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RESEARCH DIALOGUE

The psychological underpinnings of false beliefs: Construction, updating, prevention, and correction

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Misinformation, disinformation, and false beliefs—these terms have not only entered the vernacular, they have come to dominate media headlines and public discourse. Although the concepts of truth and its determination have been the focus of philosophers for centuries, recent technological advances such as the development of the Internet and the rapid rise of social media platforms have facilitated the easy dissemination of all information (both true and false) and allowed anyone with a computer and Internet connection to become an information source, thereby totally obliterating the traditional roles of trusted gatekeepers of information (so-called "mainstream media," schools, government, science, etc.). This ability to disseminate any information—particularly false information—by just about anyone has thus made it difficult for individuals to ascertain the veracity of any claim and who is a trusted source (Lewandowsky et al., 2017).

Although much of the current discourse has focused on the role of false information in politics and science (among others), false claims in marketing also have a long history in scholarly research and governmental regulation. What advertisers can legally say about their products is regulated (claims must typically be backed up by evidence), and consumers are typically aware that a claim is being made by a brand (although infomercials, advertorials, and native advertisements can make this more difficult). Thus, consumers can use this knowledge to make judgments of source credibility and trustworthiness (Friestad & Wright, 1994). However, today's communication environment has greatly changed the game in terms of dissemination of product-related information. With the rise of influencers, podcasters, and bloggers, brands are not the only source of product information, and these new sources may often be seen as more trustworthy and credible than the brand itself.

So how can people navigate this seemingly treacherous communication environment and avoid the formation of false beliefs and correct for false beliefs that are already formed? In the target article of this Research Dialogue, Stanley et al. (2022) approach this question through the lens of research in cognitive psychology on how people process information in their attempts to ascertain the truth of a claim. They review their program of research on learning and memory and how people construct and update their beliefs. They propose that preventing the formation of false beliefs and facilitating the correction of false beliefs, can be best understood in terms of the cognitive processes by which people construct and update beliefs in general. More specifically, they suggest that the processes by which people develop false beliefs and their ability to update (correct for) false beliefs depend on the same processes by which people form accurate beliefs. They describe four fundamental principles (heuristics, biases) that people use in belief construction: (1) a truth bias, in which people initially process information as if it were true; (2) a bias to extract meaning, in which people make inferences about an assertion based on prior knowledge and expectations and not based exclusively on the content of the message; (3) using source as a truth heuristic, in which people show an over-reliance on source credibility when making truth judgments; and (4) using processing fluency as a truth heuristic, in which people base judgments of truth on the ease with which incoming information can be processed. They conclude with a discussion of how the four

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Target Article: Matthew L. Stanley, Peter S. Whitehead and Elizabeth J. Marsh. The cognitive processes underlying false beliefs. https://doi.org/10.1002/jcpy.1289

Commentary 1: Anne-Sophie Chaxel. How misinformation taints our belief system: a focus on belief updating and relational reasoning. https://doi.org/10.1002/jcpy.1290

Commentary 2: Gita Venkataramani Johar. Untangling the web of misinformation and false beliefs. https://doi.org/10.1002/jcpy.1288

principles apply to judging the efficacy of possible interventions to prevent false belief construction and to correct for false beliefs. They note that although some interventions may work sometimes, correcting for false beliefs is remarkably difficult, and many interventions fail because of the very same principles (heuristics and biases) that produced the false beliefs in the first place.

In the first commentary, Chaxel (2022) builds on Stanley et al.'s (2022) premise that understanding people's general information processing tendencies is necessary to prevent the formation of false beliefs and to facilitate their correct updating. Chaxel focuses on the longitudinal processes by which people encounter information, arrive at a tentative truth judgment, and the extent to which they develop a commitment to the beliefs (i.e., belief strength). She notes that although there may be reasonably objective "facts" (e.g., vaccines are safe) that are based on an accumulation of evidence and may be known by experts, individuals may often lack knowledge of this evidence (i.e., lack full information), and thus be initially uncertain of the accuracy of a claim. This initial, malleable, tentative belief is then updated based on prior knowledge (e.g., source perceptions, current beliefs) and on knowledge gained through external search, both of which are dependent upon well-known information processing biases (accessibility, selective perception, selective exposure, etc.). Chaxel suggests that the initial tagging of information as true or false may not be as important as the subsequent processing and speed with which the initial tentative belief becomes one that is held much more strongly, which skews the processing of new information and makes the strong beliefs much more difficult to change. Finally, Chaxel discusses the notion of relational reasoning, and how people connect new, incoming information with what they already know. She illustrates relational reasoning in terms of a continuum of verbatim versus gist processing, noting that gist processing (which Stanley et al. (2022) suggest is a general default tendency) should increase the impact of prior beliefs on the processing of new information.

In the second commentary, Johar (2022) builds on the four principles of belief construction outlined by Stanley et al. (2022) by drilling down more deeply into the processes underlying each of the four principles, with the goal of determining how to make interventions more effective. Because it is likely easier to prevent the formation of false beliefs than it is to correct them once they are formed, she suggests that interventions may be more successful if they focus on enabling consumers to "defer and deflect" false beliefs from becoming entrenched in their minds. Johar draws on the four fundamental principles that Stanley et al. (2022) suggest underpin the belief system and offers ways in which the biases inherent in these principles can be leveraged in the service of truth. She discusses several interventions (e.g., debunking, inoculation, warnings, providing alternative beliefs) that may be effectively employed if designed properly by taking into account fundamentals of information processing. Johar also emphasizes three ways in which the study of false beliefs can be broadened to mitigate false beliefs: (1) a broader focus on the prevention of misinformation; (2) broadening the scope of the dependent variables to go beyond beliefs about a specific false claim to include the network of beliefs that form a worldview; and (3) recognizing the role of identity in the development and maintenance of false beliefs. She concludes with a discussion of some of the higher-level "thorny" issues that need to be acknowledged (e.g., regulation, free speech, increasing scientific literacy, etc.).

Taken together, the target article and two commentaries provide an excellent foundation for understanding the psychology of false beliefs. As noted earlier, although the phenomenon is not necessarily new, new situations have greatly exacerbated the severity of the problem. The three papers provide a path forward to developing a research agenda to address these important consumer and societal problems.

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REFERENCES

Chaxel, A. S. (2022). How misinformation taints our belief system: A focus on belief updating and relational reasoning. *Journal of Consumer Psychology*, *32*(2), 370–373. https://doi.org/10.1002/jcpy.1290

Friestad, M., & Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research*, *21*(1), 1–31. https://doi.org/10.1086/209380

Johar, G. V. (2022). Untangling the web of misinformation and false beliefs. *Journal of Consumer Psychology*, *32*(2), 374–383. https://doi.org/10.1002/jcpy.1288

Lewandowsky, S., Ecker, U. K. H., & Cook, J. (2017). Beyond misinformation: Understanding and coping with the "Post-Truth" era. *Journal of Applied Research in Memory and Cognition*, *6*(4), 353–369. https://doi.org/10.1016/j.jarmac.2017.07.008

Stanley, M. L., Whitehead, P. S., & Marsh, E. J. (2022). The cognitive processes underlying false beliefs. *Journal of Consumer Psychology*, *32*(2), 359–369. https://doi.org/10.1002/jcpy.1289

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