Routledge
Taylor & Francis Group

Inquiry
An Interdisciplinary Journal of Philosophy

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/sinq20

Advancing the debate on the consequences of misinformation: clarifying why it's not (just) about false beliefs

Maarten van Doorn

To cite this article: Maarten van Doorn (30 Nov 2023): Advancing the debate on the consequences of misinformation: clarifying why it's not (just) about false beliefs, Inquiry, DOI: 10.1080/0020174X.2023.2289137

To link to this article: https://doi.org/10.1080/0020174X.2023.2289137

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

Published online: 30 Nov 2023.

Submit your article to this journal

View related articles

View Crossmark data

Full Terms & Conditions of access and use can be found at
https://www.tandfonline.com/action/journalInformation?journalCode=sinq20

INQUIRY
https://doi.org/10.1080/0020174X.2023.2289137

Advancing the debate on the consequences of misinformation: clarifying why it's not (just) about false beliefs

Maarten van Doorn

Centre for Language Studies, Radboud University, Nijmegen, Netherlands

ABSTRACT
The debate on whether and why misinformation is bad primarily focuses on the spread of false beliefs as its main harm. From the assumption that misinformation primarily causes harm through the spread of false beliefs as a starting point, it has been contended that the problem of misinformation has been exaggerated. Its tendency to generate false beliefs appears to be limited. However, the near-exclusive focus on whether or not misinformation dupes people with false beliefs neglects other epistemic harms associated with it. Specifically, I show that misinformation also causes trouble for the epistemic goods of truth attainment, intellectual autonomy and debate pluriformity. Moreover, for each of these goods, I argue that emphasizing error-avoidance exacerbates, rather than mitigates, the harms caused by misinformation. These oversights and dilemmas show that prioritizing error-avoidance in the fight against misinformation is not a neutral default policy or necessarily a net positive. A shift in focus away from the spread of false beliefs as the main harm of misinformation is needed to better understand and counter its negative effects.

ARTICLE HISTORY Received 19 June 2023; Accepted 13 November 2023

KEYWORDS Misinformation; social media; social epistemology; veritism; intellectual autonomy; epistemic dependence

Over the past few years, the spread of misinformation has become a major issue of concern. False or misleading content in various forms has been linked to significant political events such as the Brexit referendum, the 2016 US elections, and protests against COVID-19 containment measures. This has led to increased (research) attention from various disciplines for misinformation and its effects.

CONTACT Maarten van Doorn martinus.vandoorn@ru.nl, maartenjvandoorn@gmail.com; Radboud University, Houtlaan 4, 6525 XZ Nijmegen, Netherlands https://www.linkedin.com/in/maartenvandoorn/ @maartenvdoorn

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (http://creativecommons.org/licenses/by-nc-nd/4.0/), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

Misinformation, as I understand the term in the present paper, 'stands for false or misleading information that has a systematic or structural quality to it, or that is not transparently presented as non-veracious' (De Ridder 2021, 4). This definition distinguishes misinformation from inaccurate but sincere testimony. With an honest mistake, the falsity or misleadingness is an accident and does not result from structural features of the way the information is produced and spread. How does misinformation connect to related concepts such as fake news or disinformation? Disinformation is typically taken to pick out misinformation that is deliberately deceptive (e.g. Alsmadi and O'Brien 2021; Søe 2021). It is thus a *subset* of misinformation. Fake news, in turn, is a subcategory of disinformation. It refers not to all deliberatively deceptive misinformation, but only to disinformation that specifically and purposefully 'mimics news media content in form but not in organizational process or intent' (Lazer et al. 2018, 1094).[1]

Especially after 2016, it has been urged that misinformation disseminated on social media is sufficiently prevalent to constitute an urgent crisis (Aral and Eckles 2019). Misinformation is said to dupe people into believing false things. With this assumption, it is a small step toward the second and larger thesis that misinformation is a cause of aberrant behavior. As Adams et al. (2023, 21–22) point out,

> the logic behind studies drawing a causal connection between misinformation and behavior is that misinformation is pivotal to motivating negative behaviors. In other words, if claims that were factually inaccurate had not been encountered, the harmful behavior would not have occurred.

It is often supposed that harmful consequences of misinformation hinge on this exposure-belief-behavior link. Epistemically, then, current discussions about the problem of misinformation tend to focus on misinformation's tendency to generate false beliefs (which may or may not cause behavior). We can see this, for instance, in the idea that 'false stories are only a problem to the extent that they are believed' (Coady 2019, 50).

However, convincing evidence of such a causal connection between misinformation exposure and belief in misperceptions has been hard to come by (Adams et al. 2023). It seems that laypeople are able to discern fake from true news (Allen et al. 2020; Bago, Rand, and Pennycook 2020;

[1]As far as I can see, the argument of this paper does not depend on surrounding semantic subtleties (Pepp, Michaelson, and Sterken 2022; Vraga and Bode 2020). It is consistent with other conceptual understandings of how fake news, misinformation, and disinformation relate that circle in the literature.

Pennycook and Rand 2019, 2020, 2021). The general finding from studies showing participants real and fake headlines and investigating whether they deem the former more plausible than the latter, is that perceived accuracy is typically a function of headline veracity. Moreover, even well-designed surveys have been found to overestimate the prevalence of misbeliefs (Graham 2023). This sheds doubt on the premise that misinformation is dangerously effective at duping people with false beliefs.

Especially on stricter definitions of misinformation (fake news, imposter sites, conspiracy theories), these empirical results, together with the assumption that acquiring false beliefs is the main harm of misinformation, would make it seem like its detrimental effect is only minimal. Accordingly, several authors argue that we have not been able to establish misinformation as a cause of undesirable behavior via changes in belief along the lines that would be needed according to theoretical accounts underlying the current debate on the consequences of misinformation. On these views, the problem of misinformation has been exaggerated (Altay, Lyons, and Modirrousta-Galian 2023). Perhaps, these authors suggest, fears about the infodemic are best seen instead as a technology-induced moral panic instead (Anderson 2021; Carlson 2019; Jungherr and Schroeder 2021; Marwick 2008; Mitchelstein, Matassi, and Boczkowski 2020; Nyhan 2020; Simons 2018).

A common reply from those who believe otherwise holds that misinformation doesn't *need* to fool many people to be problematic. For example, some Sandy Hook 'truthers' – conspiracy theorists who allege that the mass shooting was a false flag operation – have escalated their harassment of parents who lost children at the elementary school beyond online trolling to confronting and threatening them in person (Robles 2016). (Relatives of) survivors of other mass shootings have also been victims of this kind of activity (Raphelson 2018). Moreover, they contend, elections are often decided on small margins – again indicating that misinformation doesn't need to dupe many people to be of major consequence nonetheless (e.g. Van der Linden 2023, 9).

Whatever the cogency of these arguments, the scientific discussion on how worrisome misinformation is nowadays largely consists of arguing over the normative importance of the small number of participants who, in the studies cited above, fall for the misinformation and whether the alternative moral-panic account can be made sense of (e.g. Habgood-Coote 2023).[2]

[2]One notable exception is De Ridder (2021).

This debate, I believe, is overly narrow in focus. While avoiding false beliefs is a worthwhile epistemic goal, there are other valuable epistemic aims too. These have largely been ignored in the study of and debate on misinformation's effects, which have been proceeding under the assumption that falsehood avoidance is the obvious and perhaps only relevant epistemological criterion. While that might be intuitive, I argue in this paper that we should question the normative primacy of falsehood avoidance. The focus on whether or not misinformation dupes people with false beliefs, has allowed important subtle consequences to fly under the radar. Widening our normative view of the effects of misinformation reveals these overlooked repercussions. It also reveals important and unexplored tensions between epistemic goods in assessing why misinformation is bad and in the epistemology of social media more broadly. This oversight might explain why the current debate on why misinformation is bad has seemed unproductive to many (e.g. Jungherr and Schroeder 2021).

In the next three sections, I make concrete the claim that misinformation is associated with other epistemic harms than generating false beliefs by showing how it also jeopardizes the epistemic goods of truth attainment, intellectual autonomy and debate pluriformity. I also argue there's a trade-off between avoiding error and these three other epistemic goods we'd plausibly want the virtual epistemic environments that we are constructing for ourselves to foster. In each case, prioritizing error-avoidance is not a neutral default policy or necessarily a net positive. Rather, it comes at a cost, as it makes other valuable epistemic goods harder to obtain. In section 1, I argue that misinformation endangers truth attainment and show how prioritizing falsehood avoidance endangers truth attainment. In section 2, I argue that misinformation imperils intellectual autonomy and point to a similar dilemma between attaining falsehood avoidance and securing meaningful intellectual autonomy. In section 3, I argue that misinformation threatens debate pluriformity and that prioritizing falsehood avoidance as a response can plausibly undermine democratic values. Section 4 then concludes with implications for studying the consequences of misinformation and responding to fake news in light of these additional epistemic harms and their complicated relationship with falsehood avoidance.

1. Falsehood avoidance versus truth attainment

In 2020, the World Health Organisation's director-general declared, amidst the outbreak of Covid-19, that 'we're not just fighting a pandemic;

we're fighting an *infodemic*' (Zarocostas 2020). Bad actors have filled the media environment with false or misleading information (Benkler, Faris, and Roberts 2018). Increasingly, people's good-faith efforts at acquiring justified beliefs are being subverted by epistemically hostile environmental features exploiting our cognitive vulnerabilities – think of seductively clear belief systems like conspiracy theories, communities structured as echo chambers, gamified user interface design on social media and fake institutional credentialing systems (Nguyen 2023).

Let's accept for the sake of the argument that our online world is indeed aptly characterized as a polluted informational landscape.[3] In such an information environment, it seems clear how to maximize error-avoidance: don't believe anything you read on the internet. For all the pieces of information you're likely to encounter there, its a priori odds of being wrong or misleading are too high, and you – as a non-expert – cannot tell which is which. It's best to hunker down, epistemically. Otherwise, you risk knowledge by making it more likely you will end up believing falsehoods.

Accordingly, if error-avoidance is the epistemic value responsible epistemic agents ought to care about, then the problematic impact of epistemic pollution can so be minimized quite straightforwardly. After all, in such a polluted epistemic environment, the goal of avoiding falsehood might still be achieved – exactly in this defensive-conservative way. Just drastically reduce your internet activity. In this spirit, for instance, Goldman (2008, 117) has appealed to error-avoidance in support of the claim that traditional newspapers are epistemically better than blogging, because the traditional media are superior at *filtering out* false claims. Traditional reporters' filtering practices, according to Goldman, 'reduce the number of errors that might otherwise be reported and believed'.

In a similar attempt to shield us from online falsehoods, we're often warned that the heterogeneity of information sources, weakened power of gatekeepers, and information flows shaped by algorithms make digital communication environments particularly vulnerable to misinformation. Numerous sources, including journalism, government statements (such as the EU's High Representative of the Union for Foreign Affairs and Security Policy in 2018), recent court rulings (such as Germany's supreme court in 2021), and politicians criticizing digital infrastructure providers, caution that digital information environments are often unreliable and prone to manipulation.

[3]But see Simon and Camargo (2021) for a critical perspective on the infodemic metaphor.

Such characterizations of information encountered in digital communication environments as unreliable and manipulative have recently been studied under the heading of *disinformation discourse*. Its potential negative effects have been raised by several scholars (Benkler, Faris, and Roberts 2018; Hameleers 2023; Jungherr and Schroeder 2021). Disinformation discourse may produce a sensitivization toward misinformation, but it could also distort the way accuracy is detected. It could lead to an overestimation of the threat and prime general distrust even for factually correct news, ultimately making people more skeptical toward *all* information sources (Altay, Lyons, and Modirrousta-Galian 2023; Van der Meer, Hameleers, and Ohme 2023). This would mean these efforts against misinformation reduce its power to generate misperceptions at the cost of increased skepticism in true information.

Notably, these suggestions about error avoidance clashing with truth attainment are empirically confirmed. People exposed to disinformation discourse lower their credibility assessments of information *irrespective of its factualness* (Jahng 2021; Van Duyn and Collier 2019). Clayton et al. (2020), for instance, find that exposure to a general warning about misleading information on social media decreased belief in the accuracy of *true* headlines. Exposure to mainstream media coverage of misinformation predicts lower levels of trust in scientists (Hoes et al. 2022) and growing up around public debates about 'fake news' can lead to differences in media trust evaluations among generations (Brosius, Ohme, and de Vreese 2022). Yet other experimental research demonstrates how informing participants about deepfakes may not enhance their ability to successfully spot manipulated videos but induce them to believe the videos they watched were fake, even when they were real (Ternovski, Kalla, and Aronow 2022). Well-intentioned coverage of the dangers of deepfakes might thus have an unintended consequence: if voters are warned about deepfakes, they may begin to distrust all political videos. In short, the heightened salience of misinformation as a persistent societal threat can have an unintended spillover effect by decreasing the perceived credibility of factually accurate information. In this way, disinformation discourse intended to reduce the extent to which misinformation sows false beliefs actually hinders the uptake of true beliefs.

Interestingly, recent empirical evidence suggests a similar tension between truth-attainment and error-avoidance when it comes to some misinformation *interventions* such as inoculation strategies (e.g. Roozenbeek and Van der Linden 2019). These popular interventions might not improve discrimination between true and fake news, but instead make

people more skeptical overall, i.e. they elicit more 'false' responses to all news items (Modirrousta-Galian and Higham 2023). Studies demonstrate that while tested interventions are successful at reducing belief in false information, they simultaneously increase skepticism in the credibility of factual information (Hoes et al. 2022). Rather than increasing truth discernment, participants exposed to the intervention appear less likely to believe false content simply because they are less likely to believe *all* content (Lawson and Kakkar 2022; Maertens et al. 2021). And so individuals exposed to it may become more likely to perceive accurate information as inaccurate; avoiding error but missing out on the truth as well. Indirectly, then – mediated by the focus on avoiding false beliefs – misinformation causes trouble for acquiring true beliefs.

So while dominant interventions and the coverage of misinformation in news media aim to prevent the spread and endorsement of misinformation, they may inadvertently prime individuals to approach all information with heightened levels of suspicion and skepticism. With trust in the news media being low low, disbelieving true news is an increasingly salient problem. For example, just as believing false content advocating for the superiority of Ivermectin in treating COVID-19 seems problematic, so too is *not* believing true content about the benefits of MRNA vaccines. In such cases, there seems to be a trade-off between falsehood avoidance and knowledge acquisition. We avoid error but also forgo valuable knowledge. It's not obvious, therefore, that the extent to which misinformation interventions and warnings decrease misperceptions, justifies the increase in skepticism towards true information they cause.

By contrast, much of the theorizing on whether and why misinformation is bad, focuses on whether people believe false propositions because of it, and whether they act (maliciously) on those beliefs as a consequence. The focus of most research is on preventing people from sharing misinformation, such as fake headlines, or mistaking it for the truth. This approach 'implies the normative claim that users should not believe or share false content, but that whether they believe or share true content is inconsequential' (Guay et al. 2023, 4). But that claim overlooks a subtle distinction, based on Williams James' famous notion of 'two ways of looking at our duty in the matter of opinion … *We must know the truth*; and *we must avoid error*' (James 1978, 17–18). As James notes, these aims are distinct. For example, some epistemic practices help us reject falsehoods, but they do so by leaving us in ignorance (i.e. suspended judgment) – which is distinct from accepting a truth. Such practices fulfill our duty to avoid error, but they violate our duty to know the truth.

Sometimes systems diverge in truth-seeking and error-avoiding merits without growing apart in average instrumental veritistic value. For example, consider two hypothetical educational systems that use different approaches to teach history. Educational system A might emphasize the importance of accurate information and eliminate any information that is deemed potentially false, to prevent students from developing false beliefs. However, this system may result in students having fewer true beliefs and lacking opinions on many claims. In contrast, educational system B may expose students to a greater number of claims, including many true ones, but also some false ones. While this system would allow for the formation of more true beliefs, it would also increase the likelihood of error. Clearly distinguishing error avoidance from truth attainment suggests the need to rethink efforts against misinformation and prioritize delivery strategies that do not hinder the uptake of true information. While it is important to address false information, related efforts must be carefully designed to avoid eroding trust in accurate information.

As Coady (2011, 160–161) likewise points out in reply to Goldman's (2008) error-avoiding argument for the superiority of traditional media over blogging: even if it were true – which Coady argues it is not – that the blogosphere leads people to believe more falsehoods than they otherwise would, 'it would not follow that its overall impact on them would be harmful, even from a narrowly epistemic point of view'. After all, error-avoidance and truth-attainment are distinct epistemic goals that may come into conflict. If the filters Goldman appeals to work well, those who confine themselves to filtered media might avoid encountering falsehoods. But inevitably, they will also miss out on valuable knowledge. A focus on avoiding falsehoods can thus inadvertently jeopardize other essential epistemic states of individuals within social systems, like the acquisition of true beliefs. People could become predictably skeptical or indifferent when they feel avoiding error is the main epistemic value responsible agents ought to pursue.

In this section, I've argued that misinformation (indirectly perhaps) makes it harder to acquire true beliefs, and that focusing on error-avoidance as the main epistemic aim responsible agents ought to care about worsens rather than mitigates this problem. An objection to the argument of this section might observe that several well-cited studies have reported finding relatively little (e.g. Allen et al. 2020) or declining amounts (Allcott et al. 2020) of misinformation on Twitter and Facebook. If that's so, it

might seem premature to conclude that misinformation indirectly undermines true beliefs, as suggested in section.

Such studies often opt for a narrow definition of misinformation, such as known fake news sites, and then conclude that article links from known fake news sites represent a small proportion of most people's media diets, because not a lot of people share or click them (Guess, Nyhan, and Reifler 2020). During the 2016 U.S. election, for instance, this method was used to estimate that 6.7% of political URLs shared by individuals on Twitter came from fake news sites (Grinberg et al. 2019) and 8.5% of users shared at least one link from fake news sites on Facebook (Guess, Nagler, and Tucker 2019).

However, the majority of news consumption on social media likely transpires without the audience sharing or clicking on the link to visit the actual source website, but by them scanning the article (Pennycook and Rand 2021). As they require engagement for detection, counting engagement with URLs leading to noncredible publishers might therefore not be a valid indicator of the prevalence of misinformation. And of course, such fake news represents only one category of misinformation – exposure to more sophisticated misinformation representing a larger portion of people's information diets. Even if *explicitly false* content is rare on social media relative to true content (Grinberg et al. 2019; Guess, Nyhan, and Reifler 2020), true claims can be highly misleading as well. Defining misinformation as known fake news sites might therefore misrepresent its scale.

A second reason studies operationalizing misinformation as article links to problematic web domains probably underestimate its prevalence, is that they exclude image posts. Recent research, namely, has uncovered that image posts are common and likely to mislead (Yang, Davis, and Hindman 2023). According to one Facebook-based estimate, images account for about 40% of posts on political pages and public groups focused on U.S. politics, and about 20% of them contain misinformation. The bias toward studying text-based misinformation might thus have obscured the substantial visual misinformation on platforms. At least then, conclusions of low misinformation levels on platforms seem premature.

2. Falsehood avoidance versus intellectual autonomy

Thanks to the Internet, many people have access to a range of news sources, saying mutually incompatible things. As a result, they might be able to develop their critical faculties, which in turn helps them make better choices about what and whom to believe. This, Coady (2011,

291) reminds us 'is a good thing from an epistemic point of view as well as from the point of view of their general wellbeing'. On the contrary, Coady (2011, 290) claims, 'excessive concern with falsehood avoidance is an epistemic vice. It is a form of epistemic timidity or incuriosity'. These points I will take up in this section. Error-avoidance clashes not just with truth-attainment, but also with epistemic curiosity or self-development, as it promotes indifference and intellectual self-doubt.

Compared to the point in the previous section – that striving for error-avoidance increases distrust in legitimate sources and skepticism toward true information – this highlights a subtly different way in which emphasizing falsehood avoidance conflicts with other epistemic goods by eliciting more conservative epistemic behavior. The former point was that prioritizing falsehood avoidance tends to lead people to miss out on knowledge by judging true information and reliable sources as false and unreliable. The point of this section is that falsehood avoidance clashes with other epistemic goods not because agents mistake truth for falsity, but because it may also encourage suspended judgment (ignorance) and generalized indeterminacy.

Consider how sowing uncertainty about what is true and what is not has become a primary aim of state-sponsored propaganda. Writing about Russian operations, Pomerantsev (2015) notes, 'The aim is … to trash the information space so the audience gives up looking for any truth amid the chaos'. The goal, Tufecki (2017, 246) writes about similar strategies adopted by the Turkish government, has been to create 'an ever-bigger glut of mashed-up truth and falsehood to foment confusion and distraction' and 'to overwhelm people with so many pieces of bad and disturbing information that they become confused and give up trying to figure out what the truth might be-or even the possibility of finding out what is true'. Both aim to inundate and overwhelm audiences and induce cynical views toward people's opinions and truth in general (Paul and Matthews 2016). This way, the cumulative effect of multiple contradictory, complicated and disorienting messages may lead to seemingly insurmountable uncertainty.

This contamination of the testimonial pool with inaccurate and unreliable information reduces the average reliability of testimony from sources and people in our surroundings, thus making it more challenging to acquire justified testimonial beliefs (Harris 2022).[4] So while it's rational

[4]Misinformation causes problems for the successful giving and uptake of testimony on both reductionist and antireductionist views in the epistemology of testimony. Reductionists maintain that knowledge from testimony requires the hearer to possess positive evidence of the testifier's reliability (Hume 1993; Fricker 2006). Misinformation presents a challenge for reductionists by making it more difficult to

to defer to trustworthy sources – who must be both sufficiently competent on the relevant subject and sufficiently benevolent toward me – it is very difficult to recognize trustworthiness accurately. Markers of competence and benevolence are unreliable, and susceptible to strategic manipulation. In a polluted epistemic environment, we are likely not in a good position to correctly assess whom to trust, that is, which agents' beliefs and behavior should influence ours. How am I, from a first-person perspective, to react to this realization?

Philosophers have identified several criteria laypeople might use to distinguish reliable experts from unreliable ones (Anderson 2011; Blancke, Boudry, and Pigliucci 2017; Goldman 2001; Guerrero 2017). Prominent candidates include identifying credentials or consensus agreement or comparing track records and argumentative capacity. However, today individuals evaluate expertise in an epistemically contaminated setting. Deceivers, charlatans, and frauds are promoted by doubt merchants, commercial interests, and media captivated by 'balance' and sensationalism. This renders the criteria less useful from the first-person perspective of non-experts. Skilled climate denialists possess credentials, for instance, and we, as laypeople, lack the expertise to discern the merits of arguments in the debate surrounding their allegations of technique misuse or statistical errors. The capacity to refute arguments and the semblance of possessing this ability, moreover, can diverge. Many scientists who have debated creationists discovered that well-prepared debaters can appear dialectically superior to neutral audiences by seemingly responding to every objection, even if their rebuttals are mere distractions. Claims of consensus also provide limited aid, as they are not sufficiently independent of other concerns. If data that conflicts with the consensus view is suppressed (deliberately or just because it's difficult to publish), the consensus will not have much evidential value. Examples abound in social psychology of former consensuses that turned out to be wrong for exactly this reason (Francis 2012). So even though citizens depend on expert testimony for their knowledge on many politically relevant complex issues, sophisticated misinformation – think not just of fake

obtain such positive evidence. In cases where misinformation mimics the form of credible sources, easily ascertained facts about the report's pedigree and appearance may not suffice as positive evidence for reliability. On the other hand, antireductionists argue that knowledge or justified belief based on testimony does not require positive evidence about the source's reliability (Reid 1983; Burge 1993). Instead, there is a default entitlement to trust what one is told, which is defeasible. Unfortunately, misinformation produces misleading defeaters that hinder the successful uptake of testimony. The awareness of the presence of credible-looking but unreliable sources creates a partial defeater for the default entitlement to trust, making it more challenging to acquire justified testimonial belief, even if one is not taken in by misinformation.

news but also of mimicry of expertise, dubious predatory journals, industry funding and other sources of epistemic pollution –, makes the task of distinguishing reliable from unreliable testimonial sources too difficult for ordinary people to reasonably be expected to accomplish it. This brings us back at square one. How should responsible epistemic agents act in light of this realization?

If the primary normative criterion is error avoidance, it seems I must try to prevent what I read that's not from an extremely obviously legitimate source to have any bearing on my beliefs at all. Along these lines, Battaly (2021) has argued that being an 'epistemic loner' might be virtuous in hostile epistemic environments, as it will protect you from certain falsehoods. The appropriate reaction to most of our inquiries, if we are to above all avoid error, is the intellectual analog of shielding our eyes.

Cultivating suspended judgment (i.e. ignorance) avoids false beliefs, but it might not be a good thing from a more inclusive epistemic perspective. By emphasizing the dangers of digital communication environments in public discourse, we might end up aiding rather than preventing disinformation actors sow the seeds of doubt. Indiscriminate warnings against digital disinformation raise the problem perception of disinformation as a societal threat, contributing rather than halting negative downstream effects (Jungherr and Rauchfleisch 2022). Jones-Jang, Kim, and Kenski's (2021) panel study, for instance, found that higher levels of perceived exposure to misinformation predicted higher levels of political cynicism at a later point. Other evidence suggests that exposure to visual disinformation did not mislead its participants but left them uncertain about its truthfulness, leading to reduced trust and, the authors argue, 'contributing to a climate of indeterminacy about truth and falsity' (Vaccari and Chadwick 2020, 2). Rather than enabling our critical faculties, the informational freedom on the internet seems now to have done the opposite and created an environment in which doing so is quasi-impossible, possibly harmful, and actively discouraged by elite disinformation discourse and the large emphasis on avoiding deception in the debate on the consequences of misinformation. This means there's a tension between the epistemic virtues of error avoidance and intellectual autonomy.

The latter virtue consists in the capacity to provide reasons for one's belief and consider alternatives to them (Tanesini 2021). Tanesini (2021, 3) suggests that answerability as a form of responsibility for one's beliefs provides the means to flesh out the idea that to exercise intellectual autonomy is to have one's own reasons for one's beliefs. For the intellectually virtuous agent,

> [h]er views and opinions are her own because they are based on reasons that are also her own. Her reasons to believe some testifiers (but not others) are her own in the sense that they reflect the quality of her judgment about whom to trust.

In this sense, we might still say that to be autonomous is to be answerable for one's beliefs since they reflect the quality of one's judgment, even if those beliefs rely on testimony by others rather than independent research.

Ideally, if we must defer, we'd do so on the basis of the right kind of epistemic reasons, filtering testimony based on cues to competence and consensus. But if avoiding error is our primary goal, we should not try to assess whether such reasons for belief obtain. In our polluted epistemic environment, it might be expected, that, for any given testimony, people who attempt this end up with more false beliefs than those who don't. Even if they also have more true beliefs than them. So if avoiding error is our main goal, we should retreat epistemically and be distrustful of our epistemic abilities. Such dispositions to retreat and self-silence, however, form the habit of excessive self-distrust (Medina 2013, 27–28). They are among the manifestations of the vice of intellectual timidity (Tanesini 2021), and likely atrophy one's intellectual abilities. Intellectual timidity predisposes people not to have an opinion (i.e. to remain ignorant) on many subject matters. These individuals then will not have beliefs for which they are answerable. They tend not to see themselves as an equal coparticipant in a shared practice of inquiry, whose word, depending on the domain, should sometimes be taken to be authoritative, *and always be taken seriously*. In today's polluted and hypercomplex informational environment, a narrow focus on falsehood avoidance then emerges as an epistemic practice that can undermine individuals' epistemic agency (cf. Fricker 2007): 'By depriving people of the courage necessary to have a view for which one is answerable, intellectual timidity renders them mute' (Tanesini 2021, 19).

Inquiry always involves a substantial element of trust in our own intellectual faculties and in the opinions they generate, the need for which cannot be eliminated by further inquiry (Foley 2001). Such self-trust manifests itself in feelings of confidence, in dispositions willingly to rely on the deliverances of one's methods and to assert what is believed on their basis, and in modulating self-reflection (Jones 2012). While not uncontroversial, numerous philosophers have argued for intellectual self-trust as cornerstone for any theory of rational belief (Enoch 2010; Foley 2001;

Lehrer 1997; Van Doorn 2023). Others have emphasized the connection between intellectual autonomy and reason-based agency (Vega-Encabo 2021). Prioritizing error-avoidance, however, would now seem to result in a progressive loss of intellectual self-trust that in turn reduces the ability to form beliefs for which one is answerable because they reflect the quality of one's own judgment. When this happens, agents might stop seeking their own reasons for their beliefs because they judge their critical abilities as not reliable enough to then fulfill their duty to avoid error.[5] Insofar as we find this kind of intellectual autonomy valuable, this gives rise to a normatively relevant tension with the current emphasis on circumventing error.

Because we are so cognitively small, to cope with the world, we must trust each other, and that trust makes us profoundly vulnerable. It can be exploited, even when we have done our due diligence. This way, the epistemically bad effects of misinformation extend well beyond individuals who consume misinformation and end up with false or misleading beliefs. Misinformation also has subtle and pernicious indirect effects: acquiring knowledge and justified belief through testimony becomes more difficult. And if error avoidance is the main epistemic value responsible agents should care about, this predicament gives rise to a tension with intellectual autonomy. A singular focus on falsehood avoidance may result in intellectual timidity, frustrate cognitive development, and deprive us of dispositions needed to form reason-based opinions and be answerable for our beliefs.

3. Falsehood avoidance versus democratic values

In the previous section, I argued that emphasizing falsehood-avoidance when evaluating the consequences of misinformation risks overlooking the fact that this makes it difficult to be intellectually autonomous agents. Given a polluted epistemic environment, there seems to be a trade-off between safeguarding intellectual autonomy in the sense specified in the previous section on the one hand, and minimizing error on the other. Earlier we explored another tension – between error-avoidance and truth attainment – and in this section, I argue for a third one: a focus on error-avoidance can also conflict with ensuring a pluralistic public debate.

[5]As Manson (2012, 258) notes, it's no coincidence that, historically, 'epistemic restraint may seem to be tied up with a theological anti-scientism, or perhaps various forms of anti-intellectualism.'

Recent research has begun to investigate individual differences in the extent to which people see misinformation as a danger to society, partially in an attempt to explain the popularity of alarmist narratives on misinformation. One study found the third-person effect – the perception that (distant) others are more vulnerable to misinformation than the self – to be the strongest predictor of perceived danger of misinformation (Altay and Acerbi 2023). The belief that others are more easily swayed and manipulated than we are – that they are gullible – was more than any other investigated factor strongly and positively associated with perceived danger of misinformation. Concerns about misinformation are thus significantly driven by a perceived inability of distant others to spot it.

If misinformation concern is often explained by a perception that others are gullible, it might go hand in hand with support for anti-democratic regulations such as reducing freedom of speech. After all, if people believe misinformation is a problem because other people are gullible, it stands to reason that they also believe that reducing (other's) exposure to misleading material is an apt countermeasure.[6]

Indeed, one of the most prevalent consequences of the third-person effect is individuals' endorsement of government intervention and control of media, such as through censorship (e.g. Hoffner et al. 1999). This is primarily due to the tendency of individuals to overestimate the media's impact on others, leading to diminished trust in others' capacity to avert presumed negative consequences (Davison 1983; Perloff 1999). The assumed adverse impact on others has proven to be a strong predictor of public endorsement for government intervention regarding media restrictions (Cohen et al. 1988; Gunther 1995), limitations on pornography (Lo and Wei 2002), and curbing unfair election coverage (Salwen 1998). Focusing on fake news specifically, Cheng and Chen (2020) find that people who presume fake news has more effect on others, are more in favor of corporate corrective actions, media literacy interventions, and governmental regulation, as they aim to minimize the potential harm of fake news on others and society. Likewise, Jungherr and Rauchfleisch (2022) find that one-sided warnings about the dangers of misinformation increased respondents' support for heavily restrictive regulation of speech in digital communication environments. The way it exacerbates the beliefs that others (who are more gullible than us) are at risk and

[6]More generally, the legitimacy of democratic decisions should decrease as a function of the perceived irrationality of (other) people (Stafford 2022; [Redacted]).

therefore increases support for epistemically paternalistic policies is another neglected harm of misinformation that extends beyond duping people with false beliefs.

However, like in the previous sections, the extent to which this harm gets instantiated depends on our normative priorities. From the perspective of error avoidance, support for restrictive regulation seems a good thing. It will likely reduce the number of misleading ideas people are exposed to and thus the number of false beliefs they end up with. Yet at the same time, restrictive regulation coming at the cost of political expression is potentially detrimental for democracy and democratic discourse.

Liberal democracy depends on the free exchange of competing, contrasting, contentious, and sometimes offensive views. The dynamic interplay between these varying viewpoints and groups is a vital aspect of democracy. It exposes a range of opinions and interests, demonstrates their comparative significance, and facilitates public negotiation among them (Dahl 1989). This is a crucial feature in democracies' perceived problem-solving capacity. But for this to work, people living in democracies need to accept the possibility of good-faith political conflict between rational agents (Sullivan and Transue 1999). A dominant belief that misinformation is a serious threat because others are gullible is not compatible with this (Altay and Acerbi 2023). The discourse on disinformation seems to have the potential to undermine this vital acceptance by delegitimizing the existence of conflicting opinions and portraying dissenting views as products of manipulation. Consequently, it could erode support for the fundamental principles of liberal democracy. But we need to broaden our view beyond error-avoidance to see this harm.

Of course, heavily restrictive regulation on speech platforms probably *would* help social media users to avoid error. But the empirical data indicates that, actually, the fact that a policy focused on error-avoidance recommends such regulations gives us reason to think we should *not* prioritize error-avoidance but rather broaden our view of the harms of misinformation. Studies do not generally indicate that heavily-regulated information supply enhances political results (Gentzkow and Shapiro 2008). For instance, Djankov et al. (2003) demonstrate that, in a substantial sample of nations, state-run media correlates with diminished democratic governance, reduced press freedom, and inferior health outcomes. While these findings represent correlations rather than causal parameters, the authors deduce that the evidence endorses a model in which governments typically possess media outlets for their own enrichment or

empowerment, rather than to address inadequacies in the information landscape. Even in Western democracies, state intervention frequently fails to yield better outcomes. Prat and Strömberg (2005) offer evidence that the introduction of private television in Sweden led to heightened political knowledge and increased political engagement compared to a public television monopoly.

In conclusion: while falsehood avoidance can be an essential factor in maintaining the integrity of information, overemphasizing it could stifle diverse perspectives and pluralistic debate. If that's right, then it's imperative to not only track whether misinformation exposure dupes people into false beliefs, but also investigate whether and how it erodes support for democratic values.

4. Implications

The debate on the epistemology of social media and the consequences of misinformation has mainly focused on minimizing the prevalence, reach, and impact of untrue statements. However, as I've shown in this paper, that undesirably narrows our normative scope. Recognizing that this problematic prioritization underlies the debate on the consequences of misinformation not only elucidates the current unproductive shape of the debate, but also paves the way for a clearer framework for diagnosing the adverse effects of misinformation. This matters because assessing the epistemic consequences of social systems requires a clear specification of the epistemic goods that well-functioning epistemic systems promote. And if the bad effects of misinformation are not exhausted by duping people with false beliefs, then showing that it is not always effective at doing so is not to show that misinformation is not a problem.

To recapitulate, I've argued that the normative primacy of falsehood avoidance overlooks other epistemic harms associated with misinformation such as those related to truth attainment, intellectual autonomy, and debate pluriformity. Moreover, I've argued, getting clear on these epistemic harms reveals the singular focus on error-avoidance to be counterproductive. By concentrating on error-avoidance, we unwittingly amplify the detrimental effects misinformation has on truth attainment, intellectual autonomy and debate pluriformity.

To appropriately understand and fight misinformation, future research needs to address these challenges. Misinformation studies often zero in on how people interact with false content. The focus of most

interventions is on preventing people from believing and sharing misinformation. The underlying assumption being that social media platforms are better, the less inaccurate they make their users' beliefs (Rosen and Lyons 2019; Silverman 2019). This assumption is overly narrow and risks overlooking other epistemic harms associated misinformation, thereby underselling its full impact and the breadth of strategies needed to combat it (or so I've argued). To broaden their scope, instead of concentrating solely on the spread of false beliefs, researchers could also investigate the impacts of misinformation on truth attainment, intellectual autonomy and debate pluriformity.

Concretely, rather than centering on the minority who engage with untrustworthy sources, a more productive approach would be to address the sizable segment of individuals who display excessive skepticism towards credible sources and infrequently engage with news (Allen et al. 2020). While the threat of misinformation is real, it's more common for individuals to be uninformed than misinformed (Li and Wagner 2020). It's plausible that misinformation exposure plays a role here, as perceived prevalence of misinformation is associated with a more restricted media diet and lower trust in the media (Shapiro 2020) and with a lower willingness to share reliable news on social media (Yang and Horning 2020). The findings discussed earlier on efforts against misinformation reducing people's trust in true and verified information suggest existing misinformation mitigation approaches are in need of redesign. Understanding the distinction between avoiding falsehoods and grasping the truth calls for a reassessment of our strategies against misinformation. Addressing incorrect information is vital, but it's equally important that such endeavors don't undermine confidence in and engagement with factual data. To counter the ways in which misinformation endangers truth attainment, it's imperative to get a clearer sense of the mechanisms involved. This implies designing misinformation interventions that do not increase general skepticism, are not primarily aimed at those duped by fake news and primarily seek to increase the uptake of reliable information. This is different from the usual target group and aim. It's an open empirical question how existing interventions can be improved such that they do *not* reduce trust and increase skepticism towards reliable information.

Similar implications apply to the epistemic harms related to debate pluriformity. Many civilians perceive misinformation as a serious threat to society. This perception fuels support for restrictive regulation of digital communication environments. An overlooked avenue for empirical

research, therefore, is what communication strategies work best in alerting people to online misinformation without jeopardizing their support for key democratic values such as free (online) speech. Warnings about misinformation should therefore be developed and tested with an eye for more indicators of effectiveness than just how successfully they reduce belief in false information. The extent to which exposure to these well-intended intervention influences attitudes towards reliable information and online censorship should also be treated as normatively relevant.

People don't merely absorb information passively. They are active, interpretative, and they domesticate technologies in complex and unexpected ways (Livingstone 2019). People are more skeptical than gullible when browsing online (Fletcher and Nielsen 2017). A refined approach to misinformation research should therefore, thirdly, also take into account how misinformation alters our capacities as active epistemic agents. Rather than solely assessing susceptibility to fake news, it's imperative to investigate how misinformation impacts our ability to discern, interpret, and engage in informed discourse as responsible and appropriately autonomous epistemic agents.

This admittedly sounds a bit vague, which is unavoidable given that we lack a more developed idea of what it means to be that kind of agent in today's hostile epistemic environment. This is where philosophers can contribute. What does it even mean to be a responsible epistemic agent if – in times of an infodemic – there's more to that than avoiding error? We need richer conceptions of what virtuous, yet active cognitive agency could look like here. For example, Nguyen (2022) argues we can develop our cognitive agency by embracing a sense of playfulness in our digital interactions, fostering a critical yet open-minded approach to online content. This perspective encourages individuals to navigate the digital realm with curiosity, treating it as a space for exploration rather than just a battleground of truths and falsehoods. This is an example of an epistemic stance appropriately autonomous agents can take to adapt to the complex digital information landscape, moving beyond mere error-avoidance.

Recent advancements in epistemology have underscored the virtue of intellectual humility – emphasizing the need for individuals to recognize their cognitive limitations and the potential gaps in their knowledge – as a potential antidote to misinformation (Whitcomb et al. 2017). Cultivating intellectual humility could, for example, counter overconfidence and so reduce belief in conspiracy theories that allow the believer to 'understand'

all kinds of complicated events (like climate change). However, people made aware of their limited knowledge *also* may abandon previously held beliefs that were, in fact, justifiably grounded – albeit often based on testimonial evidence rather than personal comprehension (Levy 2021). After all, the intellectually humble person will moderate her confidence if she's unable to offer grounds for her assertions (Kidd 2016), but since most of our beliefs are justified by testimony rather than personal understanding, the realization that we don't understand the mechanisms should lead us to rethink the *grounds* for our belief, rather than *lowering our confidence* in it (Levy 2023). This tendency to be conciliatory when we shouldn't, could make us more susceptible to misinformation. Misleading evidence can more easily take root when we have low confidence after being persuaded that testimonial evidence isn't good enough to ground conviction. This is another example, I think, of how explorations in normative epistemology about what virtuous cognitive agency and appropriate intellectual autonomy look like in a hostile epistemic environment can contribute. In this case, highlighting the normative dimensions of testimonially based convictions could strengthen our resilience against misinformation. Philosophy, then, can be a part of the solution by promoting better theories. This way forward starts with recognizing that while the focus on the acquisition of false first-order beliefs and the proliferation of explicitly false content may have its uses in bringing attention to some problems with our online lives, it also profoundly restricts the way we think about the epistemology of the internet, neglecting other important epistemic harms associated with misinformation.

Acknowledgements

I'd like to thank three anonymous reviewers for very helpful comments.

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Maarten van Doorn http://orcid.org/0000-0002-6943-462X

References

Adams, Z., M. Osman, C. Bechlivanidis, and B. Meder. 2023. “(Why) is Misinformation a Problem?” *Perspectives on Psychological Science* 18 (6): 1436–1463. https://doi.org/10.1177/17456916221141344.

Allcott, H., L. Braghieri, S. Eichmeyer, and M. Gentzkow. 2020. “The Welfare Effects of Social Media.” *American Economic Review* 110 (3): 629–676. https://doi.org/10.1257/aer.20190658.

Allen, J., B. Howland, M. Mobius, D. Rothschild, and D. J. Watts. 2020. “Evaluating the Fake News Problem at the Scale of the Information Ecosystem.” *Science Advances* 6 (14): eaay3539. https://doi.org/10.1126/sciadv.aay3539.

Alsmadi, I., and M. O’Brien. 2021. “Misinformation, Disinformation and Hoaxes: What’s the Difference?” *The Conversation*, April 21. http://theconversation.com/misinformation-disinformation-and-hoaxes-whats-the-difference-158491.

Altay, S., and A. Acerbi. 2023. “People Believe Misinformation is a Threat Because They Assume Others are Gullible.” *New Media & Society*. https://doi.org/10.1177/14614448231153379, see https://journals.sagepub.com/doi/10.1177/14614448231153379.

Altay, S., B. A. Lyons, and A. Modirrousta-Galian. 2023. “Exposure to Higher Rates of False News Erodes Media Trust and Fuels Skepticism in News Judgment.” *PsyArxiv Preprints*.

Anderson, E. 2011. “Democracy, Public Policy, and lay Assessments of Scientific Testimony.” *Episteme; Rivista Critica Di Storia Delle Scienze Mediche E Biologiche* 8 (2): 144–164. https://doi.org/10.3366/epi.2011.0013.

Anderson, C. W. 2021. “Fake News is Not a Virus: On Platforms and Their Effects.” *Communication Theory* 31 (1): 42–61. https://doi.org/10.1093/ct/qtaa008.

Aral, S., and D. Eckles. 2019. “Protecting Elections from Social Media Manipulation.” *Science* 365 (6456): 858–861. https://doi.org/10.1126/science.aaw8243.

Bago, B., D. G. Rand, and G. Pennycook. 2020. “Fake News, Fast and Slow: Deliberation Reduces Belief in False (but not True) News Headlines.” *Journal of Experimental Psychology: General* 149 (8): 1608–1613. https://doi.org/10.1037/xge0000729.

Battaly, H. 2021. “Intellectual Autonomy and Intellectual Interdependence.” In *Epistemic Autonomy*, edited by J. Matheson and K. Lougheed (1st ed., pp. 153–172. New York: Routledge. https://doi.org/10.4324/9781003003465-12.

Benkler, Y., R. Faris, and H. Roberts. 2018. *Network Propaganda: Manipulation, Disinformation, and Radicalization in American Politics*. Oxford University Press.

Blancke, S., M. Boudry, and M. Pigliucci. 2017. “Why do Irrational Beliefs Mimic Science? The Cultural Evolution of Pseudoscience.” *Theoria* 83 (1): 78–97. https://doi.org/10.1111/theo.12109.

Brosius, A., J. Ohme, and C. H. de Vreese. 2022. “Generational Gaps in Media Trust and its Antecedents in Europe.” *The International Journal of Press/Politics* 27 (3): 648–667. https://doi.org/10.1177/19401612211039440.

Burge, T. 1993. “Content Preservation.” *The Philosophical Review* 102 (4): 457–488. https://doi.org/10.2307/2185680.

Carlson, T. N. 2019. “Through the Grapevine: Informational Consequences of Interpersonal Political Communication.” *American Political Science Review* 113 (2): 325–339. https://doi.org/10.1017/S000305541900008X.

Cheng, Y., and Z. F. Chen. 2020 “The Influence of Presumed Fake News Influence: Examining Public Support for Corporate Corrective Response, Media Literacy Interventions, and Governmental Regulation.” *Mass Communication and Society* 23 (5): 705–729. https://doi.org/10.1080/15205436.2020.1750656.

Clayton, K., S. Blair, J. A. Busam, S. Forstner, J. Glance, G. Green, A. Kawata, A. Kovvuri, J. Martin, and E. Morgan. 2020. “Real Solutions for Fake News? Measuring the Effectiveness of General Warnings and Fact-Check Tags in Reducing Belief in False Stories on Social Media.” *Political Behavior* 42 (4): 1073–1095. https://doi.org/10.1007/s11109-019-09533-0.

Coady, D. 2011. “An Epistemic Defence of the Blogosphere.” *Journal of Applied Philosophy* 28 (3): 277–294. https://doi.org/10.1111/j.1468-5930.2011.00527.x.

Coady, D. 2019. “The Trouble With ‘Fake News.’.” *Social Epistemology Review and Reply Collective* 8 (10): 40–52.

Cohen, J., D. Mutz, V. Price, and A. Gunther. 1988. “Perceived Impact of Defamation: An Experiment on Third-Person Effects.” *Public Opinion Quarterly* 52 (2): 161–173. https://doi.org/10.1086/269092.

Dahl, R. A. 1989. *Democracy and its Critics*. New Haven, CT: Yale University Press.

Davison, W. P. 1983. “The Third-Person Effect in Communication.” *Public Opinion Quarterly* 47 (1): 1–15. https://doi.org/10.1086/268763.

De Ridder, J. 2021. “What’s So Bad About Misinformation?.” *Inquiry* 0 (0): 1–23. https://doi.org/10.1080/0020174X.2021.2002187.

Djankov, S., M. Caralee, N. Tatiana, and A. Shleifer. 2003. “Who Owns the Media?” *The Journal of Law and Economics* 46 (2): 341–381. https://doi.org/10.1086/377116.

Enoch, D. 2010. “Not Just a Truthometer: Taking Oneself Seriously (but not Too Seriously) in Cases of Peer Disagreement.” *Mind; A Quarterly Review of Psychology and Philosophy* 119 (476): 953–997. https://doi.org/10.1093/mind/fzq070.

Fletcher, R., and R. K. Nielsen. 2017. “Are News Audiences Increasingly Fragmented? A Cross-National Comparative Analysis of Cross-Platform News Audience Fragmentation and Duplication.” *Journal of Communication* 67 (4): 476–498. https://doi.org/10.1111/jcom.12315.

Foley, R. 2001. *Intellectual Trust in Oneself and Others*. Cambridge University Press.

Francis, G. 2012. “Publication Bias and the Failure of Replication in Experimental Psychology.” *Psychonomic Bulletin & Review* 19 (6): 975–991. https://doi.org/10.3758/s13423-012-0322-y.

Fricker, E. 2006. “Second-Hand Knowledge.” *Philosophy and Phenomenological Research* 73 (3): 592–618. https://doi.org/10.1111/j.1933-1592.2006.tb00550.x.

Fricker, M. 2007. *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford: Clarendon Press.

Gentzkow, M., and J. M. Shapiro. 2008. “Competition and Truth in the Market for News.” *Journal of Economic Perspectives* 22 (2): 133–154. https://doi.org/10.1257/jep.22.2.133.

Goldman, A. I. 2001. “Experts: Which Ones Should you Trust?” *Philosophy and Phenomenological Research* 63 (1): 85–110. https://doi.org/10.1111/j.1933-1592.2001.tb00093.x.

Goldman, A. I. 2008. “The Social Epistemology of Blogging.” In *Information Technology and Moral Philosophy*, edited by J. van den Hoven, and J. Weckert, 111–122. Cambridge: Cambridge University Press.

Graham, M. 2023. “Measuring Misperceptions?” *American Political Science Review* 117 (1): 80–102. https://doi.org/10.1017/S0003055422000387.

Grinberg, N., K. Joseph, L. Friedland, B. Swire-Thompson, and D. Lazer. 2019. “Fake News on Twitter During the 2016 U.S. Presidential Election.” *Science* 363 (6425): 374–378. https://doi.org/10.1126/science.aau2706.

Guay, B., A. Berinsky, G. Pennycook, and D. Rand. 2023. “How To Think About Whether Misinformation Interventions Work.” *Nature Human Behavior* 7: 1231–1233. https://doi.org/10.1038/s41562-023-01667-w, see https://www.nature.com/articles/s41562-023-01667-w.

Guerrero, A. 2017. “Living with Ignorance in a World of Experts.” In *Perspectives on Ignorance from Moral and Social Philosophy*, 168–197. New York: Routledge.

Guess, A., J. Nagler, and J. Tucker. 2019. “Less Than you Think: Prevalence and Predictors of Fake News Dissemination on Facebook.” *Science Advances* 5 (1): eaau4586. https://doi.org/10.1126/sciadv.aau4586.

Guess, A. M., B. Nyhan, and J. Reifler. 2020. “Exposure to Untrustworthy Websites in the 2016 US Election.” *Nature Human Behaviour* 4 (5): 472–480. https://doi.org/10.1038/s41562-020-0833-x.

Gunther, A. C. 1995. “Overrating the X-Rating: The Third-Person Perception and Support for Censorship of Pornography.” *Journal of Communication* 45 (1): 27–38. https://doi.org/10.1111/j.1460-2466.1995.tb00712.x.

Habgood-Coote, J. 2023. “Deepfakes and the Epistemic Apocalypse.” *Synthese* 201 (3): 103. https://doi.org/10.1007/s11229-023-04097-3.

Hameleers, M. 2023. “The (Un)Intended Consequences of Emphasizing the Threats of Mis- and Disinformation.” *Media and Communication* 11 (2): 5–14.. doi:10.17645mac.v11i2.6301.

Harris, K. R. 2022. “Real Fakes: The Epistemology of Online Misinformation.” *Philosophy & Technology* 35 (3): 83. https://doi.org/10.1007/s13347-022-00581-9, see https://link.springer.com/article/10.1007/s13347-022-00581-9#citeas.

Hoes, E., B. C. von Hohenberg, T. Gessler, M. Wojcieszak, and S. Qian. 2022. “The Cure Worse Than the Disease? How the Media’s Attention to Misinformation Decreases Trust.” *PsyArXiv Preprint*. https://doi.org/10.31234/osf.io/4m92p, see https://osf.io/preprints/psyarxiv/4m92p.

Hoffner, C., M. Buchanan, J. D. Anderson, L. A. Hubbs, S. K. Kamigaki, L. Kowalczyk, and K. J. Silberg. 1999. “Support for Censorship of Television Violence the Role of the Third-Person Effect and News Exposure.” *Communication Research* 26 (6): 726–742. https://doi.org/10.1177/009365099026006004.

Hume, D. 1993. *An Enquiry Concerning Human Understanding*, edited by E. Steinberg, 2nd ed. London: Hackett.

Jahng, M. R. 2021. “Is Fake News the new Social Media Crisis? Examining the Public Evaluation of Crisis Management for Corporate Organizations Targeted in Fake

News." *International Journal of Strategic Communication* 15 (1): 18–36. https://doi.org/10.1080/1553118X.2020.1848842.
James, W. 1978. *'The will to Believe', Part VII, The Writings of William James: A Comprehensive Edition*. Chicago, IL: University of Chicago Press.
Jones-Jang, S. M., D. H. Kim, and K. Kenski. 2021. "Perceptions of mis-or Disinformation Exposure Predict Political Cynicism: Evidence from a two-Wave Survey During the 2018 US Midterm Elections." *New Media & Society* 23 (10): 3105–3125. https://doi.org/10.1177/1461444820943878.
Jones, K. 2012. "The Politics of Intellectual Self-Trust." *Social Epistemology* 26 (2): 237–251. https://doi.org/10.1080/02691728.2011.652215.
Jungherr, A., and A. Rauchfleisch. 2022. "Negative Downstream Effects of Disinformation Discourse: Evidence from the US." https://doi.org/10.31235/osf.io/a3rzm, see https://osf.io/preprints/socarxiv/a3rzm/.
Jungherr, A., and R. Schroeder. 2021. "Disinformation and the Structural Transformations of the Public Arena: Addressing the Actual Challenges to Democracy." *Social Media + Society* 7 (1), https://doi.org/10.1177/2056305121988928, see https://journals.sagepub.com/doi/10.1177/2056305121988928.
Kidd, I. J. 2016. "Intellectual Humility, Confidence, and Argumentation." *Topoi* 35 (2): 395–402. https://doi.org/10.1007/s11245-015-9324-5.
Lawson, M. A., and H. Kakkar. 2022. "Of Pandemics, Politics, and Personality: The Role of Conscientiousness and Political Ideology in the Sharing of Fake News." *Journal of Experimental Psychology: General* 151 (5): 1154–1177. https://doi.org/10.1037/xge0001120.
Lazer, D. M., M. A. Baum, Y. Benkler, A. J. Berinsky, K. M. Greenhill, F. Menczer, M. J. Metzger, B. Nyhan, G. Pennycook, and D. Rothschild. 2018. "The Science of Fake News." *Science* 359 (6380): 1094–1096. https://doi.org/10.1126/science.aao2998.
Lehrer, K. 1997. *Self-trust: A Study in Reason, Knowledge and Autonomy*. Oxford: Clarendon Press.
Levy, N. 2021. *Bad Beliefs: Why They Happen to Good People*. Oxford: Oxford University Press.
Levy, N. 2023. "Too Humble for Words." *Philosophical Studies* 180: 3141–3160. https://doi.org/10.1007/s11098-023-02031-4, see https://link.springer.com/article/10.1007/s11098-023-02031-4#citeas.
Li, J., and M. W. Wagner. 2020. "The Value of not Knowing: Partisan cue-Taking and Belief Updating of the Uninformed, the Ambiguous, and the Misinformed." *Journal of Communication* 70 (5): 646–669. https://doi.org/10.1093/joc/jqaa022.
Livingstone, S. 2019. "Audiences in an Age of Datafication: Critical Questions for Media Research." *Television & New Media* 20 (2): 170–183. https://doi.org/10.1177/1527476418811118.
Lo, V.-H., and R. Wei. 2002. "Third-person Effect, Gender, and Pornography on the Internet." *Journal of Broadcasting and Electronic Media* 46 (1): 13–33. https://doi.org/10.1207/s15506878jobem4601_2.
Maertens, R., F. Götz, H. Golino, J. Roozenbeek, C. R. Schneider, J. R. Kerr, S. Stieger, et al. 2021. "The Misinformation Susceptibility Test (MIST): A Psychometrically Validated Measure of News Veracity Discernment." *PsyArXiv*, https://doi.org/10.

31234/osf.io/gk68h, see https://link.springer.com/article/10.3758/s13428-023-02124-2#citeas.

Manson, N. C. 2012. “Epistemic Restraint and the Vice of Curiosity.” *Philosophy* 87 (2): 239–259.

Marwick, Alice. E. 2008. “To Catch a Predator? The MySpace Moral Panic.” *First Monday* 13 (6), https://doi.org/10.5210/fm.v13i6.2152, see https://firstmonday.org/ojs/index.php/fm/article/view/2152.

Medina, José. 2013. *The Epistemology of Resistance*. Oxford University Press.

Mitchelstein, E., M. Matassi, and P. J. Boczkowski. 2020. “Minimal Effects, Maximum Panic: Social Media and Democracy in Latin America.” *Social Media + Society* 6 (4), https://doi.org/10.1177/2056305120984452, see https://journals.sagepub.com/doi/full/10.1177/2056305120984452#core-collateral-self-citation.

Modirrousta-Galian, A., and P. A. Higham. 2023. “Gamified Inoculation Interventions Do Not Improve Discrimination Between True and Fake News: Reanalyzing Existing Research With Receiver Operating Characteristic Analysis.” *Journal of Experimental Psychology: General* 152 (9): 2411–2437. https://doi.org/10.31234/osf.io/4bgkd.

Nguyen, C. T. 2022. “Playfulness Versus Epistemic Traps.” In *Social Virtue Epistemology*, edited by M. Alfano, C. Klein, and J. de Ridder, 369–390. New York: Routledge.

Nguyen, C. T. 2023. “Hostile Epistemology. Social Philosophy Today 39: 9–32. See https://www.pdcnet.org/socphiltoday/content/socphiltoday_2023_0039_0009_0032.

Nyhan, B. 2020. “Facts and Myths about Misperceptions.” *Journal of Economic Perspectives* 34 (3): 220–236.

Paul, C., and M. Matthews. 2016. “The Russian “Firehose of Falsehood” Propaganda Model.” *Rand Corporation* 2 (7): 1–10.

Pennycook, G., and D. G. Rand. 2019. “Lazy, not Biased: Susceptibility to Partisan Fake News is Better Explained by Lack of Reasoning Than by Motivated Reasoning.” *Cognition* 188: 39–50. https://doi.org/10.1016/j.cognition.2018.06.011.

Pennycook, G., and D. G. Rand. 2020. “Who Falls for Fake News? The Roles of Bullshit Receptivity, Overclaiming, Familiarity, and Analytic Thinking.” *Journal of Personality* 88 (2): 185–200. https://doi.org/10.1111/jopy.12476.

Pennycook, G., and D. G. Rand. 2021. “The Psychology of Fake News.” *Trends in Cognitive Sciences* 25 (5): 388–402. https://doi.org/10.1016/j.tics.2021.02.007.

Pepp, J., E. Michaelson, and R. Sterken. 2022. “Why we Should Keep Talking About Fake News.” *Inquiry* 65 (4): 471–487. https://doi.org/10.1080/0020174X.2019.1685231.

Perloff, R. M. 1999. “The Third-Person Effect: A Critical Review and Synthesis.” *Media Psychology* 1 (4): 353–378. https://doi.org/10.1207/s1532785xmep0104_4.

Pomerantsev, P. 2015. Inside Putin’s Information War. *Politico*, January 4. https://www.politico.com/magazine/story/2015/01/putin-russia-tv-113960.

Prat, A., and D. Strömberg. 2005. Commercial Television and Voter Information. *CEPR Discussion Paper*, 4989. https://ssrn.com/abstract = 772002.

Raphelson, S. 2018. Survivors of Mass Shootings Face Renewed Trauma From Conspiracy Theorists. NPR, March 20. https://www.npr.org/2018/03/20/595213740/survivors-of-mass-shootings-facerenewed-trauma-from-conspiracy-theorists.

Reid, T. 1983. *Inquiry and Essays*, edited by R. E. Beanblossom and K. Lehrer. London: Hackett.

Robles, F. 2016. Florida Woman is Charged With Threatening Sandy Hook Parent. *The New York Times*, December 7. https://www.nytimes.com/2016/12/07/us/florida-woman-is-charged- with-threatening-sandy-hook-parent.html.

Roozenbeek, J., and S. Van Der Linden. 2019. "Fake News Game Confers Psychological Resistance Against Online Misinformation." *Fake News Game Confers Psychological Resistance Against Online Misinformation* 5 (1), Article 1. https://doi.org/10.1057/s41599-019-0279-9.

Rosen, G., and T. Lyons. 2019. Reduce, Remove, Inform: New Steps to Manage Problematic Content. *Facebook Newsroom*, April 10. https://about.fb.com/news/2019/04/remove-reduce-inform-new-steps/.

Salwen, M. B. 1998. "Perceptions of Media Influence and Support for Censorship: The Third-Person Effect in the 1996 Presidential Election." *Communication Research* 25 (3): 259–285. https://doi.org/10.1177/009365098025003001.

Shapiro, I. 2020. "How a Perceived Intent to Deceive Influences Political Attitudes and Behavior." Doctoral Dissertation.

Silverman, H. 2019. The Next Phase in Fighting Misinformation. *Facebook Newsroom*, April 10. https://about.fb.com/news/2019/04/tackling-morefalse-news-more-quickly/.

Simon, F. M., and C. Q. Camargo. 2021. "Autopsy of a Metaphor: The Origins, use and Blind Spots of the 'Infodemic.'." *New Media & Society* 25 (8). https://doi.org/10.1177/14614448211031908.

Simons, G. 2018. "Fake News: As the Problem or a Symptom of a Deeper Problem?" *Образ* 4 (26): 33–44.

Søe, S. 2021. "A Unified Account of Information, Misinformation, and Disinformation." *Synthese* 198 (6): 5929–5949. https://doi.org/10.1007/s11229-019-02444-x.

Stafford, T. 2022. Quantifying our Faith in Reason. *Reasonable People*. https://tomstafford.substack.com/p/quantifying-our-faith-in-reason?s = r.

Sullivan, J. L., and J. E. Transue. 1999. "The Psychological Underpinnings of Democracy: A Selective Review of Research on Political Tolerance, Interpersonal Trust, and Social Capital." *Annual Review of Psychology* 50 (1): 625–650. https://doi.org/10.1146/annurev.psych.50.1.625.

Tanesini, A. 2021. "Intellectual Autonomy and its Vices." In *Epistemic Autonomy*, edited by J. Matheson, and K. Lougheed, 1st ed., 231–249. New York: Routledge. https://doi.org/10.4324/9781003003465-16.

Ternovski, J., J. Kalla, and P. Aronow. 2022. "The Negative Consequences of Informing Voters About Deepfakes: Evidence from two Survey Experiments." *Journal of Online Trust and Safety* 1 (2), https://doi.org/10.54501/jots.v1i2.28, see how to cite at https://tsjournal.org/index.php/jots/article/view/28.

Tufekci, Z. 2017. *Twitter and Tear Gas: The Power and Fragility of Networked Protest*. Yale University Press.

Vaccari, C., and A. Chadwick. 2020. "Deepfakes and Disinformation: Exploring the Impact of Synthetic Political Video on Deception, Uncertainty, and Trust in News." *Social Media+ Society* 6 (1), https://doi.org/10.1177/2056305120903408, see https://journals.sagepub.com/doi/10.1177/2056305120903408.

Van der Linden, S. 2023. *Foolproof: Foolproof: Why Misinformation Infects Our Minds and How to Build Immunity*. London: W. W. Norton & Company.

Van der Meer, T. G. L. A., M. Hameleers, and J. Ohme. 2023. ""Can Fighting Misinformation Have a Negative Spillover Effect?" How Warnings for the Threat of Misinformation Can Decrease General News Credibility." *Journalism Studies* 0 (0): 1–21. https://doi.org/10.1080/1461670X.2023.2187652.

Van Doorn, M. 2023. "The Skeptical Import of Motivated Reasoning: A Closer Look at the Evidence." *Thinking & Reasoning* 1–31. https://doi.org/10.1080/13546783.2023.2276975.

Van Duyn, E., and J. Collier. 2019. "Priming and Fake News: The Effects of Elite Discourse on Evaluations of News Media." *Mass Communication and Society* 22 (1): 29–48. https://doi.org/10.1080/15205436.2018.1511807.

Vega-Encabo, J. 2021. "Understanding and the Value of Intellectual Autonomy." In *Epistemic Autonomy*, edited by J. Matheson, and K. Lougheed, 195–214. New York: Routledge.

Vraga, E. K., and L. Bode. 2020. "Defining Misinformation and Understanding its Bounded Nature: Using Expertise and Evidence for Describing Misinformation." *Political Communication* 37 (1): 136–144. https://doi.org/10.1080/10584609.2020.1716500.

Whitcomb, D., H. Battaly, J. Baehr, and D. Howard-Snyder. 2017. "Intellectual Humility: Owning Our Limitations." *Philosophy and Phenomenological Research* 94 (3): 509–539. https://doi.org/10.1111/phpr.12228.

Yang, Y., T. Davis, and M. Hindman. 2023. "Visual Misinformation on Facebook." *Journal of Communication* 73 (4): 316–328. https://doi.org/10.1093/joc/jqac051.

Yang, F., and M. Horning. 2020. "Reluctant to Share: How Third Person Perceptions of Fake News Discourage News Readers from Sharing "Real News" on Social Media." *Social Media + Society* 6 (3), https://doi.org/10.1177/2056305120955173, see https://journals.sagepub.com/doi/10.1177/2056305120955173.

Zarocostas, J. 2020. "How to Fight an Infodemic." *The Lancet* 395 (10225): 676.