

Using a foreign language can reduce false memories, study shows

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Credit: AI-generated image ([disclaimer](#))

A thief sneaks into a museum late at night. They pass by a pair of statues—or were they suits of armor? You see them take a necklace. Or wait. Didn't the news report say it was a watch?

Our memories shape the past, our sense of reality. But they aren't always

true. Language is often a culprit for planting these [false memories](#). In a recent study published by the *Journal of Experimental Psychology: General*, two UChicago research groups came together to examine the relationship between [language](#) and memory—specifically the role of multilingualism.

Doing anything in a language that isn't your own—from ordering lunch to learning something new—can be tough. This may lead some to believe [foreign language](#) users would be more susceptible to false memories.

However, according to Prof. Boaz Keysar, that's not the case.

"What's really interesting about what we find is it's exactly the opposite," said Keysar, who directs the Multilingualism and Decision-Making Lab at UChicago. "People have fewer false memories in their second language."

This is due, the research team hypothesized, to a higher level of memory monitoring. Anyone who's struggled in a new language knows the brain power needed to avoid a linguistic misstep. According to researchers, this is because you're actually using a different system of reasoning, one that's less automatic and instinctual.

"When you're using a second language, it activates this mindset of being more careful with your judgments and your decision making," said Prof. David Gallo, who leads the Memory Research Lab at UChicago. "You might not even be aware that you're doing this."

"This pushes back against the idea that, just because you're using a foreign language it doesn't mean every decision you make is going to be a worse one," said lead author Leigh Grant, a psychology Ph.D. student who brought two UChicago research groups together.

Two memory illusions

To test their hypothesis, researchers partnered with UChicago's Center in Beijing on two studies designed to plant false memories. In the first study, 120 native Mandarin Chinese speakers who also knew English were given a list of related words in both languages.

For example, participants were given: "dream," "snooze," "bed," "rest," etc. Critically, the word "sleep" was missing. This is what researchers call a "lure," a common word purposely omitted to make your brain fill in the easy association. A perfect trap for making a false memory.

"Everybody makes that kind of inference," Gallo said. "It's hard to remember if 'sleep' was spoken, or if you just imagined it."

The participants were then asked to recall which words they remembered and, importantly, which related words were not on the list. This measured how well individuals were monitoring their memories.

"We found that people were less likely to falsely remember these missing words if they were presented in their secondary language compared to their native one," Gallo said.

The second study looked at bilingualism's role in the misinformation effect—when your memory of something is altered by information you learn afterward. This is particularly relevant in [eyewitness testimony](#) when conflicting reports can have tremendous consequences.

In the study, native Mandarin speakers watched silent videos of a crime. Afterwards, they listened to corresponding audio narratives, one in English and one in Mandarin. The stories were filled with details of the crime—some true and some not.

When asked what they remembered, participants fell for the planted false memories in their own language. Suggestions of extra guards or statues became false memories. However, that wasn't true for their second language.

"We actually found that when people got misleading information in their foreign language, they were more likely to catch it than when they got it in their native tongue," Grant said.

The foreign language effect

Both studies supported the team's hypothesis that people are monitoring their memories more closely when using a [second language](#). This foreign language effect could have big implications for how we understand the role of memory and language in legal, political and everyday decision making.

"There are hundreds of millions of immigrants, refugees and people who live in a country that doesn't speak their [native tongue](#)," Keysar said.

"Turns out, it actually improves their ability to tell false from true [memory](#)."

Their findings also can help us understand whose information we trust and when. "These language effects can actually affect how we think about our own memories in a fundamental way," Gallo said. "And influence whether you believe someone's misinformation or not depending on what language they used."

The next steps, researchers say, are to test other language combinations or further explore the relationship between visual and auditory information. "I feel like we're at the tip of the iceberg here," Gallo said.

More information: Leigh H. Grant et al, Foreign language reduces

false memories by increasing memory monitoring., *Journal of Experimental Psychology: General* (2023). [DOI: 10.1037/xge0001378](https://doi.org/10.1037/xge0001378)

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