The Corrections Dilemma: Media Retractions Increase Belief Accuracy But Decrease Trust

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Abstract

Why are prominent news media retractions so rare? Using data from a survey experiment in which respondents view simulated Twitter newsfeeds, we demonstrate the dilemma facing news organizations that have published false information. Encouragingly, media retractions are effective at informing the public — they increase the accuracy of news consumers' beliefs about the retracted reporting more than information from third parties questioning the original reporting or even the combination of the two. However, trust in the news outlet declines after a retraction, though this effect is small both substantively and in standardized terms relative to the increase in belief accuracy. This reputational damage persists even if the outlet issues a retraction before a third party questions the story. In a social media environment that frequently subjects reporting to intense scrutiny, the journalistic mission of news organizations to inform the public will increasingly conflict with organizational incentives to avoid admitting error.

News reporting inevitably contains errors (e.g., Maier 2005), creating a dilemma for journalists who seek to uphold their professional responsibilities (Bugeja 2007; Kampf and Daskal 2014). Issuing a retraction or correction may increase the accuracy of the public's beliefs about the story in question, but it can also harm trust in the organization, making the public less likely to believe or consume their reporting in the future — an especially damaging prospect at a time when trust in the media is low and industry business models are under threat (Abernathy 2018; Brenan 2021).

The challenge that media organizations face is particularly acute on social media platforms, an important news source for about half of Americans (Walker and Matsa 2021). Social media can quickly spread false news reports, increasing the need for rapid corrections from the organizations that published them. However, such corrections threaten to further harm trust in the media outlet in question if widely publicized. It is therefore essential to determine the effect of retractions and corrections on both public beliefs and trust in the news outlets that issue them.

Importantly, corrections of specific errors or retractions of incorrect stories are likely to be successful. Recent studies indicate backfire effects are extremely rare (e.g., Porter and Wood 2019; Swire-Thompson, DeGutis, and Lazer 2020). In general, experimental studies find that corrective information is typically effective at reducing belief in false claims even about controversial topics (Nyhan et al. 2019; Walter and Murphy 2018). As a result, journalistic corrections should increase the accuracy of beliefs held by people who see them, at least partially offsetting the effect of misinformation exposure.

However, learning about errors made by news organizations can potentially undermine trust. Observational survey data indicates that perceptions of news inaccuracy are correlated with reduced trust in the media (Brosius, Ohme, and de Vreese 2021; Wilner et al. 2021). Similarly, people say they trust the media less when it makes errors (Gronke and Cook 2007). Though the public claims to value media organizations that admit mistakes and says that it views errors that are corrected somewhat more favorably (Karlsson, Clerwall, and Nord 2017; Van der Wurff and Schönbach 2014), they report no greater trust in news that includes a correction in the one experiment that has been conducted to date (Karlsson, Clerwall, and Nord 2014). However, that study was conducted in Sweden, it only tested the presence of a minor correction (an error in the cost of a water park), and it did not consider the effect of learning

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from a third party about an error that a media organization does not itself disclose.

We examine these questions in the context of a simulated social media environment, allowing us to examine how contemporary news consumers react to admissions of error by media organizations. This emerging methodology that attempts to better capture the real-time social media experience by testing the effect of experimental stimuli that are embedded in mock newsfeeds (e.g., Jahng and Littau 2016; Kaiser, Keller, and Kleinen-von Königslöw 2021; Vraga and Bode 2017). Our study applies this method to the study of media retractions for the first time.

Specifically, we conduct an experiment in which participants twice view a mock Twitter feed. In the first set of tweets, respondents viewed a tweet from a news organization (the Canadian Broadcasting Corporation [CBC]) about an ISIS story they published. In the second set of tweets, respondents were randomized to see a tweet by the news organization retracting their ISIS story, a tweet by a third party questioning the story, both (in random order), or neither. The treatments seek to compare the effect of exposure to a correction from a news organization with learning about the errors from a third party.

We predicted that a correction by a news organization or information questioning the report from another source would each increase belief accuracy but decrease trust in the organization. In real life, however, both may occur. We therefore also measured the effects of exposure to both messages on belief accuracy and news outlet trust.

Our results confirm the existence of what we call the corrections dilemma — news outlets that disclose their mistakes improve the accuracy of readers' beliefs, but reduce trust in their organization. While the negative effects of a retraction on news outlet trust are substantially smaller in standardized terms, these competing effects on accuracy and trust may pose challenges for journalists and editorial teams when deciding how to respond to a story that contains errors. We further find that third-party messages questioning news reporting lead to similar, but smaller, effects. When participants encountered both types of corrections, the effects on belief accuracy were actually smaller compared to a correction from only the news outlet, but the decrease in trust was similar. These effects were moderated by partisan affiliation (positive effects on belief accuracy were smaller among Republicans) and overall trust in the mass media (negative effects on trust were greater among those with higher trust) but not Twitter use.

Theoretical expectations

Based on the research described above, we offer the following preregistered hypotheses and research questions.[1] The first set estimate the effects of exposure to various messages about the initial news report in isolation. First, we hypothesized that exposure to a media retraction (H1a) or information questioning the report from a third party (H1b) would increase the accuracy of respondent's beliefs by increasing doubt in the initial report. We also hypothesized that exposure to a third party message questioning the initial report would reduce the perceived trustworthiness of the media outlet that published it (H2). By contrast, we have less prior evidence about the effects of corrections and retractions on media outlet trust. We therefore preregistered a research question asking if retracting the story would affect trust in the retracting outlet (RQ1).

We also consider the joint effects of exposure to a news outlet retraction and a third party message questioning the initial report. We expected that effects on belief accuracy would be greatest when both the news outlet and third party question the initial report (H1c) due to the repetition of the message from multiple sources. We also sought to investigate whether the effects of exposure to a third party message questioning the original reporting vary by whether the news outlet is willing to admit error. We therefore asked if the effects of a third party questioning a false report on news outlet trust would vary by whether the news organization corrects the report itself (RQ2a) and if those effects depend on whether people learn of the error from the outlet first (RQ2b).

Methods

Sample characteristics

We recruited a survey sample using Amazon's Mechanical Turk, which has been shown to generate valid data (Berinsky, Huber, and Lenz 2012) and to mirror estimates of causal effects from representative samples (Coppock 2019). To further improve the quality of our sample, we restrict our sample to CloudResearch-approved participants. This service screens participants from the platform for attention and engagement, overcoming limitations of basic Turk sampling (Litman, Robinson, and Abberbock

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[1]The preregistration is available at `https://osf.io/yxhme/`.

2017). We also apply CloudResearch tools to block submissions with duplicate or suspicious IP addresses and workers whose IP addresses place them outside the United States.

Following our preregistration, we collected 2620 responses in our first wave and then recruited an additional 500 respondents who self-identify as Republican to achieve approximate partisan balance. We excluded data from 258 participants who failed a pretreatment attention check (see Online Appendix A for survey items). Of the remaining 2,862 respondents, 45% were male, 56% were college graduates, 74% were white, and 66% were 25–44 years old. 38% identified as Democrat and 9% leaned Democrat; 36% identified as Republican and 8% leaned Republican.

Experimental design

We conducted a between-subjects experiment following the design outlined in Figure 1. Respondents answer a set of baseline measures, view a simulated Twitter feed including a false news report, answer questions related to its content including belief in the claim in question and trust in the outlet that reported it, and then are randomized to see a retraction from the media organization, a message from a third party questioning the initial report, both (in random order), or neither. We then again measure belief in the claim in question and trust in the outlet that reported it post-treatment. We summarize the full procedure below.

After answering a standard battery of demographic and attitudinal questions and passing two attention checks (see Online Appendix A), all respondents viewed a simulated Twitter feed that included a modified version of a real tweet from the Canadian Broadcast Corporation (CBC) stating that "In 2014, a jihadi called Abu Huzaifa al-Kanadi left Toronto to become an ISIS executioner. Five months later, he decided to escape." This stimuli was inspired by *The New York Times* podcast "Caliphate", which initially publicized such a claim but later had to retract key elements of the show after the credibility of their source, a man named Shehroze Chaudry, was called into question (Folkenflik 2020). Chaudry had also spoken to the CBC and gave it a story that differed in part from what he said on "Caliphate" (Swain 2018). Both the CBC and the *Times* retracted their stories on Chaudry's claims, allowing us to measure the effects of the real-world process of journalistic correction. We chose to attribute the story in the experiment to the CBC, a less well-known and less polarizing news outlet among Americans, to

Figure 1: Survey flow
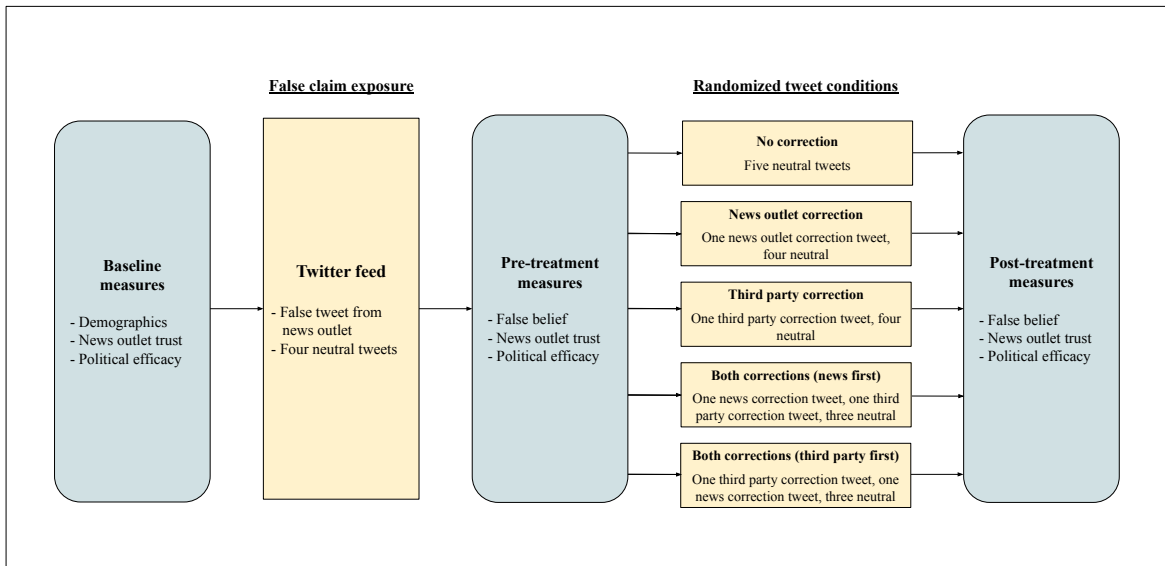
Blue rounded boxes indicate survey question batteries and yellow rectangles indicate mock social media feeds.

avoid source effects related to pre-existing attitudes toward the *Times*.

After answering questions measuring their factual beliefs (including in the claim that a Canadian had become an ISIS executioner) and trust in news outlets (including the CBC), participants were then randomly assigned with equal probability using simple randomization in Qualtrics to one of five conditions in which they viewed a second set of tweets in random order:

- *No correction*: Respondents do not encounter any further information about the story

- *News outlet correction*: Respondents receive a tweet from the news outlet retracting the story ("reporting... fell short of our standards")

- *Third party correction*: Respondents receive a tweet from a third party identifying the story as false ("Who did he lie to, and why did both organizations publish such an unreliable source?")

- *Both corrections (news outlet first)*: Respondents receive a tweet from the news outlet retracting the story followed by a tweet from a third party questioning the story

- *Both corrections (third party first)*: Respondents receive a tweet from a third party questioning the story followed by a tweet from the news outlet retracting the story

The stimuli used in the study were based on actual messages about the "Caliphate" podcast but adapted for clarity. Engagement with the initial and corrective tweets (i.e., likes and retweets) are slightly varied but are kept similar to minimize confounding.

Notably, the modified CBC retraction tweet directly admits that the initial reporting is unreliable, while the third party message only questions its dependence on a questionable source. The latter type of criticism is typical of the media criticism that news consumers often encounter on social media platforms, which often takes the form of "just asking questions" since third parties can rarely prove that a story is false. (We discuss differences between the retraction and the third party message questioning the initial report further in our conclusion.)

The other tweets in the study were created based on neutral tweets identified by Vraga et al. (2016). All filler tweets were created with false names and stock images and were attributed to a mix of verified individuals, unverified individuals, and verified news organizations to resemble a real Twitter feed. While the tweets mostly mirror the content of the original neutral tweets from Vraga and Bode (2017), modifications were made to coincide with real news stories around the time of the tweets (2019 and 2020). All dates are standardized within the mock feeds and tweet reactions are randomized. All stimuli and question wording are provided in Online Appendix A.

Outcome measures

We consider two primary outcome variables in our analyses. "Belief accuracy" refers to the accuracy of respondents' belief in the claim that "A Canadian became an ISIS executioner." We measure this outcome on a four-point scale from "Very accurate" (1) to "Not at all accurate" (4) with higher values indicating greater accuracy. "News outlet trust" measures the amount of trust and confidence that respondents have that the CBC will report the news fully, accurately, and fairly on a four-point scale from "None at all" (1) to "Great deal" (4). All outcome variables are measured before and after the experimental treatment.

Analytical strategy

We estimate treatment effects using OLS regressions with robust standard errors using listwise deletion in cases of item nonresponse (2.8% or 79 responses for belief accuracy; 2.7% or 76 responses for news outlet trust). Control variables were selected for each outcome variable using Least Absolute Shrinkage and Selection Operator (LASSO) to maximize precision (Bloniarz et al. 2016) from the following set of variables:

- Pre-treatment measures of outcome variables
- Education (college graduate indicator) (factor variable)
- Age group (18–24, 25–34, 35–44, 45–54, 55–64, 65+) (factor variable)
- Male (1/0) (factor variable)
- Political interest (five-point)
- Non-Hispanic white (1/0) (factor variable)

All analyses follow our preregistration unless otherwise specified (`https://osf.io/yxhme/`).

Results

To verify that our study would not be contaminated by prior knowledge about the "Caliphate" podcast (Druckman and Leeper 2012), we fielded a smaller, pre-experiment survey measuring baseline knowledge about the controversy among the same population of CloudResearch-approved participants on Amazon Mechanical Turk (question wording is provided in Online Appendix A). In total, only six of the 253 respondents who participated and passed our attention checks (2.4%) could identify the *New York Times* as a major outlet that had issued a high-profile retraction in the last year and then identify the topic as "ISIS whistleblower." Only one could name the "Caliphate" podcast as the source of the retraction in an open-ended followup. We therefore infer that our experimental sample (which excluded respondents to this survey) had very low levels of prior knowledge about the retraction in question.

We therefore turn to data from the main study and consider the effects of our experimental treatments on the accuracy of people's beliefs about the ISIS whistleblower story and their trust in the CBC. The

results, which are summarized in Table 1, provide support for our hypotheses that a media outlet retraction or a message from a third party questioning an initial report would decrease belief in its central claim.[2] Specifically, we find that a retraction from the outlet that published the false story increased the accuracy of respondents' beliefs by 0.86 points on a four-point scale (95% CI: 0.77–0.94, $p < 0.005$). Corrections from a third party source were much less effective, increasing belief accuracy by 0.16 points (95% CI: 0.07–0.24, $p < 0.005$). These effects were substantively significant. Belief that the claim that "A Canadian was an ISIS executioner" was either "somewhat" or "very" accurate decreased from 63.3% in the control condition to 53.2% in the third party condition and 19.0% in the news outlet retraction condition.

As expected, viewing both messages increased participant belief accuracy more than the third party message questioning the initial report alone. Contrary to our expectations, however, the combined effect of exposure to both the news outlet and third party messages on belief accuracy was less than the news outlet correction alone regardless of order (news outlet first: 0.68, 95% CI: 0.59–0.76, $p < .005$; third party first: 0.57, 95% CI: 0.48–0.66, $p < 0.005$). Overall, these results are consistent with past findings demonstrating the effectiveness of corrective information at increasing belief accuracy but suggest that the presence of the third party message diluted the effect of the media retraction or confused readers.

Despite increasing the accuracy of respondents' beliefs, the treatment messages casting doubt on the reliability of the initial story also reduced trust in the news outlet that published it. The news outlet retraction decreased trust in the source of the story by 0.11 points on a four-point scale (95% CI: 0.06–0.11, $p < 0.005$). Third party corrections caused a similar decrease in trust of 0.06 points (95% CI: 0.02–0.11, $p < 0.05$). Exposure to both messages had slightly larger negative effects, decreasing trust by 0.17 points when the retraction from the original source was viewed first (95% CI: 0.12–0.22, $p < 0.005$) and by 0.14 points when the message from a third party was viewed first (95% CI: 0.09–0.19, $p < 0.005$). The order in which these messages were viewed had no measurable effect on trust. However, the joint effects of seeing two messages questioning the initial report were significantly more negative than seeing either message alone in three of four cases (see Table 1).

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[2]We provide details on manipulation checks testing respondent recognition of the tweets they have seen in Online Appendix B.

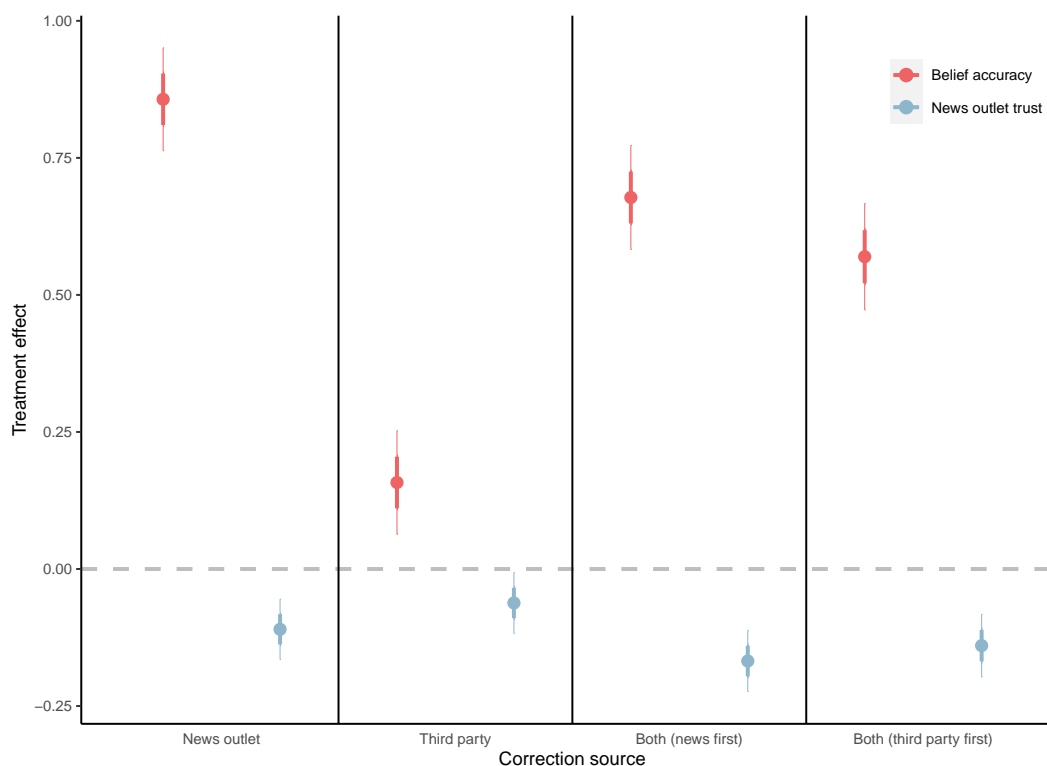Table 1: Main effects on belief accuracy and news outlet trust

	Belief accuracy	News outlet trust
News outlet retraction	0.86***	−0.11***
	(0.04)	(0.03)
Third party questioning	0.16***	−0.06*
	(0.04)	(0.03)
Both messages (news outlet first)	0.68***	−0.17***
	(0.04)	(0.03)
Both messages (third party first)	0.57***	−0.14***
	(0.05)	(0.03)
Control variables	✓	✓
Differences in treatment effects		
Both messages (news outlet first) − news outlet correction	0.179***	−0.057*
	(0.047)	(0.028)
Both messages (news outlet first) − third party correction	−0.520***	−0.105***
	(0.047)	(0.028)
Both messages (third party first) − news outlet correction	0.287***	−0.030
	(0.048)	(0.028)
Both messages (third party first) − third party correction	−0.412***	−0.078**
	(0.048)	(0.028)
Both messages (news outlet first) − both messages (third party first)	−0.108*	−0.028
	(0.048)	(0.029)
N	2745	2747

OLS regression 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: pre-treatment levels of belief accuracy, age 65 or older. News outlet trust controls: political interest, race, age 18–24 or 55–64, baseline news outlet trust, pre-treatment news outlet trust.

Figure 2 visualizes the treatment effect estimates from Table 1 to highlight the trade-off between belief accuracy and trust in the news outlet in question. Specifically, all four treatments significantly increase belief accuracy but decrease trust in the news outlet that published the initial reporting. However, we note that the effects of the retraction on belief accuracy are much larger in standardized terms than the negative effect on trust (Cohen's d of 0.91 vs. 0.12). The standardized effect on accuracy is also somewhat larger for the message from a third party questioning the initial report, though the magnitudes of each are smaller (d = 0.17 for accuracy, d = 0.07 for trust).

We explore three potential moderators of these effects as part of a preregistered research question. First, we find that party affiliation often moderated treatment effects on belief accuracy, which were generally

Figure 2: Treatment effects on belief accuracy and news outlet trust

Treatment effect estimates from Table 1 including 50% and 95% confidence intervals. Belief accuracy and news outlet trust were measured on four-point scales (see Online Appendix A).

smaller in magnitude (i.e., less positive) for Republicans than for Democrats and independents. However, evidence of partisan differences in effects on news outlet trust is less consistent. Second, we find no evidence that our results are moderated by Twitter use. Finally, we find little evidence of differences in belief accuracy depending on levels of media trust, but find that corrections reduce news outlet trust most among respondents with the highest levels of media trust in general. Details of these analyses are reported in Online Appendix B.

Finally, we also examine the preregistered research question of whether the treatments affected people's epistemic political efficacy — i.e., their confidence in their ability to perceive reality surrounding political issues (Pingree, Brossard, and McLeod 2014). We found no significant treatment effects on epistemic political efficacy. These results are reported in greater detail in Online Appendix B.

Conclusion

Our results indicate that when news organizations realize that they have published a factually inaccurate story, they face a potential dilemma when choosing how to respond. Retracting their story will better inform their audience, but reduce trust in their news organization. However, these concerns may be mitigated to some extent by the relative size of these effects. Though observers and journalists may weigh these effects differently, we find that the negative effects on trust are small both substantively and in standardized terms relative to the informational benefit provided to their audience. Retracting a story increases respondent belief accuracy dramatically but only modestly decreases trust in the news outlet. If a third party has also questioned the story, the marginal effects of a retraction are similar (a substantial additional increase in belief accuracy and a modest additional decrease in trust).

Of course, our study has important limitations. Most notably, we considered a single, low-salience issue on Twitter with an unfamiliar news organization and third-party critic. Varying one or more of these elements may change the observed effects on belief accuracy and news outlet trust or their relationship with potential moderators. For instance, studies that consider partisan issues or more prominent news organizations might find wider partisan differences. Additional research should similarly test the effects of retractions on trust in more prominent news outlets, which might suffer less reputational damage in response to a correction. Future studies might also investigate the effect of varying the social media platform tested or altering how the newsfeed environment is represented. In addition, further research should seek to validate our findings using a nationally representative sample and test whether our results apply outside the U.S. Fourth, future studies could vary the messages presented by both the media outlet (e.g., a correction rather than a retraction) and the third party (e.g., flatly stating the story is false rather than raising questions). Finally, it would be valuable to measure the long-term effects of the retraction on trust in the news outlet and consumption of its content.

Ultimately, this study helps us understand the incentives news organizations face to avoid admitting error. However, our findings also demonstrate that efforts to set the record straight can have substantial effects on the accuracy of people's beliefs. Future research should thus seek to determine how to minimize the costs of publicly admitting error, which could increase the incentives for media outlets to

publish more frequent and prominent corrections and in turn help contribute to a better informed public.

Conflicts of interest

The authors declare no conflicts of interest.

Data availability

The data and code required to replicate all analyses in this article are available at the Journal of Experimental Political Science Dataverse at https://doi.org/10.7910/DVN/42UB2N (Freitag et al. 2023).

Ethics statement

This research was approved by the Dartmouth Committee for the Protection of Human Subjects (STUDY00032361) and adheres to APSA's Principles and Guidelines for Human Subjects Research. Further details are provided in Online Appendix C.

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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

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.

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:

Brendan Nyhan HB 6108 Hanover, NH 03755 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

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.
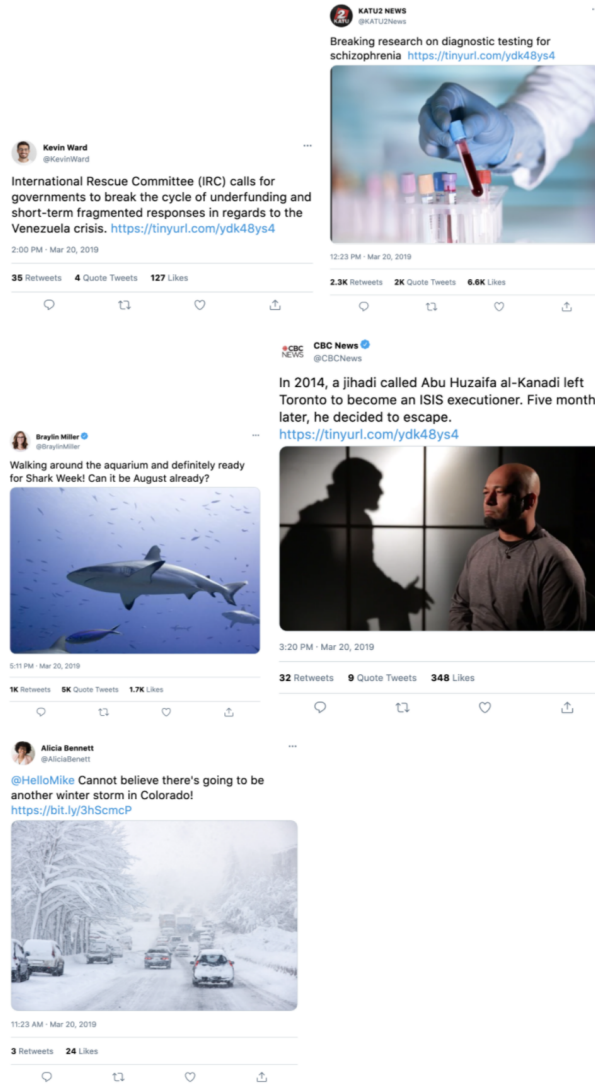
Response options:

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

9

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)

WFMZ ✓
@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

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

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

Alex Green
@AlexGreen

Thanks to @AllenMC for her hard work in France by helping clean up the Gowanus Canal bit.ly/1hi7B2

12:00 PM · Mar 20, 2019

20 Retweets   51 Quote Tweets   7 Likes

News outlet retraction (tweet order randomized)

WFMZ ✔
@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

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

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

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/1heVQLw

3:34 PM · May 7, 2020

87 Retweets   **18** Quote Tweets   **1K** Likes

13

Third-party questioning (tweet order randomized)

WFMZ ✓
@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

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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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?

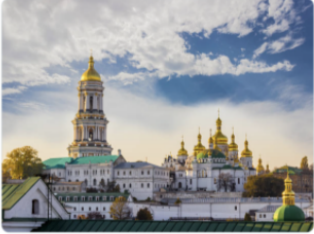4:00 PM · May 7, 2020

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

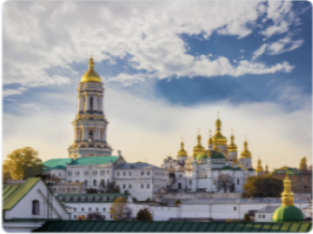3:34 PM · May 7, 2020

87 Retweets   18 Quote Tweets   1K Likes

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

WFMZ ✓
@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

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

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/1heVQLw

3:34 PM · May 7, 2020

87 Retweets **18** Quote Tweets **1K** Likes

15

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

WFMZ ✓
@WFMZ_TV

Community Music School Lehigh Valley & Berks recieves large grant for studio upgrades bitly.NftTtz

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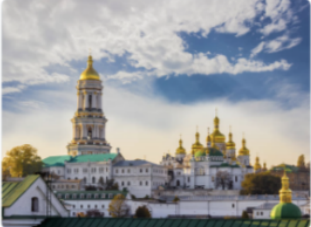
1 Retweet **2** Quote Tweets **70** Likes

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

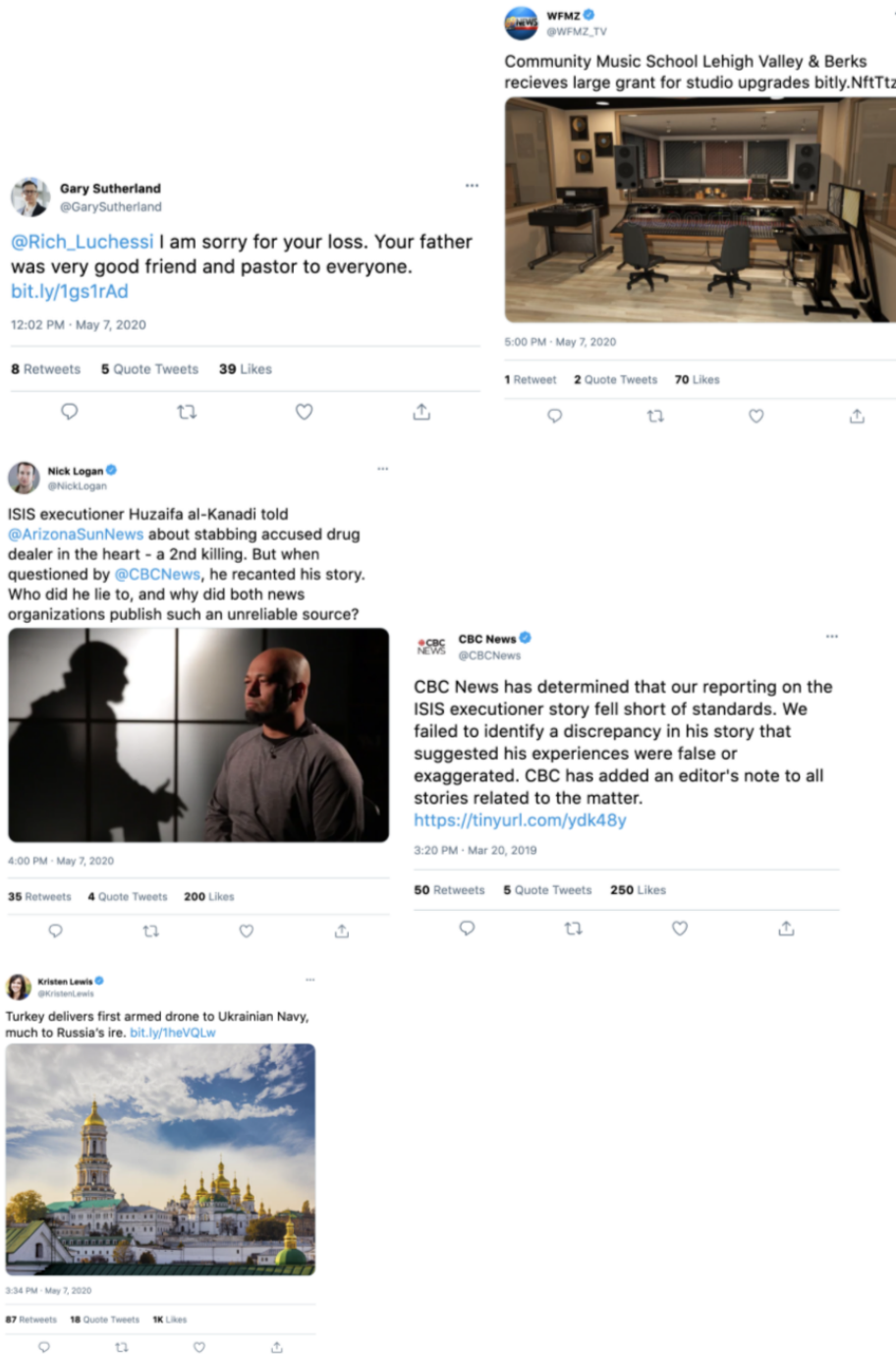**8** Retweets **5** Quote Tweets **39** Likes

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

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/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

16

- 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.

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***	−0.14***
	(0.06)	(0.04)
Third party correction	0.29***	−0.07*
	(0.06)	(0.04)
Both messages (news outlet first)	0.75***	−0.18***
	(0.06)	(0.04)
Both messages (third party first)	0.68***	−0.21***
	(0.06)	(0.04)
Control variables	✓	✓
Republican × news outlet correction	−0.22*	0.06
	(0.09)	(0.06)
Republican × third party correction	−0.30**	0.03
	(0.09)	(0.06)
Republican × both messages (news outlet first)	−0.18	0.03
	(0.10)	(0.06)
Republican × both messages (third party first)	−0.26**	0.17**
	(0.10)	(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	0.03
	(0.07)	(0.04)
News outlet correction	0.75***	−0.06
	(0.08)	(0.04)
Third party correction	0.06	−0.01
	(0.08)	(0.04)
Both messages (news outlet first)	0.60***	−0.13**
	(0.07)	(0.04)
Both messages (third party first)	0.47***	−0.08
	(0.08)	(0.05)
Control variables	✓	✓
Twitter user × news outlet correction	0.18	−0.09
	(0.10)	(0.06)
Twitter user × third party correction	0.17	−0.08
	(0.10)	(0.06)
Twitter user × both messages (news outlet first)	0.14	−0.07
	(0.10)	(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*	0.13***
	(0.04)	(0.03)
News outlet correction	0.63***	0.15
	(0.14)	(0.08)
Third party correction	−0.08	0.00
	(0.14)	(0.08)
Both messages (news outlet first)	0.40**	0.04
	(0.14)	(0.08)
Both messages (third party first)	0.17	0.07
	(0.15)	(0.09)
Control variables	✓	✓
General media trust × news outlet correction	0.10	−0.12***
	(0.06)	(0.04)
General media trust × third party correction	0.11	−0.03
	(0.06)	(0.04)
General media trust × both messages (news outlet first)	0.13*	−0.10**
	(0.06)	(0.04)
General media trust × both messages (third party first)	0.18**	−0.10**
	(0.06)	(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
A. *Hypotheses*	
State specific objectives or hypotheses.	See Theoretical Expectations section.
B. *Subjects and context*	
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.
C. *Allocation method*	
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.
D. *Treatments*	
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.
E. *Results*	
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 `https://osf.io/yxhme/`) 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 sub-group, 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.
F. *Other information*	
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 (`https://osf.io/yxhme/`).
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 *Journal of Experimental Political Science* 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.