust and health attitudes have not been studied. A better understanding of the effects of norm-based communication on trust and health-related attitudes could help improve the design of policy interventions to address current and future health emergencies as well as manage the consequences of such communication on interpersonal trust. Furthermore, our results could help settle the debate on the direction of the effects of the COVID-19 pandemic on trust, as evidence in the literature has been mixed (e.g., Esaiasson et al., 2020; Aksoy et al., 2021; Iacono et al., 2021; Li et al., 2021; Aassve et al., 2022; Gambetta and Morisi, 2022).

Existing evidence suggests that the provision of information about violations of pandemic norms and the promotion of social norms in a pandemic can have an impact on trust. Iacono et al. (2021) found that people who perceived others as not adhering to pandemic health measures had lower levels of self-reported trust in other people after the first wave of the COVID-19 pandemic. Peysakhovich and Rand (2016) demonstrated that when people are exposed to environments that either support or do not support cooperation, there is a corresponding effect on their trust behavior and self-reported trust in others. Banerjee (2016) showed that social norm violations decrease people's beliefs about the trustworthiness of others and consequently their trust in them.

Bénabou et al. (2018) provided a theoretical model demonstrating how certain "moral narratives" can act as excuses for individuals to behave selfishly or can increase the pressure on individuals to behave morally. Some authors have demonstrated that moral nudges, that is,

messages that make norms salient, can promote prosocial behavior (Dal Bó and Dal Bó, 2014; Rand et al., 2014; Capraro and Rand, 2018; Tappin and Caprano, 2018; Capraro et al., 2019). Similarly, priming of norm-related concepts can also affect prosociality. For example, priming “cooperation” increases contributions in the public good game (Drouvelis et al., 2015), and similarly, priming “trust” and “distrust” increases and decreases trust in the trust game, respectively (Posten et al., 2014).

Norm-based communication has been shown to matter for health behaviors and health-related attitudes. For example, communication of descriptive norms, which refer to the perception of how most people behave in a particular situation (Cialdini et al., 1990), can promote healthy eating (Robinson et al., 2014), reduce alcohol consumption (Bewick et al., 2010), and improve attitudes toward vaccination (Gao et al., 2022) as well as vaccination willingness (Agranov et al., 2021). Cialdini et al. (1990) suggested that by outlining how other people are behaving or thinking, descriptive norms can act as decision-making shortcuts when a person is deciding how to behave or think.

Most previous research exploring the effect of norm-based communication on health attitudes and behaviors has focused on positively worded norm-based messages (Bewick et al., 2010; Robinson et al., 2014). However, negatively worded communication may be more effective in achieving the desired change in behaviors or attitudes, as people tend to respond more strongly to negative stimuli (Baumeister et al., 2001; Rozin and Royzman, 2001). Yet, some studies have found that negative messages depicting deviant behaviors can backfire. For example, Ryoo and Kim (2021) showed that outlining instances of non-compliant behavior during the COVID-19 pandemic increases opposition to pandemic health measures, including social distancing and vaccination. However, messages that not only describe the behavior of others but also provide guilt-inducing information, that is, outline of behaviors that violate values or accepted social norms and present the negative consequences of such behaviors on

others, can prevent such “boomerang” effects and lead to a positive change in health-related attitudes, intentions, and actual behaviors (Xu and Guo, 2017; Nan et al., 2022).

To study the effects of the COVID-19 pandemic and norm-based pandemic narratives on trust behaviors and health-related attitudes, we conducted an online experiment with four treatments. Participants were assigned to one of the following treatments: “cooperative narrative,” “uncooperative narrative,” “COVID-19 salience,” or “neutral.” All participants read a short article.¹ In the cooperative narrative and uncooperative narrative treatments, participants read an article that emphasized cooperative (compliant) and uncooperative (non-compliant) behaviors of British citizens during the COVID-19 pandemic, respectively. In the COVID-19 salience treatment, participants read an article that reminded them of the COVID-19 pandemic only. Participants in the baseline condition—the neutral treatment—read a neutrally worded article unrelated to the COVID-19 pandemic. After reading the articles, participants played an incentivized trust game (Berg et al., 1995), wherein the amount of money trustors sent to trustees represented the level of trust. We also elicited trustors’ beliefs about the trustworthiness of trustees and distributed a questionnaire on participants’ interpersonal and institutional trust, experience with COVID-19, attitudes toward the pandemic emergency and vaccination, and socio-demographic information.

We hypothesized that reminding participants of the COVID-19 pandemic (COVID-19 salience treatment) and of the uncooperative behavior of individuals during the pandemic (uncooperative narrative treatment) will reduce their trust in others. We also expected that receiving information that emphasizes the widespread compliance to pandemic norms (cooperative narrative treatment) will have a positive effect on trust. However, we did not find evidence that priming of the COVID-19 pandemic or of the pandemic narratives (cooperative

¹ Similar priming techniques to study the effects of the COVID-19 pandemic were used by Daniele et al. (2020), Harsanyi et al. (2021), and Aassve et al. (2022).

or uncooperative) has any significant effect on trust. In addition, we expected that the exposure to the uncooperative narrative treatment will raise the perceived pandemic emergency level and the general support for vaccination. We found support for this hypothesis: The findings showed that uncooperative narratives are effective in altering people's attitudes toward the pandemic as well as vaccination. That is, emphasizing instances of the society violating pandemic norms and outlining the negative consequences of such behaviors on others induce people to view the pandemic as a greater health emergency and to be more in favor of vaccination in general. Additionally, we showed that political orientation plays an important role in shaping health-related attitudes: Individuals who identify with some right-wing parties, including the Conservative Party and the Reform UK (former Brexit Party), view the pandemic as less of a concern and are more skeptical of vaccines.

The rest of the paper is organized as follows: Section 2 describes the experimental design and procedures and outlines the hypotheses. Section 3 presents the manipulation check and the main results of the study. Section 4 discusses the findings and presents the conclusion.

2. Experimental design and procedures

2.1. Experimental treatments

We designed an online between-subject experiment with four treatments: uncooperative narrative, cooperative narrative, COVID-19 salience, and neutral.²³ In all treatments, the participants read one short article. The articles were based on publicly available information obtained from media articles, statistical reports, and other online information sources. As much

² This experiment received ethical approval from the WZB Research Ethics Committee, application no. 2022/4/151.

³ The experiment was pre-registered at AsPredicted (https://aspredicted.org/81B_9BB). This pre-registration does not include the hypotheses on health-related attitudes. We decided to explore the effects of norm-based narratives on health-related attitudes ex post.

as possible, all articles were designed symmetrically in terms of their structure and length. The treatment conditions are described below. The transcripts of the articles are provided in Appendix A.

Uncooperative narrative treatment. The participants read an article that provided them with an uncooperative narrative of British citizens' behavior during the COVID-19 pandemic. This narrative emphasized the violations of pandemic norms: Many people refuse to maintain social distancing, decline to wear face masks, break travel rules, refuse vaccinations, use fake COVID-19 passes, and protest pandemic measures. The text also outlined the negative consequences of such behaviors on people's personal health as well as society's health, including the increased spread of the virus and the potential collapse of the National Health Service (NHS)—the publicly funded healthcare system of the UK.

Cooperative narrative treatment. The participants read an article that provided them with a cooperative narrative of British citizens' behavior during the COVID-19 pandemic. This narrative emphasized the compliance to pandemic norms: Most people maintain social distancing, wear face masks, adhere to travel rules, and get fully vaccinated. The article also outlined the positive effects of vaccines on people's personal health and other people's health, including the reduced spread of COVID-19 and the prevented collapse of the NHS.

COVID-19 salience treatment. The participants read an article that reminded them of the COVID-19 pandemic. The text briefly explained what COVID-19 is, where and when it originated, and how it turned into a pandemic. It also outlined the most common symptoms of COVID-19, possible variations in the severity of the disease, and length of recovery from the disease. The article did not provide any information on health-related behaviors of other people or behaviors considered appropriate during the pandemic.

Neutral treatment (baseline). The participants read a neutrally framed nature-related article. The text described a tern, a specific type of a bird. It outlined some details about the

bird’s physical appearance, geographical distribution, habitat, and breeding behavior. This article did not provide any information on the COVID-19 pandemic.

2.2. Experimental design and procedures

We conducted the experiment from May to June 2022 on Prolific. A total of 880 participants completed the experiment. Of them, five participants were excluded from the analysis, leaving a sample size of 875 participants (Table 1).⁴ The recruitment was restricted to residents of the UK with a UK nationality. Approximately 50.5% of the participants were men; 49.3% were women; and 0.2% indicated their gender as “other.” The mean age of the participants was 40 years. More detailed descriptive statistics of the participants are provided in Appendix B.

Table 1. Participants and dates by treatment

Treatment	Number of participants			Date
	All	Trustors	Trustees	
Uncooperative narrative	220	109	111	May 30, 2022
Cooperative narrative	217	108	109	May 31, 2022
COVID-19 salience	218	109	109	June 14, 2022
Neutral	220	109	111	June 15, 2022

The participants were paid a participation fee of £1.5 (approximately \$1.8), and, depending on their role and decisions in the experiment, they could receive an additional reward. It took an average of 16 min for the participants to complete the experiment, and the average pay amounted to £4.6 (approximately \$5.6). The experiment was implemented using the oTree software (Chen et al., 2016).

⁴ Participants who did not provide a summary of the articles they had to read as a treatment were excluded from the analysis.

To reduce concerns about the experimenter demand effect, we asked the participants to memorize a phone number within 30 s at the beginning of the experiment. The participants were requested to recall the phone number at a later stage of the experiment. This distraction task was intended to prevent the participants from identifying the true objectives of the experiment (Harris et al., 2021). After the distraction task, the participants were exposed to one of the four articles (see subsection 2.1. Experimental treatments). They were asked to read and memorize it within 3 min. When the time ran out, the participants were automatically directed to the next page where they were asked to summarize the text within 3 min. This task was aimed at strengthening the manipulation and identifying the participants who did not read the article.

After the manipulation, the participants were informed that they would be matched with another participant, with whom they would play a game. The participants were provided with the instructions of a slightly modified version of the trust game developed by Berg et al. (1995) and were asked to answer three comprehension questions about the game (see Appendix A for detailed instructions of the experiment). Before the participants were matched to play the game, they were again reminded of the articles they read at the beginning of the experiment: They had to answer three true-or-false questions about the content of the articles.

The participants were then informed that they would play the game with an anonymous British national residing in the UK. They were randomly matched and played an incentivized trust game. The game was played by two people: player 1 (trustor) and player 2 (trustee). The participants were assigned to their roles randomly. At the start of the game, both players received an endowment of £2 (approximately \$2.4) each. Thereafter, player 1 chose an amount (x) from his/her endowment to send to player 2. Player 1 was under no obligation to send anything and could keep the entire endowment to himself/herself ($0 \leq x \leq 2$). The amount player 1 decided to send was tripled by the researcher, and player 2 received $3x$. Player 2 chose an amount (y) to return to player 1 from the tripled amount and was under no obligation to

return anything ($0 \leq y \leq 3x$). The final payoff of player 1 was $2 - x + y$, while that of player 2 was $2 + 3x - y$. The game was played once. The x amount was the behavioral measure of “trust” by player 1 in an anonymous player 2.

When the amount player 1 chose to send to player 2 was non-zero, we elicited the beliefs of player 1 about the trustworthiness of his/her partner, that is, player 2. To elicit accurate beliefs of trustworthiness, we used a simple incentivized interval method (Charness et al., 2021). We asked player 1 how much he/she expected player 2 to return to him/her. Player 1 was also informed that he/she would earn £0.5 (approximately \$0.6) when his/her answer fell within a 10% interval around the actual amount returned by player 2. The participants were not informed about their earnings from the game and the belief elicitation procedure until the very end of the experiment.

The game and belief elicitation were followed with a questionnaire survey. Using the questionnaire, we elicited survey-based measures of social trust (Rosenberg, 1956)⁵ and trust in the government. We also asked about the participants’ risk attitudes (Dohmen et al., 2011). We then requested the participants to answer three questions about their own and their family’s experiences with COVID-19 and regarding whether they were at a high risk of getting severely sick with COVID-19. Thereafter, we elicited health-related attitudes using two additional survey questions: We asked the participants whether they considered the COVID-19 pandemic one of the largest health emergencies in human history and whether they thought that vaccines were necessary to prevent the spread of infectious diseases. The questionnaire concluded with socio-demographic questions.

⁵ Social trust refers to general trust in other people and is often also called “generalized trust.” It is most often elicited by asking the Rosenberg (1956) question: “Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?”

As the final part of the experiment, the participants were asked to read the articles again and indicate whether the information provided in the articles described cooperative behavior, uncooperative behavior, or neither during the COVID-19 pandemic in Britain.⁶ We also asked whether the participants thought the information provided in the articles was accurate (Haaland et al., 2023). This final part of the experiment served as a manipulation check. We also included three attention checks in the experiment. The first attention check was provided at the very beginning of the experiment, that is, before the distraction task; the second, before the provision of the instructions of the trust game; and the third, after answering the comprehension questions about the game.

2.3. Hypotheses

We expected that providing individuals with instances of non-compliance and compliance to pandemic health measures decreases and increases their trust in other people, respectively. The intuition is that exposure to the widespread non-compliance to pandemic health measures demonstrates violations of social norms, which reduces people's beliefs of the trustworthiness of other people and consequently their trust in others (Banerjee, 2016; Iacono et al., 2021). Similarly, showing that most people comply with social norms in a pandemic increases individuals' beliefs in other people's trustworthiness, leading to higher interpersonal trust. An alternative mechanism for the effect is that uncooperative narratives provide individuals with moral excuses to behave selfishly without compromising their social and/or self-image, while cooperative narratives increase the reputational benefits of being viewed by others or by themselves as having high moral values and thus increase the pressure to behave more pro-socially (Bénabou et al., 2018).

⁶ Similar manipulation checks were provided by Marreiros et al. (2017).

Hypothesis 1a. Trustors exposed to the uncooperative narrative treatment will, on average, send less amount than will those exposed to the COVID-19 salience treatment.

Hypothesis 1b. Trustors exposed to the uncooperative narrative treatment will, on average, send less amount than will those exposed to the cooperative narrative treatment.

Hypothesis 1c. Trustors exposed to the cooperative narrative treatment will, on average, send more amount than will those exposed to the COVID-19 salience treatment.

In response to the question of whether a pandemic itself increases or decreases interpersonal trust, there are arguments and evidence to suggest that it can go either way. Experiencing a pandemic may increase people's sense of belonging and cooperation (Thornhill and Fisher, 2014; Pyszczynski et al., 2021). Further, acts of generosity during the pandemic could improve people's beliefs about the trustworthiness of strangers, and the increased health risk could make people more dependent on others, which may increase their trust in other people (Yamagishi and Yamagishi, 1994; Yamagishi et al., 1998; Yamagishi, 2011; Gambetta and Morisi, 2022). Several studies have found that similar to some natural disasters (Skidmore and Toya, 2014; Veszteg et al., 2015; Cassar et al., 2017), the COVID-19 pandemic had a positive effect on self-reported trust in other people (Esaiasson et al., 2020; Aassve et al., 2022; Gambetta and Morisi, 2022).

However, priming individuals with the COVID-19 pandemic is expected to reduce their trust in other people. The viral transmission of a disease, such as COVID-19, reduces social interactions between people, which are essential for the ability to trust others (Putnam, 2000; Glanville et al., 2013). A pandemic also induces fear and anxiety (Torales et al., 2020), which can lead to lower judgments of trustworthiness of others (Olivera-La Rosa et al., 2020). A pandemic is a traumatic event (Bridgland et al., 2021; Sanchez-Gomez et al., 2021), and a recent traumatic experience is associated with lower self-reported trust in others (Alessina and La Ferrara, 2002). Aassve et al. (2021) showed that the Spanish flu pandemic had a negative effect

on interpersonal trust. Similarly, several empirical studies have shown that in the aftermath of the COVID-19 pandemic, people trust others less than they did before the pandemic both in terms of experiment- (Li et al., 2021) and survey-based measures of trust (Iacono et al., 2021).

Hypothesis 2. Trustors exposed to the COVID-19 salience treatment will, on average, send less amount than will those exposed to the neutral treatment.

Regarding the relationship between norm-based narratives and health-related attitudes, we expected that being exposed to uncooperative pandemic narratives increases the perceived pandemic awareness and general support for vaccines. The logic is that providing instances of others violating pandemic norms and outlining the negative consequences of such behaviors induce guilt in people, which makes them more supportive of responsible health behaviors, including the support for vaccines (Xu and Guo, 2017; Nan et al., 2022). A negative message is expected to affect people's health attitudes more than a positive one because people tend to respond more strongly to negative information (Baumeister et al., 2001; Rozin and Royzman, 2001).

Hypothesis 3a. Trustors exposed to the uncooperative narrative treatment will, on average, have greater pandemic emergency perceptions than will those exposed to the cooperative narrative treatment and neutral treatment.

Hypothesis 3b. Trustors exposed to the uncooperative narrative treatment will, on average, have more favorable attitudes toward vaccination than will those exposed to the cooperative narrative treatment and neutral treatment.

3. Results

3.1. Manipulation check

To evaluate the effectiveness of the manipulations, we exploited the fact that at the end of the experiment, we asked the participants to indicate whether the information provided in the articles described cooperative behavior, uncooperative behavior, or neither during the COVID-19 pandemic in Britain. The effectiveness of the manipulations could also depend on whether the participants thought that the provided information was accurate. Thus, we also explored the responses to the question on the accuracy of the information provided in the articles (Haaland et al., 2023).

We found that almost 93% of the participants exposed to the uncooperative narrative treatment thought that the provided article described uncooperative behavior; more than 98% of the participants exposed to the cooperative narrative treatment considered the article as reflecting cooperative behavior; and more than 78% of the participants exposed to the COVID-19 salience treatment found that the provided article described neither cooperative nor uncooperative behavior. Thus, most participants' responses corresponded to the intended priming by the articles. In addition, 88% of the participants exposed to the uncooperative narrative treatment, 92% of those exposed to the cooperative narrative treatment, more than 98% of those exposed to the COVID-19 salience treatment, and almost 96% of those exposed to the neutral treatment considered the information provided in the articles as accurate.

3.2. Trust

3.2.1. Hypothesis testing

We first tested Hypotheses 1a–1c. The trustors exposed to the uncooperative narrative treatment sent, on average, 50% of their endowment to the trustees. The trustors exposed to the COVID-

19 salience treatment sent, on average, 49.5%, which was almost identical to the trust level among the trustors exposed to the uncooperative narrative treatment ($p = 0.916$).⁷ Thus, we found no support for Hypothesis 1a. The trustors exposed to the cooperative narrative treatment sent, on average, 52.7%, which was slightly higher than the amount the trustors exposed to the uncooperative narrative treatment sent (50%). However, the difference in the average trust levels between the cooperative narrative and uncooperative narrative treatments was insignificant ($p = 0.547$); thus, we found no support for Hypothesis 1b. The participants primed with the cooperative narrative were, on average, slightly more trusting (52.7%) than those who were reminded of the COVID-19 pandemic only (49.5%), but the difference was insignificant ($p = 0.450$). Thus, we found no support for Hypothesis 1c.

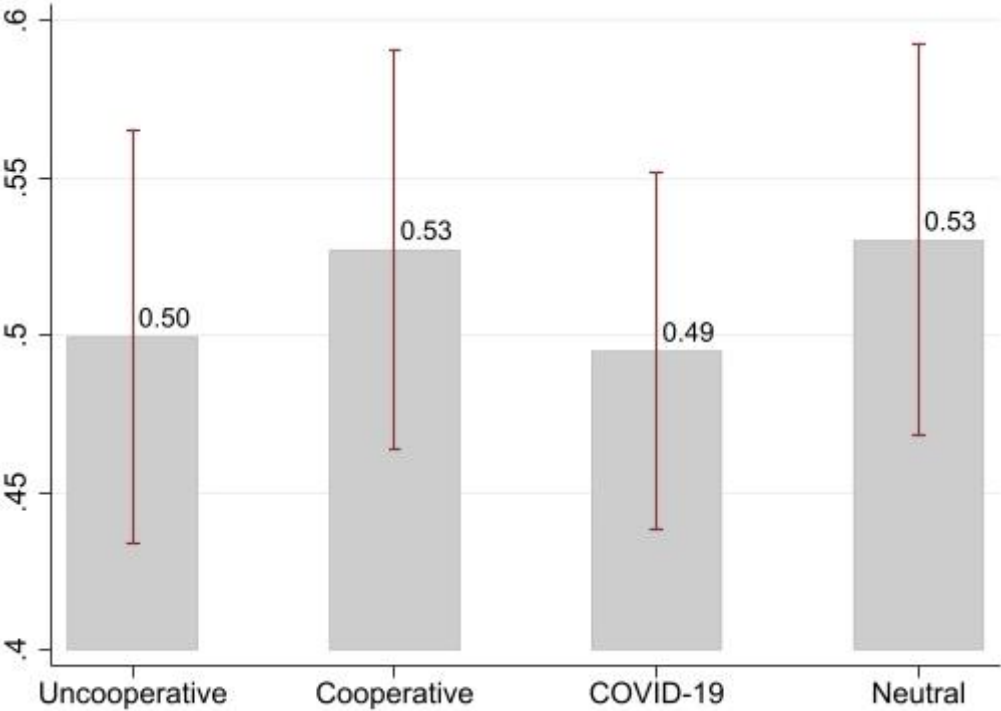


Fig 1. Average trust. The bars correspond to the average fraction of the endowment sent by the trustors to the trustees in the trust game across the treatments. The red vertical lines correspond to the confidence intervals.

⁷ All tests in this study were two-sided. For hypothesis testing, we used the t-test with equal variances.

Next, we tested whether the trustors exposed to the COVID-19 salience treatment trusted others less than did those exposed to the neutral treatment (Hypothesis 2). As shown in Fig 1, the trustors exposed to the COVID-19 salience treatment sent, on average, 49.5% of their endowment to the trustees, compared with 53% among the trustors exposed to the neutral treatment. The difference in the average trust level between the two treatments was not significant ($p = 0.405$), and thus, we did not find support for Hypothesis 2.

3.2.2. *OLS regression*

We complemented the analysis on trust with a set of OLS regressions. The regression estimates are reported in Table 2. The dependent variable trust was measured on the basis of the fraction of the endowment sent by the trustors to the trustees in the trust game. In column 1 of Table 2, the results of the regression analysis wherein trust was simply regressed on three treatment dummies—uncooperative narrative, cooperative narrative, and COVID-19 salience—are shown. The neutral treatment was used as a reference. This specification backed up the previous analysis showing that the treatments had no significant effect on trust.

The results did not change when we controlled for the individuals' age, gender, education, and income (column 2). In column 3, we present the results when we additionally controlled for the individuals' political orientation; this factor did not affect the estimates of the treatment variables. In the final specification (column 4), we additionally controlled for the individuals' experience with COVID-19, that is, whether they or their family member had been seriously sick with COVID-19 (sick with COVID-19 and family sick with COVID-19) and whether they were at a high risk of developing severe COVID-19 (at risk of COVID-19). The coefficients of the treatment variables remained insignificant at all conventional levels in all model specifications.

The OLS regression results, reported in columns 2–4, also showed that the women sent less money in the trust game than did the men, consistent with the findings by Buchan et al. (2008). We also found that the individuals with a disposable monthly income of £500–749 and the individuals with the highest disposable monthly income ($>£2000$) sent less money in the trust game. The coefficients for these income categories were significant at least at the 10% significance level. This result was somewhat counterintuitive, as income has been shown to be positively correlated with survey-based measures of trust (e.g., Alessina and La Ferrara, 2002).

Interestingly, the regression estimates reported in column 4 showed that the individuals who were at a high risk of developing severe COVID-19 trusted others more. This finding could be explained by the fact that because of their weaker health, they feel more vulnerable and dependent on other people in general and/or have more positive experiences of relying on other people and are thus more inclined to trust them. For example, Gambetta and Morisi (2022) showed that people infected with COVID-19 at least temporarily report greater trust in others than do those not infected with COVID-19, especially if they receive help from strangers or become more dependent on others. However, the coefficient of the variable at risk of COVID-19: yes was significant only at the 10% significance level; thus, this result should be treated with caution.

Table 2. Regressions on trust

Trust	(1)	(2)	(3)	(4)
Uncooperative narrative	-0.031 (0.044)	-0.016 (0.045)	-0.018 (0.045)	-0.019 (0.045)
Cooperative narrative	-0.003 (0.044)	0.011 (0.044)	0.005 (0.045)	0.008 (0.045)
COVID-19 salience	-0.035 (0.044)	-0.018 (0.045)	-0.019 (0.045)	-0.018 (0.046)
Age		-0.000 (0.001)	0.001 (0.001)	0.000 (0.001)
Female gender		-0.063** (0.032)	-0.057* (0.032)	-0.057* (0.032)
University education		0.049 (0.035)	0.044 (0.036)	0.040 (0.036)
Income: £500–749		-0.116** (0.052)	-0.112** (0.052)	-0.100* (0.053)
Income: £750–999		-0.021 (0.060)	-0.020 (0.060)	-0.017 (0.060)
Income: £1000–1249		-0.078 (0.057)	-0.067 (0.057)	-0.061 (0.057)
Income: £1250–1499		-0.050 (0.062)	-0.043 (0.062)	-0.034 (0.062)
Income: £1500–1749		0.003 (0.061)	-0.000 (0.062)	0.015 (0.063)
Income: £1750–1999		-0.098 (0.073)	-0.107 (0.073)	-0.117 (0.074)
Income: >£2000		-0.140*** (0.054)	-0.132** (0.054)	-0.132** (0.054)
Political party: Conservative			-0.027 (0.047)	-0.029 (0.047)
Political party: Lib Dem			0.018 (0.060)	0.026 (0.060)
Political party: Green			0.093 (0.057)	0.097* (0.057)
Political party: Scottish			-0.134 (0.082)	-0.134 (0.083)
Political party: Reform UK			-0.075 (0.115)	-0.070 (0.116)
Political party: Other			0.119 (0.137)	0.122 (0.137)
Political party: None			-0.048 (0.044)	-0.046 (0.045)
Sick with COVID-19: Yes				0.097 (0.087)
Family sick with COVID-19: Yes				-0.015 (0.047)
At risk of COVID-19: Yes				0.084* (0.045)
At risk of COVID-19: Do not know				0.042 (0.067)
Constant	0.530*** (0.031)	0.574*** (0.069)	0.556*** (0.071)	0.553*** (0.072)
Observations	435	435	435	435
R-squared	0.002	0.037	0.058	0.070

Note: The table reports the OLS estimates with standard errors in parentheses. The dependent variable trust is measured on the basis of the fraction of the endowment sent by the trustor to the trustee in the trust game. The neutral treatment is the reference group. All independent variables are binary, except for age, which is a continuous

variable. University education includes those who answered that they have a university bachelor's degree, a graduate or professional degree, or some university but no degree. For the variable income, the omitted category is £500–749. For the variable political party, the omitted category is labor. For the variables sick with COVID-19, family sick with COVID-19, and at risk of COVID-19, the omitted category is no. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The amount that the trustors could send to the trustees was restricted to range from £0 to £2 (or from 0 to 1 in terms of the fraction of the endowment); the choice was censored. Hence, we additionally performed Tobit regressions with trust as the dependent variable. The results of the Tobit regressions, which are reported in Appendix C, were in line with the results of the OLS regressions presented in Table 2. The results of the OLS regressions were easier to interpret; thus, we referred to them as our main findings for the variable trust.

We also conducted regression analyses using trustworthiness beliefs, social trust, and trust in the government as additional dependent variables. The variable trustworthiness beliefs was constructed using the responses by the trustors to the incentivized question “How much do you expect to receive from player 2?,” which were expressed as the fraction of the amount sent by the trustors to the trustees (for more details, see Appendix A). The variable social trust was constructed using responses to the following survey question: “Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?” Possible answers were “most people can be trusted” and “one can't be too careful.” To construct the variable trust in the government, we used the responses (on an 11-point Likert scale) to the following survey question: “On a scale from 0 to 10, how much do you personally trust your country's government?” We did not find significant treatment effects for any of the additional dependent variables. The estimates from the additional regressions are provided in Appendix C.

3.3. Health-related attitudes

3.3.1. Hypothesis testing

We also tested how the pandemic narratives affected health-related attitudes. We first tested whether the trustors exposed to the uncooperative narrative treatment perceived the pandemic as a greater emergency than did those exposed to the neutral and cooperative narrative treatments (Hypothesis 3a). The attitudes toward the pandemic emergency (pandemic emergency attitudes) were measured using the participants' agreement (on an 11-point scale) to the following statement: "The COVID-19 pandemic has been one of the greatest health emergencies in human history." As shown in Fig 2, the agreement of the trustors exposed to the uncooperative narrative treatment with the pandemic emergency statement averaged 7.6 points compared with 6.8 points among the trustors exposed to the neutral treatment; the difference was significant at the 5% significance level ($p = 0.029$). Meanwhile, the agreement of the trustors exposed to the cooperative narrative treatment averaged 6.9 points (Fig 2), and the difference between the uncooperative narrative and cooperative narrative treatments was significant at the 5% significance level ($p = 0.050$). Thus, we found support for Hypothesis 3a.

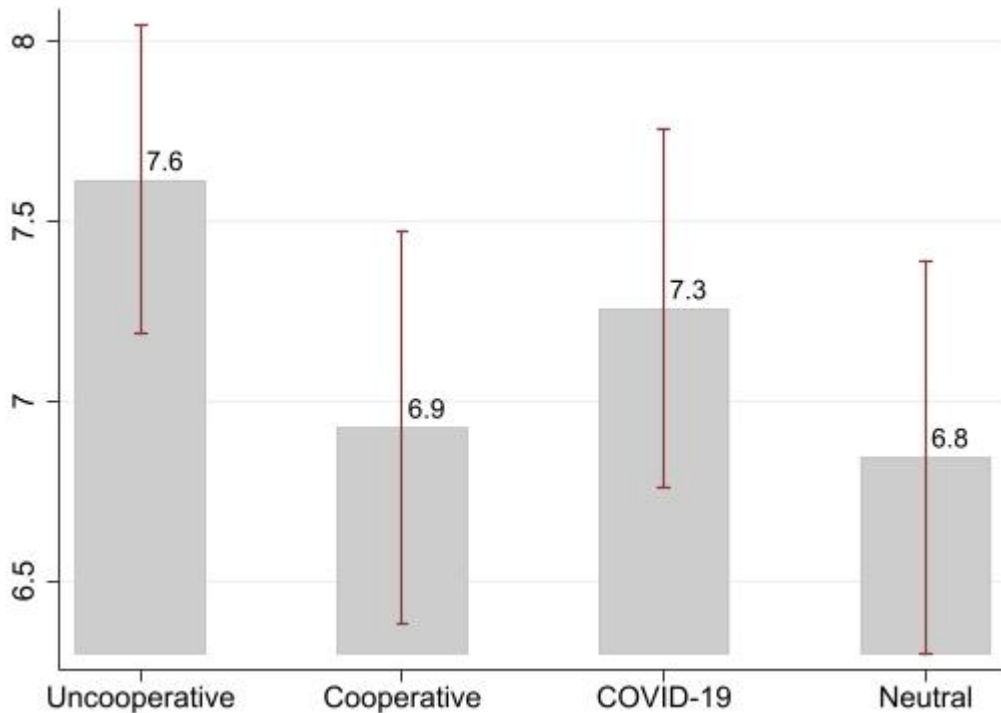


Fig 2. Average pandemic emergency attitudes. The bars correspond to the average pandemic emergency attitudes across the treatments. Pandemic emergency attitudes are measured using the participants’ agreement to the statement “The COVID-19 pandemic has been one of the greatest health emergencies in human history” on an 11-point Likert scale, wherein 0 indicates “strongly disagree,” and 10 indicates “strongly agree.” The red vertical lines correspond to the confidence intervals.

Next, we tested whether the uncooperative narrative had a positive effect on attitudes toward vaccines (Hypothesis 3b). We measured the attitudes toward vaccines (vaccine attitudes) by asking the participants to state their agreement (on an 11-point scale) to the following statement: “In general, vaccines are necessary to prevent the spread of infectious diseases.” The trustors exposed to the uncooperative narrative treatment reported vaccine attitudes that were, on average, 0.8 points higher than those among the trustors exposed to the neutral treatment (9.1 vs. 8.3 points, respectively, Fig 3), and this difference was significant at the 1% significance level ($p = 0.003$). In addition, the trustors exposed to the uncooperative narrative treatment reported more pro-vaccine attitudes (9.1 points) than did the trustors exposed to the cooperative narrative treatment (8.5 points), and the difference was significant at the 5% significance level ($p = 0.017$). Thus, we found support for Hypothesis 3b.

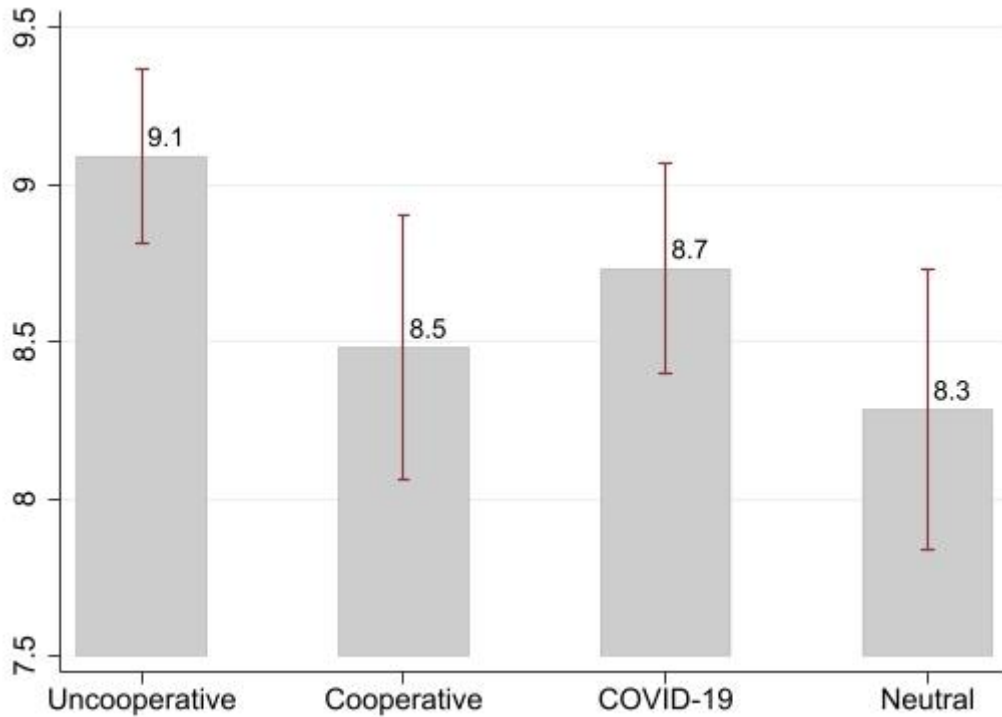


Fig 3. Average vaccine attitudes. The bars correspond to the average vaccine attitudes across the treatments. Vaccine attitudes are measured using participants’ agreement to the statement “In general, vaccines are necessary to prevent the spread of infectious diseases” on an 11-point Likert scale, where 0 means “disagree strongly”, and 10 means “agree strongly.” The red vertical lines correspond to the confidence intervals.

3.3.2. OLS regression

To obtain additional insights into the factors that may affect the individuals’ attitudes toward the pandemic and vaccination, we performed two sets of OLS regressions. Table 3 reports the results of the regression analysis of pandemic emergency attitudes in relation to the treatment variables as well as some individual characteristics. Table 4 presents the results of the regression analysis with vaccination attitudes as the dependent variable. In Tables 3 and 4, column 1 displays the results wherein the dependent variable was regressed on three treatment

dummies (uncooperative narrative, cooperative narrative, and COVID-19 salience), while columns 2–4 present the results with additional model specifications.

Initially, we analyzed the regression results on pandemic emergency attitudes reported in Table 3. The coefficient for the variable uncooperative narrative remained positive and significant at least at the 10% significance level in all model specifications reported in columns 1–4. This confirmed the previous finding that on average, the uncooperative narrative treatment increases the pandemic awareness. No such effect was found in the other treatment variables, as the coefficients for cooperative narrative and COVID-19 salience remained insignificant at all conventional levels even when we controlled for individual characteristics (columns 2–4).

We also found that the political orientation was an important predictor of pandemic emergency attitudes. The individuals who identified most with the Conservative Party or the Reform UK (former Brexit Party) and those who did not identify with any party at all (political party: none) had milder views toward the pandemic as a health emergency (columns 3 and 4). This result of the Conservative and Reform UK voters downplaying pandemic concerns is in line with previous findings that right-leaning individuals in the UK and US tend to have lower anxiety levels toward the COVID-19 pandemic (Rigoli, 2020).

Table 3. Regressions on pandemic emergency attitudes

Pandemic emergency attitudes	(1)	(2)	(3)	(4)
Uncooperative narrative	0.771** (0.361)	0.751** (0.367)	0.703* (0.359)	0.660* (0.363)
Cooperative narrative	0.082 (0.362)	0.116 (0.366)	0.170 (0.357)	0.158 (0.361)
COVID-19 salience	0.413 (0.361)	0.314 (0.370)	0.413 (0.363)	0.378 (0.367)
Age		0.014 (0.010)	0.027** (0.011)	0.026** (0.011)
Female gender		0.406 (0.260)	0.293 (0.258)	0.303 (0.259)
University education		0.371 (0.289)	0.159 (0.285)	0.153 (0.287)
Income: £500–749		0.033 (0.427)	0.151 (0.419)	0.221 (0.426)
Income: £750–999		0.040 (0.494)	0.029 (0.482)	0.058 (0.485)
Income: £1000–1249		–0.562 (0.467)	–0.445 (0.455)	–0.424 (0.458)
Income: £1250–1499		0.268 (0.511)	0.248 (0.498)	0.290 (0.502)
Income: £1500–1749		–0.199 (0.506)	–0.248 (0.495)	–0.182 (0.504)
Income: £1750–1999		–0.491 (0.599)	–0.696 (0.584)	–0.662 (0.592)
Income: >£2000		0.187 (0.442)	0.260 (0.432)	0.293 (0.436)
Political party: Conservative			–1.053*** (0.375)	–1.044*** (0.376)
Political party: Lib Dem			–0.480 (0.480)	–0.494 (0.483)
Political party: Green			–0.423 (0.455)	–0.436 (0.457)
Political party: Scottish			–0.282 (0.661)	–0.282 (0.664)
Political party: Reform UK			–3.997*** (0.922)	–3.990*** (0.930)
Political party: Other			–0.148 (1.097)	–0.101 (1.106)
Political party: None			–1.489*** (0.355)	–1.488*** (0.359)
Sick with COVID-19: Yes				–0.050 (0.698)
Family sick with COVID-19: Yes				0.375 (0.379)
At risk of COVID-19: Yes				0.192 (0.362)
At risk of COVID-19: Do not know				0.138 (0.539)
Constant	6.844*** (0.255)	5.887*** (0.568)	6.182*** (0.573)	6.121*** (0.579)
Observations	435	435	435	435
R-squared	0.013	0.032	0.105	0.108

Note: The table reports the OLS estimates with standard errors in parentheses. The dependent variable pandemic emergency attitudes is measured using the participants’ agreement to the statement “The COVID-19 pandemic has been one of the greatest health emergencies in human history” on an 11-point Likert scale, wherein 0 indicates

“strongly disagree,” and 10 indicates “strongly agree.” The neutral treatment is the reference group. All independent variables are binary, except for age, which is a continuous variable. University education includes those who answered that they have a university bachelor’s degree, a graduate or professional degree, or some university but no degree. For the variable income, the omitted category is £500–749. For the variable political party, the omitted category is labor. For the variables sick with COVID-19, family sick with COVID-19, and at risk of COVID-19, the omitted category is no. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Next, we analyzed the regression results on vaccine attitudes presented in Table 4. The regression analysis confirmed the results obtained from the hypothesis testing: The participants exposed to the uncooperative narrative treatment had, on average, significantly more favorable attitudes toward vaccines than those exposed to the baseline treatment. The coefficient for uncooperative narrative was significant at the 1% significance level across all model specifications (columns 1–4). The coefficient for cooperative narrative was insignificant at all conventional level across all specifications. The coefficient for COVID-19 salience was significant at the 10% significance level but only when no control variables were included in the model (column 1); it became insignificant once we controlled for the individual characteristics (columns 2–4).

Table 4. Regressions on vaccine attitudes

Vaccine attitudes	(1)	(2)	(3)	(4)
Uncooperative narrative	0.807*** (0.268)	0.772*** (0.271)	0.806*** (0.259)	0.825*** (0.261)
Cooperative narrative	0.197 (0.269)	0.239 (0.270)	0.199 (0.258)	0.229 (0.259)
COVID-19 salience	0.450* (0.268)	0.390 (0.272)	0.390 (0.262)	0.404 (0.264)
Age		0.015** (0.008)	0.027*** (0.008)	0.024*** (0.008)
Female gender		-0.312 (0.192)	-0.405** (0.186)	-0.399** (0.186)
University education		0.590*** (0.213)	0.438** (0.206)	0.410** (0.206)
Income: £500–749		0.138 (0.315)	0.375 (0.302)	0.396 (0.307)
Income: £750–999		-0.119 (0.364)	-0.087 (0.348)	-0.058 (0.349)
Income: £1000–1249		-0.237 (0.344)	-0.131 (0.328)	-0.109 (0.329)
Income: £1250–1499		-0.396 (0.376)	-0.320 (0.359)	-0.310 (0.361)
Income: £1500–1749		-0.042 (0.373)	-0.070 (0.357)	-0.010 (0.363)
Income: £1750–1999		-0.651 (0.441)	-0.737* (0.421)	-0.823* (0.426)
Income: >£2000		-0.114 (0.325)	-0.074 (0.311)	-0.098 (0.313)
Political party: Conservative			-0.611** (0.270)	-0.614** (0.271)
Political party: Lib Dem			-0.062 (0.346)	-0.020 (0.347)
Political party: Green			0.457 (0.328)	0.472 (0.329)
Political party: Scottish			-0.651 (0.477)	-0.657 (0.478)
Political party: Reform UK			-4.348*** (0.665)	-4.271*** (0.669)
Political party: Other			-1.093 (0.791)	-1.034 (0.796)
Political party: None			-0.441* (0.256)	-0.405 (0.258)
Sick with COVID-19: Yes				0.123 (0.502)
Family sick with COVID-19: Yes				-0.082 (0.272)
At risk of COVID-19: Yes				0.475* (0.260)
At risk of COVID-19: Do not know				-0.038 (0.388)
Constant	8.284*** (0.190)	7.528*** (0.418)	7.429*** (0.413)	7.457*** (0.417)
Observations	435	435	435	435
R-squared	0.023	0.060	0.166	0.173

Note: The table reports the OLS estimates with standard errors in parentheses. The dependent variable vaccine attitudes is measured using the participants' agreement to the statement "In general, vaccines are necessary to prevent the spread of infectious diseases" on an 11-point Likert scale, wherein 0 indicates "strongly disagree," and

10 indicates “strongly agree.” The neutral treatment is the reference group. All independent variables are binary, except for age, which is a continuous variable. University education includes those who answered that they have a university bachelor’s degree, a graduate or professional degree, or some university but no degree. For the variable income, the omitted category is £500–749. For the variable political party, the omitted category is labor. For the variables sick with COVID-19, family sick with COVID-19, and at risk of COVID-19, the omitted category is no. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The coefficient estimates of the variables representing the individual characteristics provided some additional interesting insights. We found that the older individuals were more pro-vaccine; although the coefficient for age was relatively small, it was significant at least at the 5% significance level. The individuals with at least some university education also showed attitudes that were more favorable toward vaccines; the coefficient for university education was significant at least at the 5% significance level. The women were less in favor of vaccines. However, the coefficient for female gender was significant only in the specifications reported in columns 3 and 4; thus, the result should be treated with caution. In general, the findings on the relationship between vaccine attitudes and age, education, and gender are consistent with the empirical literature on vaccination intentions (Robinson et al., 2021).

Political orientation also played a role in determining vaccine attitudes. Similar to the findings on attitudes toward the pandemic, the individuals who identified with the Conservative and Reform UK Parties generally had less favorable attitudes toward vaccines. The negative coefficient for political party: conservative was significant at the 5% significance level, while that for political party: reform UK was significant at the 1% significance level, as shown in columns 3 and 4. This result is in line with previous reports in other countries showing that right-leaning individuals are more skeptical of vaccines (Jones and Dermott, 2022; Knobel et al., 2022; Winter et al., 2022; Wollebæk et al., 2022). However, it contradicts the report on COVID-19 vaccination intentions that during the COVID-19 pandemic, UK Conservative Party voters were more pro-vaccine (Klymak and Vlandas, 2022).

4. Discussion and conclusion

In this study, we collected experimental evidence during the COVID-19 pandemic in the UK to explore how the health crisis and pandemic narratives, which outlined how the society behaved during the pandemic in terms of compliance to pandemic norms, affected trust in the trust game (Berg et al., 1995). We also analyzed how such norm-based pandemic narratives affected health attitudes, in particular, attitudes toward the pandemic emergency and vaccination in general.

First, we found that providing individuals with narratives outlining behaviors that support (cooperative narratives) or violate pandemic social norms (uncooperative narratives) does not have a significant effect on trusting behavior. This finding does not support the results by Iacono et al. (2021) that after the first wave of the pandemic, social trust declined more among individuals who saw others as violating pandemic norms. However, norm priming toward the end of the pandemic could be less effective than that in the earlier stages, as people have already formed their own perceptions about others' behavior during the pandemic. The different trust measures used in our study and the study by Iacono et al. (2021), who used survey-based measures of trust, are unlikely to be the cause of the difference in the results, since we tested whether priming of the pandemic narratives affected the survey-based measures of trust, including social trust and trust in the government, and found no significant effects.

Second, we noted that priming individuals with the COVID-19 pandemic does not affect trust in the trust game. This result is in line with the finding by Aksoy et al. (2021), who used a priming technique to study the effects of the COVID-19 pandemic on experiment-based trust measures. This finding provides support for the theory claiming that trust is an inert and hardly malleable cultural component (Bisin and Verdier, 2001; Guiso et al., 2008; Tabellini, 2008). However, one of the potential reasons for the null result could also be that changes in trust have been realized over the course of the pandemic, and thus, the primes may be less effective at

inducing changes in trust. For example, Li et al. (2021) conducted a trust game experiment in China before and after the start of the COVID-19 pandemic and found that the health crisis significantly reduced trust, which remained low throughout the observation period that lasted for almost 1 year. In general, the choice of the empirical strategy as well as the timing of the study may be important factors contributing to the size as well as the direction of the effects of the COVID-19 pandemic on trust.

Third, we found that uncooperative narratives are effective in altering people's attitudes toward the pandemic as well as vaccination. That is, emphasizing society's non-compliance to pandemic norms and outlining the negative consequences of such behaviors on others induce people to view the pandemic as a greater health emergency and to be more pro-vaccine in general. This finding shows that negative and potentially guilt-inducing messages can be a powerful tool to achieve the desired change in attitudes and possibly behaviors. We showed that uncooperative narratives do not result in an immediate negative effect on trust, which provides some justification in applying this type of negatively worded guilt-inducing narratives to shape individuals' health-related attitudes. This finding can help guide policymakers and communicators in designing more effective messages to alter people's attitudes during the current pandemic as well as in future crises that require attitudinal and behavioral changes.

Finally, we noted that health attitudes are related to some individual characteristics. We found that age, education, and gender are important predictors of vaccine attitudes, which is in line with previous research on COVID-19 vaccination intentions (Robinson et al., 2021). Another important factor associated with health attitudes is political orientation. Individuals who identify most with some right-wing parties, including the Conservative Party and the Reform UK (former Brexit Party), view the pandemic as less of a concern and are more skeptical of vaccines. This result confirms findings from other countries showing that right-leaning individuals are less concerned about the COVID-19 pandemic (Rigoli, 2020) and are

less in favor of vaccines (Jones and Dermott, 2022; Knobel et al., 2022; Winter et al., 2022; Wollebæk et al., 2022). This finding is also related to the report by Phalippou and Wu (2021) showing a negative relationship between the 2016 Brexit vote and COVID-19 vaccination rates and a positive association with COVID-19 infection and death rates, since the majority of the Conservative Party and former Brexit Party voters who participated in the Brexit referendum casted a “leave” vote (Moore, 2016). This result could be related to the greater beliefs in conspiracies of right-leaning voters (Jolley et al., 2022; Winter et al., 2022). In general, the results show that political divide plays an important role in the health domain, and policymakers should take this into account when designing vaccination campaigns as well as health-related incentives.

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Appendix

Appendix A. Instructions

//Consent//

This experiment is conducted by researchers from Vilnius University and WZB Berlin Social Science Center - Laura Galdikiene (laura.galdikiene@evaf.stud.vu.lt), Agne Kajackaite (agne.kajackaite@wzb.eu) and Jurate Jaraite (jurate.jaraite-kazukauske@evaf.vu.lt). If you have any concerns or questions about the study, do not hesitate to contact the experimenters.

The purpose of the research is to better understand human behaviour and beliefs. During this experiment, you will face multiple tasks, participate in a game and answer questions. Answering some of the questions will require memorization and decision making. You will also be asked to provide information about your political beliefs and health status. We will record your responses. The data recorded in the experiment do not allow any inference on the participation of individual persons. The analysis and presentation of all results of this experiment will be anonymized. The anonymous research data will be archived and will possibly be made available to other scientists for further use.

Participation in today's experiment is entirely voluntary. There will be no disadvantages for you if you decide not to participate. You have the possibility to exit the experiment at any time.

You will receive 1.50 GBP in exchange for your participation in this study with the opportunity to earn a significant bonus payment.

We want to ask for your consent to participate in the experiment and to the implied processing of data. Your consent is the legal basis for data processing.

If you understand and agree to participate in the study, please select "I consent" and click "Next".

If you do not consent to take part in the study, please select "I do not consent" and click "Next".

Please select one of these options:

- I consent
- I do not consent

//No Consent//

As you do not wish to participate in this study, please close it and return your submission on Prolific by selecting the 'Stop without completing' button.

//Screener Validation//

Before you begin with the experiment, please answer a couple of questions about yourself.

In what country do you currently reside?

- UK
- Other

What is your nationality?

- UK
 - Other
-

//Failed Screener// [displayed to participants who answer “Other” in at least to one of the two previous screener validation questions]

You are ineligible for this study as you have provided information which is inconsistent with your Prolific prescreening responses. Please return your submission on Prolific by selecting the 'Stop without completing' button.

//Intro//

Welcome to the experiment!

For participating in this experiment, you will receive a fixed payment of £1.50, but you can also receive a significant bonus payment. Depending on the decisions taken in the experiment, this bonus payment.

In this experiment you will be paired with another participant and play a game in real time. The matching of participants can cause some delays, but please remain patient. The experiment will take up to 15 minutes.

For the experiment to run smoothly it is important for you to remain focused at your screen throughout the whole experiment. If you cannot ensure that your participation in this

experiment is without any breaks, please leave the experiment now and return your submission on Prolific by selecting the 'Stop without completing' button.

Please think about your answers carefully and report them truthfully.

//Attention Check 1//

This is an attention check. The test you are about to take part in is very simple. When asked to choose a letter, you must select the letter “Q”. You have one try to answer this question.

Based on the text you read above, which letter have you been asked to choose?

- Z
- Q
- M
- A
- L

//Memorize Number//

A telephone number is displayed below. You have 30 seconds to memorize it. You will be asked to recognize the telephone number at a later point in time.

(01382) 37844

//Treatment Intro//

On the next page an article will be displayed to all participants of the experiment. Please read it and try to memorize as much of the content as possible. You will have 3 minutes to do so.

After you read the text, you will be asked to summarize it. At a later point in time, you will be asked to answer three questions about the content of the article.

//Text Reading//

//Uncooperative Narrative// [*displayed only to participants in “Uncooperative narrative” treatment*]

For the past two years, the UK has been battling the COVID-19 pandemic. These years have taught us a lot about our fellow Britons.

During the pandemic, many preventative measures were put in place to limit the spread of the virus. However, some Britons did not uphold these measures. Even with rising COVID-19 cases and the NHS on the brink of collapse, some adults refused to maintain social distancing and even declined to wear face masks when outside their home. Moreover, some Britons returning home from foreign countries broke travel rules by avoiding self-isolation and testing.

Despite the availability of COVID-19 vaccines, some Britons have been refusing vaccinations. With most variants of the coronavirus, the unvaccinated transmit the virus more, and if they contract COVID-19, they are more likely to be hospitalized, which may lead to the collapse of the NHS. To be able to travel and attend events, some anti-vaxxers have turned to the black market to buy fake NHS COVID-19 passes. Opposition to COVID-19 restrictions and vaccinations have spurred numerous protests, many of them violent.

//Cooperative Narrative// [displayed only to participants in “Cooperative narrative” treatment]

For the past two years, the UK has been battling the COVID-19 pandemic. These years have taught us a lot about our fellow Britons.

During the pandemic, many preventative measures were put in place to limit the spread of the virus. Most Britons upheld these measures. With rising COVID-19 cases and the NHS on the brink of collapse, most adults maintained social distancing and also wore face masks when outside their home. Britons returning home from foreign countries largely adhered to travel rules, such as requirements to self-isolate and test for COVID-19.

When COVID-19 vaccines became widely available, most Britons got fully vaccinated. Preventing others from contracting the coronavirus has been one of the main reasons for taking the vaccine. With most variants of COVID-19, vaccines lower the risk of contracting the virus, reduce the transmission of the virus and lower the risk of hospitalisation if infected. Thus, vaccinated Britons have helped to limit the spread of COVID-19, prevented the collapse of the NHS, and saved lives of their fellow Britons.

//COVID-19 salience// [displayed only to participants in “COVID-19 salience” treatment]

Coronavirus disease 2019 (COVID-19) is a contagious disease caused by a virus, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first known case was identified in Wuhan, China, in December 2019. The disease spread worldwide, leading to the COVID-19 pandemic.

Symptoms of COVID-19 are variable, but often include fever, cough, headache, fatigue, breathing difficulties, loss of smell, and loss of taste. Symptoms may begin one to fourteen days after exposure to the virus.

The severity of COVID-19 varies. The disease may take a mild course with few or no symptoms. In some cases, symptoms are severe enough to cause hospitalization. Mild cases

typically recover within two weeks, while those with severe or critical diseases may take three to six weeks to recover. Among those who have died, the time from symptom onset to death has ranged from two to eight weeks.

//Neutral// [*displayed only to participants in “Neutral” treatment*]

Terns are graceful, slender water birds that have a worldwide distribution. They are normally found near the sea, rivers, or wetlands. Terns are treated as a subgroup of the family Laridae which includes gulls and skimmers.

Terns range in length from about 20 to 55 cm. Compared with gulls, they are more slender, shorter legged, and longer winged. They range in colour from white to black and white to almost entirely black. The bill of various species may be black, red, or yellow, while the feet are red or black. Their feet are webbed. Most species have long and pointed wings, forked tails, and sharply pointed bills.

Most terns breed annually and at the same time of year, but some tropical species may nest at intervals shorter than 12 months or asynchronously. Most species lay two or three eggs, although a few species lay only one egg. The eggs of most terns are brown with dark splotches. Terns are generally long-lived birds, some species reaching more than 30 years of age.

//Text Summary//

Please summarize the information provided in the article you read on the previous page using 3-4 sentences. Then press “Next”. You have 4 minutes to do so. If you don’t submit the page before time runs out, the page will autosubmit.

Write your summary in the field below.

//Recognize Number//

At the beginning of the study, you were shown a telephone number.

Which number were you shown?

- (01733) 65192
- (01947) 80335
- (01473) 52062
- (01382) 37844

//Attention Check 2//

Now please indicate your agreement with the statement below. Please mark one answer.

I swim across the Atlantic Ocean to get to work every day.

- Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
-

//Game Intro//

In this next section you will play a game with another participant of the study. **You will play the game with real money – everything you earn in this game will be paid out to you as a bonus after you complete the experiment!** You will learn how much exactly you earned in the final pages of this experiment. If you do not complete the experiment the bonus will not be paid.

But let us first introduce the instructions of the game. Please read them carefully. Later you will be asked to answer three questions about the game.

//Game Instructions//

This game is played by randomly paired participants of this experiment. Each pair consists of Player 1 and Player 2. You will learn whether you are Player 1 or Player 2 prior to making any decision. You will play this game with another British national residing in the UK. However, none of you will know exactly with whom you are playing.

At the start of the game Player 1 and Player 2 receive £2.00 each. Player 1 can send a chosen amount x from his/ her £2.00 to Player 2, though Player 1 can also choose to send nothing ($0 \leq x \leq 2$). Player 1 can send money with £0.10 increments, that is, he/ she can send £0.00, £0.10, £0.20, ... £2.00.

Whatever amount Player 1 decides to send to Player 2, it will be tripled by the researcher before it is passed on to Player 2. Player 1 keeps $2-x$ and $3x$ is passed onto Player 2. Player 2 then has the option of returning any amount y from this tripled amount ($3x$) to Player 1, though Player 2 can also choose to return nothing ($0 \leq y \leq 3x$). Player 2 can also send money with £0.10 increments. That is, Player 2 can send back £0.00, £0.10, £0.20, ..., £3x.

Then, the game is over. The final payoff from the game for Player 1 is whatever he/ she kept from the original £2.00 after sending a portion to Player 2, plus anything returned to him/ her

by Player 2 ($2-x+y$). The final payoff for Player 2 is the original £2, plus whatever was given to him/ her by Player 1 and then tripled by the researcher, minus whatever Player 2 returned to Player 1 ($2+3x-y$).

//Game Understanding//

Next you will have to answer questions about the game based on the instructions presented previously. For each question there will be three options, but only one of them is correct. Please choose the option that you think is correct. If you see a message that your answer is wrong, please pick a different option. You will have a chance to re-read the instructions.

//Game Check 1//

Imagine that Player 1 and Player 2 receive the initial £2.00 each from the researcher. Then Player 1 gives £1.00 to Player 2. The researcher triples this amount, so Player 2 gets £3.00 in addition to his/her initial £2. At this point, Player 1 has £1.00 left and Player 2 has £5.00. Suppose Player 2 decides to return £2.00 to Player 1.

What is the final payoff of Player 1 and of Player 2?

- Player 1: £3.00; Player 2: £3.00
- Player 1: £2.00; Player 2: £5.00
- Player 1: £4.00; Player 2: £2.50

You can re-read the instructions below.

[Instructions repeated here]

//Game Check 2//

Imagine that Player 1 and Player 2 receive the initial £2.00 each from the researcher. Then Player 1 gives £2.00 to Player 2. The researcher triples this amount, so Player 2 gets £6.00 in addition to her/his initial £2. At this point, Player 1 has £0 left and Player 2 has £8.00. Suppose Player 2 decides to return nothing to Player 1. What is then the final payoff of Player 1 and of Player 2?

- Player 1: £1.00; Player 2: £6.00
- Player 1: £0.00; Player 2: £8.00
- Player 1: £4.00; Player 2: £0.00

You can re-read the instructions below.

[Instructions repeated here]

//Game Check 3//

Imagine that Player 1 and Player 2 receive the initial £2.00 each from the researcher. Then Player 1 gives nothing to Player 2. What is then the final payoff of Player 1 and of Player 2?

- Player 1: £4.00; Player 2: £6.00
- Player 1: £0.00; Player 2: £0.00
- Player 1: £2.00; Player 2: £2.00

You can re-read the instructions below.

[Instructions repeated here]

//Attention Check 3//

This is an attention check. The colour test you are about to take part in is very simple. When asked to enter a colour you must select “Yellow”. You have one try to answer this question.

Based on the text you read above, what colour have you been asked to enter?

- Red
 - Brown
 - Green
 - Yellow
 - Orange
-

//Treatment Quiz//

Before we proceed to the game, please answer three simple true or false questions on the article that you read in the beginning. Please read the question attentively and choose the option that you think is correct. If you see a message that your answer is wrong, please pick a different option.

//Question 1//

//Uncooperative Narrative// [*displayed only to participants in “Uncooperative narrative” treatment*]

The following statement appeared in the article in this or in a similar fashion:

“Some Britons did not uphold preventative pandemic measures.”

- True
- False

//Cooperative Narrative// [*displayed only to participants in “Cooperative narrative” treatment*]

The following statement appeared in the article in this or in a similar fashion:

“Most Britons upheld preventative pandemic measures.”

- True
- False

//COVID-19// [*displayed only to participants in “COVID-19 salience” treatment*]

The following statement appeared in the article in this or in a similar fashion:

“The first known case of COVID-19 was identified in Wuhan, China, in December 2019. The disease spread worldwide, leading to the COVID-19 pandemic.”

- True
- False

//Neutral// [*displayed only to participants in “Neutral” treatment*]

The following statement appeared in the article in this or in a similar fashion:

“Terns are normally found near the sea, rivers, or wetlands.”

- True
- False

//Question 2//

//Uncooperative Narrative// [displayed only to participants in “Uncooperative narrative” treatment]

The following statement appeared in the article in this or in a similar fashion:

“Despite the availability of COVID-19 vaccines, some Britons have been refusing vaccinations.”

- True
- False

//Cooperative Narrative// [displayed only to participants in “Cooperative narrative” treatment]

The following statement appeared in the article in this or in a similar fashion:

“When COVID-19 vaccines became widely available, most Britons got fully vaccinated.”

- True
- False

//COVID-19// [displayed only to participants in “COVID-19 salience” treatment]

The following statement appeared in the article in this or in a similar fashion:

“Symptoms of COVID-19 often include fever, cough, headache, fatigue, breathing difficulties, loss of smell, and loss of taste.”

- True
- False

//Neutral// [displayed only to participants in “Neutral” treatment]

The following statement appeared in the article in this or in a similar fashion:

“Most species of terns have long and pointed wings, forked tails, and sharply pointed bills.”

- True
- False

//Question 3//

//Uncooperative Narrative// [displayed only to participants in “Uncooperative narrative” treatment]

The following statement appeared in the article in this or in a similar fashion:

“Some Britons returning home from foreign countries broke quarantine rules by avoiding self-isolation and testing.”

- True
- False

//Cooperative Narrative// [displayed only to participants in “Cooperative narrative” treatment]

The following statement appeared in the article in this or in a similar fashion:

“Britons returning home from foreign countries largely adhered to travel rules, such as requirements to self-isolate and test for COVID-19”.

- True
- False

//COVID-19// [displayed only to participants in “COVID-19 salience” treatment]

The following statement appeared in the article in this or in a similar fashion:

“In some COVID-19 cases, symptoms are severe enough to cause hospitalization.”

- True
- False

//Neutral// [displayed only to participants in “Neutral” treatment]

The following statement appeared in the article in this or in a similar fashion:

“Terns are generally long-lived birds, some species reaching more than 30 years of age.”

- True
- False

//Matching Info//

In the next page you will be matched with another participant. The matching process can take up to 10 min. Please be patient and stay alert. Do not turn off the waiting page, we will inform you if the matching was successful or not.

Please press “Next” to be matched with another participant.

//Play Game//

You have been paired with another participant and will now play the game. Please press “Next” to continue. Otherwise, you will be forwarded to the next page automatically after the time on the timer runs out.

//Trustor Choice//

You are selected to be in the role of Player 1. You have been now given £2.00 by the researcher. How much (if anything at all) from these £2.00 do you want to send to Player 2? You can send any amount between £0.00 and £2.00 with £0.10 increments. Player 2 will receive this amount tripled by us plus his/ her initial £2.00. Then Player 2 will decide how much of the tripled amount to return to you, but he/ she is under no obligation to give anything back.

You have 240 seconds to make a decision. If you do not submit this page before the time in the timer runs out, you will be automatically considered a dropout.

Please choose the amount that you want to send to Player 2. *[drop-down list with options]*

//Trustee Role//

You are selected to be in the role of Player 2. You have been now given £2.00 by the researcher. Please press “Next” to find out how much Player 1 decided to send to you. Otherwise, you will be forwarded to the next page automatically after the time on the timer runs out.

//Send Zero// *[displayed to both players, if Player 1 sends zero to Player 2.]*

Player 1 chose to send nothing to Player 2, so the game ends here. Please press "Next" to proceed to the final part of the experiment. Otherwise, you will be forwarded to the next page automatically after the time on the timer runs out.

//Trustee Choice// [displayed to Player 2, if Player 1 sends non-zero to Player 2]

Player 1 decided to send £[amount sent by Player 1] to you. We tripled the amount sent by Player 1 and now it is £[tripled amount]. How much (if anything at all) do you want to send back to Player 1 from the tripled amount? You can send Player 1 any amount between £0 and £[tripled amount] with £0.10 increments.

You have 240 seconds to make a decision. If you do not submit this page before the time in the timer runs out, you will be automatically considered a dropout.

Please choose the amount that you want to send back to Player 1. *[drop-down list with options]*

//Trustor Expectations//

Player 2 can send you any amount between £0 and £[tripled amount] with £0.10 increments. Please tell us, how much do you expect Player 2 to return to you? You will earn £0.50 if your answer falls within a 10% interval around the actual amount returned by Player 2.

Please choose the amount that you expect to receive from Player 2? *[drop-down list with options]*

[Next part displayed to all participants]

//Survey Intro//

We will now ask you to answer some questions about yourself.

//Trust Risk//

Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

- Most people can be trusted

- One can't be too careful

On a scale from 0 to 10 how much do you personally trust your country's government? 0 means you do not trust it at all, and 10 means you have complete trust in it.

0 1 2 3 4 5 6 7 8 9 10

On a scale from 0 to 10 how willing are you to take risks, in general? 0 means you are not at all willing to take risks, and 10 means you are 10 very willing to take risks.

0 1 2 3 4 5 6 7 8 9 10

//COVID Experience//

Have you previously been hospitalized with COVID-19 and/ or developed severe symptoms of COVID-19?

- Yes
- No

Has any of your close family members been hospitalized with COVID-19 and/ or developed severe symptoms of COVID-19?

- Yes
- No

Do you belong to a group of people with an increased risk of a severe disease if infected with COVID-19?

- Yes
- No
- I don't know

//Health Attitudes//

To what extent do you agree or disagree with the statements below? To indicate your agreement or disagreement use the 11-point scale, where **0 means you disagree strongly**, and **10 means you agree strongly**.

COVID-19 pandemic has been one of the greatest health emergencies in human history.

0 1 2 3 4 5 6 7 8 9 10

In general, vaccines are necessary to prevent the spread of infectious diseases.

0 1 2 3 4 5 6 7 8 9 10

//SocioDemographics//

What is your age (please enter a number) _____

What is your gender?

- Male
- Female
- Other

What is the highest level of education you have completed?

- Some Primary
- Completed Primary School
- Some Secondary
- Completed Secondary School
- Vocational or Similar
- Some University but no degree
- University Bachelors Degree
- Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS)
- Other

How much money do you have at your disposal monthly (after tax)?

- Less than £500
- £500-749
- £750-999
- £1000-1249
- £1250-1499
- £1500-1749
- £1750-1999
- More than £2000

Which political party do you identify most with?

- Labour Party
- Conservative and Unionist Party

- Liberal Democrats
- The Green Party of England and Wales
- Scottish National Party
- Reform UK (former Brexit Party)
- Other
- None

//Repeat Article//

Please read the article below again. We will then ask you to answer two questions related to the article. *[displayed only to “Uncooperative”, “Cooperative” and “COVID-19 salience” treatment participants]*

Please read the article below again. We will then ask you to answer one question related to the article. *[displayed only to “Neutral” treatment participants]*

//Uncooperative Narrative// *[displayed only to participants in “Uncooperative narrative” treatment]*

For the past two years, the UK has been battling the COVID-19 pandemic. These years have taught us a lot about our fellow Britons.

During the pandemic, many preventative measures were put in place to limit the spread of the virus. However, some Britons did not uphold these measures. Even with rising COVID-19 cases and the NHS on the brink of collapse, some adults refused to maintain social distancing and even declined to wear face masks when outside their home. Moreover, some Britons returning home from foreign countries broke travel rules by avoiding self-isolation and testing.

Despite the availability of COVID-19 vaccines, some Britons have been refusing vaccinations. With most variants of the coronavirus, the unvaccinated transmit the virus more, and if they contract COVID-19, they are more likely to be hospitalized, which may lead to the collapse of the NHS. To be able to travel and attend events, some anti-vaxxers have turned to the black market to buy fake NHS COVID-19 passes. Opposition to COVID-19 restrictions and vaccinations have spurred numerous protests, many of them violent.

//Cooperative Narrative// *[displayed only to participants in “Cooperative narrative” treatment]*

For the past two years, the UK has been battling the COVID-19 pandemic. These years have taught us a lot about our fellow Britons.

During the pandemic, many preventative measures were put in place to limit the spread of the virus. Most Britons upheld these measures. With rising COVID-19 cases and the NHS on the brink of collapse, most adults maintained social distancing and also wore face masks when outside their home. Britons returning home from foreign countries largely adhered to travel rules, such as requirements to self-isolate and test for COVID-19.

When COVID-19 vaccines became widely available, most Britons got fully vaccinated. Preventing others from contracting the coronavirus has been one of the main reasons for taking the vaccine. With most variants of COVID-19, vaccines lower the risk of contracting the virus, reduce the transmission of the virus and lower the risk of hospitalisation if infected. Thus, vaccinated Britons have helped to limit the spread of COVID-19, prevented the collapse of the NHS, and saved lives of their fellow Britons.

//COVID-19 salience// [displayed only to participants in “COVID-19 salience” treatment]

Coronavirus disease 2019 (COVID-19) is a contagious disease caused by a virus, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first known case was identified in Wuhan, China, in December 2019. The disease spread worldwide, leading to the COVID-19 pandemic.

Symptoms of COVID-19 are variable, but often include fever, cough, headache, fatigue, breathing difficulties, loss of smell, and loss of taste. Symptoms may begin one to fourteen days after exposure to the virus.

The severity of COVID-19 varies. The disease may take a mild course with few or no symptoms. In some cases, symptoms are severe enough to cause hospitalization. Mild cases typically recover within two weeks, while those with severe or critical diseases may take three to six weeks to recover. Among those who have died, the time from symptom onset to death has ranged from two to eight weeks.

//Neutral// [displayed only to participants in “Neutral” treatment]

Terns are graceful, slender water birds that have a worldwide distribution. They are normally found near the sea, rivers, or wetlands. Terns are treated as a subgroup of the family Laridae which includes gulls and skimmers.

Terns range in length from about 20 to 55 cm. Compared with gulls, they are more slender, shorter legged, and longer winged. They range in colour from white to black and white to almost entirely black. The bill of various species may be black, red, or yellow, while the feet are red or black. Their feet are webbed. Most species have long and pointed wings, forked tails, and sharply pointed bills.

Most terns breed annually and at the same time of year, but some tropical species may nest at intervals shorter than 12 months or asynchronously. Most species lay two or three eggs, although a few species lay only one egg. The eggs of most terns are brown with dark splotches. Terns are generally long-lived birds, some species reaching more than 30 years of age.

//Manipulation Check//

[displayed only to participants in “Uncooperative narrative”, “Cooperative narrative”, and “Covid-19 salience” treatments]

Do you consider the information **provided in the article** as describing cooperative behaviour, uncooperative behaviour or neither during the COVID-19 pandemic in Britain? *[displayed only to “Uncooperative”, “Cooperative” and “COVID-19 salience” treatment participants]*

- Cooperative
- Uncooperative
- Neither

[displayed only to all participants]

Did you find the information **provided in the article** as accurate?

- Yes
- No

//Payoff Trustors// *[displayed only to trustors]*

Thank you for taking part in this study.

For participating in this study you earned a fixed completion fee of £1.50.

Your bonus payment is calculated in the following way:

You were initially endowed with £2.00. You sent £X to Player 2. You received £X from Player 2. Therefore, your total payoff from the game is £X.

Your earnings for getting expectations about money returned by Player 2 right (within 10% interval) are £X (applies only if you sent non-zero).

Your total bonus payment is £X. The processing of the bonus payment may take up to 2 weeks. Thank you for your patience!

Do you have any comments about this experiment?

If you have questions about the study or your payment please contact laura.galdikiene@evaf.stud.vu.lt.

Please, press “Next” for the Completion code.

//Payoff Trustees// *[displayed only to trustees]*

Thank you for taking part in this study.

For participating in this study you earned a fixed completion fee of £1.50.

Your bonus payment is calculated in the following way:

You were initially endowed with £2.00. Player 1 sent you £X. It was tripled and you received £X. You returned £X to Player 1. Therefore, your total payoff from the game is £X.

Your total bonus payment is £X.

Do you have any comments about this experiment?

If you have questions about the study or your payment please contact laura.galdikiene@evaf.stud.vu.lt.

Please, press “Next” for the Completion code.

Appendix B. Sample characteristics

Table B1. Socio-demographic characteristics of all participants

Characteristic	All		Uncooperative		Cooperative		COVID-19		Neutral	
	n	%	n	%	n	%	n	%	n	%
Age	875	40*	220	40*	217	38*	218	42*	220	39*
Gender:										
Male	442	50.5	112	50.9	111	51.1	110	50.5	109	49.6
Female	431	49.3	108	49.1	105	48.4	108	49.5	110	50.0
Other	2	0.2	-	-	1	0.5	-	-	1	0.5
Education:										
Some secondary	6	0.7	2	0.9	1	0.5	2	0.9	1	0.4
Completed secondary	155	17.7	37	16.8	43	19.8	37	17.0	38	17.3
Vocational	119	13.6	27	12.3	24	11.1	32	14.7	36	16.4
Some university	78	8.9	22	10.0	24	11.1	18	8.3	14	6.4
Bachelor’s degree	351	40.1	85	38.6	88	40.5	92	42.2	86	39.1
Graduate/professional	159	18.2	44	20.0	35	16.1	36	16.5	44	20.0
Other	7	0.8	3	1.4	2	0.9	1	0.5	1	0.4
Income:										
<£500	294	33.6	78	35.5	77	35.5	65	29.8	74	33.7
£500–749	108	12.4	23	10.4	32	14.7	23	10.6	30	13.7
£750–999	72	8.2	20	9.1	11	5.1	22	10.1	19	8.6

£1000–1249	100	11.4	26	11.8	23	10.6	23	10.6	28	12.7
£1250–1499	56	6.4	15	6.8	13	6.0	11	5.0	17	7.7
£1500–1749	69	7.9	16	7.3	18	8.3	20	9.2	15	6.8
£1750–1999	54	6.2	17	7.7	14	6.4	14	6.4	9	4.1
>£2000	122	13.9	25	11.4	29	13.4	40	18.3	28	12.7
Political party:										
Labor	311	35.5	77	35.0	87	40.1	60	27.5	87	39.5
Conservative	151	17.3	41	18.7	28	12.9	45	20.6	37	16.8
Lib Dem	92	10.5	19	8.6	18	8.3	37	17.0	18	8.2
Green	83	9.5	22	10.0	23	10.6	15	6.9	23	10.5
Scottish	35	4.0	13	5.9	7	3.2	6	2.8	9	4.1
Reform UK	11	1.3	4	1.8	2	0.9	2	0.9	3	1.4
Other	16	1.8	6	2.7	3	1.4	6	2.7	1	0.4
None	176	20.1	38	17.3	49	22.6	47	21.6	42	19.1

Note: All variables are binary, except for age, which is continuous. *Average.

Table B2. Socio-demographic characteristics of the trustors

Characteristic	All		Uncooperative		Cooperative		COVID-19		Neutral	
	n	%	n	%	n	%	n	%	n	%
Age	435	41*	109	42*	108	39*	109	43*	109	40*
Gender:										
Male	232	53.3	60	55.0	58	53.7	56	51.4	58	53.2
Female	203	46.7	49	45.0	50	46.3	53	48.6	51	46.8
Other	-	-	-	-	-	-	-	-	-	-
Education:										
Some secondary	4	0.9	2	1.8	1	0.9	-	-	1	0.9
Completed secondary	74	17.0	17	15.6	21	19.4	17	15.6	19	17.4
Vocational	65	15.0	14	12.9	18	16.7	14	12.8	19	17.4
Some university	43	9.9	12	11.0	14	13.0	8	7.4	9	8.3
Bachelor's degree	168	38.6	39	35.8	37	34.3	51	46.8	41	37.6
Graduate/professional	78	17.9	24	22.0	16	14.8	19	17.4	19	17.5
Other	3	0.7	1	0.9	1	0.9	-	-	1	0.9
Income:										
<£500	144	33.1	30	27.5	38	35.2	29	26.6	47	43.1
£500–749	55	12.6	14	12.8	15	13.9	13	11.9	13	11.9
£750–999	39	9.0	11	10.1	5	4.6	15	13.8	8	7.4
£1000–1249	44	10.1	13	11.9	10	9.3	9	8.3	12	11.0
£1250–1499	34	7.8	7	6.4	8	7.4	8	7.3	11	10.1
£1500–1749	36	8.3	9	8.3	10	9.2	8	7.3	9	8.3
£1750–1999	25	5.8	9	8.3	8	7.4	6	5.5	2	1.8

>£2000	58	13.3	16	14.7	14	13.0	21	19.3	7	6.4
Political party:										
Labor	164	37.2	42	38.5	43	39.8	31	28.5	46	42.2
Conservative	76	17.5	22	20.2	13	12.1	24	22.0	17	15.6
Lib Dem	38	8.8	10	9.2	8	7.4	14	12.8	6	5.5
Green	41	9.4	9	8.3	13	12.0	7	6.4	12	11.0
Scottish	18	4.1	8	7.3	1	0.9	3	2.8	6	5.5
Reform UK	9	2.1	3	2.8	2	1.9	1	0.9	3	2.8
Other	6	1.4	3	2.7	1	0.9	2	1.8	-	-
None	85	19.5	12	11.0	27	25.0	27	24.8	19	17.4

Note: All variables are binary, except for age, which is continuous. * Average.

Appendix C. Additional regression analyses

Table C1. Regressions on trust (Tobit)

Trust	(1)	(2)	(3)	(4)
Uncooperative narrative	-0.026 (0.065)	-0.002 (0.065)	-0.005 (0.064)	-0.008 (0.065)
Cooperative narrative	0.006 (0.065)	0.026 (0.064)	0.017 (0.064)	0.021 (0.064)
COVID-19 salience	-0.050 (0.065)	-0.025 (0.065)	-0.028 (0.065)	-0.027 (0.065)
Age		-0.00003 (0.002)	0.001 (0.002)	0.0003 (0.002)
Female gender		-0.081* (0.046)	-0.073 (0.046)	-0.074 (0.046)
University education		0.060 (0.051)	0.050 (0.051)	0.044 (0.051)
Income: £500–749		-0.166** (0.075)	-0.160** (0.075)	0.139* (0.076)
Income: £750–999		-0.043 (0.087)	-0.041 (0.086)	-0.036 (0.086)
Income: £1000–1249		-0.126 (0.082)	-0.109 (0.082)	-0.099 (0.081)
Income: £1250–1499		-0.070 (0.089)	-0.060 (0.089)	-0.044 (0.089)
Income: £1500–1749		0.0001 (0.090)	-0.004 (0.090)	0.019 (0.090)
Income: £1750–1999		-0.152 (0.105)	-0.164 (0.104)	-0.176* (0.105)
Income: >£2000		-0.193** (0.078)	-0.179** (0.077)	-0.176** (0.077)
Political party: Conservative			-0.042 (0.067)	-0.046 (0.067)
Political party: Lib Dem			0.030 (0.086)	0.042 (0.085)
Political party: Green			0.151* (0.082)	0.158* (0.082)
Political party: Scottish			-0.171 (0.117)	-0.169 (0.117)
Political party: Reform UK			-0.115	-0.112

			(0.164)	(0.163)
Political party: Other			0.177	0.177
			(0.198)	(0.198)
Political party: None			-0.069	-0.070
			(0.064)	(0.064)
Sick with COVID-19				0.163
				(0.125)
Family sick with COVID-19				-0.016
				(0.067)
At risk of COVID-19: Yes				0.121*
				(0.064)
At risk of COVID-19: Do not know				0.087
				(0.097)
Constant	0.562***	0.622***	0.599***	0.589***
	(0.046)	(0.100)	(0.102)	(0.103)
Observations	435	435	435	435
Pseudo R-squared	0.001	0.020	0.035	0.044

Note: The table reports the Tobit estimates with standard errors in parentheses. The dependent variable trust is measured on the basis of the fraction of the endowment sent by the trustor to the trustee in the trust game. The neutral treatment is the reference group. All independent variables are binary, except for age, which is a continuous variable. University education includes those who answered that they have a university bachelor's degree, a graduate or professional degree, or some university but no degree. For the variable income, the omitted category is £500–749. For the variable political party, the omitted category is labor. For the variables sick with COVID-19, family sick with COVID-19, and at risk of COVID-19, the omitted category is no. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C2. Regressions on trustworthiness beliefs (OLS)

Trustworthiness beliefs	(1)	(2)	(3)	(4)
Uncooperative narrative	-0.043	-0.050	-0.048	-0.040
	(0.031)	(0.031)	(0.032)	(0.032)
Cooperative narrative	-0.031	-0.037	-0.036	-0.032
	(0.030)	(0.031)	(0.031)	(0.031)
COVID-19 salience	-0.047	-0.055*	-0.050	-0.044
	(0.030)	(0.031)	(0.032)	(0.032)
Age		0.001	0.001	0.000
		(0.001)	(0.001)	(0.001)
Female gender		-0.006	-0.000	-0.004
		(0.022)	(0.023)	(0.023)
University education		0.004	0.006	0.006
		(0.025)	(0.025)	(0.025)
Income: £500–749		-0.006	-0.008	-0.016
		(0.037)	(0.037)	(0.038)
Income: £750–999		0.001	-0.004	-0.008
		(0.041)	(0.042)	(0.042)
Income: £1000–1249		0.026	0.025	0.025
		(0.041)	(0.041)	(0.041)
Income: £1250–1499		0.009	0.005	-0.002
		(0.042)	(0.043)	(0.043)
Income: £1500–1749		0.067	0.064	0.057
		(0.043)	(0.044)	(0.045)
Income: £1750–1999		0.071	0.069	0.057
		(0.051)	(0.052)	(0.052)
Income: >£2000		0.029	0.030	0.021
		(0.038)	(0.038)	(0.039)
Political party: Conservative			0.016	0.015
			(0.034)	(0.034)
Political party: Lib Dem			-0.013	-0.005

			(0.042)	(0.042)
Political party: Green			0.049	0.053
			(0.038)	(0.038)
Political party: Scottish			-0.057	-0.056
			(0.058)	(0.058)
Political party: Reform UK			0.052	0.055
			(0.081)	(0.081)
Political party: Other			-0.034	-0.040
			(0.091)	(0.092)
Political party: None			-0.028	-0.028
			(0.032)	(0.032)
Sick with COVID-19				0.039
				(0.058)
Family sick with COVID-19				-0.069**
				(0.033)
At risk of COVID-19: Yes				0.008
				(0.031)
At risk of COVID-19: Do not know				-0.011
				(0.047)
Constant	0.444***	0.409***	0.407***	0.419***
	(0.022)	(0.048)	(0.050)	(0.050)
Observations	391	391	391	391
R-squared	0.008	0.023	0.037	0.049

Note: The table reports the OLS estimates with standard errors in parentheses. The dependent variable trustworthiness beliefs is constructed using the responses by the trustors to the incentivized question “How much do you expect to receive from player 2?”, which are expressed as the fraction of the amount sent by the trustors to the trustees. The belief elicitation procedure includes only the trustors who sent a non-zero amount to the trustees. The neutral treatment is the reference group. All independent variables are binary, except for age, which is a continuous variable. University education includes those who answered that they have a university bachelor’s degree, a graduate or professional degree, or some university but no degree. For the variable income, the omitted category is £500–749. For the variable political party, the omitted category is labor. For the variables sick with COVID-19, family sick with COVID-19, and at risk of COVID-19, the omitted category is no. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C3. Regressions on social trust (Probit)

Social trust	(1)	(2)	(3)	(4)
Uncooperative narrative	-0.018	-0.056	-0.068	-0.055
	(0.067)	(0.066)	(0.065)	(0.065)
Cooperative narrative	0.061	0.042	0.056	0.061
	(0.067)	(0.066)	(0.064)	(0.064)
COVID-19 salience	-0.000	-0.040	-0.018	-0.017
	(0.067)	(0.066)	(0.066)	(0.066)
Age		0.006***	0.007***	0.007***
		(0.002)	(0.002)	(0.002)
Female gender		-0.056	-0.066	-0.062
		(0.047)	(0.047)	(0.047)
University education		0.012	-0.015	-0.018
		(0.052)	(0.052)	(0.052)
Income: £500–749		0.089	0.081	0.053
		(0.078)	(0.078)	(0.078)
Income: £750–999		-0.015	-0.028	-0.020
		(0.091)	(0.090)	(0.090)
Income: £1000–1249		-0.061	-0.043	-0.052
		(0.085)	(0.084)	(0.084)
Income: £1250–1499		0.128	0.118	0.094
		(0.091)	(0.090)	(0.090)

Income: £1500–1749	0.020 (0.094)	0.012 (0.092)	–0.007 (0.092)
Income: £1750–1999	0.245** (0.100)	0.233** (0.101)	0.209** (0.103)
Income: >£2000	0.136* (0.080)	0.150* (0.079)	0.132* (0.079)
Political party: Conservative		–0.089 (0.069)	–0.081 (0.069)
Political party: Lib Dem		0.025 (0.088)	0.024 (0.088)
Political party: Green		0.059 (0.080)	0.058 (0.080)
Political party: Scottish		0.039 (0.116)	0.031 (0.116)
Political party: Reform UK		–0.174 (0.169)	–0.137 (0.171)
Political party: Other		0.098 (0.182)	0.111 (0.182)
Political party: None		–0.221*** (0.064)	–0.206*** (0.064)
Sick with COVID-19			–0.157 (0.130)
Family sick with COVID-19			–0.014 (0.069)
At risk of COVID-19: Yes			0.005 (0.066)
At risk of COVID-19: Do not know			–0.200** (0.097)

Observations	435	435	435	435
Pseudo R-squared	0.003	0.047	0.075	0.086

Note: The table reports the average marginal effect from the Probit regression with standard errors in parentheses. The binary dependent variable is social trust, measured using the responses to the following survey question: “Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?” Social trust equals 1 if the answer is “most people can be trusted” and equals 0 if the answer is “one can’t be too careful.” The neutral treatment is the reference group. All independent variables are binary, except for age, which is a continuous variable. University education includes those who answered that they have a university bachelor’s degree, a graduate or professional degree, or some university but no degree. For the variable income, the omitted category is £500–749. For the variable political party, the omitted category is labor. For the variables sick with COVID-19, family sick with COVID-19, and at risk of COVID-19, the omitted category is no. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C4. Regressions on trust in the government (OLS)

Trust in the government	(1)	(2)	(3)	(4)
Uncooperative narrative	0.523 (0.343)	0.402 (0.347)	0.291 (0.319)	0.352 (0.323)
Cooperative narrative	0.471 (0.344)	0.403 (0.346)	0.524* (0.318)	0.581* (0.320)
COVID-19 salience	0.569* (0.343)	0.431 (0.349)	0.289 (0.324)	0.356 (0.326)
Age		0.017* (0.010)	0.004 (0.009)	0.002 (0.010)
Female gender		–0.186 (0.246)	–0.035 (0.230)	–0.033 (0.230)
University education		–0.334 (0.273)	–0.153 (0.254)	–0.161 (0.255)
Income: £500–749		0.143	–0.137	–0.140

		(0.404)	(0.373)	(0.379)
Income: £750–999		0.261	–0.010	0.003
		(0.467)	(0.429)	(0.431)
Income: £1000–1249		–0.043	–0.353	–0.325
		(0.441)	(0.405)	(0.407)
Income: £1250–1499		0.658	0.461	0.468
		(0.483)	(0.443)	(0.446)
Income: £1500–1749		0.833*	0.512	0.572
		(0.478)	(0.441)	(0.448)
Income: £1750–1999		0.667	0.531	0.471
		(0.566)	(0.520)	(0.526)
Income: >£2000		0.806*	0.632	0.616
		(0.417)	(0.384)	(0.387)
Political party: Conservative			2.731***	2.702***
			(0.333)	(0.334)
Political party: Lib Dem			0.190	0.246
			(0.427)	(0.429)
Political party: Green			–0.457	–0.422
			(0.405)	(0.406)
Political party: Scottish			0.004	0.045
			(0.588)	(0.590)
Political party: Reform UK			0.192	0.164
			(0.821)	(0.826)
Political party: Other			0.091	0.169
			(0.976)	(0.983)
Political party: None			–0.269	–0.247
			(0.316)	(0.319)
Sick with COVID-19				–0.076
				(0.620)
Family sick with COVID-19				–0.443
				(0.337)
At risk of COVID-19: Yes				0.283
				(0.321)
At risk of COVID-19: Do not know				0.426
				(0.479)
Constant	2.826***	2.221***	2.343***	2.370***
	(0.243)	(0.537)	(0.510)	(0.515)
Observations	435	435	435	435
R-squared	0.008	0.039	0.211	0.217

Note: The table reports the OLS estimates with standard errors in parentheses. The dependent variable is trust in the government, constructed using the responses to the following question: “On a scale from 0 to 10, how much do you personally trust your country’s government?,” wherein 0 indicates “no trust at all,” and 10 indicates “complete trust.” The neutral treatment is the reference group. All independent variables are binary, except for age, which is a continuous variable. University education includes those who answered that they have a university bachelor’s degree, a graduate or professional degree, or some university but no degree. For the variable income, the omitted category is £500–749. For the variable political party, the omitted category is labor. For the variables sick with COVID-19, family sick with COVID-19, and at risk of COVID-19, the omitted category is no. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.