SI APPENDIX

for

"Transparent Communication About Negative Features of COVID-19 Vaccines Decreases Acceptance but Increases Trust"

Contents

S1. Preregistration for Study 1

[Retrived from https://osf.io/9gr4a]

Study Information

Hypotheses

Hypothesis 1: Compared to vague information, transparent information about a COVID-19 vaccine will increase (a) support for vaccine approval, (b) support for the use of the vaccine, (c) feelings of safety related to vaccine use, (d) satisfaction with the available information and (e) rejection of conspiracy beliefs related to the vaccine. Hypothesis 2: Compared to vague information, even transparent negative information about a COVID-19 vaccine will increase (a) support for vaccine approval, (b) support for the use of the vaccine, (c) feelings of safety related to vaccine use, (d) satisfaction with the available information and (e) rejection of conspiracy beliefs related to the vaccine. Hypothesis 3: The negative effects of exposure to conspiratorial information about a COVID-19 vaccine (referred to as a Conspiracy Induction) on the range of outcomes (per Hypothesis 1) is larger when individuals are also exposed to vague vaccine information compared to (a) transparent vaccine information and (b) transparent negative vaccine information. Hypothesis 4: The positive effects of exposure of health communication that acknowledges public vaccine uncertainty and describes concrete steps taken to decrease this uncertainty (referred to as a Certainty Induction) on the range of outcomes (per Hypothesis 1) is smaller when individuals are also exposed to vague vaccine information compared to (a) transparent vaccine information and (b) transparent negative vaccine information. All hypotheses are directional.

Design Plan

Study type

Experiment - A researcher randomly assigns treatments to study subjects, this includes field or lab experiments. This is also known as an intervention experiment and includes randomized controlled trials.

Blinding

- For studies that involve human subjects, they will not know the treatment group to which they have been assigned.
- Personnel who interact directly with the study subjects (either human or non-human subjects) will not be aware of the assigned treatments. (Commonly known as “double blind”)

Is there any additional blinding in this study?

No response

Study design

The study is fielded as a survey experiment on samples of Danes and Americans, quota-sampled to achieve national representativeness on the dimensions of gender, age, education and geographical location. Post-stratification on the aforementioned variables will be applied. Using a factorial experiment, participants will be randomly assigned to receive different information about a new fictional vaccine against COVID-19, referred to as COVACID. To create a judgmental anchor for both the features of COVACID and the transparency of the provided information, COVACID is compared to transparent and factual information about the seasonal vaccine against the common flu. The experiment has a 3*3 full factorial design. The first experimental factor consists of three conditions that describes the effectiveness, the side effects and the duration of tests of COVACID in (a) a transparent but negative manner, (b) a transparent manner or (c) a vague manner. Negative information is defined as information that implies that COVACID is less effective, has more side effects and a shorter test period than a regular vaccine such as the vaccine against the common flu. Vague information is defined as information that does not allow for precise comparisons with regular vaccines such as the vaccine against the common flu. The second experimental factor also consists of three conditions: A control condition without any additional information, the Conspiracy Induction and the Certainty Induction. No deception will be involved in the study and participants will be debriefed subsequently and provided links to the most recent official information about vaccines against both the flu and COVID-19. Attached are the questionnaires.

- DK2020-89136-1_Final Questionnaire, Vaccine eksperiment DK OSF.docx
- DK2020-89136-2_Final Questionnaire, Vaccine eksperiment US OSF.docx

Randomization

Participants will be randomly assigned to one condition within each experimental factor.

Sampling Plan

Existing Data

Registration prior to creation of data

Explanation of existing data

NA

Data collection procedures

Data collection will be handled by YouGov Denmark and fielded using the web panels of the company in Denmark and the United States. Participants will be quota-sampled to achieve nationally representativeness of each population on the dimensions of gender, age, education and geographical location. Participants will be paid according to the participants' agreement with YouGov and payments will be completely handled by YouGov.

No files selected

Sample size

The sample size for each country will be 3400 and, hence, the total sample size will be 6800.

Sample size rationale

All key tests of the hypotheses will use data that combine the two national samples. Hypothesis 1 and Hypothesis 2 entail comparisons between two experimental groups of size 2266, yielding 90% power to detect a true effect size of Cohen's d >= 0.1. Hypothesis 3 and Hypothesis 4 entail interactions in a 2x2 design with an N of 755 per cell, yielding 90% power to detect a true effect size of Cohen's d>= .12. In other words, the experiment has 90% power if the difference between the effect sizes of the Conspiracy and Certainty Inductions under the different information treatments exceed 0.24. While the time sensitive nature of this study means that pilot data is not available, this difference is not only viewed as realistic but is also viewed as a lower bar for the practical utility of the findings.

Stopping rule

NA

Variables

Manipulated variables

From the experiment the following manipulated variables will be created: (1) Vague information: For each participant, this dichotomous variable will take the values of 1 or 0 depending on whether the participant was exposed to vague information or not in the first set of the experimental treatments. (2) Transparent information: For each participant, this dichotomous variable will take the values of 1 or 0 depending on whether the participant was exposed to transparent information or not in the first set of the experimental treatments. (3) Transparent negative information: For each participant, this dichotomous variable will take the values of 1 or 0 depending on whether the participant was exposed to transparent negative information or not in the first set of the experimental treatments. (4) Control condition: For each participant, this variable will take the values of 1 or 0 depending on whether the participant is exposed no induction or any induction in the second set of the experimental treatments. (5) Certainty induction: For each participant, this variable will take the values of 1 or 0 depending on whether the participant is exposed the Certainty induction or not in the second set of the experimental treatments. (6) Conspiracy induction: For each participant, this variable will take the values of 1 or 0 depending on whether the participant is exposed the Conspiracy induction or no induction in the second set of the experimental treatments.

No files selected

Measured variables

The study includes five outcome variables: (1) Support for vaccine approval: Measured with outcome items 1 and 2 (per the questionnaire). (2) Support for the use of the vaccine: Measured with outcome items 3-6. (3) Feelings of safety related to vaccine use: Measured with outcome items 7 and 8. (4) Satisfaction with the available information: Measured with outcome items 9 and 10. (5) Conspiracy beliefs related to the vaccine: Measured with outcome items 11 and 12. The study includes two manipulation checks: (1) Perceptions of the negativity of the description of the

COVACID vaccine: Measured with check item 1; and (2) perceptions of the clarity of the description of the COVACID vaccine: Measured with check item 2. The study includes one attention check: (1) A variable of respondent attention will be measured using check items 3-5. It will vary between 0 and 3 and will reflect the number of correct answers about the COVACID description. Finally, the study includes four individual difference measures for exploratory analyses: (1) A scale of the Need for Cognitive Closure, a major psychological predictor of conspiracy beliefs (Marchlewska et al., 2018; scale from Webster & Kruglanski, 1994); (2) a scale of political cynicism, a major political predictor of conspiracy beliefs (Swami et al., 2010; scale from Dekker & Meijerink, 2012); (3) a scale of perceived symbolic and realistic threats from the COVID-19 pandemic (scale from Kachanoff et al., 2020); and (4) a measure of political ideology. In addition, the study includes the following demographic variables: Gender, age, education, geographical location and vote choice in last parliamentary election. References • Dekker, H., & Meijerink, F. (2012). Political cynicism: Conceptualization, operationalization, and explanation. Politics, Culture and Socialization, 3(1-2), 33-48. • Kachanoff, F., Bigman, Y. E., Kapsaskis, K., & Gray, K. (2020). Realistic and Symbolic Threats of COVID-19. PsyArxiv. • Marchlewska, M., Cichocka, A., & Kossowska, M. (2018). Addicted to answers: Need for cognitive closure and the endorsement of conspiracy beliefs. European Journal of Social Psychology, 48(2), 109-117. • Swami, V., Chamorro-Premuzic, T., & Furnham, A. (2010). Unanswered questions: A preliminary investigation of personality and individual difference predictors of 9/11 conspiracist beliefs. Applied Cognitive Psychology, 24(6), 749-761. • Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. Journal of personality and social psychology, 67(6), 1049.

No files selected

Indices

Except for the attention check, all observed variables that are composed of more than one items will be computed by averaging the answers to the specified items. All indices are reflective indices and, hence, items will be reverse coded before averaging to ensure that all items correlate positively. Items where the average inter-item correlation is below .20 will be analyzed separately.

No files selected

Analysis Plan

Statistical models

All hypotheses will be tested using OLS regression. To assess the success of the experimental manipulations, we regress, first, perceived negativity of the description on transparent negative information measure and, second, perceived clarity of the description on vague information measure. For both manipulation checks, we will only analyse responses from the Control condition of the second experimental factor. Hypothesis 1 will be tested by regressing the outcome variables on the transparent information measure, excluding participants with a value of 1 on the transparent negative information measure. Hypothesis 2 will be tested by regressing the outcome variables on the transparent negative information measure, excluding participants with a value of 1 on the transparent information measure. Hypotheses 3a and 3b will be tested by regressing the outcome variables on the two-way interaction between the Conspiracy induction and the vague information

measure, excluding participants with values of 1 on the transparent negative information measure (for H3a) and the transparent information measure (for H3b), respectively. Hypotheses 4a and 4b will be tested by regressing the outcome variables on the two-way interaction between the Certainty induction and the vague information measure, excluding participants with values of 1 on the transparent negative information measure (for H4a) and the transparent information measure (for H4b), respectively.

No files selected

Transformations

Data recodings are described in the "Variables" section.

Inference criteria

P-values will be used as inference criteria. Despite the directional tests, we will be using two-tailed tests to ensure sufficient certainty about the drawn conclusions.

Data exclusion

Respondents that do not provide 2 out of 3 correct answers on the attention check measure will be excluded from the analysis.

Missing data

NA

Exploratory analysis

Additional exploratory analyses using the specified individual difference variables may be reported. Furthermore, we will explore whether we observe differences in the hypothesized effects across the two sampled countries.

Other

Other

We want to note a number of final ethical considerations that have been instrumental for the study design. Overall it is not possible to contribute with scientific knowledge about the causal impact of conspiracy-related rhetoric (and how to buffer against this) without the use of an experimental design, like the present, where participants are exposed to a type of rhetoric that is already circulating in society and on social media. To ensure that such a study is undertaken in an ethical and safe way for participants, we have taken a number of steps: 1. The aim of the study is in line with key democratic values about openness and transparency, which ought not to be politically contested. 2. The study seeks to improve the conditions of the participants and others by providing evidence that will make the less likely targets of misinformation. 3. The study strictly avoids the use of deception: 3.1. The experiment focuses on a fictitious vaccine named COVACID and all

information is specifically oriented towards this fictitious vaccine. The acronym COVACID is not in public use in relation to any of the actual vaccine candidates. 3.2. The participants are being informed in the consent materials that they will be presented with a fictitious vaccine and they are reminded about it again just before the presentation of the information. 3.3. As a comparison case, the study uses a vaccine against the common flu. The information about the flu vaccine are correct. 3.4. The information, also the negative information, about the COVID-vaccine are realistic estimates based on the available public information. 4. The study does not create greater disadvantage to the participants than what they will encounter in their everyday lives. The conspiracy rhetoric is in line with messages that people can encounter on ordinary social media platforms (including, e.g., the comments at the Facebook page of the Danish health authority). In the declaration of consent, the participants are also informed that they can be presented with information that is not consistent with the general advice and arguments from the national health authorities. 5. The participants receive a thorough debriefing. In the debriefing they are reminded that they have been presented with fictitious; they receive an explanation for the study design; they receive counter-information against the conspiracy induction; and they receive a link to the health authorities' own webpage with information about vaccine development. Finally, the participants are prompted to contact the researchers, if they have further questions. 6. The study is preregistered and the collected data will be publicly availble upon release of the preprint.

S2. Preregistration for Study 2

[Retrived from https://osf.io/j4gs6]

Study Information

Hypotheses

Hypotheses 1a-c: Compared to a baseline of no information about the features of a vaccine, transparent information about the features of a COVID-19 vaccine will increase (a) vaccine acceptance, (b) rejection of conspiracy-related statements about the vaccine and (c) general trust in national health authorities irrespective of the content of the transparent information is positive, neutral or negative. Hypotheses 2a-c: Compared to a baseline of no information about the features of a vaccine, vague positive information about a COVID-19 vaccine will decrease (a) vaccination rates, (b) rejection of conspiracy-related statements about the vaccine and (c) general trust in national health authorities whether or not the content of the transparent information is positive, neutral or negative. Hypothesis 3: The effect of transparent relative to vague information is larger among those individuals who hold conspiracy-related beliefs compared to those who do not hold such beliefs. Because Hypothesis 3 involves an interaction, which requires additional statistical power, it directly contrasts transparent and vague information (rather than the baseline of no information). Furthermore, it does not take the content of the transparent information into account. Additional exploratory analyses will be performed that examines both the baseline and the content of the transparent information.

Design Plan

Study type

Experiment - A researcher randomly assigns treatments to study subjects, this includes field or lab experiments. This is also known as an intervention experiment and includes randomized controlled trials.

Blinding

- For studies that involve human subjects, they will not know the treatment group to which they have been assigned.
- Personnel who interact directly with the study subjects (either human or non-human subjects) will not be aware of the assigned treatments. (Commonly known as “double blind”)

Is there any additional blinding in this study?

No response

Study design

Using a factorial experiment, participants will be randomly assigned to receive different information about a new fictional vaccine against COVID-19, referred to as COVACID. To create a judgmental anchor for both the features of COVACID and the transparency of the provided information, COVACID is compared to transparent and factual information about the seasonal vaccine against the common flu. The experiment has five conditions: (1) Control Condition: A control condition without information about the features of COVACID; (2) Transparent Negative: A condition that transparently describe COVACID's features as being worse than the features of vaccines against the common flu; (3) Transparent Neutral: A condition that transparently describe COVACID's features as good as the features of vaccines against the common flu; (4) Transparent Positive: A condition that transparently describe COVACID's features as being better than the features of vaccines against the common flu; (5) Vague: A condition that describes COVACID's feature in vague, positive terms. No deception will be involved in the study and participants will be debriefed subsequently and provided links to the most recent official information about vaccines against both the flu and COVID-19. Attached are the questionnaires.

- DK2021-93815-1 DK_Final Questionnaire, Vaccine follow-up.docx
- DK2021-93815-2 US_Final Questionnaire, Vaccine follow-up.docx

Randomization

Participants will be randomly assigned to one of the five conditions.

Sampling Plan

Existing Data

Registration prior to accessing the data

Explanation of existing data

In the interest of time, the data collection has been initiated by the survey agency. The data collection is not completed and no partial data has been accessed prior to the registration of the research plan.

Data collection procedures

Data collection will be handled by YouGov Denmark and fielded using the web panels of the company in Denmark and the United States. Participants will be quota-sampled to achieve nationally representativeness of each population on the dimensions of gender, age, education and geographical location. Participants will be paid according to the participants' agreement with YouGov and payments will be completely handled by YouGov.

No files selected

Sample size

The sample size for each country will be 3400 and, hence, the total sample size will be 6800.

Sample size rationale

All key tests of the hypotheses will use data that combine the two national samples. We power the study after Hypotheses 1a and 2a as these entails more conservative tests giving that they rely on single dichotomous measures as outcome measures. For these hypotheses, 1,247 individuals per experimental cell would provide us with 80% power to detect a 5 % difference in vaccine acceptance, assuming that the parameter in the control group is 70%. Given recent survey estimates, 70% acceptance seems realistic for the countries in question. Given that the sample size entails 1,380 per experimental cell, the study thus has more than 80% power for this key hypothesis. The expectation is that power is higher for Hypotheses 1b-c and 2b-c because of better measurement properties of the outcome measures for these hypotheses. Hypothesis 3 entails an interaction between a continuous variable and a dichotomous variable with an N of 1,360 in one category and an N of 4,080 in the other category. Simulations indicate that the current sample size yields 80% power to detect an interaction effect of 7.5%, assuming an 5% marginal effect and a median split on the moderator (in other words, the experimental effect decreases from 8.75% among those high in conspiracy beliefs to 1.25% among those low in conspiracy beliefs). This effect size is viewed as a realistic lower bar for the practical utility of the findings. It should be noted that the actual hypothesis test is performed using a continuous variable (rather than the median split), which will yield slightly higher power.

Stopping rule

NA

Variables

Manipulated variables

From the experiment a categorical variable with five categories will be created that measures the experimental condition that the participant was assigned to. In addition, a dichotomous variable, Transparent vs. Vague Information, will be created that measures whether the participant was assigned to either the vague condition (0) or one of the three transparent conditions (1).

No files selected

Measured variables

The study includes three outcome variables that relates to the pre-registered hypotheses: (1) Vaccine acceptance: Following Murphy et al. (2021), this outcome variable is measured with a single item of yes / maybe / no to getting vaccinated with COVACID, which will be recoded into a dichotomous variable of yes (1) vs. maybe / no (0). (2) Endorsements of conspiracies: Measured with three items of agreement with a conspiracy statement regarding COVACID. (3) Truth in health authorities: Measured with two items that tap whether the communication about COVACID increases or decreases trust in the health authorities. The study includes one outcome measure that relates to an exploratory validation analysis: (1) Perceptions of whether the intended conspiracy statement is conspiratorial in nature. The study includes one attention check: (1) Asking people to write a pre-specified word in a text box. The study includes two individual difference measures related to conspiratorial beliefs for pre-registered analyses: (1) A scale of political cynicism

(Dekker & Meijerink, 2012); (2) A scale of conspiratorial mentality (Bruder et al., 2013). The study additional includes two individual difference measures for exploratory analyses: (1) A scale of tolerance for ambiguity (Herman et al., 2010); (2) trust in the government, scientists, journalists and health authorities (Roozenbeek et al., 2020); Finally, the study includes the following demographic variables: Gender, age, education, geographical location and vote choice in the last parliamentary election. References Bruder, M., Haffke, P., Neave, N., Nouripanah, N., & Imhoff, R. (2013). Measuring individual differences in generic beliefs in conspiracy theories across cultures: Conspiracy Mentality Questionnaire. Frontiers in psychology, 4, 225. Dekker, H., & Meijerink, F. (2012). Political cynicism: Conceptualization, operationalization, and explanation. Politics, Culture and Socialization, 3(1-2), 33-48. Herman, J. L., Stevens, M. J., Bird, A., Mendenhall, M., & Oddou, G. (2010). The tolerance for ambiguity scale: Towards a more refined measure for international management research. International Journal of Intercultural Relations, 34(1), 58-65. Murphy, J., Vallières, F., Bentall, R. P., Shevlin, M., McBride, O., Hartman, T. K., ... & Hyland, P. (2021). Psychological characteristics associated with COVID-19 vaccine hesitancy and resistance in Ireland and the United Kingdom. Nature communications, 12(1), 1-15. Roozenbeek, J., Schneider, C. R., Dryhurst, S., Kerr, J., Freeman, A. L., Recchia, G., ... & Van Der Linden, S. (2020). Susceptibility to misinformation about COVID-19 around the world. Royal Society open science, 7(10), 201199.

No files selected

Indices

All observed variables that are composed of more than one items will be computed by averaging the answers to the specified items. All indices are reflective indices and, hence, some items will be reversed before averaging to ensure that all items correlate positively. Alpha values will be reported for each scale. Items where the average inter-item correlation is below .20 will be analyzed separately. All indices will be recoded to continuously vary between 0 and 1.

No files selected

Analysis Plan

Statistical models

To test H1a-c and H2a-c, we will use OLS regression models to regress (1) the dichotomous measure of vaccine acceptance, (2) the measure of conspiracy endorsement and (3) the measure of general trust in health authorities, respectively, on the experimental conditions. The control condition will be used as the reference category to assess the experimental effects of each of the four experimental conditions. To test H3, we will use an OLS model to regress the dichotomous measure of vaccine acceptance on the experimental measure of Transparent vs. Vague Information, an individual difference measure of conspiracy beliefs and the interaction between the experimental and the individual difference measures. We will test H3 using both the scale of political cynicism and the scale of conspiratorial mentality.

No files selected

Transformations

Data recodings are described in the "Variables" and "Indices" section.

Inference criteria

P-values will be used as inference criteria. Despite the directional tests, we will be using two-tailed tests to ensure sufficient certainty about the drawn conclusions.

Data exclusion

The key hypothesis tests will be based on all observed respondents. However, the hypothesis tests will be repeated while excluding respondents who fail the attention check.

Missing data

NA

Exploratory analysis

We will explore whether we observe differences in the hypothesized effects across the two sampled countries. We will explore whether tolerance for ambiguity predicts vaccine acceptance in the two countries. We will explore how the associations between vaccine acceptance and trust in government compares to trust in scientists, journalists and health authorities. We will assess the extent to which the conspiratorial statement is perceived as conspiratorial in nature. We will replicate the test of H3 using a logistic regression model to take into account the binary nature of the dependent variable. This is not necessary for H1 as the categorical nature of the independent variable implies that the logit and OLS model are equivalent.

Other

Other

No response

S3. Wording of Experimental Conditions for Study 1

Intro Text

Imagine that the US health authorities approve a new vaccine against COVID-19 next year. We will call the vaccine COVACID. To help you assess the new COVACID vaccine it will be compared to one of the most commonly used vaccines: the vaccine against the common flu. Every year, almost 50 % of all Americans receives a flu vaccine.

First Experimental Factor

Transparent Negative Condition	**Vague Condition**	**Transparent Neutral Condition**
1. Protection: A flu vaccine protects about 70 out of 100 who receive the vaccine. It protects young and healthy people better than older and vulnerable people. COVACID offers less protection against COVID-19. This means that 50 out of 100 obtain effective protection. 2. Side effects: The side effects of a flu vaccine are mainly mild or moderate. The most common side effects are soreness of the injection site. Less common side effects are discomfort, fever and muscle pain, which normally disappear within 1-2 days without treatment. Serious side effects like respiratory problems are rare and may happen to 1 out of 10,000. COVACID implies a greater risk of side effects. This means that 1 out of 1,000 may experience serious side effects such as respiratory problems.	1. Protection: A flu vaccine protects about 70 out of 100 who receive the vaccine. It protects young and healthy people better than older and vulnerable people. COVACID offers the same level of protection against COVID-19. This means that 70 out of 100 obtain effective protection. 2. Side effects: The side effects of a flu vaccine are mainly mild or moderate. The most common side effects are soreness of the injection site. Less common side effects are discomfort, fever and muscle pain, which normally disappear within 1-2 days without treatment. Serious side effects like respiratory problems are rare and may happen to 1 out of 10,000. COVACID implies the same risk of side effects. This means that, for example, 1 out of 10,000 may experience serious side effects such as respiratory problems.	1. Protection: A flu vaccine protects about 70 out of 100 who receive the vaccine. It protects young and healthy people better than older and vulnerable people. The health authorities have not disclosed exact information about how effective the COVACID vaccine is, but they state that it is sufficiently effective. 2. Side effects: The side effects of a flu vaccine are mainly mild or moderate. The most common side effects are soreness of the injection site. Less common side effects are discomfort, fever and muscle pain, which normally disappear within 1-2 days without treatment. Serious side effects like respiratory problems are rare and may happen to 1 out of 10,000. The health authorities have not issued information on the exact side effects of COVACID but note that the side effects are considered acceptable. 3. Test period: Vaccines are normally tested over an extended period in order to reveal both short- and long-term side effects. New vaccines are normally tested

3. Test period: Vaccines are normally tested over an extended period in order to reveal both short- and long-term side effects. New vaccines are normally tested for one year or more before being approved. COVACID has been tested for a shorter period. Therefore, only side effects up to six months are known.	3. Test period: Vaccines are normally tested over an extended period in order to reveal both short- and long-term side effects. New vaccines are normally tested for one year or more before being approved. COVACID has undergone a normal test period. Therefore, side effects up to one year are known.	for one year or more before being approved. The health authorities have not disclosed the exact degree to which long-term side-effects are known but note that the temporal perspective is adequate.

Second Experimental Factor

Control Induction	Certainty Induction	Conspiracy Induction
[No text]	4. Vaccine trial certainty: To obtain an exact image of the side effects of a vaccine, vaccines are tested on a large group of people before being approved. Flu vaccines are normally tested on 5,000 people. It is normal that people will be unsure about a new and quickly developed vaccine. COVACID has therefore been tested on 50,000 people, or 10 times as many as normally. This is done to obtain a very precise image of the vaccine despite the conditions during the pandemic.	After approval of COVACID, there has been considerable public debate about the vaccine and the transparency of the authorities' information. On social media people have argued, among other things, that "the authorities attempt to force a vaccine on us and hide all relevant facts about it. They lie about all its side effects to stimulate the economy. Once again, the power-greedy elite demonstrates its complete disregard for ordinary Americans' health and safety."

S4. Measures for Study 1

Vaccine Support

Based on the description of COVACID on the previous screen, to what extent do you agree with the following statements? We know that it may be difficult to answer the questions based on the description and we therefore ask you to simply answer the first answer that comes to mind.

1. I support the health authorities' approval of COVACID.
2. I do not think COVACID should have been approved.
3. I would encourage health staff to get vaccinated against COVID-19.
4. I would encourage people who are particularly vulnerable to COVID-19 to get vaccinated with COVACID.
5. I would encourage close relatives to get vaccinated.
6. I would get vaccinated with COVACID if my GP recommended it.
7. I think most people would feel safe getting a COVACID vaccine.
8. I would not feel safe getting a COVACID vaccine.
9. I would need to get more information on COVACID before deciding whether to get vaccinated.
10. I feel well informed about COVACID.
11. I feel that the authorities are withholding important information about COVACID.
12. I think the authorities are lying about COVACID.

Response scales are seven-point scales with the following anchors: "Strongly disagree" (1), "Neither disagree nor agree" (4), "Strongly agree" (7).

For the preregistered variables, items 1+2 underlie Approval, items 3-6 underlie Use, items 7+8 underlie Safety, items 9+10 underlie Information and items 11+12 underlie Conspiracies. Items are reversed as appropriate.

Manipulation checks

How much do you disagree or agree with the following statements?

1. The description of the COVACID vaccine was more negative than the description of a regular flu vaccine.
2. The description of the COVACID vaccine was more vague than the description of the regular flu vaccine.

Response scales are seven-point scales with the following anchors: "Strongly disagree" (1), "Neither disagree nor agree" (4), "Strongly agree" (7).

Attention checks

How many achieved effective protection against COVID-19 with the COVACID vaccine?

1. 50 out of 100
2. 70 out of 100

3. 90 out of 100
4. Don’t know / don’t remember

How many experienced serious side effects of the COVACID vaccine?

1. 1 out of 1000
2. 1 out of 10,000
3. 1 out of 100,000
4. Don’t know / don’t remember

How long was the test period for the COVACID vaccine?

1. Six months
2. One year
3. Eighteen months
4. Don’t know / don’t remember

S5. Wording of Experimental Conditions for Study 2

Control Condition

Imagine that the US health authorities approve a new vaccine against COVID-19. We will call the vaccine COVACID. COVACID has been approved on the basis of the ability to protect against coronavirus, the level of side effects and the length of the period in which it has been tested.

Negative Transparent Condition

Imagine that the US health authorities approve a new vaccine against COVID-19. We will call the vaccine COVACID. COVACID has been approved on the basis of the ability to protect against coronavirus, the level of side effects and the length of the period in which it has been tested.

To help you assess the new COVACID vaccine it will be compared to one of the most commonly used vaccines: the vaccine against the common flu. Every year, almost 50 % of all Americans receives a flu vaccine.

1. Protection: A flu vaccine protects about 70 out of 100 who receive the vaccine. It protects young and healthy people better than older and vulnerable people.

COVACID offers less protection against COVID-19. This means that 50 out of 100 obtain effective protection.

2. Side effects: The side effects of a flu vaccine are mainly mild or moderate. The most common side effects are soreness of the injection site. Less common side effects are discomfort, fever and muscle pain, which normally disappear within 1-2 days without treatment. Serious side effects like respiratory problems are rare and may happen to 1 out of 10,000.

COVACID implies a greater risk of side effects. This means that 1 out of 1,000 may experience serious side effects such as respiratory problems.

3. Test period: Vaccines are normally tested over an extended period in order to reveal both short- and long-term side effects. New vaccines are normally tested for one year or more before being approved.

COVACID has been tested for a shorter period. Therefore, only side effects up to six months are known.

Neutral Transparent Condition

Imagine that the US health authorities approve a new vaccine against COVID-19. We will call the vaccine COVACID. COVACID has been approved on the basis of the ability to protect against coronavirus, the level of side effects and the length of the period in which it has been tested.

To help you assess the new COVACID vaccine it will be compared to one of the most commonly used vaccines: the vaccine against the common flu. Every year, almost 50 % of all Americans receives a flu vaccine.

1. Protection: A flu vaccine protects about 70 out of 100 who receive the vaccine. It protects young and healthy people better than older and vulnerable people.

COVACID offers the same level of protection against COVID-19. This means that 70 out of 100 obtain effective protection.

2. Side effects: The side effects of a flu vaccine are mainly mild or moderate. The most common side effects are soreness of the injection site. Less common side effects are discomfort, fever and muscle pain, which normally disappear within 1-2 days without treatment. Serious side effects like respiratory problems are rare and may happen to 1 out of 10,000.

COVACID implies the same risk of side effects. This means that, for example, 1 out of 10,000 may experience serious side effects such as respiratory problems.

3. Test period: Vaccines are normally tested over an extended period in order to reveal both short- and long-term side effects. New vaccines are normally tested for one year or more before being approved.

COVACID has undergone a normal test period. Therefore, side effects up to one year are known.

Positive Transparent Condition

Imagine that the US health authorities approve a new vaccine against COVID-19. We will call the vaccine COVACID. COVACID has been approved on the basis of the ability to protect against coronavirus, the level of side effects and the length of the period in which it has been tested.

To help you assess the new COVACID vaccine it will be compared to one of the most commonly used vaccines: the vaccine against the common flu. Every year, almost 50 % of all Americans receives a flu vaccine.

1. Protection: A flu vaccine protects about 70 out of 100 who receive the vaccine. It protects young and healthy people better than older and vulnerable people.

COVACID offers a better level of protection against COVID-19. This means that 90 out of 100 obtain effective protection.

2. Side effects: The side effects of a flu vaccine are mainly mild or moderate. The most common side effects are soreness of the injection site. Less common side effects are discomfort, fever and muscle pain, which normally disappear within 1-2 days without treatment. Serious side effects like respiratory problems are rare and may happen to 1 out of 10,000.

COVACID implies a lower risk of side effects. This means that, for example, 1 out of 100,000 may experience serious side effects such as respiratory problems.

3. Test period: Vaccines are normally tested over an extended period in order to reveal both short- and long-term side effects. New vaccines are normally tested for one year or more before being approved.

COVACID has undergone an extended test period. Therefore, side effects up to one and a half year are known.

Vague Condition

Imagine that the US health authorities approve a new vaccine against COVID-19. We will call the vaccine COVACID. COVACID has been approved on the basis of the ability to protect against coronavirus, the level of side effects and the length of the period in which it has been tested.

To help you assess the new COVACID vaccine it will be compared to one of the most commonly used vaccines: the vaccine against the common flu. Every year, almost 50 % of all Americans receives a flu vaccine.

1. Protection: A flu vaccine protects about 70 out of 100 who receive the vaccine. It protects young and healthy people better than older and vulnerable people.

The health authorities have not disclosed exact information about how effective the COVACID vaccine is, but they state that it is sufficiently effective.

2. Side effects: The side effects of a flu vaccine are mainly mild or moderate. The most common side effects are soreness of the injection site. Less common side effects are discomfort, fever and muscle pain, which normally disappear within 1-2 days without treatment. Serious side effects like respiratory problems are rare and may happen to 1 out of 10,000.

The health authorities have not issued information on the exact side effects of COVACID but note that the side effects are considered acceptable.

3. Test period: Vaccines are normally tested over an extended period in order to reveal both short- and long-term side effects. New vaccines are normally tested for one year or more before being approved.

The health authorities have not disclosed the exact degree to which long-term side-effects are known but note that the temporal perspective is adequate.

S6. Measures for Study 2

Vaccine Acceptance

Would you get vaccinated with COVACID if it became available and was recommended for you by your general practitioner? We know that it may be difficult to answer and we therefore ask you to simply answer the first answer that comes to mind.

Response options were Yes / Maybe /No

Endorsement of conspiracy theories

Imagine that after the approval of COVACID there was considerable public debate about the vaccine and the transparency of the authorities' information. On social media people argued, among other things, that "the authorities attempt to force a vaccine on us and hide all relevant facts about it. They lie about all its side effects to stimulate the economy. Once again, the power-greedy elite demonstrates its complete disregard for ordinary Americans' health and safety."

To what extent do you disagree or agree with the following statements, if what you have read about COVACID was the only information you heard from the health authorities about the vaccine?

1. I would sympathize with the frustrations expressed on social media about COVACID.
2. I would feel that such social media comments about COVACID were unwarranted.
3. I too would feel that authorities were hiding important information from me about COVACID.

Response scales are seven-point scales with the following anchors: "Strongly disagree" (1), "Neither disagree nor agree" (4), "Strongly agree" (7).

Trust in health authorities

Imagine that the national health authorities were promoting COVACID, using the exact information you just read about the vaccine. To what extent would you agree with the following statements? We know that it may be difficult to answer and we therefore ask you to simply answer the first answer that comes to mind.

1. My trust in the national health authorities would increase, if they circulated the information I just read.
2. My trust in the national health authorities would decrease, if they circulated the information I just read.

Response scales are seven-point scales with the following anchors: "Strongly disagree" (1), "Neither disagree nor agree" (4), "Strongly agree" (7).

Individual difference measures

In addition to the scales referenced in the main text, we also the following measure of institutional trust, which is an expanded version of a measure used in Roozenbeek et al. (2020):

How much do you trust the following groups and institutions?

1. The national government
2. The national health authorities
3. Scientists
4. Journalists

Response scales are five-point scales with the following anchors: "Not at all " (1), "Very much" (5).

S7. Deviations from Pre-Registered Analyses

Table S1 summarizes the deviations from the pre-registration in Study 1. Section S8 provides the analyses of the pre-registered hypotheses exactly as they were pre-registered (except for the planned data exclusion criterion that cannot be met due to an error). Section S9 provides an overview of which pre-registered hypotheses from Study 1 was supported and which were rejected. Section S11 examines potential issues regarding data exclusion.

There were no deviations from the pre-registration in Study 2.

Table S1. Summary of deviations from pre-registration in Study 1

Preregistration	Deviations from preregistration
Hypotheses	*Deviates from the preregistration* The wording of the hypotheses have not been verbatim copied into the main text of the manuscript but their original meaning have been retained as have the statistical analyses used to test the.
Study Design	*Deviates from the preregistration* The condition referred to as "Transparent Neutral" was referred to as "Transparent" in the pre-registration. We use the label "Transparent Neutral" for consistency with Study 2's labelling.
Outcome variables The study includes five outcome variables: (1) Support for vaccine approval: Measured with outcome items 1 and 2 (per the questionnaire). (2) Support for the use of the vaccine: Measured with outcome items 3-6. (3) Feelings of safety related to vaccine use: Measured with outcome items 7 and 8. (4) Satisfaction with the available information: Measured with outcome items 9 and 10. (5) Conspiracy beliefs related to the vaccine: Measured with outcome items 11 and 12.	*Deviates from the preregistration* An exploratory factor analysis shows that a single latent variable explains 87 % of the total variance. For the sake of simplicity, a summary scale of all 12 indicators is created with a high level of reliability (US: a=.90; DK: a=.92). The appendix provides separate analyses for each of the separate scales.

Attention check The study includes one attention check: (1) A variable of respondent attention will be measured using check items 3-5. It will vary between 0 and 3 and will reflect the number of correct answers about the COVACID description.	*Deviates from the preregistration* The planned inclusion criterion was to only include participants who provided correct answers to two of the three measures. However, by mistake the attention checks did not include the correct options for the "Vague Condition" and, accordingly, we test the predictions on the full sample.
Data exclusion Respondents that do not provide 2 out of 3 correct answers on the attention check measure will be excluded from the analysis.	*Deviates from the preregistration* Due to a mistake it was not possible to exclude participants who failed the attention check (see "Attention check" for explanation).

S8. Pre-Registered Analyses of Predictions from Study 1

In this section, we present analyses of the predictions from Study 1 as close as possible to the pre-registration. The only difference between these analyses and the pre-registration relates to the exclusion criteria, which due to an error (see Section S7) is impossible to implement. As discussed in Section S11, however, the analyses without this exclusion criteria may in any case be viewed as the more correct modelling of the tests. Section S9 summaries the evidence for and against each pre-registered hypothesis. The main difference between the pre-registered tests and the tests presented in the main text is whether or not an omnibus measure or distinct measures are used. As is clear from the summary, however, all tests for each of the distinct measures are completely in line with the tests of the omnibus measure, supporting the use of this measure as an effective way to present the effects of transparent and vague communication.

Table S2. Hypothesis 1

	Approval	**Use**	**Safety**	**Info**	**Conspiracy Beliefs**
Vague Communication	Ref.	Ref.	Ref.	Ref.	Ref.
Transparent Neutral Communication	0.092*** (0.008)	0.072*** (0.008)	0.070*** (0.008)	0.076*** (0.008)	-0.060*** (0.009)
Constant	0.579*** (0.005)	0.611*** (0.006)	0.504*** (0.006)	0.362*** (0.005)	0.470*** (0.006)
Observations	4,577	4,577	4,577	4,577	4,577
R2	0.032	0.017	0.018	0.023	0.011

Notes. Entries are OLS regression coefficients with standard errors in parentheses. All variables are scored between 0 and 1. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table S3. Hypothesis 2

	Approval	Use	Safety	Info	Conspiracy Beliefs
Vague Communication	Ref.	Ref.	Ref.	Ref.	Ref.
Transparent Negative Communication	-0.035*** (0.008)	-0.031*** (0.008)	-0.029*** (0.008)	-0.003 (0.007)	-0.005 (0.009)
Constant	0.579*** (0.005)	0.611*** (0.006)	0.504*** (0.006)	0.362*** (0.005)	0.470*** (0.006)
Observations	4,566	4,566	4,566	4,566	4,566
R2	0.005	0.003	0.003	0.000	0.000

Notes. Entries are OLS regression coefficients with standard errors in parentheses. All variables are scored between 0 and 1. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table S4. Hypothesis 3a

	Approval	Use	Safety	Info	Conspiracy Beliefs
Vague Communication	Ref.	Ref.	Ref.	Ref.	Ref.
Transparent Neutral Communication	0.095*** (0.009)	0.070*** (0.010)	0.071*** (0.009)	0.075*** (0.009)	-0.057*** (0.011)
Control Induction	Ref.	Ref.	Ref.	Ref.	Ref.
Conspiracy Induction	-0.028* (0.011)	-0.026* (0.013)	-0.017 (0.012)	-0.016 (0.011)	0.034** (0.013)
Transparent Neutral × Conspiracy Induction	-0.008 (0.017)	0.007 (0.018)	-0.005 (0.017)	0.003 (0.016)	-0.009 (0.019)
Constant	0.588*** (0.007)	0.620*** (0.007)	0.510*** (0.007)	0.367*** (0.007)	0.459*** (0.008)
Observations	4,577	4,577	4,577	4,577	4,577
R2	0.036	0.019	0.019	0.024	0.013

Notes. Entries are OLS regression coefficients with standard errors in parentheses. All variables are scored between 0 and 1. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table S5. Hypothesis 3b

	Approval	Use	Safety	Info	Conspiracy Beliefs
Vague Communication	Ref.	Ref.	Ref.	Ref.	Ref.
Transparent Negative Communication	-0.042*** (0.010)	-0.036*** (0.010)	-0.035*** (0.010)	-0.005 (0.009)	0.009 (0.011)
Control Induction	Ref.	Ref.	Ref.	Ref.	Ref.
Conspiracy Induction	-0.028* (0.011)	-0.026* (0.013)	-0.017 (0.012)	-0.016 (0.011)	0.034** (0.013)
Transparent Negative × Conspiracy Induction	0.024 (0.016)	0.017 (0.018)	0.018 (0.016)	0.006 (0.016)	-0.043* (0.018)
Constant	0.588*** (0.007)	0.620*** (0.007)	0.510*** (0.007)	0.367*** (0.007)	0.459*** (0.008)
Observations	4,566	4,566	4,566	4,566	4,566
R2	0.006	0.004	0.004	0.001	0.002

Notes. Entries are OLS regression coefficients with standard errors in parentheses. All variables are scored between 0 and 1. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table S6. Hypothesis 4a

	Approval	Use	Safety	Info	Conspiracy Beliefs
Vague Communication	Ref.	Ref.	Ref.	Ref.	Ref.
Transparent Neutral Communication	0.099*** (0.010)	0.079*** (0.010)	0.074*** (0.010)	0.080*** (0.009)	-0.064*** (0.011)
Control Induction	Ref.	Ref.	Ref.	Ref.	Ref.
Certainty Induction	0.047*** (0.012)	0.026* (0.012)	0.019 (0.012)	0.022 (0.011)	-0.036** (0.013)
Transparent Neutral × Certainty Induction	-0.021 (0.016)	-0.020 (0.017)	-0.013 (0.016)	-0.012 (0.016)	0.013 (0.018)
Constant	0.563*** (0.007)	0.603*** (0.007)	0.497*** (0.007)	0.355*** (0.007)	0.483*** (0.008)
Observations	4,577	4,577	4,577	4,577	4,577
R2	0.037	0.018	0.019	0.024	0.013

Notes. Entries are OLS regression coefficients with standard errors in parentheses. All variables are scored between 0 and 1. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table S7. Hypothesis 4b

	Approval	Use	Safety	Info	Conspiracy Beliefs
Vague Communication	Ref.	Ref.	Ref.	Ref.	Ref.
Transparent Negative Communication	-0.029** (0.009)	-0.030** (0.010)	-0.027** (0.009)	0.001 (0.009)	-0.015 (0.011)
Control Induction	Ref.	Ref.	Ref.	Ref.	Ref.
Certainty Inducation	0.047*** (0.012)	0.026* (0.012)	0.019 (0.012)	0.022 (0.011)	-0.036** (0.013)
Transparent Negative × Certainty Induction	-0.013 (0.017)	-0.000 (0.018)	-0.004 (0.017)	-0.009 (0.016)	0.028 (0.019)
Constant	0.563*** (0.007)	0.603*** (0.007)	0.497*** (0.007)	0.355*** (0.007)	0.483*** (0.008)
Observations	4,566	4,566	4,566	4,566	4,566
R2	0.010	0.005	0.004	0.001	0.002

Notes. Entries are OLS regression coefficients with standard errors in parentheses. All variables are scored between 0 and 1. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

S9. Summary of Evidence for Pre-Registered Hypotheses in Study 1

Table S8. Empirical Support for Each Hypothesis.

Hypotheses				Supported	Not Supported
Hypothesis 1	Compared to vague information, transparent information about a COVID-19 vaccine will increase…	*…support for vaccine approval.*		X	
		…support for the use of the vaccine.		X	
		…feelings of safety related to vaccine use.		X	
		…satisfaction with the available information.		X	
		…rejection of conspiracy beliefs related to the vaccine.		X	
Hypothesis 2	Compared to vague information, even transparent negative information about a COVID-19 vaccine will increase…	*…support for vaccine approval.*			X
		…support for the use of the vaccine.			X
		…feelings of safety related to vaccine use.			X
		…satisfaction with the available information.			X
		…rejection of conspiracy beliefs related to the vaccine.			X
Hypothesis 3	The negative effects of exposure to conspiratorial information about a	*…support for vaccine approval…*	…is larger when individuals are also exposed to vague vaccine information compared to *transparent vaccine information.*		X

	COVID-19 vaccine (referred to as a Conspiracy Induction) on…		…is larger when individuals are also exposed to vague vaccine information compared to *transparent negative vaccine information.*		X
		… support for the use of the vaccine…	…is larger when individuals are also exposed to vague vaccine information compared to *transparent vaccine information.*		X
			…is larger when individuals are also exposed to vague vaccine information compared to *transparent negative vaccine information.*		X
		… feelings of safety related to vaccine use…	…is larger when individuals are also exposed to vague vaccine information compared to *transparent vaccine information.*		X
			…is larger when individuals are also exposed to vague vaccine information compared to *transparent negative vaccine information.*		X
		…satisfaction with the available information…	…is larger when individuals are also exposed to vague vaccine information compared to *transparent vaccine information.*		X
			…is larger when individuals are also exposed to vague vaccine information compared to *transparent negative vaccine information.*		X
		…rejection of conspiracy beliefs related to the vaccine…	…is larger when individuals are also exposed to vague vaccine information compared to *transparent vaccine information.*		X
			…is larger when individuals are also exposed to vague vaccine information compared to *transparent negative vaccine information.*		X
Hypothesis 4	The positive effects of exposure of health communication that	*…support for vaccine approval…*	…is smaller when individuals are also exposed to vague vaccine information compared to *transparent vaccine information.*		X

	acknowledges public vaccine uncertainty and describes concrete steps taken to decrease this uncertainty (referred to as a Certainty Induction) on…		…is smaller when individuals are also exposed to vague vaccine information compared to *transparent negative vaccine information.*		X
		… support for the use of the vaccine…	…is smaller when individuals are also exposed to vague vaccine information compared to *transparent vaccine information.*		X
			…is smaller when individuals are also exposed to vague vaccine information compared to *transparent negative vaccine information.*		X
		… feelings of safety related to vaccine use…	…is smaller when individuals are also exposed to vague vaccine information compared to *transparent vaccine information.*		X
			…is smaller when individuals are also exposed to vague vaccine information compared to *transparent negative vaccine information.*		X
		…satisfaction with the available information…	…is smaller when individuals are also exposed to vague vaccine information compared to *transparent vaccine information.*		X
			…is smaller when individuals are also exposed to vague vaccine information compared to *transparent negative vaccine information.*		X
		…rejection of conspiracy beliefs related to the vaccine…	…is smaller when individuals are also exposed to vague vaccine information compared to *transparent vaccine information.*		X
			…is smaller when individuals are also exposed to vague vaccine information compared to *transparent negative vaccine information.*		X

S10. Manipulation Checks for Study 1

In Study 1, participants completed two manipulation checks that allow us to assess the success of the first experimental factor, i.e., the manipulation of the descriptions of the COVID-19 vaccine. Specifically, respondents were asked about their degree of agreement with two statements: (1) "The description of the COVACID vaccine was more negative than the description of a regular flu vaccine." and (2) "The description of the COVACID vaccine was more vague than the description of the regular flu vaccine." Consistent with the pre-registered expectations, the Transparent Negative Condition was assessed as significantly more negative than the two other conditions combined ($r=.29$, $p<.001$) and the Vague Condition was assessed as significantly more vague than the two other conditions combined ($r=.22$, $p<.001$). Following the pre-registration these manipulation checks were conducted for respondents in the Control Condition of the second experimental factor.

S11. Data Exclusion in Study 1

As noted in Section S7, the planned inclusion criterion was to only include participants who provided correct answers to two of the three measures. However, by mistake the attention checks did not include the correct options for the "Vague Condition" and, accordingly, we test the predictions on the full sample. However, it is possible to assess how many failed the planned inclusion criteria in the other conditions. This amounts to 13 and 12 percent of the participants in those conditions for the United States and Denmark, respectively. While analyses of the effects of those conditions suggest that exclusion leads to evidence of stronger communication effects (see Table S9), the effects do not change in terms of substance or statistical significance depending on whether these participants are included or not.

For completeness, it should be noted that we, after completion of the study, realized that it in any case is highly debatable whether the type of exclusion criterion in Study 1 is sound. The issue is that it entails conditioning experimental effects on post-treatment variables that may itself by influenced by the experimental condition (because the specific nature of a successful attention check varies across conditions).[1] In Study 2, we therefore opted for (and succesfully implemented) a different attention check which does not vary as a function of treatment. From this perspective, the analyses presented in the main text should most likely be considered more correct, despite the fact that they deviate from the pre-registration in terms of exclusion criteria.

[1] Montgomery, J. M., Nyhan, B., & Torres, M. (2018). How conditioning on posttreatment variables can ruin your experiment and what to do about it. *American Journal of Political Science*, *62*(3), 760-775.

Table S9. Predicted Vaccine Support. Comparing Transparent Negative and Transparent Neutral Information and Inclusion and Exclusion of Respondents with Failed Attention Checks.

	(1)	(2)
	Respondents Excluded	All Included
Transparent Neutral	0.139^{***} (0.008)	0.094^{***} (0.006)
Constant	0.501^{***} (0.006)	0.512^{***} (0.004)
Observations	2920	4583
R^2	0.090	0.047

Notes. Entries are unstandardized regression coefficients from OLS regression analysis with standard errors in parentheses. Baseline condition is "Transparent Negative Information". All variables are scored between 0 and 1. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

S12. Tables Underlying Figures for Study 1

Table S10. Coefficients Underlying Figure 1

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DV	Vaccine Acceptance											
Condition	**Pooled**			**Control**			**Conspiracy**			**Certainty**		
Sample	Comb.	US	DK	Comb.	US	DK	Comb.	US	DK	Comb.	US	DK
Transparent Negative	-0.02**	-0.01	-0.03***	-0.03*	-0.03*	-0.02	-0.01	0.00	-0.03*	-0.03*	-0.01	-0.04*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)
Transparent Neutral	0.07***	0.09***	0.06***	0.08***	0.09***	0.08***	0.08***	0.09***	0.06***	0.06***	0.09***	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.02)	(0.01)
Constant	0.53***	0.47***	0.60***	0.53***	0.47***	0.59***	0.52***	0.45***	0.58***	0.55***	0.48***	0.63***
	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Observations	6863	3436	3427	2284	1140	1144	2293	1146	1147	2286	1150	1136
R^2	0.035	0.047	0.031	0.047	0.062	0.038	0.029	0.040	0.030	0.030	0.041	0.024

Notes. Entries are unstandardized OLS regression coefficients with standard errors in parentheses. The experimental baseline is the Vague Condition. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table S11. Coefficients Underlying Figure 2.

Model	(1)	(2)	(3)
DV	Vaccine Acceptance		
Sample	Combined	US	DK
Cognitive Closure	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)
Political Cynicism	-0.30*** (0.02)	-0.19*** (0.02)	-0.39*** (0.02)
Symbolic Threat	-0.17*** (0.01)	-0.13*** (0.01)	-0.21*** (0.02)
Real Threat	-0.02 (0.01)	-0.02 (0.02)	-0.01 (0.02)
Ideology	-0.03*** (0.01)	-0.03* (0.01)	-0.03* (0.01)
Vote Choice	-0.02** (0.01)	-0.00 (0.01)	-0.02** (0.01)
Female	-0.01* (0.01)	-0.05*** (0.01)	0.03*** (0.01)
Age	0.09*** (0.01)	0.03* (0.01)	0.15*** (0.01)
Education	0.07*** (0.01)	0.08*** (0.01)	0.03* (0.02)

Notes. Entries are unstandardized OLS regression coefficients with standard errors in parentheses. Entries are from seperate regression models. Models from the "Combined" columns controls for country. N= 3,436 for all US analyses, except Vote where N = 2,079. N = 3,427 for all Danish analyses, except Vote where N = 3,004. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

S13. Models Testing Predictions 3 and 4 in Study 1

Tests of Prediction 3 and 4 in Study 1 entails the use of interaction models. We here present these models. As interactive models may (by design) be influenced with multicollinearity, we also present VIF-values. These values are not above critical levels, in particular in light of the interactive nature of the models.

Table S12. Interactive Regression Models Used to Test Predictions 3 and 4 in Study 1

Model	(1)	(2)	(3)	(4)	(5)	(6)	
DV	Vaccine Support (overall)	Approval	Use	Safety	Information	Conspiracies	VIF
Transparent Negative	-0.03* (0.01)	-0.04** (0.01)	-0.04** (0.01)	-0.04** (0.01)	-0.00 (0.01)	0.00 (0.02)	3.98
Transparent Neutral	0.08** (0.01)	0.11*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	-0.06*** (0.02)	4.05
Conspiracy Induction	-0.01 (0.01)	-0.01 (0.01)	-0.02 (0.02)	-0.01 (0.01)	-0.01 (0.01)	0.02 (0.02)	4.06
Certainty Induction	0.02* (0.01)	0.04** (0.01)	0.02 (0.01)	0.01 (0.01)	0.02 (0.01)	-0.03 (0.02)	4.00
Transparent Negative × Conspiracy Induction	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.00 (0.02)	-0.04 (0.02)	3.63
Transparent Negative × Certainty Induction	0.00 (0.02)	-0.00 (0.02)	0.01 (0.02)	0.01 (0.02)	-0.01 (0.02)	0.01 (0.02)	3.43
Transparent Neutral × Conspiracy Induction	-0.01 (0.02)	-0.03 (0.02)	-0.00 (0.02)	-0.02 (0.02)	-0.00 (0.02)	-0.00 (0.02)	3.57
Transparent Neutral × Certainty Induction	-0.02 (0.02)	-0.03 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.01 (0.02)	0.01 (0.02)	3.65
Constant	0.53** (0.01)	0.57*** (0.01)	0.61*** (0.01)	0.50*** (0.01)	0.36*** (0.01)	0.47*** (0.01)	
Observations	6863	6863	6863	6863	6863	6863	
R^2	0.04	0.05	0.03	0.03	0.02	0.01	

Notes. Entries are unstandardized regression coefficients from OLS regression analysis with standard errors in parentheses. Baseline conditions are "Vague Information" and "Control" for the first and second experimental factor, respectively. VIF-values refer to Model 1. All variables are scored between 0 and 1. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

S14. Unweighted Results of Study 1

In Study 1, we pre-registered the use of post-stratification weights and, hence, it is relevant to ask about the size of the raw, unweighted means across countries and conditions. This is shown in Table S13.

In Study 2, we did not pre-register or use post-stratification weights and all results presented in the associated tables are unweighted. The exact means across countries and conditions can accordingly be calculated directly from the regression tables associated with Study 2.

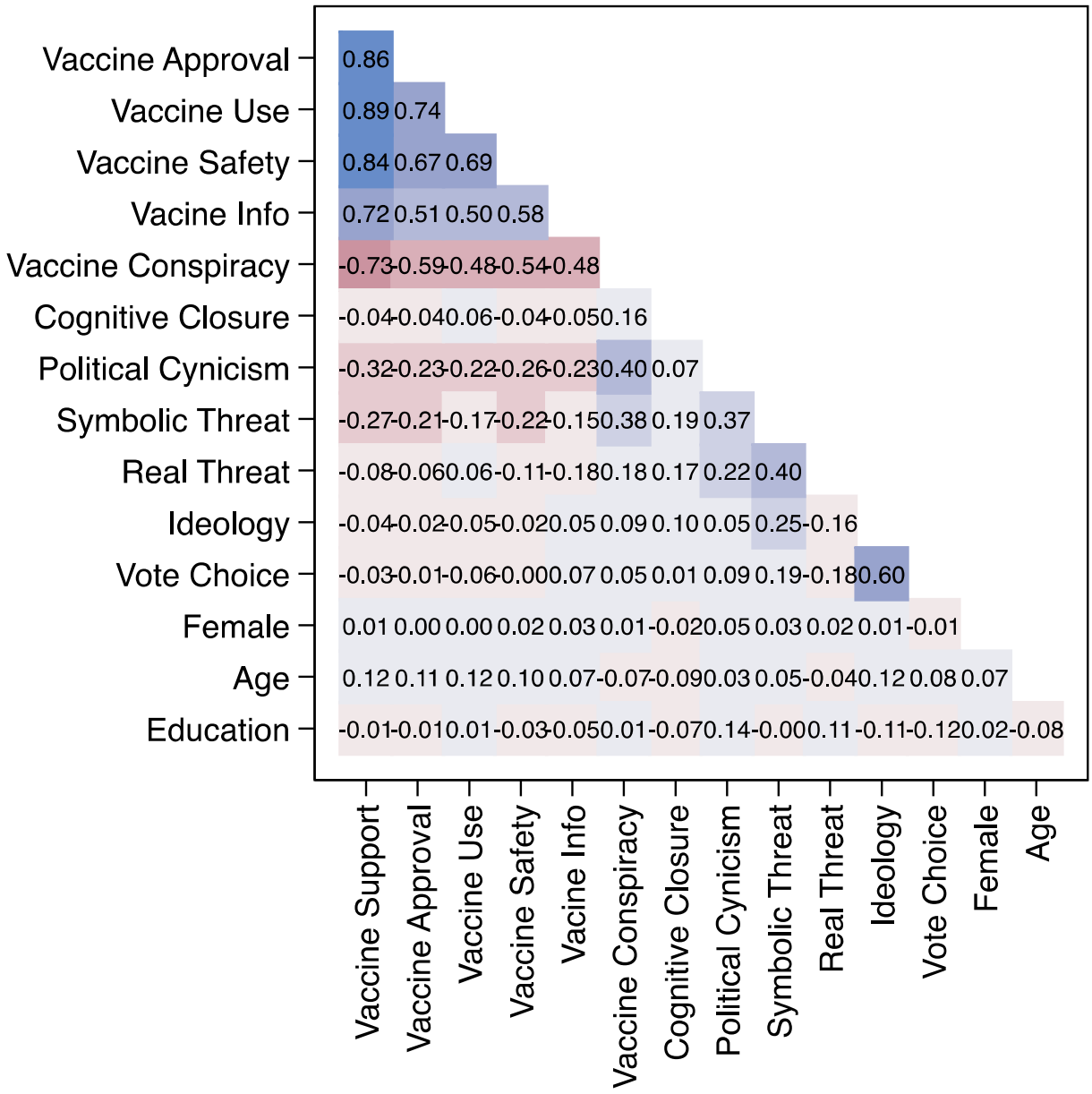
Table S13. Unweight Means Separated by Experimental Condition

	United States			Denmark		
	Control	**Conspiracy**	**Certainty**	**Control**	**Conspiracy**	**Certainty**
Transparent Negative	0.431 [0.412; 0.450]	0.466 [0.445; 0.487]	0.470 [0.450; 0.491]	0.578 [0.558; 0.598]	0.556 [0.536; 0.575]	0.596 [0.574; 0.618]
Vague	0.468 [0.448; 0.489]	0.458 [0.437; 0.478]	0.478 [0.458; 0.499]	0.596 [0.575; 0.617]	0.586 [0.565; 0.608]	0.629 [0.609; 0.649]
Transparent Neutral	0.562 [0.540; 0.585]	0.549 [0.527; 0.570]	0.567 [0.546; 0.559]	0.672 [0.652; 0.692]	0.641 [0.619; 0.663]	0.668 [0.648; 0.687]

Notes. Entries are unweighted means and associated 95 % Confidence Intervals across the two countries.

S15. Bivariate Correlations in Study 1

Figure S1. Bivariate Correlations in Pooled Samples Between Various Codings of Vaccine Support (Pre-Registered and Not) and Individual Differences.



S16. Analyses with Vaccine Acceptance as Outcome Measure in Study 1

Study 2 focuses on how transparent vaccine communication shapes rates of vaccine acceptance. Study 1, in contrast, focuses on an omnibus measure of vaccine support. One item in this omnibus measure, however, captures individual level vaccine acceptance ("To what extent do you agree with the following statement: I would get vaccinated with COVACID if my GP recommended it".). In this section, we therefore reanalyze the findings from Study 1 using a dichotomous measure of vaccine acceptance that captures whether the respondent agreed or not with this item. For the experimental effects, the findings are extremely similar to the findings using the omnibus measure. For the associations between vaccine acceptance and individual differences, differences do emerge as political cynicism is much stronger related to vaccine acceptance in Denmark than in United States. It should be noted that this is not replicated in Study 2 (see Section S19), which demonstrates that vaccine acceptance in both United States and Denmark are significantly associated with cynicism (as well as distrust of multiple actors) in both Denmark and United States. Furthermore, the perception of realistic threat from COVID-19 is, not surprisingly, a better predictor of direct vaccine acceptance compared to overall sentiments towards the vaccine.

Table S14. Effects of Communication on Vaccine Acceptance in Study 1.

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DV	Vaccine Acceptance											
Condition	**Pooled**			**Control**			**Conspiracy**			**Certainty**		
Sample	Comb.	US	DK	Comb.	US	DK	Comb.	US	DK	Comb.	US	DK
Transparent Negative	-0.04*	-0.03	-0.05*	-0.09**	-0.08*	-0.07*	-0.00	-0.03	0.00	-0.02	0.04	-0.06
	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)	(0.04)	(0.03)	(0.04)	(0.04)	(0.03)	(0.04)	(0.04)
Transparent Neutral	0.09***	0.11***	0.06**	0.07**	0.08*	0.06	0.12***	0.14***	0.09**	0.07**	0.11**	0.03
	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)	(0.03)	(0.03)	(0.04)	(0.04)	(0.03)	(0.04)	(0.03)
Constant	0.53***	0.41***	0.64***	0.56***	0.43***	0.67***	0.49***	0.40***	0.58***	0.54***	0.41***	0.66***
	(0.01)	(0.02)	(0.01)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
Observations	6863	3436	3427	2284	1140	1144	2293	1146	1147	2286	1150	1136
R^2	0.011	0.014	0.009	0.017	0.019	0.014	0.012	0.022	0.008	0.006	0.008	0.007

Notes. Entries are unstandardized OLS regression coefficients with standard errors in parentheses. The experimental baseline is the Vague Condition. Vaccine Acceptance is dichotomous, with 1 indicating respondents who answered 5-7 on a scale from 1 "Strongly disagree" to 7 "Strongly agree" to the question: "To what extent do you agree with the following statement: I would get vaccinated with COVACID if my GP recommended it". Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table S15. Associations Between Individual Differences and Vaccine Acceptance in Study 1.

Model	(1)	(2)	(3)
DV	Vaccine Acceptance		
Sample	Combined	United States	Denmark
Cognitive Closure	0.15***	0.18***	0.12*
	(0.04)	(0.05)	(0.05)
Political Cynicism	-0.38***	-0.10	-0.61***
	(0.03)	(0.05)	(0.04)
Symbolic Threat	-0.22***	-0.17***	-0.30***
	(0.02)	(0.03)	(0.04)
Real Threat	0.24***	0.26***	0.20***
	(0.03)	(0.04)	(0.04)
Ideology	-0.14***	-0.18***	-0.07*
	(0.02)	(0.03)	(0.03)
Vote Choice	-0.07***	-0.10***	-0.05**
	(0.01)	(0.02)	(0.02)
Female	-0.04**	-0.11***	0.04*
	(0.01)	(0.02)	(0.02)
Age	0.21***	0.11**	0.32***
	(0.02)	(0.04)	(0.03)
Education	0.16***	0.23***	-0.01
	(0.02)	(0.03)	(0.04)

Notes. Entries are unstandardized OLS regression coefficients with standard errors in parentheses. Entries are from seperate regression models. Models from the "Combined" columns controls for country. Vaccine Acceptance is dichotomous, with 1 indicating respondents who answered 5-7 on a scale from 1 “Strongly disagree” to 7 “Strongly agree” to the question: “To what extent do you agree with the following statement: I would get vaccinated with COVACID if my GP recommended it”. N= 3,436 for all US analyses, except Vote where N = 2,079. N = 3,427 for all Danish analyses, except Vote where N = 3,004. Post-stratification weights are used to increase representativeness. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

S17. Regression Tables for Study 2

Table S16-S19 presents the pre-registered analyses reported in the main text for Study 2 and which form the basis for Figure 2.

Table S16. Tables Underlying Test of Predictions 1a and 2a.

Model	(1)	(2)	(3)
DV	Vaccine Acceptance		
Sample	Combined	United States	Denmark
Negative Transparent	-0.147***	-0.113***	-0.184***
	(0.019)	(0.026)	(0.025)
Neutral Transparent	0.047*	0.039	0.050*
	(0.019)	(0.026)	(0.025)
Positive Transparent	0.067***	0.066*	0.072**
	(0.019)	(0.026)	(0.025)
Vague	-0.093***	-0.074**	-0.110***
	(0.019)	(0.026)	(0.025)
Constant	0.570***	0.439***	0.704***
	(0.013)	(0.018)	(0.017)
Observations	6928	3478	3450
R^2	0.027	0.018	0.043

Notes. Entries are unstandardized OLS regression coefficients with standard errors in parentheses. All variables vary between 0 and 1. The Control Condition is used as the reference category for the experimental effects. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table S17. Tables Underlying Test of Predictions 1b and 2b.

Model	(1)	(2)	(3)
DV	Endorsement of Conspiracies		
Sample	Combined	United States	Denmark
Negative Transparent	0.013	0.022	0.006
	(0.009)	(0.012)	(0.012)
Neutral Transparent	-0.036***	-0.017	-0.053***
	(0.009)	(0.012)	(0.012)
Positive Transparent	-0.040***	-0.021	-0.060***
	(0.009)	(0.012)	(0.013)
Vague	0.036***	0.039**	0.033**
	(0.009)	(0.012)	(0.012)
Constant	0.442***	0.480***	0.402***
	(0.006)	(0.008)	(0.009)
Observations	6928	3478	3450
R^2	0.015	0.010	0.023

Notes. Entries are unstandardized OLS regression coefficients with standard errors in parentheses. All variables vary between 0 and 1. The Control Condition is used as the reference category for the experimental effects. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table S18. Tables Underlying Test of Predictions 1c and 2c.

Model	(1)	(2)	(3)
DV	Trust in Health Authorities		
Sample	Combined	United States	Denmark
Negative Transparent	0.018*(0.009)	-0.000(0.013)	0.035**(0.012)
Neutral Transparent	0.074***(0.009)	0.044***(0.013)	0.102***(0.012)
Positive Transparent	0.067***(0.009)	0.037**(0.012)	0.098***(0.012)
Vague	-0.048***(0.009)	-0.059***(0.012)	-0.035**(0.012)
Constant	0.558***(0.006)	0.543***(0.009)	0.572***(0.008)
Observations	6928	3478	3450
R^2	0.036	0.024	0.055

Notes. Entries are unstandardized OLS regression coefficients with standard errors in parentheses. All variables vary between 0 and 1. The Control Condition is used as the reference category for the experimental effects. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table S19. Tables Underlying Test of Prediction 3.

Model	(1)	(2)	(3)	(4)	(5)	(6)
DV	Vaccine Acceptance					
Sample	Comb.	US	DK	Comb.	US	DK
Transparency	0.066 (0.045)	0.102 (0.082)	0.032 (0.055)	0.170*** (0.045)	0.222** (0.072)	0.121* (0.058)
Political Cynicism	-0.633*** (0.065)	-0.336** (0.107)	-0.595*** (0.093)			
Transparency × Political Cynicism	0.019 (0.075)	-0.055 (0.123)	0.118 (0.107)			
Conspiracy Mentality				-0.465*** (0.063)	-0.282** (0.093)	-0.372*** (0.091)
Transparency × Conspiracy Mentality				-0.165* (0.073)	-0.240* (0.107)	-0.075 (0.105)
Constant	0.832*** (0.039)	0.580*** (0.071)	0.878*** (0.048)	0.747*** (0.039)	0.545*** (0.062)	0.786*** (0.050)
Observations	5520	2769	2751	5520	2769	2751
R^2	0.066	0.022	0.048	0.065	0.040	0.036

Notes. Entries are unstandardized OLS regression coefficients with standard errors in parentheses. All variables vary between 0 and 1. The Vague Condition is used as the reference category for the experimental effect of Transparency, which is a combination of all Transparent conditions. Respondents in the Control Condition are excluded. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

S18. Replicating Pre-registered Analyses Excluding Inattentive Respondents in Study 2

In Study 2, we used a simple attention check that simply asked respondents to write a designated word into a text box. Consistent with the pre-registration, Table S20 presents tests of the pre-registered hypotheses excluding those who failed this attention check. Out of 6928 respondents, 5991 completed the attention check, corresponding to 86 % of the total sample. Among American respondents, this percentage of attention respondents was 89 %. Among Danes, the percentage of attentive respondents was 84 %. The results when only using attentive respondents are equal to the results when the full sample is used.

Table S20. Tests of Pre-registered Hypotheses Excluding Inattentive Respondents.

Model	(1)	(2)	(3)	(4)	(5)
DV	Vaccine Acceptance	Conspiracy Endorsement	Trust in Health Authorities	Vaccine Acceptance	Vaccine Acceptance
Sample	Combined	Combined	Combined	Combined	Combined
Negative Transparent	-0.158*** (0.020)	0.017 (0.010)	0.016 (0.010)		
Neutral Transparent	0.058** (0.020)	-0.040*** (0.010)	0.080*** (0.010)		
Positive Transparent	0.073*** (0.020)	-0.039*** (0.010)	0.070*** (0.010)		
Vague	-0.102*** (0.020)	0.046*** (0.010)	-0.056*** (0.010)		
Transparency				0.098* (0.047)	0.243*** (0.048)
Political Cynicism				-0.638*** (0.068)	
Transparency × Political Cynicism				-0.020 (0.079)	
Conspiracy Mentality					-0.469*** (0.068)
Transparency × Conspiracy Mentality					-0.270*** (0.078)
Constant	0.571*** (0.014)	0.437*** (0.007)	0.562*** (0.007)	0.832*** (0.041)	0.745*** (0.042)
Observations	5991	5991	5991	4800	4800
R^2	0.033	0.019	0.042	0.077	0.083

Notes. Models only include respondents who completed an attention check. Entries are unstandardized OLS regression coefficients with standard errors in parentheses. All variables vary between 0 and 1. In Models 1-3, the Control Condition is used as the reference category for the experimental effects. In Models 4-5, the Vague Condition is used as the reference category for the experimental effect of Transparency, which is a combination of all Transparent conditions. Respondents in the Control Condition are excluded in Models 4-5. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

S19. Correlations Between Outcome Measures and Individual Differences in Study 2

Study 2 included a number of individual difference measures of exploratory analyses. Table S21 shows the bivariate Pearson's correlations between the three outcome measures and this range of individual differences both in United States, Denmark and the combined sample. The intercorrelations demonstrate, consistent with Study 1, that measures of individual differences in the ability to handle uncertainty (here, Tolerance of Ambiguity) have little relation to vaccine attitudes. Furthermore, vaccine attitudes are highly related to political distrust but, consistent with prior work[2], trust in scientists and health authorities are important as well. Hence, vaccine skepticism seems to be driven a general sentiment of distrust of the system of mainstream actors involved in the production of knowledge and regulation.

[2] Roozenbeek, J., Schneider, C. R., Dryhurst, S., Kerr, J., Freeman, A. L., Recchia, G., ... & Van Der Linden, S. (2020). Susceptibility to misinformation about COVID-19 around the world. Royal Society open science, 7(10), 201199.

Table S21. Bivarate Correlations Between Outcome Measures and Individual Differences.

Sample	Individual Difference Measure	Outcome Measure		
		Vaccine Acceptance	Conspiracy Endorsement	Trust in Health Authorities
Combined	Political Cynicism	-0.26***	0.35***	-0.24***
	Conspiracy Mentality	-0.25***	0.45***	-0.22***
	Tolerance of Ambiguity	0.05***	-0.14***	-0.02
	Trust in National Government	0.31***	-0.32***	0.28***
	Trust in National Health Authorities	0.37***	-0.38***	0.34***
	Trust in Scientists	0.34***	-0.312***	0.29***
	Trust in Journalists	0.18***	-0.16***	0.19***
United States	Political Cynicism	-0.14***	0.18***	-0.19***
	Conspiracy Mentality	-0.19***	0.41***	-0.21***
	Tolerance of Ambiguity	-0.01	-0.11***	-0.06***
	Trust in National Government	0.32***	-0.26***	0.30***
	Trust in National Health Authorities	0.38***	-0.35***	0.37***
	Trust in Scientists	0.37***	-0.31***	0.33***
	Trust in Journalists	0.29***	-0.25***	0.26***
Denmark	Political Cynicism	-0.22***	0.41***	-0.23***
	Conspiracy Mentality	-0.19***	0.41***	-0.17***
	Tolerance of Ambiguity	0.01	-0.10***	-0.03
	Trust in National Government	0.20***	-0.31***	0.21***
	Trust in National Health Authorities	0.26***	-0.35***	0.25***
	Trust in Scientists	0.23***	-0.29***	0.21***
	Trust in Journalists	0.06***	-0.06***	0.10***

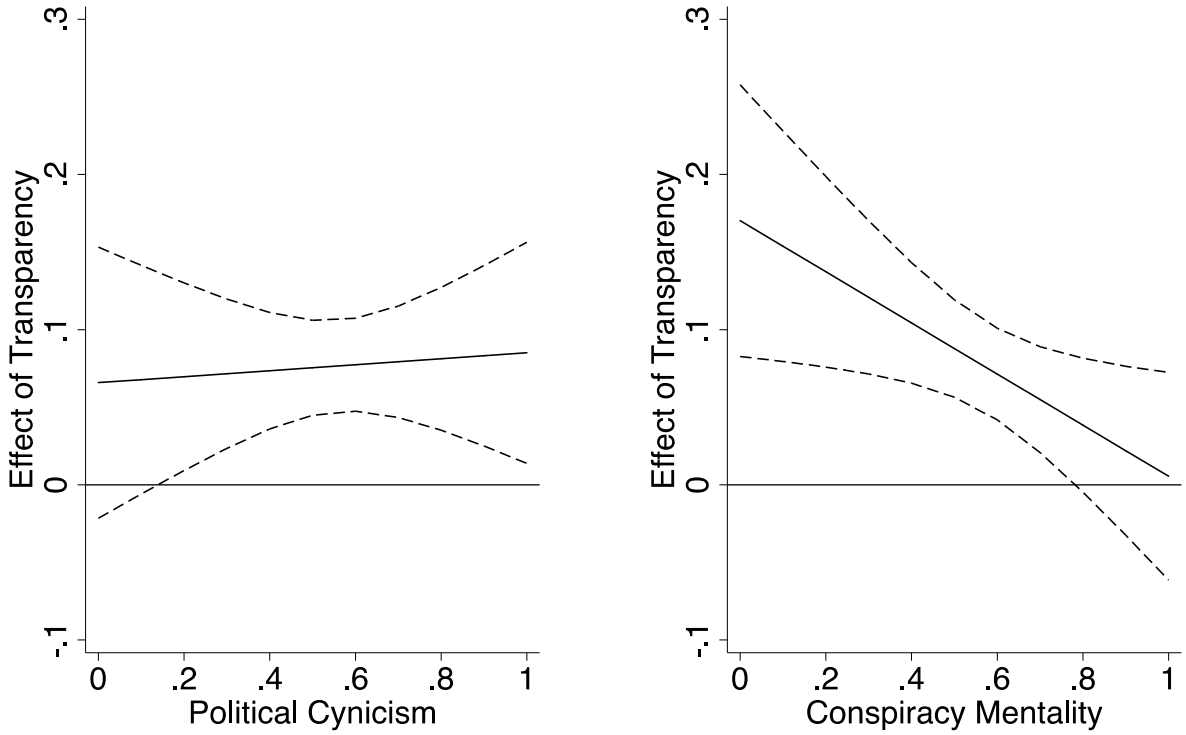
Notes. N = 6928 (Combined) / 3,478 (United States) / 3,450 (Denmark). Entries are bivariate Pearson's correlation coefficients. ***p<.001, **p<.01, *p<.05.

S20. Marginal Effect Plots for Prediction 3 in Study 2

The test of Prediction 3 in Study 3 references two interaction models. Figure S2 plots the associated marginal effect plots.

Figure S2. Marginal Effect Plots for How the Effect of Transparent Communication Varies Across Two Individual Differences.

A. Political Cynicism as Moderator *B. Conspiracy Mentality as Moderator*



Notes. N = 6928. Panels display marginal effects (and associated confidence intervals) of Transparency on Vaccine Acceptance estimated using unstandardized OLS regression coefficients from models with Transparency, the relevant individual difference and the two-way interaction between them as independent variables. All variables vary between 0 and 1. The Vague Condition is used as the reference category for the experimental effect of Transparency, which is a combination of all Transparent conditions. Respondents in the Control Condition in Study 2 are excluded.

S21. Replicating Prediction 3 Using Logistic Regressions

In Study 2, we utilize a dichotomous Vaccine Acceptance outcome measure. While logistic regression is specifically designed to model dichotomous outcome measures, OLS and logistic regression are equivalent for dichotomous outcome measures when only categorical variables are used as independent variables. Accordingly, we have used simple OLS regression models to test all predictions in Study 2. However, Prediction 3 includes non-categorical variables and the pre-registration for Study 2 therefore includes pre-registered (but exploratory) analyses that seek to replicate the test of Prediction 3 using logistic regression. These models appear in Table S22 and are displayed in Figure S3. The results are fully consistent with those obtained from OLS regression analysis.

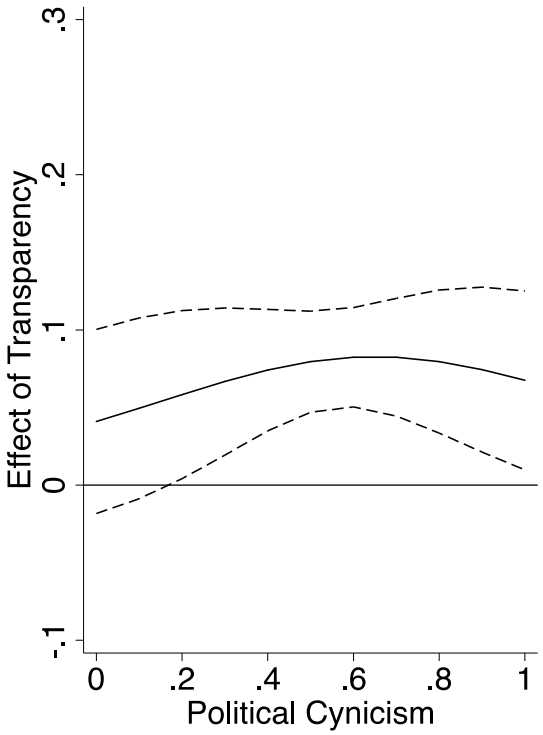
Table S22. Tests of Prediction 3 Using Logistic Regression.

Model	(1)	(2)
DV	Vaccine Acceptance	Vaccine Acceptance
Sample	Combined	Combined
Transparency	0.285 (0.201)	0.792*** (0.198)
Political Cynicism	-2.696*** (0.295)	
Transparency × Political Cynicism	0.076 (0.341)	
Conspiracy Mentality		-1.926*** (0.275)
Transparency × Conspiracy Mentality		-0.815* (0.323)
Constant	1.415*** (0.173)	1.026*** (0.168)
Observations	5520	5520
R^2	0.049	0.049

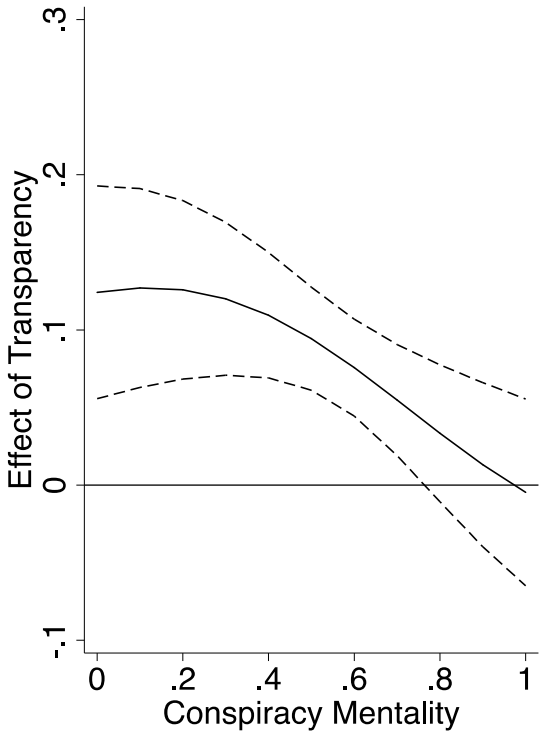
Notes. Entries are unstandardized logitistic regression coefficients with standard errors in parentheses. All variables vary between 0 and 1. The Vague Condition is used as the reference category for the experimental effect of Transparency, which is a combination of all Transparent conditions. Respondents in the Control Condition are excluded. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure S3. Marginal Effect Plots for How the Effect of Transparent Communication Varies Across Two Individual Differences Estimated Using Logistic Regression.

A. Political Cynicism as Moderator



B. Conspiracy Mentality as Moderator



Notes. N = 6928. Panels display marginal effects (and associated confidence intervals) of Transparency on Vaccine Acceptance estimated using predicted probabilities from logistic regression models with Transparency, the relevant individual difference and the two-way interaction between them as independent variables. All variables vary between 0 and 1. The Vague Condition is used as the reference category for the experimental effect of Transparency, which is a combination of all Transparent conditions. Respondents in the Control Condition in Study 2 are excluded.

S22. Effect Size Measures for Studies 1 and 2

In both Study 1 and Study 2, we rely on outcome measures that have been scaled to vary between 0 and 1. Achen (1982: 76-77)[3] considers this coding (i.e., from 0 to 1) the superior way to express effect size on the basis of unstandardized regression coefficients as it allows one to determine the change in Y in percentage points of the full scale as X changes from its minimum to its maximum. It is important to note that we only rescaled the variables and did not throw away information by collapsing any values into broader categories. Hence, the rescaling did not change the increments or the amount of variation.

To facilitate the interpretation of the effect sizes, we here report a standard measure of effect size, Cohen's D, for the experimental main effects.

Table S23. Overview of Effect Sizes for Experimental Effects in Studies 1 and 2.

	Study 1	**Study 2**		
	Vaccine Support	Vaccine Acceptance	Endorsement of Conspiracies	Trust in Health Authorities
Vague	-	-.19 [-.26; -.11]	.16 [.08; .23]	-.20 [-.28; -.13]
Negative Transparent	-.10 [-.15; -.04]	-.30 [-.37; -.22]	.06 [-.02; .13]	.08 [.002; .15]
Neutral Transparent	.34 [.28; .40]	.10 [.02; .17]	-.15 [-.23; -.08]	.33 [.26; .41]
Positive Transparent	-	.14 [.06; .21]	-.17 [-.24; -.09]	.30 [.22; .37]

Notes. Entries are Cohen's D with 95 % Confidence Intervals. Effect sizes are calculated with the Vague Condition as baseline for Study 1 and the Control Condition as baseline for Study 2.

[3] Achen, C. H. (1982). *Interpreting and using regression* (Vol. 29). Sage.