

STUDENT RESEARCH WEEK

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"This Can't Be Right": Using a Misinformation Paradigm to Reduce Pseudoscientific Beliefs

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Abstract

Misinformation can be broadly defined as any information that is initially assumed to be true, but is in fact false (Lewandowsky, Ecker, Seifert, Schwarz, & Cook, 2012). Pseudoscience is any claim, belief, or practice that is claimed to be scientific, but has little to no scientific evidence supporting it (Lilienfeld, 2010). Examples include some forms of alternative medicine and conspiracy theories. Pseudoscience can be considered a form of misinformation since it is initially assumed to be true, but is in fact false. Studies have shown that belief in one form of pseudoscience tends to be associated with belief in other types of pseudoscience (e.g. Lobato, Mendoza, Sims, & Chin, 2014). Furthermore, belief in pseudoscience tends to be maintained in the face of contradictory evidence by professionals and laypeople alike (Lilienfeld, 2010). Therefore, reducing belief in pseudoscience is extremely important. By doing so, reliance on valid scientific findings will increase and critical thinking skills will improve. To reduce belief in misinformation, Lewandowsky and colleagues (2012) suggest warning people they are about to receive false information, and giving people an alternative explanation after receiving potential misinformation. Since pseudoscience is a form of misinformation, it is reasonable to speculate that a warning and alternative explanation will reduce belief in pseudoscience. Thus, the present study implemented the warning and alternative explanation strategies in an attempt to reduce belief in conspiracy theories, alternative medicine, and the paranormal. An alternative explanation is presumably more effective at reducing belief in misinformation than a warning (Lewandowsky et al., 2012). Therefore, it is predicted that an alternative explanation will be more effective than a warning at reducing belief in pseudoscience. Results are discussed in terms of improving critical thinking skills in both students and the general public, and will be submitted for publication to a peer-reviewed journal.

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References

- Lewandowsky, S., Ecker, U. H., 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.
- Lilienfeld, S. O. (2010). Can psychology become a science? *Personality and Individual Differences*, 49(4), 281-288.
- Lobato, E., Mendoza, J., Sims, V., & Chin, M. (2014). Examining the relationship between conspiracy theories, paranormal beliefs, and pseudoscience acceptance among a university population. *Applied Cognitive Psychology*, 28(5), 617-625. doi:10.1002/acp.3042