

Planting false memories in people's minds and then erasing them

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A small team of researchers from the University of Hagen, Leibniz-Institut für Wissensmedien, Johannes Gutenberg Universität Mainz and the University of Portsmouth has found that false memories planted in

the minds of volunteers can be just as easily erased. In their paper published in *Proceedings of the National Academy of Sciences*, the group describes memory experiments they conducted with volunteers and what they learned from them.

False memories, as their name implies, are those of places or events that have never happened. Prior research has shown that [false memories](#) can arise naturally due to cues that the [mind](#) uses to create memories of events that might have happened but did not. Prior research has also shown that it is possible to plant false memories in other people using certain psychological tricks. Notably, such tricks have been used in well-known [criminal trials](#) to push possible witnesses into remembering things that did not occur.

Typically, these tricks involve suggesting to a person that an event occurred and then using an external trusted source to back up the claim. In this new effort, the researchers attempted to plant false memories in 52 volunteers by creating plausible stories from their childhoods and mixing them with events that actually happened. The researchers then backed up the false memories by asking the parents of the volunteers to claim that they happened, as well. Over the course of several sessions, many of the volunteers came to believe the accounts were true and some of them generated false memories of them.

Next, the researchers set about erasing the false memories from the minds of those volunteers. They found they were able to do so by first asking them to identify the source of the [memory](#) and then by explaining to them that sometimes, false memories can be created when people are asked to recall them multiple times. Over several sessions, the researchers found that the volunteers began to lose the memories they had created of the false event. The researchers also invited the volunteers back again a year later and found that 74% of those who had created false memories had lost their memories of the false event or had

simply rejected them as having ever happened.

More information: Aileen Oeberst et al. Rich false memories of autobiographical events can be reversed, *Proceedings of the National Academy of Sciences* (2021). [DOI: 10.1073/pnas.2026447118](https://doi.org/10.1073/pnas.2026447118)

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