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Sleep makes your memories stronger

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As humans, we spend about a third of our lives asleep. So there must be a point to it, right? Scientists have found that sleep helps consolidate memories, fixing them in the brain so we can retrieve them later. Now, new research is showing that sleep also seems to reorganize memories, picking out the emotional details and reconfiguring the memories to help you produce new and creative ideas, according to the authors of an article in *Current Directions in Psychological Science*, a journal of the Association for Psychological Science.

"Sleep is making memories stronger," says Jessica D. Payne of the University of Notre Dame, who cowrote the review with Elizabeth A. Kensinger of Boston College. "It also seems to be doing something which I think is so much more interesting, and that is reorganizing and restructuring memories."

Payne and Kensinger study what happens to memories during sleep, and they have found that a person tends to hang on to the most emotional part of a memory. For example, if someone is shown a scene with an emotional object, such as a wrecked car, in the foreground, they're more likely to remember the emotional object than, say, the palm trees in the background—particularly if they're tested after a night of sleep. They have also measured brain activity during sleep and found that regions of the brain involved with emotion and memory consolidation are active.

"In our fast-paced society, one of the first things to go is our sleep," Payne says. "I think that's based on a profound misunderstanding that the sleeping brain isn't doing anything." The brain is busy. It's not just

consolidating memories, it's organizing them and picking out the most salient information. She thinks this is what makes it possible for people to come up with creative, new ideas.

Payne has taken the research to heart. "I give myself an eight-hour sleep opportunity every night. I never used to do that—until I started seeing my data," she says. People who say they'll sleep when they're dead are sacrificing their ability to have good thoughts now, she says. "We can get away with less sleep, but it has a profound effect on our cognitive abilities."

Provided by Association for Psychological Science

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