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WHEN INFORMING DOESN'T INFORM [ABSTRACT]

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ABSTRACT

Aim/Purpose	It appears that humans can become mal-informed and often consciously or subconsciously resist revising their mal-informed perspectives
Background	We need to apply behavioral and/or cognitive psychological approaches rather than traditional "educational" approaches
Methodology	Literature review
Contribution	Suggests revising research focus to affective rather than cognitive solutions
Findings	Teaching critical thinking helps but is not enough
Impact on Society	Many important societal decisions may be made emotionally rather than rationally
Future Research	Research affective as well as cognitive factors in decision-making
Keywords	malinformation, information resistance, decision-making

INTRODUCTION

A recent *New York Times* article recounted the story of a 17-year-old, straight-A student's bolting from class after being asked to watch a documentary by a Christian climate activist. The film was selected and shown by the student's high school biology teacher in response to her objection that "a belief in climate change does not jibe with Christianity (Harmon, 2017)." In explaining her flight from class, Gwen said: "It was just so biased toward saying climate change is real. And that all these people that I pretty much am like are wrong and stupid." An honor student, Gwen had the intellectual ability to understand the evidence provided. She was unwilling or unable to accept the evidence.

Perhaps we should expect as much from a high school student in a Trump-supporting town reflecting the views of her family and peers in America's highly polarized political environment. However, cognitive biases have long been noted in human behavior across all demographics, and these biases

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not only affect our political and religious perspectives but also can affect quotidian decisions, too often impeding the achievement of our actual desires (Pfeffer and Sutton, 1999; Lovallo and Kahneman, 2003).

Informing science is manifestly about using multi-disciplinary approaches to studying how to more effectively convey information presumably for the benefit of the recipient. In his 2009 recapitulation of the "informing science framework," Cohen (p. 10) acknowledges the human frailties that may distort the informing process and calls for future research concerning bias, misinformation and disinformation on the part of the informer and for client-focused research on "cognitive and psychological elements of informing." This paper reviews relatively recent research conducted in psychology investigating factors relating to confirmation bias as well as other types of information distortion specifically (Hart & Nisbet, 2011; Hernandez & Preston, 2013; Lewandowsky, Ecker, Seifert, Schwarz & Cook, 2012; Nyhan & Reifler, 2015; Pfeffer & Sutton, 1999; Winkielman, Huber, Kavanagh & Schwarz, 2012) and calls for renewed emphasis in the informing sciences community to further investigate these phenomena with the goal of contributing to the development of general educational strategies as well as specific interventions to ameliorate breakdown or distortion in informing processes.

SELECTED CITATIONS FROM BIBLIOGRAPHY

Cohen, E. B. (2009). A philosophy of informing science. *Informing Science: the International Journal of an Emerging Transdiscipline, 12*, 1-15.

Harmon, Amy (2017, June 4). Climate science meets a stubborn obstacle: Students. *New York Times*. Retrieved from: https://www.nytimes.com/2017/06/04/us/education-climate-change-science-class-students.html

Hart, P. S., & Nisbet, E. C. (2011). Boomerang effects in science communication: How motivated reasoning and identity cues amplify opinion polarization about climate mitigation policies. *Communication Research*. Advance online publication. doi:10.1177/0093650211416646.

Hernandez, I., & Preston, J. L. (2013). Disfluency disrupts the confirmation bias. *Journal of Experimental Social Psychology, 49*(1), 178-182.

Lewandowsky, S., Ecker, U. K., Seifert, C. M., Schwarz, N., & Cook, J. (2012). Misinformation and its correction continued influence and successful debiasing. *Psychological Science in the Public Interest, 13*(3), 106-131.

Lovallo, D., & Kahneman, D. (2003). Delusions of success. *Harvard Business Review, 81*(7), 56-63.

Nyhan, B., & Reifler, J. (2015). Does correcting myths about the flu vaccine work? An experimental evaluation of the effects of corrective information. *Vaccine, 33*(3), 459-464.

Pfeffer, J., & Sutton, R. I. (1999). *The knowing-doing gap: How smart companies turn knowledge into action*. Harvard Business Press.

Winkielman, P., Huber, D. E., Kavanagh, L., & Schwarz, N. (2012). Fluency of consistency: When thoughts fit nicely and flow smoothly. In B. Gawronski & F. Strack (Eds.), *Cognitive consistency: A fundamental principle in social cognition* (pp. 89–111). New York, NY: Guilford Press

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