

Illusory memories can have salutary effects

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(Medical Xpress) -- “False memories tend to get a bad rap,” says developmental psychologist Mark L. Howe, of Lancaster University in England. Indeed, remembering events incorrectly or remembering events that didn’t happen can have grave consequences, such as the criminal conviction of an innocent person. “But false memories are a natural outcropping of memory in general. They must have some positive effect, too.”

That argument—that memory illusions were evolutionarily adaptive and remain useful for psychological well being and problem-solving—is the subject of an intriguing paper in *Current Directions in Psychological Science*, a journal published by the Association for Psychological Science.

Obviously, the evolution of accurate memory—for the location of food, the appearance of a predator, or the smell of a potential mate—was critical to human survival. Howe cites findings in evolutionary psychology that the more relevant a memory is to survival, the more likely it is to be evinced.

But memory is a flexible process of taking in new information and blending it with what is already there, selecting or forgetting portions of experience; it inevitably leads to errors small or large. Not only do we regularly generate false memories, says Howe, but, perhaps because we create them ourselves, those illusions are more tenacious than facts.

In some instance, such illusions may have enhanced our ancestors’

survival. “The animal that goes to a favorite food-foraging location and sees signs that a predator was there—but not the predator itself—may be on guard the next time. But the creature that falsely remembers the predator was actually there might be even more cautious”—extra protection against getting eaten if the bad guy shows up.

Memory illusions, like illusions generally, can still be salutary. An inflated self-concept may result in greater confidence, which fuels success. Similarly, remembering your childhood as happier than it was may help you have more satisfying intimate relationships in adulthood. The “placebo effect”—believing the sugar pill is real medicine—can cure the ailment without side effects. False memories sometimes have a related outcome: Howe cites a study in which children who came to remember a lumbar puncture as less painful than it was were able to tolerate the procedure with more ease the next time. False memories can also help in problem solving. Howe and colleagues conducted experiments in which they gave children a list of words—nap, doze, dream, pillow, bed. Those who falsely remembered that sleep was also on the list did better on a complex associative task involving that word than those who did not generate the illusion.

Memory, Howe suggests, does not work like a video recorder. “Memory is designed to extract meaning from experience: At the foraging place, something bad was going on. You don’t need the exact information to get the meaning.”

The point of the paper is not to exaggerate the value of illusion, says Howe. “Memories true or false can have a negative or positive effect, depending on the context. The key point is: Just because a memory is false doesn’t make it bad.”

More information: [www.psychologicalscience.org/i ...s/current_directions](http://www.psychologicalscience.org/i...s/current_directions)

Provided by Association for Psychological Science

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