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PSYCHOLOGICAL INTERVENTIONS TO COMBAT MISINFORMATION

Exploring misinformation's impact, resistance to correction, and the psychological strategies for debunking false information to create a healthier information environment.

FIRST THINGS FIRST: IS MISINFORMATION A PROBLEM? (YES, IT IS.)

Misinformation has become a buzzword, and many see the proliferation of misinformation and its potential impacts as an issue of substantial contemporary concern. We believe that, by and large, these concerns are justified. However, some argue that misinformation is only a) a small fragment of consumed information, b) a symptom rather than a cause of problems, c) has modest behavioural effects, and d) is nothing new. We disagree with these minimising arguments for several reasons:

- While it is true that easily and objectively identifiable misinformation (e.g., 'fake news' headlines) makes up only a fraction of people's information diet, focusing on this subset of misinformation ignores all other types, including subtle misrepresentations and systematic distortions.
- Broader societal issues and trends (e.g., social inequality and disenfranchisement; economic uncertainties; low trust in institutions) have likely causally contributed to enhanced misinformation spread and susceptibility. However, just because something is causally influenced by other factors does not mean it cannot have causal impacts of its own. For instance, there is evidence that misinformation has causally contributed to COVID-19 and MMR vaccine hesitancy, disregard for public-health advice, persecution of minorities, and the 2021 storming of the U.S. Capitol.
- Measuring the impact of misinformation on behaviour is challenging due to its heterogeneity and the likelihood of being negligible or absent in certain cases (e.g., one-time exposure; low-plausibility misinformation; inconsequential topics). However, even small behavioural impacts can be meaningful at scale. Additionally, these impacts are not always direct; misinformation can indirectly shape people's views and choices by influencing mainstream media, public discourse, and policy-making in political debates. Moreover, there are likely additional ripple effects, such as diminishing institutional trust, which can further impact behaviour in distinct ways.

d. People providing false and misleading information is obviously not a new phenomenon. However, the fact that misinformation has long been present does not mean that it is no longer a concern. The misinformation problem has been exacerbated by rapid changes to the contemporary information environment. This is characterised by a growing reliance on the internet and social media as a primary source of information, unprecedented concentration of mainstream-media ownership, and the advent of powerful AI tools.

MISINFORMATION: PSYCHOLOGICAL INTERVENTIONS

If misinformation is considered a problem to be addressed in a given context, the question of solutions arises. Solutions need to be multi-pronged; from a policy perspective, there are at least four entry points for intervention:

- Regulatory (e.g., legislation, codes of conduct),
- Technological (e.g., algorithmic detection of problematic content on social-media platforms),
- Educational (e.g., systematic efforts to strengthen media and information literacy),
- Psychological (e.g., specific interventions targeting misinformation detection or sharing).

Our research has largely focused on the psychological dimension, where one of the significant issues we encounter is the resistance of misinformation to correction. This resistance stems from the inherent biases in human cognition and the difficulty and error-proneness of updating our memory and revising our existing knowledge, as correcting something that is believed to be true poses a cognitive challenge.

Accordingly, a substantial amount of research by our group and others has explored ways to effectively fact-check or debunk misinformation, which has highlighted important factors to consider. To illustrate, post-exposure corrections of misinformation are most effective when they incorporate the following elements:



“Practitioners must be aware that any intervention risks amplifying misinformation sources and ‘buying into’ their framing of an issue.”

These correction strategies should be incorporated into a larger intervention plan. Ideally, there should be ongoing monitoring of an information environment to enable an informed evaluation of the extent to which specific misinformation pieces are gaining traction and posing a risk of harm. Practitioners must be aware that any intervention risks amplifying misinformation sources and 'buying into' their framing of an issue. As such, debunking should only be applied after careful consideration of all potential outcomes.

ALTERNATIVE STRATEGIES

Since debunking can only ever operate retroactively, practitioners should consider alternative strategies. These include active promotion of truthful narratives and factual evidence, competence boosts, and behaviour-oriented nudges.

Competence boosts include educational tools to enhance media and information literacy skills, such as lateral reading, and

inoculation interventions that aim to protect consumers from misinformation by explaining the misleading argumentation strategies that disinformants use in their persuasive attacks. Although further research is needed, one potential benefit of this approach is that inoculated individuals may be able to transfer the gained resilience to other topics. For example, understanding that a climate-change-denying argument uses cherry-picking tends to provide some protection against cherry-picked arguments in other domains, such as vaccination.

Behaviour nudges include accuracy prompts that remind the consumer to consider information veracity, the introduction of friction to reduce unwanted behaviour (i.e., sharing misinformation), and the use of social norms to highlight that most people try not to share misinformation and believe sharing misinformation is wrong.

To summarise, targeted corrections that follow our five recommendations can help counter (potentially) harmful misinformation where it arises and begins spreading. However, a whole array of evidence-based psychological strategies is available to practitioners, which cumulatively can contribute to a healthier information environment.

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