

Fact checking in the 2019 election: research recommendations

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Full Fact

Full Fact is the UK's independent factchecking charity.

About this paper

Misinformation and disinformation cause real harm to people's lives, health, finances and to democracy. We need good evidence on how to tackle it. Full Fact has set up a research programme to find that evidence and make it useful to fact checkers and newsrooms.

In this briefing, Full Fact's Researcher **Dr. Dora-Olivia Vicol** and Research Manager **Amy Sippitt** explore the academic evidence on what makes a fact check well communicated and understood.

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Summary

This briefing builds on peer-reviewed academic research and lessons drawn from Full Fact's editorial team, to provide UK fact checkers and newsrooms with an evidence-based set of good practices.

There is good reason to take fact checking seriously. Generally speaking, fact checks reduce belief in misinformation, increase the perceived quality of news, and can help create a culture of accuracy in the long term. While we cannot correct everything, or everyone, fact checking is effective and the risk of “backfire” is minimal (entrenched misinformation which has become associated with identity groups being a potential exception). Overall, there is little doubt that fact checking plays an important civic role.

Good fact checking is also about tactics. Style wise, it is important to give answers early and clearly; to explain what is wrong, but also how inaccuracies arose in the first place; to ensure that contextual information supports the correction; and above all, to play fair.

In terms of format, belief correction is aided by fact checks that are easy to digest, where figures are supported by graphs and images.

There are also tactics of production to consider. Corrections delivered early minimise the “illusory truth effect” created by repeated misinformation, and those delivered with the involvement of the original source of the false information are more effective than those which merely prove them wrong.

Having said that, this briefing is not an exhaustive literature review. It is a summary of what we currently know and we see it as the beginning of a conversation, which will no doubt be refined with input from practitioners. We are working on a series of more detailed guides to the evidence as part of our research programme with Africa Check and Chequeado.¹

¹ For more information, see fullfact.org/blog/2019/aug/full-fact-joint-research-programme-africa-check-and-chequeado.

Three reasons to take fact checking seriously

1. **Correcting misinformation.** A large body of literature has found that, on aggregate, participants exposed to fact checks were better able to identify false statements than those who had seen no corrections.² This was the case with experiments testing long-form³ and short-format fact checks (such as the types appearing on Twitter)⁴ and in experiments covering a wide demographic spectrum. Understandably, not every claim can be debunked, and readers are not uniformly susceptible to correction. Strong political partisanship⁵ is one of the most widely referenced limits to correction, and other research has pointed to the effects of readers' prior beliefs on their evaluation of new information.⁶ We also need to understand more about the effects of corrections in the long term, bearing in mind the risk that corrections can provide exposure to views which might otherwise remain confined to a few niche groups⁷. Overall however, there is good reason to believe that fact checks are an effective means of countering misinformation.
2. **Increasing perceived quality of news stories.** A number of studies have found that readers prefer news stories which offer a more decisive adjudication to the traditional "he said, she said" reportage. Contrary to concerns that adjudication might be mistaken for bias,⁸ an experiment found that news stories which weighed the facts and put forward a clear conclusion were seen as higher in quality, better able to satisfy information needs, and more likely to increase future news use.⁹ As a caveat, it is important to note that the experiment was conducted on a sample of over 400 American students, who are hardly a perfect representation of UK readers. The adjudication offered was also critical of all claim

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- 2 Nathan Walter and Sheila T. Murphy, 'How to Unring the Bell: A Meta-Analytic Approach to Correction of Misinformation', *Communication Monographs* 85, no. 3 (3 July 2018): 423–41, doi.org/10.1080/03637751.2018.1467564; Nathan Walter and Riva Tukachinsky, 'A Meta-Analytic Examination of the Continued Influence of Misinformation in the Face of Correction: How Powerful Is It, Why Does It Happen, and How to Stop It?', *Communication Research*, 22 June 2019, 0093650219854600, doi.org/10.1177/0093650219854600; Man-pui Sally Chan et al., 'Debunking: A Meta-Analysis of the Psychological Efficacy of Messages Countering Misinformation', *Psychological Science* 28, no. 11 (2017): 1531–1546.
 - 3 Dannagal G. Young et al., 'Fact-Checking Effectiveness as a Function of Format and Tone: Evaluating FactCheck. Org and FlackCheck. Org', *Journalism & Mass Communication Quarterly* 95, no. 1 (2018): 49–75.
 - 4 Ullrich KH Ecker et al., 'The Effectiveness of Short-Format Refutational Fact-Checks', *British Journal of Psychology*, 2019.
 - 5 Brendan Nyhan and Jason Reifler, 'When Corrections Fail: The Persistence of Political Misperceptions', *Political Behavior* 32, no. 2 (2010): 303–330.
 - 6 Ben M. Tappin, Gordon Pennycook, and David Rand, 'Rethinking the Link between Cognitive Sophistication and Politically Motivated Reasoning', 3 December 2018, doi.org/10.31234/osf.io/yuzfj.
 - 7 Victoria Kawan, 'Responsible Reporting in an Age of Information Disorder' (First Draft, 2019), firstdraftnews.org/how-journalists-can-responsibly-report-on-manipulated-pictures-and-video.
 - 8 Kathleen Hall Jamieson and Paul Waldman, *The Press Effect: Politicians, Journalists, and the Stories That Shape the Political World* (New York: Oxford University Press, 2003).
 - 9 Raymond James Pingree, Dominique Brossard, and Douglas M. McLeod, 'Effects of Journalistic Adjudication on Factual Beliefs, News Evaluations, Information Seeking, and Epistemic Political Efficacy', *Mass Communication and Society* 17, no. 5 (2014): 615–638.

sources cited, rather than taking one side over the other. Although such research remains in its early stages, the line of inquiry tested in this experiment and advocated in the theoretical literature¹⁰ makes a strong case for decisive journalism.¹¹

3. **Contributing to a culture of accuracy.** A field experiment where a randomly assigned group of US legislators were warned about the potential reputational damages of fact checks, found that they were less likely to be caught making questionable statements in the months to come, compared to legislators who had been sent unrelated information.¹² Admittedly, this is just one study with a small sample. But it gives us reason to hope that, beyond the everyday hunt for inaccuracies, fact checking can also become part of a culture of honest debate.

Style

1. **Don't stop at pointing out what's wrong – tell readers what the real story is.** Whenever we commit something to memory, we tend to store it in narrative format.¹³ Important elements of time, place, actors and motives do not exist in our minds independently of each other, but are usually remembered for how they hang together. This is what psychologists call mental models. Studies have found that people's tendency to build models of events makes it harder to correct misinformation, if all a fact check does is open a gap in the story. A widely cited experiment asked participants to read an account of a fire which was allegedly started by gas cylinders, then presented them with a retraction which took the gas out of the narrative.¹⁴ While direct questions about the presence of gas cylinders were answered correctly, participants continued nonetheless to mention them when asked to explain how the fire started. Several studies have since concluded that it is important to mount a correction which points out what is wrong, but also replaces that inaccuracy with a causal factual alternative.¹⁵ Encouragingly, one study which investigated this found that even a

10 Jamieson and Waldman, The Press Effect.

11 Benjamin A. Lyons, 'When Readers Believe Journalists: Effects of Adjudication in Varied Dispute Contexts', *International Journal of Public Opinion Research* 30, no. 4 (2017): 583–606.

12 Brendan Nyhan and Jason Reifler, 'The Effect of Fact-Checking on Elites: A Field Experiment on US State Legislators', *American Journal of Political Science* 59, no. 3 (2015): 628–640.

13 Walter and Tukachinsky, 'A Meta-Analytic Examination of the Continued Influence of Misinformation in the Face of Correction'.

14 Hollyn M. Johnson and Colleen M. Seifert, 'Sources of the Continued Influence Effect: When Misinformation in Memory Affects Later Inferences', *Journal of Experimental Psychology: Learning, Memory, and Cognition* 20, no. 6 (1994): 1420.

15 Stephan Lewandowsky et al., 'Misinformation and Its Correction: Continued Influence and Successful Debiasing', *Psychological Science in the Public Interest* 13, no. 3 (2012): 106–131.

short fact check that can fit in a tweet (of 140 characters) can cover what went wrong and when, who, why this happened.¹⁶

2. When a claim is not correct, state it clearly, and state it early – in the headline, and throughout the content of the article.

An established body of research has revealed that, to mitigate the danger of strengthening misinformation through repetition,¹⁷ fact checks should clearly refute false claims, giving readers not only a sense of the original inaccuracy, but also an immediate assessment of its truth value. It is important to do this early, starting with the headline. This is particularly relevant in the age of incidental news consumption on social media, where the headline is often the only thing the audience see.¹⁸ However, clear headlines are also key because first impressions are difficult to change. A study which investigated the role of misinformation in news headlines found that, even after reading an entire article, readers struggled to update perceptions formed at the point of reading headlines.¹⁹ Headlines shape how future information is retained and, even when readers become aware of discrepancies between them and the rest of an article, this correctional effort may make it harder to recall other elements of the story. It is important to give the corrective information early and consistently.

3. Ensure that the context supports the conclusion. Contextual information matters just as much as the refutation itself. It is important to bring them in tune. An experiment exposed 750 US participants to different versions of a fact check debunking a claim about a New York based Imam's alleged support for terrorism.²⁰ The example was deliberately chosen to tap into the polarising issue of national identity, with a view to test whether participants were more or less likely to accept the evidence, if contextual details reproduced, or diverged from, mainstream representation of Americanness. Context, the authors found, matters a great deal. Belief correction was less effective when participants had seen a fact check accompanied by a picture of the Imam in a mosque, which was selected to reflect a stereotypical representation of otherness than when the accompanying picture portrayed him

16 Ecker et al., 'The Effectiveness of Short-Format Refutational Fact-Checks'.

17 Walter and Tukachinsky, 'A Meta-Analytic Examination of the Continued Influence of Misinformation in the Face of Correction'.

18 Pablo J Boczkowski, Eugenia Mitchelstein, and Mora Matassi, "'News Comes across When I'm in a Moment of Leisure": Understanding the Practices of Incidental News Consumption on Social Media', *New Media & Society* 20, no. 10 (1 October 2018): 3523–39, doi.org/10.1177/1461444817750396.

19 Ullrich K. H. Ecker et al., 'The Effects of Subtle Misinformation in News Headlines', *Journal of Experimental Psychology: Applied* 20, no. 4 (2014): 323–35, doi.org/10.1037/xap0000028.

20 R. Kelly Garrett, Erik C. Nisbet, and Emily K. Lynch, 'Undermining the Corrective Effects of Media-Based Political Fact Checking? The Role of Contextual Cues and Naïve Theory', *Journal of Communication* 63, no. 4 (2013): 617–637.

wearing a suit before an ethnically diverse audience, in a way which reflected hegemonic views of an “integrated” American Muslim. The role of context was also not specific to images. When participants read a fact check which included a controversial statement, portraying the Imam as diverging from US mainstream discourse, the effects of the correction were completely annulled. It is important therefore to remember that context can do much to support a fact check, when they are in tune. However, a quotation, reference and image that diverges from the main narrative can also undermine it. For obvious reasons, issues in this area should be approached with caution, as dominant narratives may themselves be misleading. Care must be taken not to play to general misconceptions in an effort to correct specific misconceptions.

4. **Play fair.** There is little doubt about the fact that aggressive writing has become a common feature of the Western media. High in emotion, targeting a group or a person rather than a topic,²¹ aggressive writing has been found to spur some political engagement.²² When it comes to belief correction however, lacing fact checks with aggressive language does not pay off. Studies of media credibility found that stories characterised by “gratuitous asides that [suggest] a lack of respect for the opposition”, were seen as less informative, and less credible.^{23, 24} Across the vast literature on belief formation, social-psychologists have found that we are less likely to accept information which appears to threaten our identity and sense of self-worth. Seeking to mitigate this, a number of experiments²⁵ have even tested whether affirming readers’ sense of self-worth can improve their willingness to accept messages they might disagree with. Outcomes for this intervention were mixed. Self-affirmation appeared to “take the sting” out of uncomfortable evidence in one set of experiments, but did not consistently increase receptivity to corrections in more recent studies.²⁶ Despite this limitation however, one finding emerges clearly. Feeling personally threatened does not make anyone more receptive to evidence. If we are yet to establish the power of language which

21 Shupe Yuan, John C. Besley, and Chen Lou, ‘Does Being a Jerk Work? Examining the Effect of Aggressive Risk Communication in the Context of Science Blogs’, *Journal of Risk Research* 21, no. 4 (2018): 502–520.

22 Deborah Jordan Brooks and John G. Geer, ‘Beyond Negativity: The Effects of Incivility on the Electorate’, *American Journal of Political Science* 51, no. 1 (2007): 1–16, doi.org/10.1111/j.1540-5907.2007.00233.x.

23 Yuan, Besley, and Lou, ‘Does Being a Jerk Work?’

24 Kjerstin Thorson, Emily Vraga, and Brian Ekdale, ‘Credibility in Context: How Uncivil Online Commentary Affects News Credibility’, *Mass Communication and Society* 13, no. 3 (3 June 2010): 289–313, doi.org/10.1080/15205430903225571.

25 Geoffrey L. Cohen, Joshua Aronson, and Claude M. Steele, ‘When Beliefs Yield to Evidence: Reducing Biased Evaluation by Affirming the Self’, *Personality and Social Psychology Bulletin* 26, no. 9 (2000): 1151–1164.

26 Brendan Nyhan and Jason Reifler, ‘The Roles of Information Deficits and Identity Threat in the Prevalence of Misperceptions’, *Journal of Elections, Public Opinion and Parties* 29, no. 2 (2019): 222–244.

makes readers feel good about themselves, we can be fairly certain that using aggressive language will alienate some readers.

Format

1. **If a fact check is easy to read, it is easy to grasp.** A number of psychology studies have shown that when it comes to learning, memory, and attention, format is just as important as content. A small experiment which showed participants five versions of a news story found that those who read a text-only or text-plus-picture article were significantly better able to recall it, and more satisfied with its coherence than participants who had seen video and audio versions.²⁷ Articles written in the inverted pyramid structure,²⁸ and organised in a single column, short paragraphs,²⁹ and surrounded by white space rather than distracting visual elements,³⁰ are also easiest to read and most effectively remembered.³¹ A large number of studies have found that “fluent” information which is easier to process—affects truth judgements, learning, and memory. In short: the easier it is to read, the more effective a fact check will be.³²
 2. **A good image can improve veracity, attention, and learning – but a poor one can distract.** A number of studies have found that pictures create a general “truthiness effect”. An experiment which exposed participants to a series of general knowledge claims, such as “macadamia nuts are in the same evolutionary family as peaches” revealed that claims accompanied by photos were more likely to be rated as true, despite offering no additional evidence in and of themselves.³³ Similarly, a study which simulated news consumption on social media found that stories accompanied by a picture were more likely to be believed, liked, and shared,³⁴ while a different experiment which tested various news formats found
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- 27 S. Shyam Sundar, ‘Multimedia Effects on Processing and Perception of Online News: A Study of Picture, Audio, and Video Downloads’, *Journalism & Mass Communication Quarterly* 77, no. 3 (1 September 2000): 480–99, doi.org/10.1177/107769900007700302.
- 28 Tessa I. DeAngelo and Narine S. Yeghyan, ‘Looking for Efficiency: How Online News Structure and Emotional Tone Influence Processing Time and Memory’, *Journalism & Mass Communication Quarterly* 96, no. 2 (1 June 2019): 385–405, doi.org/10.1177/1077699018792272.
- 29 Steve Outing and Laura Ruel, ‘The Best of Eyetrack III: What We Saw When We Looked Through Their Eyes’, Retrieved from archive.org, Poyntextra, 2004, https://web.archive.org/web/20110423062128/http://www.poynterextra.org/eyetrack2004/main.htm.
- 30 Susan Weinschenk, *100 Things Every Designer Needs to Know about People* (Pearson Education, 2011).
- 31 Adam L. Alter and Daniel M. Oppenheimer, ‘Uniting the Tribes of Fluency to Form a Metacognitive Nation’, *Personality and Social Psychology Review* 13, no. 3 (2009): 219–235.
- 32 Alter and Oppenheimer.
- 33 Eryn J. Newman et al., ‘Truthiness and Falsiness of Trivia Claims Depend on Judgmental Contexts.’, *Journal of Experimental Psychology: Learning, Memory, and Cognition* 41, no. 5 (2015): 1337.
- 34 Elise Fenn et al., ‘Nonprobative Photos Increase Truth, Like, and Share Judgments in a Simulated Social Media Environment’, *Journal of Applied Research in Memory and Cognition*, 2019.

that articles accompanied by a picture produced higher learning outcomes than text-only, video, or audio stories.³⁵ Psychologists explain the power of pictures to improve learning by drawing attention to the fact that visual stimuli are processed by different parts of the brain. A good image which echoes the conclusions of accompanying text acts, in effect, as a “second dose” of the same information. It is also the distinct ways in which we process visual stimuli that make pictures look like “evidence”, strengthening the perception of veracity. It is important to remember however, that the power of images is a double edged sword. An experiment which exposed over 1,700 parents to different ways of disproving the vaccine-autism link, found that participants who were shown pictures of sick children were less likely to accept the evidence. Even though the sicknesses represented were those prevented by, not caused by, vaccination, it is likely that the sheer association between vaccine and illness was enough to reinforce the myth.³⁶ Thinking back to the work of fact checkers then, choosing pictures requires caution. A good image which represents the conclusions of a fact check can strengthen its reception, and lead to more shares. A poorly chosen one however, can erode and even override the intention of the author.

- 3. Graphs can provide an easy visualisation of a trend.** An experiment which investigated a common misconception, namely that global temperatures are not rising, found that corrections were more effective when participants were shown a graph which plotted temperature levels over a number of years, than when they were shown a textual summary.³⁷ Notably, this was the case for participants who self-identified as Republican and might be expected to be more attached to the original misinformation thanks to party cues – though no effect was visible for the “strongly Republican”. While it is fair to acknowledge that graphic representations can be manipulated, and are not as effective in the case of unstructured data, there is a body of literature which suggests that social science data which convey change over time or geographic variance,³⁸ can greatly benefit from graphs.
- 4. The jury is out on rating scales.** An experiment found that adding visual ratings of (in)accuracy to written fact checks was more effective than exposing participants to textual fact checks

35 Sundar, ‘Multimedia Effects on Processing and Perception of Online News’.

36 Brendan Nyhan et al., ‘Effective Messages in Vaccine Promotion: A Randomized Trial’, *Pediatrics* 133, no. 4 (2014): e835–e842.

37 Nyhan and Reifler, ‘The Roles of Information Deficits and Identity Threat in the Prevalence of Misperceptions’.

38 Nyhan and Reifler, 224–25.

alone.³⁹ However, this was only the case for a fabricated fact check on a non-political claim, and no difference was found for a fabricated political claim, which is generally harder to debunk.⁴⁰ The ratings tested were also all marked as “mostly false”, limiting our understanding of how fact checks marked as “half true” would fare. A recent meta-analysis of research testing the effects of fact checks on beliefs found that visual “truth scales” may in fact reduce the effectiveness of a fact check.⁴¹ This is an important area to understand, particularly given that other research has found that readers increasingly expect writers to adjudicate, and not simply provide a difference of opinion.⁴²

Production

1. **Timeliness is key.** Decades of psychology research have found that the more a claim is repeated, the more it is likely to be believed.⁴³ We all tend to believe the things we are familiar with. Even when a claim is false, repetition increases familiarity, and with it the perception of veracity. Psychologists call this “the illusory truth effect”. Notably, while a number of large-scale analyses have found that repetition increases belief in misinformation, the repetition of a fact check starts with a certain disadvantage, given how every correction is a retroactive intervention which seeks to demote something we already believe. Studies which investigated the effectiveness of fact checks found that even when readers accept new evidence, they often make inferences based on the original misinformation.⁴⁴ While the “continued influence effect” can be mitigated with strong refutations,⁴⁵ this becomes much harder when misinformation has been repeated more than once.⁴⁶ For fact checkers then, the lesson is simple. Catch the claim before it gains wide exposure.

39 Michelle A. Amazeen et al., ‘A Comparison of Correction Formats: The Effectiveness and Effects of Rating Scale versus Contextual Corrections on Misinformation’, *American Press Institute*. Downloaded April 27 (2015): 2015.

40 Walter and Murphy, ‘How to Unring the Bell’.

41 Nathan Walter et al., ‘Fact-Checking: A Meta-Analysis of What Works and for Whom’, *Political Communication*, 24 October 2019, 1–26, doi.org/10.1080/10584609.2019.1668894.

42 Lyons, ‘When Readers Believe Journalists’; Pingree, Brossard, and McLeod, ‘Effects of Journalistic Adjudication on Factual Beliefs, News Evaluations, Information Seeking, and Epistemic Political Efficacy’.

43 Ullrich KH Ecker, Joshua L. Hogan, and Stephan Lewandowsky, ‘Reminders and Repetition of Misinformation: Helping or Hindering Its Retraction?’, *Journal of Applied Research in Memory and Cognition* 6, no. 2 (2017): 185–192; Walter and Tukachinsky, ‘A Meta-Analytic Examination of the Continued Influence of Misinformation in the Face of Correction’.

44 Walter and Tukachinsky, ‘A Meta-Analytic Examination of the Continued Influence of Misinformation in the Face of Correction’.

45 Ullrich KH Ecker et al., ‘Refutations of Equivocal Claims: No Evidence for an Ironic Effect of Counterargument Number’, *Journal of Applied Research in Memory and Cognition* 8, no. 1 (2019): 98–107.

46 Ullrich KH Ecker et al., ‘Correcting False Information in Memory: Manipulating the Strength of Misinformation Encoding and Its Retraction’, *Psychonomic Bulletin & Review* 18, no. 3 (2011): 570–578.

2. Corrections are more credible when they are made by the original source of misinformation.

Decades of research have found that the credibility of a source generally enhances the credibility of the information communicated.⁴⁷ To a large extent, this is predictable. We do not always have the motivation or expertise to evaluate what we read in depth. The way we feel about the message is often the way we feel about the people or organisations who communicate it. Interestingly however, this relation is more complex when it comes to fact checks. An analysis of 32 studies found no statistical difference between how participants rated corrections authored by widely known sources, and those authored by relatively unknown groups. When the source of corrections did matter, it was when the source corrected itself. Research finds that, on aggregate, corrections are significantly more effective when they come from the same source who produced the misinformation to begin with.⁴⁸ If one conclusion is apparent then, it is that there is good reason for fact checkers to push those who made the original claim to correct the record.

47 Chanthika Pornpitakpan, 'The Persuasiveness of Source Credibility: A Critical Review of Five Decades' Evidence', *Journal of Applied Social Psychology* 34, no. 2 (2004): 243–281.

48 Walter and Tukachinsky, 'A Meta-Analytic Examination of the Continued Influence of Misinformation in the Face of Correction'; Walter and Murphy, 'How to Unring the Bell'.

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