

# Detecting Misinformation Can Improve Memory Later On

January 03, 2017



Exposure to false information about an event usually makes it more difficult for people to recall the original details, but new [research](#) suggests that there may be times when misinformation actually boosts memory. [Research](#) published in *Psychological Science*, a journal of the Association for Psychological Science, shows that people who actually notice that the misinformation is inconsistent with the original event have better memory for the event compared with people who never saw the misinformation in the first place.

“Our experiments show that misinformation can sometimes enhance memory rather than harm it,” says psychological scientist Adam Putnam of Carleton College, lead author of the research. “These findings are important because they help explain why misinformation effects occur sometimes but not at other times – if people notice that the misinformation isn’t accurate then they won’t have a false memory.”

In their first experiment, Putnam and colleagues had 72 undergraduate participants view six slide shows, each of which contained 50 photos portraying a particular event. After looking through the slide shows, the participants completed an unrelated “distractor” task for about five minutes and then read narrative descriptions for each slide in the previous slide shows.

For example, if the slide showed a thief finding \$1 bills in a car, the description might be consistent (e.g., “He examined the bills, and saw they were all \$1 bills”), neutral (e.g., “He examined the bills and saw they were all US currency”), or inconsistent (e.g., “He examined the bills and saw that they were all \$20 bills”) with the slide show.

After reading the descriptions and completing another distractor task, the participant then answered multiple-choice questions about what they remembered from the original slide shows, such as “What kind of bills were in the car?” The responses included a correct option (\$1 bills), an incorrect option with misinformation from the narrative (\$20 bills), or a different incorrect option (\$5 bills). After making their selection, participants reported whether they had noticed any discrepancies between the original slide show and the narratives.

True to a general misinformation effect, people were most likely to choose the misinformation response when the detail in the narrative was inconsistent with the slide show.

But when participants reported remembering a change between the slide shows and the narrative, this deficit disappeared: Participants were more likely to select the correct response after seeing misinformation compared with seeing a neutral detail.

And when they reported that the narrative had contradicted the slide, participants were *less* likely to select the incorrect misinformation response for details that were inconsistent in the narrative compared with those that were neutral.

Although exposure to misinformation seemed to impair memory for the correct detail, detecting and remembering misinformation in the narrative seemed to improve participants’ recognition later on.

A second experiment produced similar results, and additional analyses showed that how memorable a detail was seemed to make a difference. Details that were less memorable, relatively speaking, were more vulnerable to the misinformation effect.

These findings suggest that the relationship between misinformation and memory is more complex than we might have thought – mere exposure to misinformation doesn’t automatically cue the misinformation effect:

“Classic interference theory in memory suggests that change is almost always bad for memory, but our study is one really clear example of how change can help memory in the right circumstances,” Putnam explains.

“People may learn about false memory research and walk away thinking that false memories can easily be implanted about all sorts of events– that we’re constantly remembering things that never happened,” says Putnam. “Our research helps in showing that although false memories can occur with some regularity, it isn’t a sure thing by any means.”

Co-authors on the research include Henry L. Roediger, III and Victor W. Sungkhasettee of Washington University in St. Louis.

This study was supported by National Science Foundation Grant DGE- 1143954 and by a Collaborative Activity Grant from the James S. McDonnell Foundation.

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