

# Online Appendix A: Survey instrument and experimental stimuli

## Pre-experiment knowledge survey

Thank you for your time. This research survey will take less than fifteen minutes to complete, and your participation is entirely voluntary.

We take your confidentiality extremely seriously, and any answers you provide in this research survey will be completely confidential. The data from the study will be stored securely on password-protected university computers. We know of no risks to you from participation. We cannot and do not guarantee or promise that you will receive any benefits from this study.

The purpose of this survey is to learn about public awareness of corrections by media outlets.

The information collected will be recorded anonymously. Questions about this project may be directed to:

Brendan Nyhan HB 6108 Hanover, NH 03755 [brendan.j.nyhan@dartmouth.edu](mailto:brendan.j.nyhan@dartmouth.edu)

You may refuse to answer any particular questions. You are free to end your participation at any time by closing this window (although any answers you have already entered may still be submitted).

By clicking the “yes“ button below you agree to participate in this confidential research study.

- Yes
- No

## Demographics

How old are you?

- Under 18
- 18–24
- 25–34
- 35–44
- 45–54
- 55–64
- 65–74
- 75–84
- 85 or older

In what state do you currently reside?

[pulldown menu]

What is your gender?

- Male (1)
- Female (2)
- Nonbinary/Two spirit (3)
- Other (4)
- Prefer not to say (5)

Please check one or more categories below to indicate what race(s) you consider yourself to be.

- White
- Black or African American
- American Indian or Alaska Native
- Asian or Pacific Islander
- Multi-racial
- Other

Are you of Spanish or Hispanic origin or descent?

- Yes
- No

What is the highest degree or level of school you have completed?

- Did not graduate from high school
- High school diploma or the equivalent (GED)
- Some college
- Associate's degree
- Bachelor's degree
- Master's degree
- Professional or doctorate degree

Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or something else?

- Republican
- Democrat
- Independent
- Something else

*If respondent selected "Independent" or "Something else"* Do you think of yourself as closer to the Republican Party or to the Democratic Party?

- Closer to the Republican Party
- Closer to the Democratic Party
- Neither

*If respondent selected "Democrat"* Would you call yourself a strong Democrat or a not very strong Democrat?

- Strong Democrat
- Not very strong Democrat

*If respondent selected "Republican"* Would you call yourself a strong Republican or a not very strong Republican?

- Strong Republican
- Not very strong Republican

Generally, how interested are you in politics?

- Extremely interested
- Very interested
- Somewhat interested
- Not very interested
- Not at all interested

### **Attention check**

Please indicate whether you agree or disagree with each statement below.

- People convicted of murder should be given the death penalty
- World War I came after World War II
- Gays and lesbians should have the right to legally marry
- In order to raise the budget deficit, the federal government should raise taxes on people that make more than \$250,000 a year
- The Affordable Care Act passed by Congress in 2010 should be repealed

Response options:

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

Please indicate whether you agree or disagree with each statement below.

- By law, abortion should never be permitted
- In order to reduce the budget deficit, the federal government should eliminate all welfare programs that help poor people
- The federal government should raise the minimum wage to \$10
- The federal government should guarantee health insurance for all citizens
- The federal government should pass new rules that protect the right of workers to join labor unions
- Barack Obama was the first president of the United States

Response options:

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

### **Knowledge questions**

Media outlets frequently add small corrections or editor's notes to stories, but these corrections rarely garner large publicity. We would like to see how familiar the public is with recent high-profile retractions that publications may have made in the past year.

To the best of your knowledge, please indicate which media outlets in the list below, if any, have had high-profile retractions in the past year. (Please select “Don’t know” if you do not know of a high-profile retraction by one of these media outlets.)

- ABC News
- NBC News
- CBS News
- New York Times
- Fox News
- Wall Street Journal
- KATU News
- WMFZ
- Don’t Know

*If respondent selected “New York Times”* You indicated that the New York Times has had a high-profile retraction in the past year. To the best of your knowledge, what was the topic of the retraction?

- ISIS whistleblower
- Vaccine efficacy
- Election security
- Transgender legislation
- Critical race theory in schools
- Federal gun legislation
- Misquoting a politician
- Russian nuclear testing

*If respondent selected “ISIS whistleblower”* Please tell us more of the NYT retraction you had in mind.

(Open-ended response box):

It is essential for the validity of this study that we know whether participants looked up any information online during the study. Did you make an effort to look up information during the study? Please be honest; you will still be paid and you will not be penalized in any way if you did.

- Yes, I looked up information
- No, I did not look up information

Do you have any comments on the survey? Please let us know about any problems you had or aspects of the survey that were confusing.

(Open-ended response box):

## **Debrief**

Thank you for answering these questions. The purpose of this study was to gauge public awareness of high-profile retractions, specifically the New York Times retraction of the “Caliphate” podcast, regarding an unreliable primary source ISIS whistleblower. To read more about this story, visit

<https://www.nytimes.com/2020/12/18/podcasts/caliphate-editors-note.html>.

If you have any questions regarding the content or intent of this research, please contact Brendan Nyhan at [brendan.j.nyhan@dartmouth.edu](mailto:brendan.j.nyhan@dartmouth.edu).

Thank you again for your participation. Please do not share any information about the nature of this study with other potential participants. This research is not intended to support or oppose any political candidate or office. This research has no affiliation with any political candidate or campaign and has received no financial support from any political candidate or campaign.

Once you have read the above, please click the next button below to complete the survey!

## **Journalistic corrections survey**

Thank you for your time. This research survey will take less than fifteen minutes to complete, and your participation is entirely voluntary.

We take your confidentiality extremely seriously, and any answers you provide in this research survey will be completely confidential. The data from the study will be stored securely on password-protected university computers. We know of no risks to you from participation. We cannot and do not guarantee or promise that you will receive any benefits from this study.

The purpose of this survey is to learn about public awareness of corrections by media outlets.

The information collected will be recorded anonymously. Questions about this project may be directed to:

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You may refuse to answer any particular questions. You are free to end your participation at any time by closing this window (although any answers you have already entered may still be submitted).

By clicking the “yes” button below you agree to participate in this confidential research study.

- Yes
- No

## **Demographics**

What social media sites do you use? (Please select all that apply.)

- Facebook
- Twitter
- Snapchat
- Instagram
- TikTok
- Other (please indicate)
- None

How old are you?

- Under 18
- 18–24
- 25–34
- 35–44
- 45–54
- 55–64
- 65–74
- 75–84
- 85 or older

In what state do you currently reside?

[pulldown menu]

What is your gender?

- Male
- Female
- Nonbinary/Two spirit
- Other
- Prefer not to say

Please check one or more categories below to indicate what race(s) you consider yourself to be.

- White
- Black or African American
- American Indian or Alaska Native
- Asian or Pacific Islander
- Multi-racial
- Other

Are you of Spanish or Hispanic origin or descent?

- Yes
- No

What is the highest degree or level of school you have completed?

- Did not graduate from high school
- High school diploma or the equivalent (GED)
- Some college
- Associate's degree
- Bachelor's degree
- Master's degree
- Professional or doctorate degree

Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or something else?

- Republican
- Democrat
- Independent
- Something else

*If respondent selected "Independent" or "Something else"* Do you think of yourself as closer to the Republican Party or to the Democratic Party?

- Closer to the Republican Party
- Closer to the Democratic Party
- Neither

*If respondent selected "Democrat"* Would you call yourself a strong Democrat or a not very strong Democrat?

- Strong Democrat
- Not very strong Democrat

*If respondent selected "Republican"* Would you call yourself a strong Republican or a not very strong Republican?

- Strong Republican
- Not very strong Republican

Generally, how interested are you in politics?

- Extremely interested
- Very interested
- Somewhat interested
- Not very interested
- Not at all interested

### **Attention check**

Please indicate whether you agree or disagree with each statement below.

- People convicted of murder should be given the death penalty
- World War I came after World War II
- Gays and lesbians should have the right to legally marry
- In order to raise the budget deficit, the federal government should raise taxes on people that make more than \$250,000 a year
- The Affordable Care Act passed by Congress in 2010 should be repealed

Response options:

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

Please indicate whether you agree or disagree with each statement below.

- By law, abortion should never be permitted
- In order to reduce the budget deficit, the federal government should eliminate all welfare programs that help poor people
- The federal government should raise the minimum wage to \$10
- The federal government should guarantee health insurance for all citizens
- The federal government should pass new rules that protect the right of workers to join labor unions
- Barack Obama was the first president of the United States

Response options:

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree



*Text displayed if participant fails attention check, selecting “Agree” or “Strongly Agree” in response to (or refusing to answer) “Barack Obama was the first president of the United States” or “WWI came after WWII”:*

One of your answer choices has indicated that you were selecting randomly or not reading instructions/questions carefully. Please exit the survey and return the HIT on Mechanical Turk. Thank you for your time.

### **Pre-treatment questions**

In general, how much trust and confidence do you have in the mass media – such as newspapers, TV and radio – when it comes to reporting the news fully, accurately, and fairly?

- None at all
- Not very much
- Fair amount
- Great deal

Please indicate how much trust and confidence you have in the following news organizations when it comes to reporting the news fully, accurately, and fairly.

- USA Today
- Associated Press (AP)
- Canadian Broadcasting Corporation (CBC)
- KATU2 News Portland
- WFMZ Allentown

Response options:

- None at all
- Not very much
- Fair amount
- Great deal

Please indicate the extent to which you agree with the following statements.

- I feel confident that I can find the truth about political issues.
- If I wanted to, I could figure out the facts behind most political disputes.
- There are objective facts behind most political disputes, and if you try hard enough you can find them.

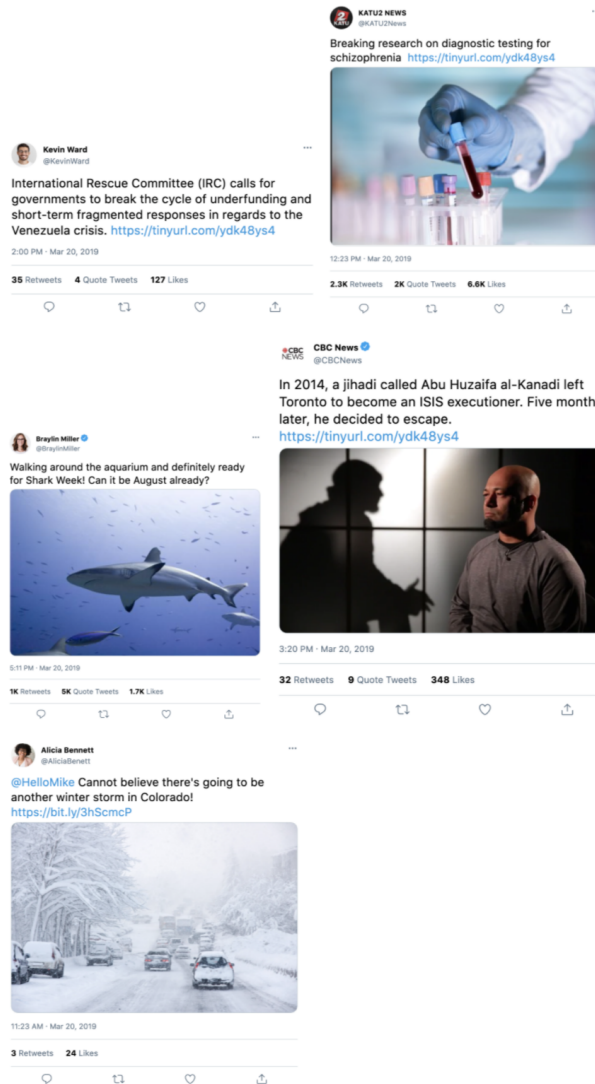
Response options:

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

## First feed instructions

On the next page you are going to see a series of images of tweets. You will then be asked questions about the images, so please pay close attention.

*First feed with false claim (tweet order randomized)*



## First stimulus questions

To the best of your knowledge, how accurate are the statements below?

- Governments underfunded Venezuela aid programs during the 2019 crisis
- Colorado had a winter storm in March 2019
- A Canadian became an ISIS executioner
- Shark week is in August
- Schizophrenia can now be diagnosed earlier in life

Response options:

- Not at all accurate
- Not very accurate
- Somewhat accurate
- Very accurate

Please indicate how much trust and confidence you have in the following news organizations when it comes to reporting the news fully, accurately, and fairly.

- USA Today
- Associated Press (AP)
- Canadian Broadcasting Corporation (CBC)
- KATU2 News Portland
- WFMZ Allentown

Response options:

- None at all
- Not very much
- Fair amount
- Great deal

### **Second feed instructions**

On the next page you are going to see a series of images of tweets. You will then be asked questions about the images, so please pay close attention.

No correction condition (tweet order randomized)

**Gary Sutherland** @GarySutherland  
12:02 PM · May 7, 2020  
8 Retweets 5 Quote Tweets 39 Likes

**WFMZ** @WFMZ\_TV  
5:00 PM · May 7, 2020  
1 Retweet 2 Quote Tweets 70 Likes

**Community Music School Lehigh Valley & Berks** receives large grant for studio upgrades [bit.ly/NftTtz](#)



**@Rich\_Luchessi** I am sorry for your loss. Your father was very good friend and pastor to everyone. [bit.ly/1gs1rAd](#)

**Mason Kim** @MasonKim  
8:00 AM · May 7, 2020  
1.2K Retweets 440 Quote Tweets 7.2K Likes

**Kristen Lewis** @KristenLewis  
3:34 PM · May 7, 2020  
87 Retweets 18 Quote Tweets 1K Likes

Five different scenarios for the missing aircraft flight MH370 [bit.ly/1gknKDo](#)



Turkey delivers first armed drone to Ukrainian Navy, much to Russia's ire. [bit.ly/TheVQLw](#)




**Alex Green** @AlexGreen  
12:00 PM · Mar 20, 2019  
20 Retweets 51 Quote Tweets 7 Likes

Thanks to **@AllenMC** for her hard work in France by helping clean up the Gowanus Canal [bit.ly/1hi7B2](#)

News outlet retraction (tweet order randomized)

**WFMZ** @WFMZ\_TV  
Community Music School Lehigh Valley & Berks receives large grant for studio upgrades bitly.NftTtz



5:00 PM · May 7, 2020  
1 Retweet 2 Quote Tweets 70 Likes


**Gary Sutherland** @GarySutherland  
@Rich\_Luchessi I am sorry for your loss. Your father was very good friend and pastor to everyone. bit.ly/1gs1rAd

12:02 PM · May 7, 2020  
8 Retweets 5 Quote Tweets 39 Likes

**CBC News** @CBCNews  
CBC News has determined that our reporting on the ISIS executioner story fell short of standards. We failed to identify a discrepancy in his story that suggested his experiences were false or exaggerated. CBC has added an editor's note to all stories related to the matter. https://tinyurl.com/ydk48y

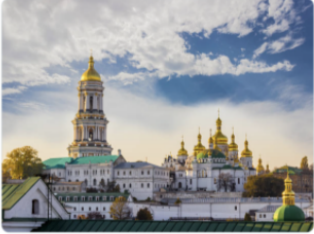
3:20 PM · Mar 20, 2019  
50 Retweets 5 Quote Tweets 250 Likes

**Mason Kim** @MasonKim  
Five different scenarios for the missing aircraft flight MH370 bit.ly/1gknKDo



8:00 AM · May 7, 2020  
1.2K Retweets 440 Quote Tweets 7.2K Likes


**Kristen Lewis** @kristenlewis  
Turkey delivers first armed drone to Ukrainian Navy, much to Russia's ire. bit.ly/1heVQLw



3:34 PM · May 7, 2020  
87 Retweets 18 Quote Tweets 1K Likes

Third-party questioning (tweet order randomized)

**WFMZ** @WFMZ\_TV  
Community Music School Lehigh Valley & Berks receives large grant for studio upgrades bitly.NftTz




5:00 PM · May 7, 2020  
1 Retweet 2 Quote Tweets 70 Likes

**Gary Sutherland** @GarySutherland  
@Rich\_Luchessi I am sorry for your loss. Your father was very good friend and pastor to everyone. bit.ly/1gs1rAd


12:02 PM · May 7, 2020  
8 Retweets 5 Quote Tweets 39 Likes

**Nick Logan** @NickLogan  
ISIS executioner Huzaifa al-Kanadi told @ArizonaSunNews about stabbing accused drug dealer in the heart - a 2nd killing. But when questioned by @CBCNews, he recanted his story. Who did he lie to, and why did both news organizations publish such an unreliable source?



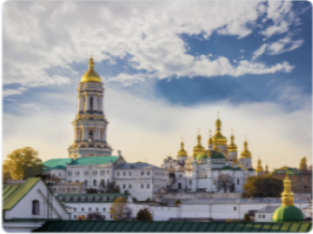
4:00 PM · May 7, 2020  
35 Retweets 4 Quote Tweets 200 Likes

**Mason Kim** @MasonKim  
Five different scenarios for the missing aircraft flight MH370 bit.ly/1gknKDo



8:00 AM · May 7, 2020  
1.2K Retweets 440 Quote Tweets 7.2K Likes


**Kristen Lewis** @KristenLewis  
Turkey delivers first armed drone to Ukrainian Navy, much to Russia's ire. bit.ly/1heVQLw




3:34 PM · May 7, 2020  
87 Retweets 18 Quote Tweets 1K Likes


News outlet retraction before third-party questioning (neutral tweet order randomized)

**Gary Sutherland** @GarySutherland  
@Rich\_Luchessi I am sorry for your loss. Your father was very good friend and pastor to everyone.  
[bit.ly/1gs1rAd](https://bit.ly/1gs1rAd)  
12:02 PM · May 7, 2020  
8 Retweets 5 Quote Tweets 39 Likes


**WFMZ-TV** @WFMZ\_TV  
Community Music School Lehigh Valley & Berks recieves large grant for studio upgrades bitly.NftTtz  
  
5:00 PM · May 7, 2020  
1 Retweet 2 Quote Tweets 70 Likes

**Nick Logan** @NickLogan  
ISIS executioner Huzaifa al-Kanadi told @ArizonaSunNews about stabbing accused drug dealer in the heart - a 2nd killing. But when questioned by @CBCNews, he recanted his story. Who did he lie to, and why did both news organizations publish such an unreliable source?  
  
4:00 PM · May 7, 2020  
35 Retweets 4 Quote Tweets 200 Likes


**CBC News** @CBCNews  
CBC News has determined that our reporting on the ISIS executioner story fell short of standards. We failed to identify a discrepancy in his story that suggested his experiences were false or exaggerated. CBC has added an editor's note to all stories related to the matter.  
<https://tinyurl.com/ydk48y>  
3:20 PM · Mar 20, 2019  
50 Retweets 5 Quote Tweets 250 Likes

**Kristen Lewis** @KristenLewis  
Turkey delivers first armed drone to Ukrainian Navy, much to Russia's ire. [bit.ly/TheVQLw](https://bit.ly/TheVQLw)  
  
3:04 PM · May 7, 2020  
87 Retweets 18 Quote Tweets 1K Likes

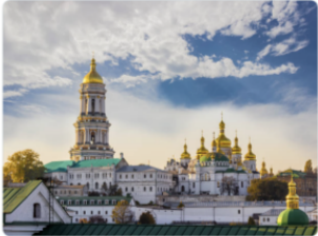
*Third-party questioning before news outlet retraction (neutral tweet order randomized)*

**WFMZ** @WFMZ\_TV  
Community Music School Lehigh Valley & Berks receives large grant for studio upgrades bit.ly.NfTTtz  
  
5:00 PM · May 7, 2020  
1 Retweet 2 Quote Tweets 70 Likes

**Gary Sutherland** @GarySutherland  
@Rich\_Luchessi I am sorry for your loss. Your father was very good friend and pastor to everyone.  
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4:00 PM · May 7, 2020  
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**CBC News** @CBCNews  
CBC News has determined that our reporting on the ISIS executioner story fell short of standards. We failed to identify a discrepancy in his story that suggested his experiences were false or exaggerated. CBC has added an editor's note to all stories related to the matter.  
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3:20 PM · Mar 20, 2019  
50 Retweets 5 Quote Tweets 250 Likes

**Kristen Lewis** @KristenLewis  
Turkey delivers first armed drone to Ukrainian Navy, much to Russia's ire. [bit.ly/1heVQLw](https://bit.ly/1heVQLw)  
  
3:34 PM · May 7, 2020  
87 Retweets 18 Quote Tweets 1K Likes

**Post-treatment questions**

To the best of your knowledge, how accurate are the statements below?

- Community music schools in the US can receive grants from the government



- Turkey is supporting Ukraine's military
- A Canadian became an ISIS executioner
- A pastor named Luchessi died in March 2019
- The plane from the MH370 flight that disappeared is still missing

Response options:

- Not at all accurate
- Not very accurate
- Somewhat accurate
- Very accurate

Please indicate how much trust and confidence you have in the following news organizations when it comes to reporting the news fully, accurately, and fairly.

- USA Today
- Associated Press (AP)
- Canadian Broadcasting Corporation (CBC)
- KATU2 News Portland
- WFMZ Allentown

Response options:

- None at all
- Not very much
- Fair amount
- Great deal

Please indicate the extent to which you agree with the following statements.

- I feel confident that I can find the truth about political issues.
- If I wanted to, I could figure out the facts behind most political disputes.
- There are objective facts behind most political disputes, and if you try hard enough you can find them.

Response options:

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

**Attention check: All conditions**

Please identify which of the statements (if any) you have read about in tweets from this survey. If you know about a story below, but did not see it as a tweet in this survey, please do not select it.

- Naomi Osaka struggles in return to tournament
- High school accused of censorship by ripping yearbook pages
- IRC criticizes government aid to Venezuela
- Canadian Huzaifa al-Kanadi joins ISIS
- Barn destroyed by fire in Ellis Park

**Manipulation check: No correction**

Identify which of the statements (if any) you have read about in tweets from this survey. If you know about a story below, but did not see it as a tweet in this survey, please do not select it.

- Turkey gives Ukrainian army a drone
- Russian plane crashes in Ecuador
- Volunteers clean up Gowanus Canal
- What we think we know about metabolism may be wrong
- 5 year old fatally shoots 3-year old in Minnesota

**Manipulation check: News outlet retraction**

Identify which of the statements (if any) you have read about in tweets from this survey. If you know about a story below, but did not see it as a tweet in this survey, please do not select it.

- Turkey gives Ukrainian army a drone
- CBC determined executioner story fell short of standards
- Russian plane crashes in Ecuador
- What we think we know about metabolism may be wrong
- 5 year old fatally shoots 3-year old in Minnesota

**Manipulation check: Third party questioning**

Identify which of the statements (if any) you have read about in tweets from this survey. If you know about a story below, but did not see it as a tweet in this survey, please do not select it.

- Turkey gives Ukrainian army a drone
- CBC interviewee recants his story
- Russian plane crashes in Ecuador
- What we think we know about metabolism may be wrong
- 5 year old fatally shoots 3-year old in Minnesota

We sometimes find people don't always take surveys seriously, instead providing humorous, or insincere responses to questions. How often do you do this?

- Never
- Rarely
- Some of the time
- Most of the time
- Always

It is essential for the validity of this study that we know whether participants looked up any information online during the study. Did you make an effort to look up information during the study? Please be honest; you will still be paid and you will not be penalized in any way if you did.

- Yes, I looked up information
- No, I did not look up information

Do you have any comments on the survey? Please let us know about any problems you had or aspects of the survey that were confusing.

(Open-ended response box):

### **Debrief**

Thank you for answering these questions. The purpose of this study was to understand how journalistic corrections affect trust and confidence in media outlets and beliefs in false claims.

Throughout the survey you were shown multiple tweets; these tweets were created for the survey. The tweets you saw about an ISIS recruit describe a real story in which an unreliable source claimed to be a former ISIS member. This source was central to the New York Times “Caliphate” podcast. The New York Times has since retracted their stories about this man and added Editor’s Notes to all related materials. To learn more about the Caliphate retraction, visit <https://www.nytimes.com/2020/12/18/podcasts/caliphate-editors-note.html>. The other tweets you saw were created for the survey with false names and stock images that coincide with real news stories.

If you have any questions regarding the content or intent of this research, please contact Brendan Nyhan at [brendan.j.nyhan@dartmouth.edu](mailto:brendan.j.nyhan@dartmouth.edu).

Thank you again for your participation. Please do not share any information about the nature of this study with other potential participants. This research is not intended to support or oppose any political candidate or office. This research has no affiliation with any political candidate or campaign and has received no financial support from any political candidate or campaign.

Once you have read the above, please click the next button below to complete the survey!

## Online Appendix B: Additional results

### Balance table

Table B1: Balance table: covariates by condition

	Control	News outlet	Third party	Both (news first)	Both (third party first)	Total
Male	0.43	0.46	0.47	0.47	0.45	0.45
College graduate	0.59	0.57	0.55	0.55	0.60	0.57
Non-Hispanic white	0.75	0.76	0.78	0.73	0.73	0.75
Age (18–24)	0.06	0.06	0.06	0.08	0.09	0.07
Age (25–34)	0.28	0.30	0.33	0.31	0.30	0.30
Age (35–44)	0.31	0.28	0.29	0.28	0.29	0.29
Age (45–54)	0.17	0.18	0.15	0.16	0.16	0.16
Age (55–64)	0.12	0.12	0.11	0.12	0.13	0.12
Age (65+)	0.06	0.06	0.06	0.05	0.04	0.05
Republican	0.43	0.45	0.44	0.44	0.42	0.44
N	2862					

### Attention and manipulation checks

We included an attention check measuring recall of tweets every respondent saw as well as a manipulation check testing recall of treatment-specific content. In the attention check, 59.9% of participants could meet the preregistered criterion of only selecting the topic of the two tweets that they had previously seen from a set of five. Passage rates for the preregistered manipulation checks of recall of condition-specific tweets were 45.0% (no correction condition), 53.8% (for those who saw the news outlet retraction), and 47.7% (for those who saw the third party questioning), respectively.

### Epistemic political efficacy

In addition to our stated hypotheses and research questions, we also investigated a research question asking if seeing corrective information from news outlets and/or third parties affects people's epistemic political efficacy.

We measured EPE pre- and post-treatment using a set of three questions that measured respondents' self-reported confidence in their ability to find out the truth about political events (Pingree 2011). Responses were measured on a five-point scale. The EPE value used in our analysis is the mean of those three questions.

As shown in Table B2, none of our treatment conditions produce significant changes in respondents' self-reported epistemic political efficacy.

### Moderators

In addition to our main outcome variables, we investigated the potential moderating effects of three variables (Republican identification, Twitter usage, and general media trust). Our preregistered research

Table B2: Treatment effects on epistemic political efficacy

	Epistemic political efficacy
News outlet retraction	0.003 (0.024)
Third party questioning	-0.005 (0.023)
Both messages (news outlet first)	-0.008 (0.026)
Both messages (third party first)	0.032 (0.024)
Control variables	✓
N	2744

OLS with robust standard errors; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < .005$  (two-sided). EPE is measured using a five-point agreement scale. Controls: age (18–24, 25–34, 55–64, and 65+), gender, education, race, political interest, and the pre-treatment measure of EPE.

question asked if the effects of corrective information from news outlets and/or third parties on belief accuracy and news outlet trust varied by respondents’ political affiliation, media trust, or social media usage.

To examine the effects of party moderation, we compare the responses of Republicans (including Republican leaners) to Democrats and Independents in Table B3. We find that treatment effects on belief accuracy varied significantly for Republicans for three of the four treatment conditions. In each case except the combined treatment with the news outlet retraction presented first, treatment effects were significantly less positive for Republicans. Most notably, Republican respondents who received a message questioning the report from a third party exhibited no measurable change in belief accuracy whatsoever.

By contrast, treatment effects on news outlet trust among Republican respondents do not significantly differ from other respondents in almost all conditions. The one exception is the the combined condition in which the third party questioning the initial report is presented first. In this case, the marginal effect among Republicans is significantly lower than among Democrats and independents and is not measurably different from zero.

Results testing for differences in treatment effects by Twitter usage are Table B4. We find no measurable differences in treatment effects on belief accuracy or news outlet trust.

Finally, we examine how treatment effects vary by respondent media trust in Table B5. We find mixed evidence of treatment moderation for belief accuracy. Treatment effects on belief accuracy tend to be more positive among respondents with higher levels of general media trust, though these effects are significant only in the combined conditions. However, news outlet trust decreased more among people with greater media trust in response to treatment in three of the four conditions (the exception was a third party message alone).

Table B3: Treatment effects on belief accuracy and news outlet trust by party

	Belief accuracy	News outlet trust
Republican	0.11 (0.07)	-0.07 (0.04)
News outlet correction	0.95*** (0.06)	-0.14*** (0.04)
Third party correction	0.29*** (0.06)	-0.07* (0.04)
Both messages (news outlet first)	0.75*** (0.06)	-0.18*** (0.04)
Both messages (third party first)	0.68*** (0.06)	-0.21*** (0.04)
Control variables	✓	✓
Republican × news outlet correction	-0.22* (0.09)	0.06 (0.06)
Republican × third party correction	-0.30** (0.09)	0.03 (0.06)
Republican × both messages (news outlet first)	-0.18 (0.10)	0.03 (0.06)
Republican × both messages (third party first)	-0.26** (0.10)	0.17** (0.06)
N	2746	2749

OLS with robust standard errors; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < .005$  (two-sided). Belief accuracy and news outlet trust were measured using four-point scales (see Online Appendix A). Belief accuracy controls: sex, pre-treatment belief accuracy, and age 65 or older. Controls for news outlet trust: college education status, sex, political interest, race, age, and pre-treatment news outlet trust.

Table B4: Treatment effects on belief accuracy and news outlet trust by Twitter use

	Belief accuracy	News outlet trust
Twitter user	-0.08 (0.07)	0.03 (0.04)
News outlet correction	0.75*** (0.08)	-0.06 (0.04)
Third party correction	0.06 (0.08)	-0.01 (0.04)
Both messages (news outlet first)	0.60*** (0.07)	-0.13** (0.04)
Both messages (third party first)	0.47*** (0.08)	-0.08 (0.05)
Control variables	✓	✓
Twitter user × news outlet correction	0.18 (0.10)	-0.09 (0.06)
Twitter user × third party correction	0.17 (0.10)	-0.08 (0.06)
Twitter user × both messages (news outlet first)	0.14 (0.10)	-0.07 (0.06)
Twitter user × both messages (third party first)	0.16 (0.10)	-0.10 (0.06)
N	2746	2748

OLS with robust standard errors; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < .005$  (two-sided). Belief accuracy and news outlet trust were measured on four-point scales (see Online Appendix A). Belief accuracy controls: sex, pre-treatment belief accuracy, and age if older than 65. News outlet trust controls: college education status, sex, political interest, race, age, and pre-treatment news outlet trust.

Table B5: Treatment effects on belief accuracy and news outlet trust by media trust

	Belief accuracy	News outlet trust
General media trust	-0.11* (0.04)	0.13*** (0.03)
News outlet correction	0.63*** (0.14)	0.15 (0.08)
Third party correction	-0.08 (0.14)	0.00 (0.08)
Both messages (news outlet first)	0.40** (0.14)	0.04 (0.08)
Both messages (third party first)	0.17 (0.15)	0.07 (0.09)
Control variables	✓	✓
General media trust × news outlet correction	0.10 (0.06)	-0.12*** (0.04)
General media trust × third party correction	0.11 (0.06)	-0.03 (0.04)
General media trust × both messages (news outlet first)	0.13* (0.06)	-0.10** (0.04)
General media trust × both messages (third party first)	0.18** (0.06)	-0.10** (0.04)
N	2746	2748

OLS with robust standard errors; \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < .005$  (two-sided). Belief accuracy and news outlet trust were measured on four-point scales (see Online Appendix A). Belief accuracy controls: sex, pre-treatment belief accuracy, and age 65 or older. Controls for news outlet trust: college education status, sex, political interest, race, age, and pre-treatment news outlet trust.



## **Online Appendix C: Human subjects research**

All participants provided informed consent before taking part in the study. As discussed in the main text, the experimental stimuli were based on real-life events, present minimal risk, and were designed to mirror people's experiences in everyday life. Respondents were extensively debriefed at the conclusion of the study (see Online Appendix A), which disclosed that the tweets they saw were created for the study and that provided a link offering further information about the "Caliphate" retraction that inspired the study. Participants were paid \$1.50 for completing the survey, which translated to an effective pay rate of \$10 per hour given the median completion time of approximately nine minutes.

## Online Appendix D: Reporting standards

Table D1: Compliance with JEPS reporting standards

Item	Location
<i>A. Hypotheses</i> State specific objectives or hypotheses.	See Theoretical Expectations section.
<i>B. Subjects and context</i> Report eligibility and exclusion criteria for participants.	See Methods section. Study conducted among CloudResearch-approved Mechanical Turk workers. Workers were ineligible if they had previously participated in a pilot of the study or a pre-experiment survey measuring baseline knowledge about the controversy.
How were participants contacted for recruitment? Were incentives offered?	See Methods section (Cloud Research-approved respondents from Mechanical Turk were offered incentives to participate).
Report recruitment dates defining the periods of recruitment and when the experiments were conducted.	October 1–10, 2021.
Describe settings and locations where the data were collected.	Online.
If there is a survey: Provide response rate and how it was calculated.	N/A; studies conducted on Mechanical Turk.
<i>C. Allocation method</i> Report details of the procedure used to generate the assignment sequence (e.g., randomization procedures).	Random assignment was generated by the Qualtrics software platform.
If random assignment used, report details of procedure (e.g., any restrictions, blocking).	N/A (simple random assignment)
If random assignment used, to help detect errors such as problems in the procedure used for random assignment or failure to properly account for blocking, provide a table (in text or appendix) showing baseline means and standard deviations for demographic characteristics and other pretreatment measures (if collected) by experimental group.	See Table B1 above.
Describe blinding.	Subjects were blind to which condition they were in.
<i>D. Treatments</i> Provide a detailed description of the interventions in each treatment condition as well as a description of the control group.	See Methods section, Online Appendix A.
State how and when manipulations or interventions were administered.	See Methods section, Online Appendix A; manipulation was random assignment by Qualtrics into experimental condition.
Report the number of repetitions of the experimental task and the group rotation protocol. Report the ordering of treatments for within-subject designs. Any piggybacking of other protocols should be reported. Report any use of experienced subjects or subjects used in more than one session or treatment.	N/A.
Report time span: How long did each experiment last? How many sessions were subjects expected to attend? If there were multiple sessions, how much time passed between them?	Single online session.

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Item	Location
Report total number of sessions conducted and number of subjects used in each session.	One individual session for each respondent (online).
Report whether deception was used.	Yes (debriefing at completion of study).
Report treatment fidelity: Evidence on whether the treatment was delivered as intended.	Yes (online platform; no known technical errors).
Were incentives given? If so, what were they and how were they administered?	Payments to participants via Mechanical Turk platform.
<i>E. Results</i>	
1. Outcome measures and covariates	
Provide precise definitions of all primary and secondary measures and covariates.	Methods section, Online Appendix A.
Clearly state which of the outcomes and subgroup analyses were specified prior to the experiment and which were the result of exploratory analysis.	All specified prior to study (see <a href="https://osf.io/yxhme/">https://osf.io/yxhme/</a> ) except as noted in the text
2. CONSORT participant flow diagram	
Number of subjects initially assessed for eligibility for the study.	3120 respondents.
Exclusions prior to random assignment and reasons for the exclusions.	258 participants who failed a pretreatment attention check.
Number of subjects initially assigned to each experimental group.	Third party correction: 646; third party correction followed by news outlet correction: 577; news outlet correction followed by third party correction: 628; news outlet correction: 659; no correction: 610.
The proportion of each group that received its allocated intervention and the reasons why subjects did not receive the intended intervention.	N/A (all participants received allocated intervention as far as we know).
The number of subjects in each group that dropped out or for other reasons do not have outcome data.	See discussion of missing outcome data below.
The number of subjects in each group that are included in the statistical analysis, and the reasons for any exclusions.	No other exclusions.
3. Statistical analysis	
Researchers will conduct statistical analysis and report their results in the manner they deem appropriate. We recommend that this reporting include the following:	
Note whether the level of analysis differs from level of randomization and estimate appropriate standard errors.	N/A (individual-level randomization and analysis).
If there is attrition, discuss reasons for attrition and examine whether attrition is related to pretreatment variables.	No known attrition (short, single-session study).
Report other missing data (not outcome variables):	
-Frequency or percentages of missing data by group.	See below for missingness in outcome and covariate data by model; treatment assignment observed for all respondents.
-Methods for addressing missing data (e.g., listwise deletion, imputation methods).	Listwise deletion.

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Item	Location
-For each primary and secondary outcome and for each subgroup, provide summary of the number of cases deleted from each analysis and rationale for dropping the cases.	Cases dropped due to missing data by model: Table 1 belief accuracy 117; Table 1 news outlet trust 115; Table B2: 118; Table B3 belief accuracy: 116; Table B3 news outlet trust: 113; Table B4 belief accuracy: 116; Table B4 news outlet trust 114; Table B5 belief accuracy: 116; Table B5 news outlet trust 114. All exclusions follow our preregistration.
For survey experiments: Describe in detail any weighting procedures that are used.	No weights used.
<i>F. Other information</i>	
Was the experiment reviewed and approved by an IRB?	Yes
If the experimental protocol was registered, where and how can the filing be accessed?	See Theoretical Expectations and Methods sections ( <a href="https://osf.io/yxhme/">https://osf.io/yxhme/</a> ).
What was the source of funding? What was the role of the funders in the analysis of the experiment?	See Acknowledgments. Funders had no role in or control over the design, analysis, or presentation of the results.
Were there any restrictions or arrangements regarding what findings could be published? Are there any funding sources where conflict of interest might be an issue?	No.
If a replication data set is available, provide the URL.	Replication data is available at the <i>Journal of Experimental Political Science</i> Dataverse: XXX

## References

Pingree, Raymond J. 2011. "Effects of unresolved factual disputes in the news on epistemic political efficacy." *Journal of Communication* 61 (1): 22–47.