

#### **LBS Research Online**

D Effron and B Helgason

The Moral Psychology of Misinformation: Why We Excuse Dishonesty in a Post-Truth World Article

This version is available in the LBS Research Online repository: https://lbsresearch.london.edu/id/eprint/2538/

Effron, D and Helgason, B

(2022)

The Moral Psychology of Misinformation: Why We Excuse Dishonesty in a Post-Truth World.

Current Opinion in Psychology, 47.

ISSN 2352-250X

DOI: https://doi.org/10.1016/j.copsyc.2022.101375

#### Elsevier

https://www-sciencedirect-com.lbs.idm.oclc.org/sci...

Users may download and/or print one copy of any article(s) in LBS Research Online for purposes of research and/or private study. Further distribution of the material, or use for any commercial gain, is not permitted.

# Journal Pre-proof

The Moral Psychology of Misinformation: Why We Excuse Dishonesty in a Post-Truth World

Daniel A. Effron, Beth Anne Helgason

PII: S2352-250X(22)00094-X

DOI: https://doi.org/10.1016/j.copsyc.2022.101375

Reference: COPSYC 101375

To appear in: Current Opinion in Psychology

Received Date: 22 April 2022 Revised Date: 10 May 2022 Accepted Date: 20 May 2022

Please cite this article as: Effron DA, Helgason BA, The Moral Psychology of Misinformation: Why We Excuse Dishonesty in a Post-Truth World, *Current Opinion in Psychology*, https://doi.org/10.1016/j.copsyc.2022.101375.

This is a PDF file of an article that has undergone enhancements after acceptance, such as the addition of a cover page and metadata, and formatting for readability, but it is not yet the definitive version of record. This version will undergo additional copyediting, typesetting and review before it is published in its final form, but we are providing this version to give early visibility of the article. Please note that, during the production process, errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

© 2022 The Author(s). Published by Elsevier Ltd.



# The Moral Psychology of Misinformation: Why We Excuse Dishonesty in a Post-Truth World

Daniel A. Effron and Beth Anne Helgason

Organisational Behaviour Subject Area, London Business School

## **Author Note**

Address correspondence to Daniel A. Effron, Organisational Behaviour Subject Area,
London Business School, Sussex Place, Regent's Park, London, NW1 4SA, United Kingdom.
Email: deffron@london.edu

The authors did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors for the preparation of this article, and have no conflicts of interest to declare.

THE MORAL PSYCHOLOGY OF MISINFORMATION

**Abstract** 

Commentators say we have entered a "post-truth" era. As political lies and "fake news"

flourish, citizens appear not only to believe misinformation, but also to condone misinformation

they do not believe. The present article reviews recent research on three psychological factors

that encourage people to condone misinformation: partisanship, imagination, and repetition.

Each factor relates to a hallmark of "post-truth" society: political polarization, leaders who push

"alterative facts," and technology that amplifies disinformation. By lowering moral standards,

convincing people that a lie's "gist" is true, or dulling affective reactions, these factors not only

reduce moral condemnation of misinformation, but can also amplify partisan disagreement. We

discuss implications for reducing the spread of misinformation.

Abstract word count: 112

Keywords: Misinformation, fake news, post-truth, moral psychology, dishonesty, political

polarization

# The Moral Psychology of Misinformation:

# Why We Excuse Dishonesty in a Post-Truth World

Pundits and scholars argue we have entered a "post-truth" era, surrounded by dishonest politicians and "fake news" that stymie public health efforts, provoke violence, and undermine democracy [1-7]. A central concern with this post-truth era is that people believe misinformation [8\*-10]. A different concern, however, is that people *condone* misinformation [11] – they recognize it as false, but give it a moral pass. When people condone misinformation, political leaders can tell blatant lies without damaging their public image, and people may have little compunction about spreading misinformation themselves [12\*, 13\*\*, 14\*-16]. Thus, to understand our "post-truth" era, we need to understand not only the psychology of belief, but also the *moral psychology of misinformation*.

Commentaries typically highlight three hallmarks of post-truth society: Citizens are politically polarized, leaders endorse "alternative realities," and technology amplifies misinformation [1,2,17,3]. Each hallmark at the societal level, we argue, is associated with a psychological factor at the individual level that encourages people to condone misinformation: *partisanship, imagination,* and *repetition*, respectively (see Figure 1). The present article reviews recent research on these psychological factors, explains the mechanisms behind each factor, and highlights how the second two factors can exacerbate political divisions in moral judgments of misinformation. We conclude by discussing implications for interventions.

#### 1.1 Partisanship Shapes Moral Judgments of Misinformation

One hallmark of a post-truth society is political polarization [2,17,3] – "the divergence of political attitudes and beliefs towards ideological extremes" [18\*\*]. Polls reveal increasing concern that partisans cannot agree on the facts [19]. However, even when people do agree on

the facts, partisanship may spark disagreement about the morality of lying about those facts [12\*,20\*\*]. Consider Press Secretary Sean Spicer's falsehood that Donald Trump's 2016 inauguration attracted the largest crowd in history [21]. Among Americans who correctly identified this falsehood as false, telling the falsehood seemed less unethical to Trump supporters than to Trump opponents. More generally, Democrats and Republicans alike judge misinformation they know to be false as less unethical when it aligns with their politics [12\*,20\*\*].

Motivated and cognitive processes both offer plausible accounts for this phenomenon [22]. Perhaps because partisans *want* to excuse misinformation that fits with their politics, they set lower moral standards for behavior that serves their own partisan interests (see Figure 1, path a)[23,24]. Alternatively, partisans may judge the *gist* – or general idea – of a falsehood as more true when it fits with their prior knowledge [20\*\*] (see Figure 1, path b) – and the truer a falsehood's gist, the less unethical the falsehood may seem. For example, the gist of Spicer's inauguration falsehood was that Trump enjoyed immense popularity. Trump supporters, more than Clinton supporters, may believe the gist that Trump is popular – even when they do not believe that his inauguration was the largest in history – leading them to consider this falsehood more excusable. When you support a leader, it may be easier to take their falsehoods seriously, if not literally [see 25]. In short, whether because of a motivated process, a cognitive process, or both – misinformation seems less unethical when it aligns with one's politics.

#### 2.1 Imagining Alternatives to Reality Reduces Moral Condemnation

Another hallmark of post-truth society is that many citizens eschew facts and evidence to inhabit "alternative realities" endorsed by leaders and other elites [2,17,3]. However, to increase people's inclination to condone a falsehood, it may not be necessary to make them *believe* in

alternatives to reality; it may be sufficient to get them to *imagine* such alternatives. For instance, after lying about the inauguration's size, Trump's administration suggested that attendance might have been higher if the weather had been nicer [21]. While lying about the existence of a medical technology, Theranos CEO Elizabeth Holmes conjured futures in which this technology would ultimately revolutionary healthcare [26]. Rather than merely arguing that their falsehoods *are* true, Trump officials and Holmes invite us to imagine two different types of alternative to reality: a *counterfactual* world [see 27] in which the falsehood *could have been true* (Trump), and a *prefactual* world [see 28] in which it *might become true* (Holmes). Research suggests that imagining either alternative to reality can reduce how much people condemn misinformation, even when they recognize the misinformation as false [12\*,20\*\*].

American participants in a series of studies read false political claims – such as the one about Trump's inauguration – that were clearly identified as false by reputable, non-partisan fact-checkers. Half of participants were randomly assigned to imagine an alternative to reality (a counterfactual or a prefactual, depending on the study) in which the falsehood was true. Importantly, this manipulation did not reliably affect people's ability to distinguish fact from fiction – but it did affect the moral judgments of participants on both sides of the political aisle (e.g., both Trump and Clinton supporters). Imagining how a falsehood could have been true or might become true made the falsehood seem less unethical to spread, which in turn resulted in weaker intentions to punish the speaker and stronger intentions to like or share the falsehood on social media. Thus, simply imagining – without believing in – alternatives to reality can soften moral judgments of misinformation [see also 29,30].

## 2.1.1 Mechanisms for Imagination's Effect on Moral Judgment

Why does merely imagining a falsehood as true make it seem less unethical? Results suggest that although imagination does not make people think a falsehood is *literally* true, it does make the falsehood's *gist* seem truer (see Figure 1, path c). For example, consider the false claim, "guns kill 500 Americans daily" (the correct statistic is about 1/4<sup>th</sup> as many [31]). Imagining whether guns might *someday* kill 500 Americans does not make people believe that guns *currently* kill 500 Americans. However, it does make the broader message that *guns kill many Americans* seem truer, and therefore the falsehood about the specific number of gun deaths seems less unethical.

# 2.1.2 Imagination Increases Political Divisions in Moral Judgments of Misinformation

Imagination can also increase partisan reactions to dishonesty. Imagining how a falsehood could have been true – or could become true – reduced partisans' moral condemnation of falsehoods to a greater extent when those falsehoods fit, versus conflicted, with their politics [12\*,20\*\*]. Two explanations could account for this partisan effect. First, imagination might be more likely to make the gist of the falsehood seem true if the falsehood is aligned (vs. misaligned) with your politics (see Figure 1, path d). For example, imagining "in the future, guns may kill 500 Americans daily" might strengthen Democrats' belief that *guns kill many*\*\*Americans\*\*, but have little effect on Republicans' beliefs about gun violence. Second, even when partisans agree that the gist of the falsehood is true, they may disagree about how justified it is to tell a falsehood with a truthful gist (see Figure 1, path e). For example, even if Democrats and Republicans agreed with the general idea that *guns kill many Americans*, Democrats might be more likely to think that this general idea justifies falsely claiming that guns kill 500

Americans daily. Thus, partisans on different sides of the aisle may disagree about the morality of telling a particular lie – not because they disagree on whether it *is* true, but because they

disagree on whether it *could have been* true or *could become true*, and also disagree about the moral implications of these imagined scenarios.

#### 3.1 Repeated Exposure to Misinformation Reduces Moral Condemnation

A third hallmark of a post-truth society is the existence of technology, such as social media platforms, that amplify misinformation [see 1,2,3]. Such technologies allow *fake news* — "articles that are intentionally and verifiably false and that could mislead readers" [32] — to spread fast and far [33\*], sometimes in multiple periods of intense "contagion" across time [34]. When fake news does "go viral," the same person is likely to encounter the same piece of misinformation multiple times. Research suggests that these multiple encounters may make it seem less unethical to spread [35\*\*,13\*\*].

Participants in a series of studies viewed fake-news headlines that were clearly labelled as false, and that participants correctly identified as false. In each study, participants rated the headlines as less unethical to publish or share on social media if they had been shown these headlines earlier in the study than if they were seeing the headlines for the first time. Moreover, the less unethical they thought a headline was to spread, the less inclined they were to censure an acquaintance who shared it on social media, and the stronger their intentions to share it themselves [13\*\*]. Whereas prior work suggests that repetition can increase *belief* in misinformation [36,37], these studies reveal that repetition can reduce how much people condemn misinformation they *know* to be false.

#### 3.1.1 Mechanism for Repetition's Effect on Moral Judgments

This phenomenon seems to occur because repetition reduces the negative affective reaction people experience in response to fake news [35\*\*](see Figure 1, path f). When people first encounter a specific fake-news headline (and recognize it as fake), they may experience a

"flash of negative affect" [38] that informs their moral judgments. For example, anger that someone would spread that piece of misinformation may lead people to judge it as particularly unethical. But encountering the same headline repeatedly dulls this anger – a *desensitization* process [39,40]. Because affect informs moral judgments [38], reduced anger means less severe moral judgments. This mechanism predicts – and experiments confirm – that wrongdoings across the moral domain (and not just fake-news sharing) seem less unethical when repeatedly encountered [35\*\*].

# 3.1.2 Repetition Increases Political Divisions in Moral Judgments of Misinformation

In our studies, repetition reduced condemnation regardless of whether the falsehood fit or conflicted with participants' politics [13], perhaps because desensitization to emotionally arousing stimuli does not depend on people's motivations or beliefs. Nonetheless, this "moral repetition effect" [35\*\*] may still exacerbate partisan responses to misinformation because people disproportionately encounter misinformation that aligns with their politics [41,42]. Unlike politically discordant misinformation, politically concordant misinformation should become increasingly familiar over time, and thus seem increasingly permissible.

# **4.1 Implications for Anti-Misinformation Interventions**

How can we stem the spread of misinformation in this post-truth world? Antimisinformation efforts commonly aim to improve discernment between fact and fiction, or to make the inaccuracy of fake news more salient [e.g., 9,43\*,44\*-46]. Such interventions will be insufficient, however, if people intentionally spread misinformation they do not believe [47,18\*\*]. Rather than (only) trying to make people less credulous, future interventions should consider nudging them to be less morally tolerant of dishonesty.

The three psychological factors we have reviewed – partisanship, imagination, and repetition – appear to affect moral judgments through different psychological pathways (see Figure 1), and thus would require different interventions to address. For example, repetition makes misinformation seem less unethical by dulling people's affective responses, because affect usually influences moral judgment [35\*\*, 38]. Thus, encouraging people to base their moral judgments on reason rather than affect should reduce the effect of repetition on moral judgments – a prediction that receives support [35\*\*,13\*\*]. Nudging people to reason about morality may not prevent repetition from dulling affective responses, but it should decouple affective responses from moral judgments.

By contrast, imagination can make falsehoods seem less unethical by lending credence to their gist. This mechanism relies more on cognition than affect. Accordingly, encouraging people to use reason when forming moral judgments did not significantly attenuate the effect of imagination on moral judgments [20\*\*]. Two intervention strategies might be more promising. First, encouraging people to focus on the precise truth of information they encounter, and not just its gist, should reduce their latitude to condone lies that are easy to imagine. Second, satirizing these persuasion attempts might inoculate people against their effects [see also 43, 46]. For example, media outlets that want to hold leaders accountable for lying might present implausible prefactuals to communicate that one could imagine scenarios in which anything might become true (e.g., if a reincarnated Steve Jobs took control of Theranos, then Theranos technology would revolutionize healthcare).

Lastly, the effect of partisanship on moral judgments may be the most difficult to address because, as noted, it is likely multiply determined. It might help to show people that they use lower moral standards for falsehoods that are aligned versus misaligned with their politics

[similar to 48](Figure 1, path a), or again to shift focus away from the falsehood's gist (Figure 1, path b) – but ultimately, reducing partisans' willingness to condone misinformation may require easing partisan animosity [49,50].

#### 5.1 Conclusion

In a post-truth world, purveyors of misinformation need not convince the public that their lies are true. Instead, they can reduce the moral condemnation they receive by appealing to our politics (partisanship), convincing us a falsehood could have been true or might become true in the future (imagination), or simply exposing us to the same misinformation multiple times (repetition). Partisanship may lower moral standards, partisanship and imagination can both make the broader meaning of the falsehood seem true, and repetition can blunt people's negative affective reaction to falsehoods (see Figure 1). Moreover, because partisan alignment strengthens the effects of imagination and facilitates repeated contact with falsehoods, each of these processes can exacerbate partisan divisions in the moral condemnation of falsehoods.

Understanding these effects and their pathways informs interventions aimed at reducing the spread of misinformation.

Ultimately, the line of research we have reviewed offers a new perspective on our post-truth world. Our society is not just post-truth in that people can lie and be believed. We are post-truth in that it is concerningly easy to get a moral pass for dishonesty – even when people know you are lying.

#### References

- [1] Cosentino G: Social media and the post-truth world order: The global dynamics of disinformation: Palgrave Macmillan; 2020.
- [2] Farkas J, Schou J: *Post-truth, fake news and democracy: Mapping the politics of falsehood:* Routlede; 2020.
- [3] McIntyre L: Post-Truth. Cambridge, MA: MIT Press; 2018.
- [4] Roozenbeek J, Schneider CR, Dryhurst S, Kerr J, Freeman AL, Recchia G, Van Der Bles AM, Van Der Linden S: **Susceptibility to misinformation about COVID-19 around the world**. *Royal Society Open Science* 2020, **7**:201199.
- [5] van der Linden S: **Misinformation: Susceptibility, spread, and interventions to immunize the public**. *Nature Medicine* 2022:460–467. https://doi.org/0.1038/s41591-022-01713-6
- [6] Watts DJ, Rothschild DM, Mobius M: **Measuring the news and its impact on democracy**. *Proceedings of the National Academy of Sciences* 2021, **118**.
- [7] Zimmermann F, Kohring M: Mistrust, disinforming news, and vote choice: A panel survey on the origins and consequences of believing disinformation in the 2017 German parliamentary election. *Political Communication* 2020, 37:215-237.
- [8] Ecker UK, Lewandowsky S, Cook J, Schmid P, Fazio LK, Brashier N, Kendeou P, Vraga EK, Amazeen MA: The psychological drivers of misinformation belief and its resistance to correction. *Nature Reviews Psychology* 2022, 1:13-29. \*
  - This paper offers a thorough review of why people believe misinformation.
- [9] Guess AM, Lerner M, Lyons B, Montgomery JM, Nyhan B, Reifler J, Sircar N: A digital media literacy intervention increases discernment between mainstream and false news in the United States and India. *Proceedings of the National Academy of Sciences* 2020, 117:15536-15545.
- [10] Lazer DM, Baum MA, Benkler Y, Berinsky AJ, Greenhill KM, Menczer F, Metzger MJ, Nyhan B, Pennycook G, Rothschild D: The science of fake news. Science 2018, 359:1094-1096.
- [11] Higgins K: **Post-truth: a guide for the perplexed**. *Nature* 2016, **540**:9-9.
- [12] Effron DA: It could have been true: How counterfactual thoughts reduce condemnation of falsehoods and increase political polarization. *Personality and Social Psychology Bulletin* 2018, **44**:729-745. https://doi.org/10.1177/0146167217746152 \*
  - This paper reports our first studies on why people condone political misinformation they do not believe. It shows that lies seem less unethical when they align with people's politics, and when people are prompted to imagine the lies "could have been true."
- [13] Effron DA, Raj M: **Misinformation and morality: Encountering fake-news headlines** makes them seem less unethical to publish and share. *Psychological Science* 2020, 31:75-87. https://doi.org/10.1177/0956797619887896 \*\*
  - This paper reveals that people will judge a fake-news article as less unethical to publish and share if they have been exposed to that same article earlier in the study.

- [14] Hahl O, Kim M, Zuckerman Sivan EW: **The authentic appeal of the lying demagogue: Proclaiming the deeper truth about political illegitimacy**. *American Sociological Review* 2018, **83**:1-33. https://doi.org/10.1177/0003122417749632 \*
  - The authors demonstrate how political leaders can seem authentic even when their supporters recognize their dishonesty.
- [15] Mueller AB, Skitka LJ: Liars, damned liars, and zealots: The effect of moral mandates on transgressive advocacy acceptance. *Social Psychological and Personality Science* 2018, **9**:711-718. https://doi.org/10.1177/1948550617720272
- [16] Swire-Thompson B, Ecker UK, Lewandowsky S, Berinsky AJ: **They might be a liar but they're my liar: Source evaluation and the prevalence of misinformation**. *Political Psychology* 2020, **41**:21-34.
- [17] Lewandowsky S, Ecker UK, Cook J: **Beyond misinformation: Understanding and coping with the "post-truth" era**. *Journal of Applied Research in Memory and Cognition* 2017, **6**:353-369. \*\*
- [18] Van Bavel JJ, Harris EA, Parnamets P, Rathje S, Doell KC, Tucker JA: **Political psychology in the digital (mis)information age: A model of news belief and sharing**. *Social Issues and Policy Review* 2021. \*\*
  - Along with [8], offers an important review and model of why people believe and share misinformation.
- [19] Laloggia J: Republicans and Democrats agree: they can't agree on the basic facts. Pew Research Center 2018, 23.
- [20] Helgason BA, Effron DA: **It might become true: How prefactual thinking licenses dishonesty**. *Journal of Personality and Social Psychology* in press. \*\*
  - These studies show that people condone falsehoods they do not believe when it aligns with their politics, or when prompted to imagine how the falsehoods might become true in the future. As a follow-up paper to [12], it sheds light on why imagination can shape moral judgments of misinformation.
- [21] Rossoll N: **Conway: Crowd size at Trump's inauguration 'was historic,' considering projections and rain**. *ABC News*. 2017. Retrieved from http://abcnews.go.com/ThisWeek/crowd-size-trumps-inauguration-historic-projections-rain/story?id=44968944 on
- [22] Tappin BM, Pennycook G, Rand DG: Thinking clearly about causal inferences of politically motivated reasoning: Why paradigmatic study designs often undermine causal inference. Current Opinion in Behavioral Sciences 2020, 34:81-87.
- [23] Abrams D, Randsley de Moura G, Travaglino GA: A double standard when group members behave badly: Transgression credit to ingroup leaders. *Journal of Personality and Social Psychology* 2013, **105**:799. https://doi.org/10.1037/a0033600
- [24] Bocian K, Cichocka A, Wojciszke B: Moral tribalism: Moral judgments of actions supporting ingroup interests depend on collective narcissism. *Journal of Experimental Social Psychology* 2021, **93**:104098.

- [25] Zito S: **Taking Trump seriously, not literally**. In *The Atlantic* 2016. Retrieved from https://www.theatlantic.com/politics/archive/2016/09/trump-makes-his-case-in-pittsburgh/501335/
- [26] Auletta K: **Blood, simpler**. In *The New Yorker* 2014. Retrieved from https://www.newyorker.com/magazine/2014/12/15/blood-simpler on
- [27] Byrne RMJ: Counterfactual thinking: From logic to morality. Current Directions in Psychological Science 2017, **26**:314-322.
- [28] Epstude K, Scholl A, Roese NJ: **Prefactual thoughts: Mental simulations about what might happen**. *Review of General Psychology* 2016, **20**:48-56.
- [29] Bassarak C, Leib M, Mischkowski D, Strang S, Glöckner A, Shalvi S: **What provides** justification for cheating–producing or observing counterfactuals? *Journal of Behavioral Decision Making* 2017.
- [30] Briazu RA, Walsh CR, Deeprose C, Ganis G: **Undoing the past in order to lie in the present: Counterfactual thinking and deceptive communication**. *Cognition* 2017, **161**:66-73.
- [31] Gramlich J: **What the data says about gun deaths in the U.S.** Pew Research Center, 2022. Retrieved from https://www.pewresearch.org/fact-tank/2022/02/03/what-the-data-says-about-gun-deaths-in-the-u-s/
- [32] Allcott H, Gentzkow M: Social media and fake news in the 2016 election. *Journal of Economic Perspectives* 2017, 31:211-236.
- [33] Vosoughi S, Roy D, Aral S: **The spread of true and false news online**. *Science* 2018, **359**:1146-1151. \*
  - Influential paper showing that among fact-checked news fake news spreads farther and faster than true news.
- [34] Shin J, Jian L, Driscoll K, Bar F: **The diffusion of misinformation on social media: Temporal pattern, message, and source**. *Computers in Human Behavior* 2018, **83**:278-287. https://doi.org/10.1016/j.chb.2018.02.008
- [35] Effron DA: The moral repetition effect: Bad deeds seem less unethical when repeatedly encountered. *Journal of Experimental Psychology: General* in press. \*\*
  - A follow-up to [13], this paper examines why sharing a fake-news headline seems less unethical when that headline has been repeatedly encountered.
- [36] Pennycook G, Cannon T, Rand DG: **Prior exposure increases perceived accuracy of fake news**. *Journal of Experimental Psychology: General* 2018, **147**:1865–1880. https://doi.org/10.1037/xge0000465
- [37] Pillai RM, Fazio LK: **The effects of repeating false and misleading information on belief**. *Wiley Interdisciplinary Reviews: Cognitive Science* 2021, **12**. https://doi.org/doi.org/10.1002/wcs.1573
- [38] Haidt J: The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review* 2001, **108**:814-834.
- [39] Campbell T, O'Brien E, Van Boven L, Schwarz N, Ubel P: **Too much experience: A desensitization bias in emotional perspective taking**. *Journal of Personality and Social Psychology* 2014, **106**:272-285. https://doi.org/10.1037/a0035148

- [40] Hoffman AM, Kaire J: Comfortably numb: Effects of prolonged media coverage. Journal of Conflict Resolution 2020, **64**:1666-1692.
- [41] Aral S: The Hype Machine: HarperCollins; 2020.

news.

- [42] Guess A, Nyhan B, Reifler J: **Selective exposure to misinformation: Evidence from the consumption of fake news during the 2016 US Presidential campaign**. European Research Council; 2018. Retrieved from https://www.dartmouth.edu/~nyhan/fake-news-2016.pdf on
- [43] Lewandowsky S, Van Der Linden S: Countering misinformation and fake news through inoculation and prebunking. European Review of Social Psychology 2021, 32:348-384.

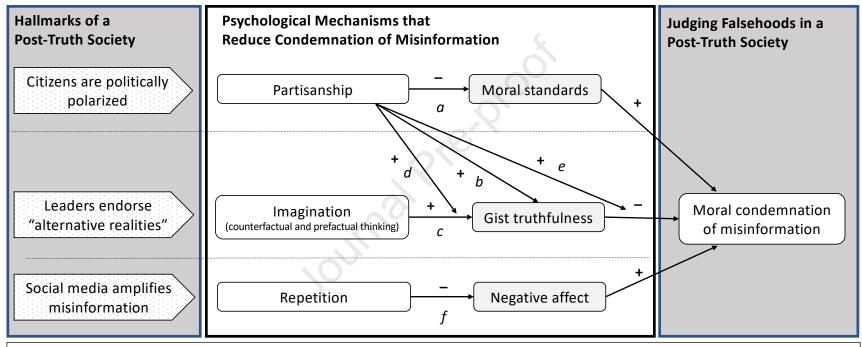
  \*
  This review paper summarizes how to reduce people's susceptibility to believing fake
- [44] Pennycook G, Epstein Z, Mosleh M, Arechar AA, Eckles D, Rand DG: **Shifting attention to accuracy can reduce misinformation online**. *Nature* 2021, **592**:590-595. \*
  - This paper reports on a successful intervention that reduces fake-news sharing by nudging people to think about accuracy.
- [45] Pennycook G, McPhetres J, Zhang Y, Lu JG, Rand DG: **Fighting COVID-19** misinformation on social media: Experimental evidence for a scalable accuracy-nudge intervention. *Psychological Science* 2020, **31**:770-780. https://doi.org/10.1177/0956797620939054
- [46] van der Linden S, Leiserowitz A, Rosenthal S, Maibach E: **Inoculating the public against misinformation about climate change**. *Global Challenges* 2017, **1**:1600008.
- [47] Lawson A, M., Kakkar H: **Of pandemics, politics, and personality: The role of conscientiousness and political ideology in the sharing of fake news**. *Journal of Experimental Psychology: General* 2021:Advance online publication. https://doi.org/https://psycnet.apa.org/doi/10.1037/xge0001120
- [48] Bruneau EG, Kteily NS, Urbiola A: A collective blame hypocrisy intervention enduringly reduces hostility towards Muslims. *Nature Human Behaviour* 2020, **4**:45-54. https://doi.org/10.1038/s41562-019-0747-7
- [49] Hartman R, Blakey W, Womick J, Bail C, Finkel E, Han H, Sarrouf J, Schroeder J, Sheeran P, Van Bavel JJ, et al.: **Interventions to reduce partisan animosity**. manuscript under review. https://doi.org/10.31234/osf.io/ha2tf
- [50] Osmundsen M, Bor A, Vahlstrup PB, Bechmann A, Petersen MB: **Partisan polarization is the primary psychological motivation behind political fake news sharing on Twitter**.

  American Political Science Review 2021, **115**:999-1015.

<sup>\*</sup> Papers of special interest. \*\* Papers of outstanding interest.

**Figure** 

Figure 1
Theoretical Model



# Legend:

- a. Partisanship reduces moral condemnation by lowering moral standards
- b. Partisanship reduces moral condemnation by making the gist of the misinformation seem truer
- c. Imagination reduces moral condemnation by making the gist of the misinformation seem truer
- d. Partisanship amplifies the effect of imagination on moral condemnation by making the gist seem truer
- e. Partisanship amplifies the effect of imagination on moral condemnation by making the gist seem like a better justification
- f. Repetition reduces moral condemnation through affective desensitization

#### Journal Pre-proof

**Declaration of interests** 

☑ The authors declare that they have no known competing financial interests or personal relationships hat could have appeared to influence the work reported in this paper.
☐The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: