

Appendix for “Do Survey Questions Spread Conspiracy Beliefs?”

Table of Contents

Page 2. Exploratory Study

Page 7. Question Wording for Exploratory Study

Page 9. Question Wording for Pre-Registered Study

Page 18. Demographics of Pre-Registered Study

Page 19. Testing for Spillover in the Pre-Registered Study

Page 20. Testing for Differential Attrition in Pre-Registered Study

Page 25. Pre-Registered Hypothesis Tests

Page 26. Exploratory Analyses of No-Opinion and Rejection Responses

Page 28. Anonymized Pre-Registration Document

Page 31. Ethics Statement

Exploratory Study

As a pilot test of whether measurement of conspiracy beliefs serves to spread these beliefs, we conducted a panel survey through Amazon's Mechanical Turk. Respondents were required to be located in the US, have completed at least 100 HITs, and at least a 97% approval rate. Additionally, we used the CloudResearch universal exclude list to block low-quality and fraudulent respondents (for discussion of data quality issues, see Kennedy et al. 2020). The first wave was fielded from 8/31/2020 to 9/1/2020 and 1,202 respondents completed the survey. Respondents who completed the first wave were invited to complete a second wave, which was fielded 9/8-14/2020, approximately one week later. A total of 1,001 respondents completed the second wave, for an 83% recontact rate.

The general structure of our design involves randomized exposure to conspiracy questions in wave 1, then measurement of conspiracy beliefs in wave 2. In the first wave of the study, respondents were randomly assigned to be asked about a set of two out of four conspiracy beliefs. In condition 1, respondents were asked about the 9/11 conspiracy and Jeffrey Epstein's death. In condition 2, respondents were asked about the Iraq War and deep state conspiracies. Each pair of questions includes a conspiracy that appeals more to Republicans and one that appeals more to Democrats. Given that partisan identity is one of the strongest predictors of specific conspiracy beliefs (Miller, Saunders, and Farhart 2016; Enders, Smallpage, and Lupton 2018; Oliver and Wood 2014), this increases the likelihood that a respondent is inclined toward believing at least one of the two conspiracies.

In the second wave of the survey, respondents were asked four open-ended questions that correspond with the four conspiracies asked about in wave 1. For example, respondents were asked "To the best of your knowledge, why was the U.S. unable to stop the 9/11 attacks from

happening?” We selected open-ended measures to ensure that the particular question format is not driving responses (for discussion, see Lyons, Merola, and Reifler 2019). By asking all respondents about all four conspiracies, we can conduct a within-subjects analysis, which greatly increases statistical power (Clifford, Sheagley, and Piston 2021). Specifically, we can compare a respondent’s answers on the two treated topics to their answers on the two untreated topics. Because all respondents were exposed to some conspiracy beliefs, we assume that exposure to one conspiracy belief (e.g., Epstein) does not affect the likelihood of endorsing a different conspiracy (e.g., deep state).

To code the open-ended responses, we developed a set of codes classifying responses into one of six categories. Most importantly, our codes distinguish between conspiracies that were displayed in a closed-ended question in wave 1 and conspiracies that were not. For example, one of the closed-ended questions asked about the Clintons arranging to have Epstein murdered. While some respondents endorsed this theory in open-ended comments, many endorsed other conspiracies that did not involve the Clintons. Because our interest is in whether respondents come to believe the specific conspiracies we’ve exposed them to, we focus only on these in our main analyses. To ensure a reliable coding scheme, both authors first coded a random set of 50 responses together, then independently coded a separate set of 50 responses. Upon achieving sufficient intercoder reliability (Krippendorff’s $\alpha > .80$), the authors proceeded to coding all responses.¹

¹ Notably, the authors had to conduct up to three rounds of revisions to the coding scheme to obtain a satisfactory level of intercoder reliability, suggesting substantial measurement challenges with open-ended questions.

In both studies, respondents were randomly assigned on a between-subjects basis to one of two question formats: a standard agree-disagree format, or the explicit choice format that asks respondents to choose between a conspiratorial statement and a conventional statement about the same event. This allows a test of H2. Additionally, in both studies we included four questions measuring conspiratorial predispositions at the beginning of wave 1 (Uscinski 2016), prior to random assignment, allowing a test of H3.

Results

Overall, there was considerable endorsement of the conspiracies, though it varied by question format. Consistent with previous findings, respondents were more likely to endorse conspiracies in the agree-disagree format than the explicit choice format (Clifford, Kim, and Sullivan 2020), and least likely to endorse conspiracies in the open-ended format. To validate our open-ended measures, we confirmed that conspiratorial predispositions predicted belief in each conspiracy, and that closed-ended questions in wave 1 were strong predictors of the open-ended responses to the corresponding questions in wave 2. For our main analyses, we stack the data such that each respondent provides four observations – one for each of the open-ended conspiracies. We use OLS to model whether the respondent provided the relevant conspiratorial response to each as a function of whether or not they were exposed to the conspiracy in a closed-ended question in wave 1. We include respondent random effects, cluster the standard errors at the respondent level, and include fixed effects for each question. The estimated effect of exposure to a conspiracy question is positive, but small and not statistically significant ($b = .007$, $p = .393$).

Our second hypothesis holds that any effects should be found with the agree-disagree format. To test this hypothesis, we add an indicator for question format and interact it with the

exposure indicator. Starting with the choice format, there is no evidence of a treatment effect ($b = .005, p = .690$). Turning to the agree-disagree format, the coefficient is consistent with a one-percentage increase in conspiracy belief, but the effect is not statistically significant ($b = .009, p = .432$). However, the confidence interval extends to approximately three percentage points, so we cannot rule out any meaningful effect.

Another possibility is that exposure effects obtain only among those who are already predisposed to conspiracy beliefs. To test this possibility, we included the wave 1 measure of conspiratorial predispositions, and an interaction between it and the exposure indicator. The interaction term is not statistically significant ($p = .940$), and the estimated effect of exposure at the highest levels of conspiratorial predispositions is small and not statistically significant ($b = .006, p = .782$). Thus, we find no support for H3.

Discussion and Limitations

Overall, the results suggest that exposure to conspiracy questions is unlikely to contribute to the spread of conspiracy beliefs. However, this study faces several limitations. First, the open-ended measure of conspiracy belief may have introduced considerable noise in the measure of the dependent variable, as many respondents may be unwilling to put in the required effort to articulate a classifiable response. Additionally, one of our outcomes regarding Jeffrey Epstein was particularly problematic. While 27% of the sample endorsed some form of conspiracy in the open-ended outcome question, only 1% endorsed the specific conspiracy in Wave 1 (that Hillary Clinton was involved). Perhaps most importantly, the study involved only four conspiracy beliefs and were only treated on two of these questions. Moreover, because each pair of questions included one Republican conspiracy and one Democratic conspiracy, there was effectively only

one conspiracy belief that any given respondent was likely to adopt (Smallpage, Enders, and Uscinski 2017). This likely limited our ability to uncover any treatment effects.

Question Wording for Exploratory Study

Conspiracy Beliefs – Agree-Disagree

All questions introduced with “Do you agree or disagree with the following statement?” All answer options are on a 5-point scale, with 1=Strongly Agree and 5=Strongly Disagree with a neutral midpoint.

9/11

The Bush administration knew about the 9/11 attacks ahead of time but took no action to stop them because they wanted to go to war in the Middle East.

Epstein

Jeffrey Epstein, who was awaiting trial on sex trafficking charges, was murdered to prevent him from sharing incriminating evidence on the Clintons.

Iraq War

The 2003 Iraq War was an effort by the U.S. to remove Saddam Hussein from power in order to take control of an oil-rich country. The war was motivated by the desire to bring down oil prices and help the American economy.

Deep State

Recently, sensitive information has been leaked about the White House on a variety of topics. These leaks have been an organized effort by "deep state" government employees and leaders working together to delegitimize the Trump administration.

Conspiracy Beliefs – Explicit Choice

Each question was introduced with “Which of these two statements do you think is most likely to be true?”

9/11

- The Bush administration knew about the 9/11 attacks ahead of time but took no action to stop them because they wanted to go to war in the Middle East. (1)
- The Bush administration and intelligence community were unprepared for the 9/11 attacks and did not pay close enough attention to the warning signs. (2)
- Unsure (3)

Epstein

- Jeffrey Epstein, who was awaiting trial on sex trafficking charges, was murdered to prevent him from sharing incriminating evidence on the Clintons. (1)

- Jeffrey Epstein, who was awaiting trial on sex trafficking charges, was left unattended by guards and committed suicide. (2)
- Unsure (3)

Iraq War

- The 2003 Iraq War was an effort by the U.S. to remove Saddam Hussein from power in order to take control of an oil-rich country. The war was motivated by the desire to bring down oil prices and help the American economy. (1)
- The 2003 Iraq War was an effort by the U.S. to remove Saddam Hussein from power because U.S. officials believed that Hussein was building weapons of mass destruction and sponsoring terrorism. (2)
- Unsure (3)

Deep State

- Recently, sensitive information has been leaked about the White House on a variety of topics. These leaks have been an organized effort by "deep state" government employees and leaders working together to delegitimize the Trump administration. (1)
- Recently, sensitive information has been leaked about the White House on a variety of topics. These leaks have been an unorganized effort by various civil servants who are frustrated and concerned with the actions of the Trump administration. (2)
- Unsure (3)

Conspiracy Beliefs – Open-Ended

Iraq War

To the best of your knowledge, why did the US go to war with Iraq in 2003?

9/11

To the best of your knowledge, why was the US unable to stop the 9/11 attacks from happening?

Epstein

To the best of your knowledge, how did Jeffery Epstein die?

Deep State

To the best of your knowledge, why have there been so many leaks of sensitive information about the Trump administration?

Question Wording for Pre-Registered Study

Conspiratorial Predispositions

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

1. Much of our lives are being controlled by plots hatched in secret places.
2. Even though we live in a democracy, a few people will always run things anyway.
3. The people who really "run" the country are not known to the voters.
4. Big events like wars, recessions, and the outcomes of elections are controlled by small groups of people who are working in secret against the rest of us.
 - Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree

Conspiracy Beliefs – Agree-Disagree

Response options are: Agree, Neither agree nor disagree, Disagree

Dominion Voting Machines (Republican-leaning conspiracy)

As you may know, there has been debate over the presidential election outcome in Michigan, where 6,000 votes cast on Dominion voting machines appeared to “flip” from Trump to Biden. Do you agree or disagree with the following statement?

The CEO of Dominion is a liberal activist who was set on preventing Trump’s re-election and had voting machines programmed to guarantee his loss.

January 6th Insurrection (Republican-leaning conspiracy)

As you may know, on January 6th, 2021, a mob of people broke into the US Capitol building, causing damage and injuring police officers. Do you agree or disagree with the following statement?

The crowd consisted of some Trump supporters, but the worst actors were actually members of Antifa trying to make Trump supporters look bad.

5G (Republican-leaning conspiracy)

As you may know, the new 5G cell towers were rolled out around the same time that COVID began to spread, leading to speculation about links between the two. Do you agree or disagree with the following statement?

5G towers emit radiation that triggers the COVID virus. This was proven in Wuhan, China, which installed the 5G towers shortly before the outbreak.

Beef Restrictions (Republican-leaning conspiracy)

As you may know, President Biden recently pitched a jobs plan that would help the US cut greenhouse gas emissions, and some have claimed that the plan forces reduced beef consumption. Do you agree or disagree with the following statement?

Biden's plan involves restricting red meat consumption to only four pounds per person per year in an effort to cut emissions linked to beef production.

Water Fluoridation (Non-partisan conspiracy)

As you may know, public water fluoridation was introduced in Michigan in 1945 and has since been expanded to most of the United States. Do you agree or disagree with the following statement?

Water fluoridation is a way for chemical companies to dump the dangerous byproducts of phosphate mines into the environment.

GMOs (Non-partisan conspiracy)

As you may know, in 1982 the Monsanto company began using genetically modified foods (GMOs). Do you agree or disagree with the following statement?

The development of GMOs is a part of a secret program, called Agenda 21, launched by the Rockefeller and Ford foundations to shrink the world's population.

Cancer (Non-partisan conspiracy)

As you may know, cancer has been one of the leading causes of illness and death and there has been little progress on a general cure for cancer. Do you agree or disagree with the following statement?

Pharmaceutical companies figured out how to cure cancer years ago, but have not made it available because they make more money by treating a chronic disease than by curing it.

Vapor Trails (Non-partisan conspiracy)

As you may know, vapor trails are left by aircraft when flying at high altitudes. Do you agree or disagree with the following statement?

The trails left by aircraft are chemical agents deliberately sprayed in a secret program directed by government officials.

Johnson & Johnson Vaccine (Republican-leaning conspiracy)

As you may know, the FDA and CDC placed a temporary pause on use of the Johnson and Johnson COVID vaccine in April. After a review, the vaccine was put back in use. Do you agree or disagree with the following statement?

The Biden administration, which has numerous ties to the Pfizer company, orchestrated the pause to help the Pfizer company make money off of its competing vaccine.

Hidin' Biden (Republican-leaning conspiracy)

As you may know, President Biden has made relatively few public appearances and speeches since becoming President, which has led some to wonder why. Do you agree or disagree with the following statement?

Biden has been avoiding public appearances because he has dementia and is unable to speak coherently for more than a few minutes at a time.

UFOs (Non-partisan conspiracy)

As you may know, the U.S. government recently released a report documenting over a decade of investigations of military encounters with UFOs. Do you agree or disagree with the following statement?

Facing leaks from insiders, the US government leaked a heavily edited and redacted set of findings designed to mislead the public about the extent of UFO sightings and engagement.

E-cigs (Non-partisan conspiracy)

As you may know, the U.S. government recently banned the production of all flavored e-cigarettes. Do you agree or disagree with the following statement?

Big tobacco companies were losing too much money to their e-cigarette competitors, so they pushed politicians to pass a ban on the popular flavored e-cigarettes.

Vaccine Rollout Sabotage (Democrat-leaning conspiracy)

As you may know, the Trump administration publicly aimed to vaccinate 20 million Americans before leaving office, but fell well short of this goal. Do you agree or disagree with the following statement?

The Trump administration intentionally sabotaged the delivery of the vaccines in an effort to undermine the incoming Biden administration.

Trump Reinstate (Democrat-leaning conspiracy)

As you may know, former President Trump has reportedly been telling colleagues that he

expects to be “reinstated” as president in August. Do you agree or disagree with the following statement?

Trump plans to delegitimize election outcomes in key states, then use high-ranking officials he appointed in the military to reinstate him as president.

Boebert Capitol Tours (Democrat-leaning conspiracy)

As you may know, when rioters stormed the US Capitol building on January 6th, 2021, some seemed to know their way around the building, including areas that are generally off-limits to the public. Do you agree or disagree with the following statement?

On the day before the riot, Representative Lauren Boebert gave a large group of rioters a tour of the US Capitol to scout out the building.

Kavanaugh Intern (Democrat-leaning conspiracy)

As you may know, during the nomination hearing for Supreme Court Justice Brett Kavanaugh, there was controversy over an “okay” hand sign apparently used by Kavanaugh’s intern on camera. Do you agree or disagree with the following statement?

Kavanaugh’s intern intentionally displayed the “okay” sign on camera as a symbol of white power.

Robinhood (Democrat-leaning conspiracy)

As you may know, after day traders using the app ‘Robinhood’ flooded investments into GameStop and AMC stocks, Robinhood temporarily halted trading for these stocks. Do you agree or disagree with the following statement?

Citadel securities and other hedge fund intermediaries pressured Robinhood to stop further trading so Wall Street traders would not lose money.

National Guard Response (Democrat-leaning conspiracy)

As you may know, when Trump supporters stormed the U.S. Capitol on January 6th, 2021, it took the national guard hours to get to the Capitol building steps to support the Capitol Hill police. Do you agree or disagree with the following statement?

Trump ordered Pentagon officials to delay the deployment of the national guard so that the rioters could prevent Biden’s presidential confirmation.

Conspiracy Beliefs – Explicit Choice

Dominion Voting Machines (Republican-leaning conspiracy)

As you may know, there has been debate over the presidential election outcome in Michigan, where 6,000 votes cast on Dominion voting machines appeared to “flip” from Trump to Biden. Which of the following is the more accurate explanation for this event?

- The CEO of Dominion is a liberal activist who was set on preventing Trump’s re-election and had voting machines programmed to guarantee his loss. (1)
- An initial tallying error was due to software that hadn’t been updated. The error was corrected and confirmed by hand counts. (2)
- Unsure (3)

January 6th Insurrection (Republican-leaning conspiracy)

As you may know, on January 6th, 2021, a mob of people broke into the US Capitol building, causing damage and injuring police officers. Which of the following is the more accurate explanation for the event?

- The crowd consisted of some Trump supporters, but the worst actors were actually members of Antifa trying to make Trump supporters look bad. (1)
- The crowd consisted of Trump supporters and members of right-wing militias who were trying to interrupt the certification of Joe Biden as president. (2)
- Unsure (3)

5G (Republican-leaning conspiracy)

As you may know, the new 5G cell towers were rolled out around the same time that COVID began to spread, leading to speculation about links between the two. Which of the following is the more accurate explanation for this pattern?

- 5G towers emit radiation that triggers the COVID virus. This was proven in Wuhan, China, which installed the 5G towers shortly before the outbreak. (1)
- The timing of 5G towers and COVID is merely a coincidence. 5G towers and existing 4G towers both release radio frequencies, the only difference being that 5G towers release them at a higher rate. (2)
- Unsure (3)

Beef Restrictions (Republican-leaning conspiracy)

As you may know, President Biden recently pitched a jobs plan that would help the US cut greenhouse gas emissions, and some have claimed that the plan forces reduced beef consumption. Which of the following is the more accurate description of the plan?

- Biden’s plan involves restricting red meat consumption to only four pounds per person per year in an effort to cut emissions linked to beef production. (1)
- Although some studies suggest that reducing red meat consumption would reduce greenhouse gas emissions, Biden’s plan makes no mention of dietary restrictions. (2)
- Unsure (3)

Water Fluoridation (Non-partisan conspiracy)

As you may know, public water fluoridation was introduced in Michigan in 1945 and has since been expanded to most of the United States. Which of the following is the more accurate explanation for the use of fluoridation?

- Water fluoridation is a way for chemical companies to dump the dangerous byproducts of phosphate mines into the environment. (1)
- Water fluoridation is a way to prevent tooth decay by adding a small amount of a naturally occurring mineral to our drinking water. (2)
- Unsure (3)

GMOs (Non-partisan conspiracy)

As you may know, in 1982 the Monsanto company began using genetically modified foods (GMOs). Which of the following is the more accurate explanation for the development of GMOs?

- The development of GMOs is a part of a secret program, called Agenda 21, launched by the Rockefeller and Ford foundations to shrink the world's population. (1)
- The development of GMOs was intended to help increase food supplies and protect the existing food supply against pest infestations without the use of harmful pesticides. (2)
- Unsure (3)

Cancer (Non-partisan conspiracy)

As you may know, cancer has been one of the leading causes of illness and death and there has been little progress on a general cure for cancer. Which of the following is the more accurate explanation for the lack of a cure?

- Pharmaceutical companies figured out how to cure cancer years ago, but have not made it available because they make more money by treating a chronic disease than by curing it. (1)
- Cancer is extremely difficult to cure because there are over 100 different forms that are highly complex and constantly evolving, preventing a single solution. (2)
- Unsure (3)

Vapor Trails (Non-partisan conspiracy)

As you may know, vapor trails are left by aircraft when flying at high altitudes. Which of the following is the more accurate explanation for vapor trails?

- The trails left by aircraft are chemical agents deliberately sprayed in a secret program directed by government officials. (1)
- The trails left by aircraft are the result of normal emissions of water vapor from jet engines at high altitudes. (2)
- Unsure (3)

Johnson & Johnson Vaccine (Republican-leaning conspiracy)

As you may know, the FDA and CDC placed a temporary pause on use of the Johnson and Johnson COVID vaccine in April. After a review, the vaccine was put back in use. Which of the following is the more accurate explanation for the pause?

- The Biden administration, which has numerous ties to the Pfizer company, orchestrated the pause to help the Pfizer company make money off of its competing vaccine. (1)
- The pause was placed on the vaccine after several people who received it developed rare blood clots. The pause was lifted after a thorough safety review. (2)
- Unsure (3)

Hidin' Biden (Republican-leaning conspiracy)

As you may know, President Biden has made relatively few public appearances and speeches since becoming President, which has led some to wonder why. Which of the following is the more accurate explanation for his absence?

- Biden has been avoiding public appearances because he has dementia and is unable to speak coherently for more than a few minutes at a time. (1)
- Biden has been avoiding public appearances because he wants media coverage to focus on his policy rather than on him as a person. (2)
- Unsure (3)

UFOs (Non-partisan conspiracy)

As you may know, the U.S. government recently released a report documenting over a decade of investigations of military encounters with UFOs. Which of the following is the more accurate explanation for the release of this report?

- Facing leaks from insiders, the US government leaked a heavily edited and redacted set of findings designed to mislead the public about the extent of UFO sightings and engagement. (1)
- Facing questions from the public and the media, the US government shared their findings to prevent misinformation and fear-mongering about threats from UFOs. (2)
- Unsure (3)

E-cigs (Non-partisan conspiracy)

As you may know, the U.S. government recently banned the production of all flavored e-cigarettes. Which of the following is the more accurate explanation for the ban?

- Big tobacco companies were losing too much money to their e-cigarette competitors, so they pushed politicians to pass a ban on the popular flavored e-cigarettes. (1)
- Flavored e-cigarettes were banned because these products have drawn many teenagers to nicotine products and because they have caused new lung illnesses. (2)
- Unsure (3)

Vaccine Rollout Sabotage (Democrat-leaning conspiracy)

As you may know, the Trump administration publicly aimed to vaccinate 20 million Americans before leaving office, but fell well short of this goal. Which of the following is the more accurate explanation for why the administration fell short?

- The Trump administration intentionally sabotaged the delivery of the vaccines, in an effort to undermine the incoming Biden administration. (1)
- The administration took no responsibility for overseeing vaccine rollouts at the state level. Many states simply lacked the infrastructure to effectively deliver the vaccines. (2)
- Unsure (3)

Trump Reinstatement (Democrat-leaning conspiracy)

As you may know, former President Trump has reportedly been telling colleagues that he expects to be “reinstated” as president in August. Which of the following is the more accurate explanation for his claims?

- Trump plans to delegitimize election outcomes in key states, then use high-ranking officials he appointed in the military to reinstate him as president. (1)
- Trump has made claims about this “reinstatement” as a way to keep the attention of his followers and the media, but has no real plans for reinstatement. (2)
- Unsure (3)

Boebert Capitol Tours (Democrat-leaning conspiracy)

As you may know, when rioters stormed the US Capitol building on January 6th, 2021, some seemed to know their way around the building, including areas that are generally off-limits to the public. Which of the following is the more accurate explanation for this event?

- On the day before the riot, Representative Lauren Boebert gave a large group of rioters a tour of the US Capitol to scout out the building. (1)
- Rioters planned the event in advance and shared publicly available maps of the Capitol in a variety of social media posts. (2)
- Unsure (3)

Kavanaugh Intern (Democrat-leaning conspiracy)

As you may know, during the nomination hearing for Supreme Court Justice Brett Kavanaugh, there was controversy over an “okay” hand sign apparently used by Kavanaugh’s intern on camera. Which of the following is the more accurate explanation for this event?

- Kavanaugh’s intern intentionally displayed the “okay” sign on camera as a symbol of white power. (1)
- Kavanaugh’s intern was simply resting her hand on her other arm in an odd position that resembled the “o kay” sign. (2)
- Unsure (3)

Robinhood (Democrat-leaning conspiracy)

As you may know, after day traders using the app 'Robinhood' flooded investments into GameStop and AMC stocks, Robinhood temporarily halted trading for these stocks. Which of the following is the more accurate explanation for why trading was halted?

- Citadel securities and other hedge fund intermediaries pressured Robinhood to stop further trading so Wall Street traders would not lose money. (1)
- Robinhood was required by law to put up \$3 billion in collateral for these trades. To prevent needing to raise the collateral, Robinhood ceased all trading on GameStop and AMC stock. (2)
- Unsure (3)

National Guard Response (Democrat-leaning conspiracy)

As you may know, when Trump supporters stormed the U.S. Capitol on January 6th, 2021, it took the national guard hours to get to the Capitol building steps to support the Capitol Hill police. Which of the following is the more accurate explanation for this delay?

- Trump ordered Pentagon officials to delay the deployment of the national guard so that the rioters could prevent Biden's presidential confirmation. (1)
- Activation of the national guard was stalled by bureaucratic obstacles and concerns about the optics of bringing the national guard to the Capitol. (2)
- Unsure (3)

Demographics of Pre-Registered Study

	W1 Full Sample	W4 Full Sample
Mean Conspiratorial Disposition	2.64	2.60
Mean Partisanship	3.21	3.22
Mean Ideology	3.41	3.43
College Degree	60%	62%
Percent Race: White	75%	75%
Median Age Category	35-44	35-44
Percent Male	52%	52%

Testing for Spillover in the Pre-Registered Study

One assumption of our within-subjects design is that there is no spillover between conditions. In other words, we assume that prior exposure to conspiracy A has no effect on reported belief in conspiracy B. While we believe this is a safe assumption, we sought to directly test it. To do so, we rely on the pure control condition that was not exposed to any specific conspiracy beliefs prior to Wave 4 of the study. As a first step, however, we analyze the possibility of differential attrition between the two arms of the study by examining sample characteristics in Wave 4. As shown below, there are no statistically significant or substantively meaningful differences in Wave 1 covariates between the treatment arm and the control arm, suggesting that attrition is unrelated to the focal characteristics of our sample.

Balance Across Pure Control and Treatment Arm in Wave 4

	Pure Control	Treatment Arm	<i>p</i> -value
Mean Conspiratorial Disposition	2.60	2.62	0.835
Mean Partisanship	3.24	3.16	0.600
Mean Ideology	3.45	3.39	0.646
Mean Education Category	4.44	4.51	0.430
Percent Race: White	75%	75%	0.991
Mean Age Category	4.26	4.34	0.422
Percent Male	53%	50%	0.332

Turning to the key question of within-subjects spillover between conditions, we take a similar modeling approach to the one described in the manuscript. Specifically, we stack the data so that each respondent provides multiple observations, with respondents from the pure control condition each contributing up to 12 observations. However, for respondents in the treatment condition, we only include the four outcomes that were untreated (exposure = 0), yielding a total of 6,235 observations. If there is spillover, then respondents in the treatment arm should be more likely to endorse the untreated conspiracies relative to the pure control condition, who were

untreated for all 12 conspiracy beliefs. To model the data, we include respondent random effects, fixed effects for each conspiracy outcome, and a dichotomous indicator of whether the respondent was in the treatment arm of the study. If spillover is present, then the coefficient should be positive, suggesting that respondents in the treatment arm were more likely to endorse conspiracy beliefs that they had not been previously exposed to. Contrary to concerns about spillover, the key coefficient is actually negative and not statistically significant ($b = -.014$, $p = .393$). Moreover, the 95% confidence intervals only extend as high as .018, suggesting we can rule out all but small spillover effects. Finally, it is worth noting that any spillover effects would work against our hypotheses by diminishing the differences between the treatment conditions.

Testing for Differential Attrition in Pre-Registered Study

One threat to our longitudinal design is the possibility of differential attrition across experimental conditions. However, because our key test is within-subjects, it makes it much less likely that differential attrition occurred and less likely that it would be consequential for our results. Nonetheless, we examine this possibility. Because there are a total of 24 experimental conditions (accounting for partisanship, question format, and which set of conspiracies was assigned to which treatment level), we conduct multinomial logits to predict experimental condition as a function of the following Wave 1 covariates: conspiratorial dispositions, partisanship, ideology, age, gender, education, and race. Our samples are restricted to respondents who completed Wave 4 and are thus included in our main analyses. Additionally, because Democrats and Republicans were branched into separate arms of the experiment with different outcomes, we estimate two models – one for the Democratic conditions and one for the Republican conditions.² Full model results are shown in the two pages below. However, the crucial takeaway is that there is no evidence that Wave 1 covariates are related to treatment condition in Wave 4. Starting with the Democratic arm of the study, the p -value for the X^2 test for the model is 0.604, suggesting that the model does not fit better than an empty model. Similarly, the relevant p -value for the Republican arm of the study is 0.320, again suggesting that the model does not fit better than an empty model.

² Given that variables like ideology obviously differ by respondent partisanship, this step is a necessity.

Balance Test for the Democratic Arm of the Experiment

	Experimental Condition										
	7	8	9	11	12	19	20	21	22	23	24
Conspiratorial Dispositions	0.08 (0.20)	0.10 (0.19)	0.01 (0.21)	0.09 (0.19)	0.20 (0.19)	0.07 (0.20)	0.06 (0.19)	0.11 (0.20)	0.18 (0.19)	-0.03 (0.21)	-0.20 (0.21)
Partisan Identification	0.20 (0.29)	0.32 (0.27)	0.53 (0.29)	0.23 (0.27)	0.04 (0.26)	0.04 (0.29)	0.05 (0.28)	0.38 (0.28)	0.24 (0.29)	0.27 (0.29)	0.31 (0.29)
Ideology	0.11 (0.23)	-0.01 (0.22)	-0.38 (0.25)	-0.10 (0.22)	0.29 (0.20)	0.08 (0.22)	0.05 (0.22)	-0.06 (0.23)	-0.32 (0.24)	0.05 (0.23)	-0.09 (0.23)
Male	-0.71 (0.46)	-0.47 (0.42)	0.14 (0.46)	0.17 (0.41)	0.37 (0.42)	-0.18 (0.43)	0.22 (0.42)	-0.40 (0.44)	-0.47 (0.43)	0.63 (0.46)	0.20 (0.44)
Age	0.21 (0.18)	0.18 (0.17)	0.29 (0.18)	0.23 (0.17)	0.27 (0.17)	0.33 (0.17)	0.11 (0.17)	0.08 (0.18)	0.19 (0.17)	0.34 (0.18)	0.35* (0.17)
Education	0.05 (0.17)	0.03 (0.16)	0.10 (0.18)	-0.10 (0.16)	0.21 (0.16)	0.08 (0.17)	-0.03 (0.16)	-0.09 (0.17)	0.03 (0.17)	0.21 (0.18)	0.10 (0.17)
Race: White	-0.19 (0.49)	-0.16 (0.45)	-0.77 (0.49)	0.03 (0.46)	0.29 (0.47)	0.12 (0.50)	-0.21 (0.46)	0.46 (0.51)	0.95 (0.55)	-0.03 (0.50)	-0.54 (0.48)
Constant	-1.74 (1.35)	-1.37 (1.25)	-1.76 (1.38)	-1.03 (1.23)	-3.78** (1.30)	-2.30 (1.32)	-0.79 (1.27)	-1.10 (1.32)	-1.76 (1.34)	-3.50* (1.39)	-1.76 (1.33)
<i>N</i>	523										

Standard errors in parentheses. Condition 10 is the omitted baseline.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Balance Test for the Republican Arm of the Experiment

	Experimental Condition										
	1	2	3	4	6	13	14	15	16	17	18
Conspiratorial Dispositions	-0.34 (0.25)	-0.08 (0.23)	0.62* (0.27)	0.05 (0.25)	-0.11 (0.23)	-0.12 (0.26)	-0.10 (0.26)	0.05 (0.27)	0.01 (0.25)	0.12 (0.24)	-0.09 (0.25)
Partisanship	0.04 (0.36)	0.44 (0.36)	-0.02 (0.34)	0.00 (0.36)	0.53 (0.35)	-0.02 (0.37)	0.75 (0.39)	0.11 (0.39)	0.26 (0.37)	-0.17 (0.34)	-0.12 (0.38)
Ideology	0.10 (0.34)	0.06 (0.32)	0.02 (0.31)	0.36 (0.34)	-0.23 (0.30)	0.00 (0.34)	-0.37 (0.31)	0.19 (0.36)	0.01 (0.33)	-0.18 (0.31)	0.13 (0.36)
Male	-0.94 (0.60)	-0.79 (0.57)	-0.20 (0.63)	-0.30 (0.62)	-0.96 (0.57)	-0.37 (0.65)	-1.47* (0.64)	-0.98 (0.64)	-0.10 (0.64)	-0.99 (0.59)	-1.54* (0.63)
Age	0.11 (0.22)	-0.02 (0.21)	-0.17 (0.23)	-0.26 (0.23)	0.06 (0.21)	-0.03 (0.24)	-0.22 (0.25)	-0.57* (0.26)	0.00 (0.22)	0.11 (0.22)	-0.16 (0.24)
Education	0.16 (0.22)	0.06 (0.21)	0.16 (0.22)	-0.08 (0.21)	0.06 (0.21)	0.13 (0.23)	-0.09 (0.23)	0.00 (0.22)	-0.01 (0.22)	0.22 (0.21)	-0.22 (0.22)
Race: White	0.25 (0.81)	-0.16 (0.72)	-0.59 (0.70)	0.07 (0.76)	-0.55 (0.68)	-0.88 (0.70)	-0.79 (0.74)	1.59 (1.16)	-0.08 (0.76)	0.99 (0.91)	0.12 (0.83)
Constant	-1.09 (2.54)	-2.44 (2.47)	-1.71 (2.40)	-0.89 (2.46)	-1.28 (2.45)	0.34 (2.57)	0.01 (2.78)	-0.77 (2.74)	-1.82 (2.55)	-0.45 (2.43)	2.18 (2.53)
<i>N</i>	276										

Standard errors in parentheses. Condition 5 is the omitted baseline.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Because the question format manipulation occurred between-subjects, it's also important to ensure that there was no differential attrition between these two conditions. Below we show the demographics of respondents who completed Wave 4 and had been assigned to either the agree-disagree format or the explicit choice format. The last column shows the *p*-value for the test of equivalence between the conditions. As is clear, there are no significant differences between the two conditions for any of the Wave 1 variables.

Balance Across Question Formats in Wave 4			
	Agree-Disagree	Explicit Choice	<i>p</i> -value
Mean Conspiratorial Disposition	2.63	2.57	0.423
Mean Partisanship	3.29	3.15	0.289
Mean Ideology	3.51	3.35	0.147
College Degree	62%	62%	0.999
Percent Race: White	72%	77%	0.064
Median Age Category	35-44	35-44	0.522
Percent Male	53%	52%	0.724

Pre-Registered Hypothesis Tests

	Baseline Model (H1)	Baseline Model* (H1)	Question Format Model (H2)	Predispositions Model (H3)
Low Exposure	0.009 (0.009)	0.009 (0.009)	0.032* (0.013)	0.007 (0.020)
High Exposure	0.023* (0.009)	0.023* (0.009)	0.035** (0.013)	-0.006 (0.020)
Explicit Choice Format	-	-0.069*** (0.014)	-0.043* (0.017)	-
Low Exposure × Explicit Choice	-	-	-0.049** (0.018)	-
High Exposure × Explicit Choice	-	-	-0.027 (0.018)	-
Conspiratorial Predispositions	-	-	-	0.083*** (0.007)
Low Exposure × Predispositions	-	-	-	0.001 (0.008)
High Exposure × Predispositions	-	-	-	0.011 (0.008)
Constant	0.238*** (0.019)	0.270*** (0.020)	0.259*** (0.021)	0.027 (0.023)
Respondent Random Effects	Y	Y	Y	Y
Question Fixed Effects	Y	Y	Y	Y
Respondents	804	804	804	799
Observations	9629	9629	9629	9569

Standard errors in parentheses, clustered on respondent. Table shows two versions of the Baseline Model. The first is the pre-registered model reported in the main text, while the second (marked with *) is not pre-registered.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Exploratory Analyses of No-Opinion and Rejection Responses: OLS

	DV: No-opinion Response	DV: Rejection of conspiracy
Low Exposure	-0.013 (0.014)	0.032* (0.013)
High Exposure	-0.006 (0.014)	-0.029* (0.013)
Explicit Choice Format	-0.139*** (0.017)	0.183*** (0.022)
Low Exposure × Explicit Choice	-0.005 (0.018)	0.053** (0.020)
High Exposure × Explicit Choice	-0.035 (0.018)	0.062** (0.019)
Constant	0.257*** (0.020)	0.482*** (0.023)
Respondent Random Effects	Y	Y
Question Fixed Effects	Y	Y
Respondents	804	804
Observations	9629	9629

Standard errors in parentheses, clustered on respondent.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Exploratory Analyses of No-Opinion and Rejection Responses: Multinomial Logit

	Outcome: unsure/neither	Outcome: conspiracy
Low Exposure	-0.000 (0.077)	0.188* (0.079)
High Exposure	0.052 (0.075)	0.231** (0.077)
Explicit Choice Format	-1.093*** (0.127)	-0.627*** (0.126)
Low Exposure × Explicit Choice	-0.202 (0.128)	-0.352** (0.124)
High Exposure × Explicit Choice	-0.461** (0.133)	-0.252* (0.118)
Constant	-0.687*** (0.133)	-0.635*** (0.125)
Respondent Random Effects	N	N
Question Fixed Effects	Y	Y
Respondents	804	804
Observations	9629	9629

Standard errors in parentheses, clustered on respondent. Baseline category is rejection of a conspiracy (or endorsement of the non-conspiratorial explanation).

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Changes in Predicted Probabilities Derived from Multinomial Logit

	Conspiracy Endorsement	Unsure/ Neither	Rejection/ Conventional
<i>Agree-Disagree</i>			
Low Exposure	0.032 * (0.013)	-0.014 (0.014)	-0.018 (0.014)
High Exposure	0.036 ** (0.013)	-0.007 (0.014)	-0.029 * (0.013)
<i>Explicit Choice</i>			
Low Exposure	-0.017 (0.013)	-0.018 (0.011)	0.034 * (0.015)
High Exposure	0.008 (0.013)	-0.041 *** (0.011)	0.033 * (0.014)

Anonymized Pre-Registration Document

The anonymized pre-registration document is shown below. We would like to point out two stylistic departures from the pre-registration described below. First, for simplicity, we combined our first two hypotheses, which are specific to the study design, to a single more generic hypothesis about the effect of exposure. Second, we renumbered the hypotheses such that H1 and H2 are now both included in H1 and H4 is now labeled H2.

Study Information

Hypotheses

H1: Respondents who have been exposed to a question asking about belief in a conspiracy are more likely to endorse that belief at a later point in time. H2: Respondents who have been exposed multiple times to a question asking about belief in a conspiracy are more likely to endorse that belief at a later point in time. H3: The effects of exposure (H2, H3) should be larger among those high in conspiratorial dispositions than those low in conspiratorial dispositions. H4: The effects of exposure (H2, H3) should be larger when the question is formatted as an agree/disagree question rather than an explicit choice question.

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

No blinding is involved in this study.

Study design

This study is a mixed design. 77% of the sample (approximately 1,000) will be randomly assigned to take part in a within-subjects manipulation of conspiracy exposure, while the remaining 23% (approximately 300). Prior to measurement of the final outcome, each subject in the within-subjects condition will be exposed to a set of conspiracies 0 times, 1 time, or 3 times. The random assignment consists of which of 3 blocks of conspiracies is assigned to each exposure level. Additionally, there is a between-subjects manipulation of question format – all questions will either be formatted as agree/disagree or explicit choice. Finally, the remaining one-quarter of respondents will receive 0 exposure to all 3 conspiracy blocks prior to the final outcome measurement.

Sampling Plan

Existing Data

Registration prior to creation of data

Data collection procedures

Respondents will be recruited from Mechanical Turk using the CloudResearch platform. Respondents will be required to be at least 18 years of age, a US citizen, and have a HIT approval rate of at least 95%. Additionally, we will only use CloudResearch's Approved Participants who have passed basic quality checks.

Sample size

We aim to recruit 1,300 respondents.

Variables

Manipulated variables

In the pure control group, respondents will only be asked about their belief in a given conspiracy in the final wave (4) of the survey. In the single-exposure condition, respondents will be asked in waves 1 and 4. In the multiple exposure condition, respondents will be asked in waves 1, 2, 3, and 4.

Measured variables

Conspiracy questions will be formatted either as agree-disagree or explicit choice. An example of the agree-disagree is as follows: As you may know, there has been debate over the presidential election outcome in Michigan, where 6,000 votes cast on Dominion voting machines appeared to “flip” from Trump to Biden. Do you agree or disagree with the following statement? The CEO of Dominion is a liberal activist who was set on preventing Trump's re-election and had voting machines programmed to guarantee his loss. • Agree • Neither agree nor disagree • Disagree An example of the explicit choice is as follows: As you may know, there has been debate over the presidential election outcome in Michigan, where 6,000 votes cast on Dominion voting machines appeared to “flip” from Trump to Biden. Which of the following is the more accurate explanation for this event? • The CEO of Dominion is a liberal activist who was set on preventing Trump's re-election and had voting machines programmed to guarantee his loss. • An initial tallying error was due to software that hadn't been updated. The error was corrected and confirmed by hand counts. We will measure conspiratorial predispositions with four items on a five-point agree-disagree scale (e.g., “Much of our lives are being controlled by plots hatched in secret places”). We will average the four items to create a conspiratorial predispositions scale.

Analysis Plan

Statistical models

To test H1 and H2, we will exclude respondents from the pure control condition. We will stack the data from the remaining respondents such that each respondent contributes 12 observations. Outcome variables will be dichotomous such that 1 indicates endorsement of the conspiracy (either “agree” or selection of the conspiratorial statement in the explicit choice format) and 0 indicates either rejection or a don’t know/unsure response. We will use OLS regression to predict conspiracy belief as a function of dichotomous indicators of whether the respondent was exposed to the outcome question once and whether the respondent was exposed to the outcome multiple times. Additionally, we will include fixed effects for each of the conspiracy outcomes (with one omitted) and respondent random effects. Standard errors will be clustered on the respondent. To test H3, we will use the modeling approach described above with the following modifications: we will include conspiratorial dispositions as a predictor, along with an interaction between this variable and both the single exposure and multiple exposure dummy variables. To test H4, we will again use the modeling approach described for H1 and H2, but we will also include an indicator of whether the respondent was exposed to the agree-disagree questions or the explicit choice questions, along with interactions between the question format indicator and both the single exposure and multiple exposure dummy variables.

Ethics Statement

This research was approved by the Institutional Review Board (IRB) at the University of Houston (STUDY00002500 and STUDY00003105) and adheres to the American Political Science Association's Principles and Guidance for Human Subjects Research.

The study did not use deception and was deemed by the IRB to involve minimal risk. Thus, IRB granted a waiver of a signed consent form. Instead, participants read a study information page that described costs, benefits, confidentiality, and compensation associated with taking the survey. From the study information page, participants could click a link to consent and begin taking the survey.

Participants were compensated for completing the survey. In the exploratory study, participants were paid \$0.40 for completing the first wave and \$0.60 for completing the second wave. In the primary pre-registered study, participants were paid \$0.50 for completing the first wave, \$0.25 for each of wave 2 and 3, and \$0.75 for completing wave 4. We chose these amounts because we estimated that they would meet or exceed federal minimum wage for the average participant.