

# Your brain doesn't forget when you forgive—it does something far more surprising with those painful memories

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Credit: Image generated by the editorial team using AI for illustrative purposes.

Forgiving someone might not erase painful memories, but it can subtly update them, making past hurts feel less upsetting. It's less "forgive and

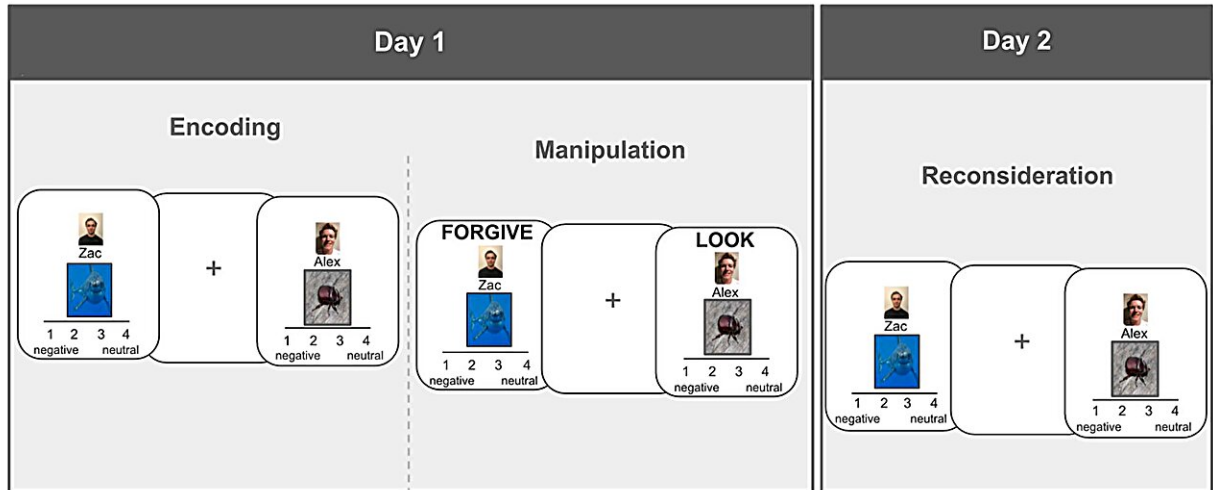
forget," and more "forgive and update."

Psychologists have long known that forgiveness is crucial for healing rifts and keeping social bonds strong. Folk wisdom even advises us to "forgive and forget" after a wrong, implying that saying you forgive someone should make the bad memory vanish.

But forgiving doesn't actually make you forget, notes Duke neuroscientist Felipe de Brigard: "When you forgive someone for a wrongdoing, you don't forget the event. But once you forgive, the memory doesn't hurt as much." Indeed, past studies hinted that forgiving someone can blunt the memory of their misdeed. What hasn't been clear is how that happens in the brain. Is the memory simply erased, or does it get rewritten?

## **A new twist on an old idea**

To test this, researchers staged a simple forgiveness experiment under an fMRI scanner. Volunteers watched a series of pictures that another person (a target) had supposedly chosen for them. Most pictures were upsetting (for example, scenes of threatening animals), so each time the volunteer saw a harsh image, they thought, "This person must be trying to upset me."



The Forgiveness Journey in the Lab. This diagram illustrates how researchers tracked memories. Participants first rated images (Encoding), then learned reasons and were asked to "forgive" or "view" while re-rating (Manipulation), and finally re-rated all images the next day (Reconsideration). This setup allowed scientists to observe how forgiveness might reshape a memory over time. Credit: *Emotion* (2026). DOI: 10.1037/emo0001611

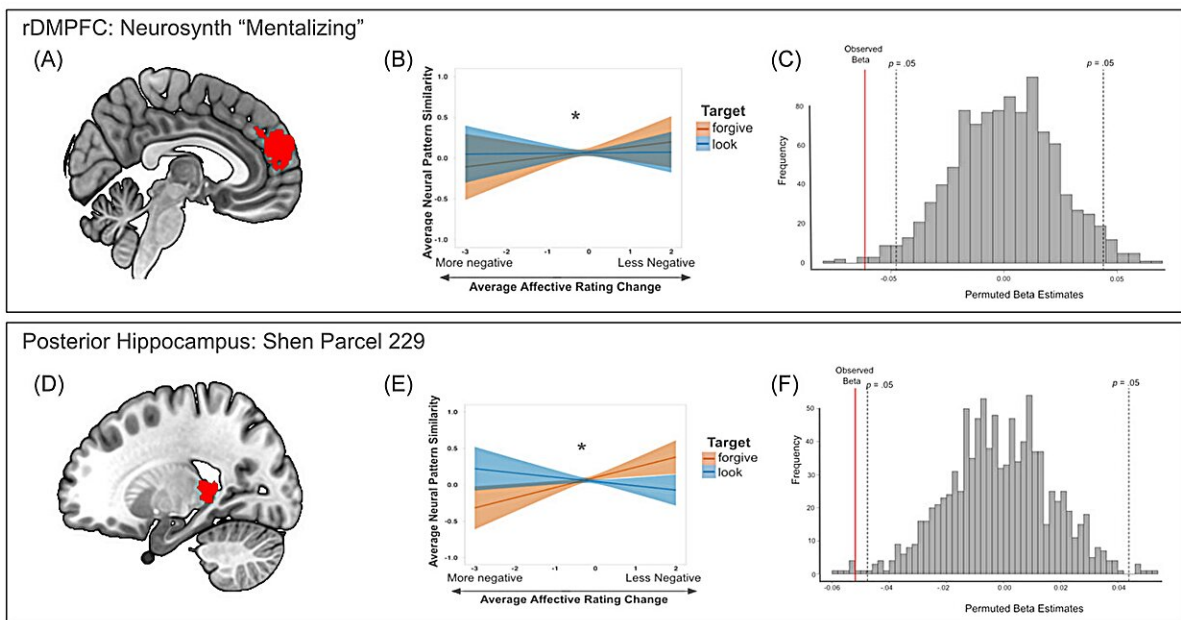
Halfway through, the volunteer learned that one target had a reason for picking the bad pictures, and even apologized for it, while the other target showed no remorse. Then, the volunteers were told to try to forgive the apologetic person, but to simply keep looking at the other person's choices without forgiving. Still in the scanner, they rated how negative each image felt while mentally forgiving one target and merely observing the other.

The next day, participants returned to rate all the same images again. The result was clear: the unpleasant pictures associated with the forgiven target were judged less negative on the second day than before, and significantly more so than the pictures linked to the non-forgiven target. In other words, forgiving someone in the lab made yesterday's bad

memory feel a little less bad today; the effect persisted a day later.

## Inside the forgiving brain

What was happening in the mind to cause this change? The fMRI scans pointed to two key brain areas lighting up during these forgiveness trials. One was the dorsomedial prefrontal cortex (DMPFC), a region known for "mentalizing," thinking about another person's perspective and intentions. The other was the posterior hippocampus, a zone crucial for storing detailed episodic memories.



Brain Regions Where Forgiveness Updates Memories. These fMRI images highlight the dorsomedial prefrontal cortex (DMPFC, top) and the posterior hippocampus (bottom). The study found that activity patterns in these areas became more similar between the forgiveness moment and later memory recall when a hurtful memory became less negative, suggesting these regions integrate new, forgiving information. Credit: *Emotion* (2026). DOI: 10.1037/emo0001611

When volunteers forgave, the activity patterns in these areas during the second-day viewing of an image looked much like the patterns during the first-day forgiveness of that image. In other words, the brain seemed to have folded the new forgiving perspective into the original memory.

The data showed that "information from the moment of forgiveness becomes incorporated into the memory" of the event. The authors summarize it neatly: "Instead of 'forgive and forget,' forgiveness may involve a 'forgive and update' process, revising memories to aid reconciliation."

When we forgive, we create a new story (e.g., "they had a reason and are sorry") that gets woven into the old memory. By the next day, thinking of the situation has a slightly altered version where you can sympathize with the offender and feel less enraged.

## **What this means (and what we still don't know)**

The study, [published](#) in the journal *Emotion*, used a clever lab trick with 23 volunteers, so it's a proof of concept, not a final word. Watching strangers choose upsetting photos isn't the same as dealing with a betrayal by a close friend or partner. And with a small sample, more research is needed to see if the same brain patterns hold in larger or more diverse groups, or if the effect lasts for months and years. But the takeaways are intriguing. The findings suggest that the brain's natural learning and memory system is at play: just as a new fact learned soon after an event can slip into the original memory (a process known as reconsolidation), forgiving someone seems to insert empathy and context into our recollection.

As of now, the message is one of hope; forgiving may not make someone literally forget a hurt, but it can make it hurt less. This could explain why people feel lighter and more peaceful after successfully

forgiving someone. Promoting forgiveness might be a subtle way to edit painful memories, not erase them altogether.

**More information:** Songzhi Wu et al, Forgiveness updates interpersonal memories to be less negative., *Emotion* (2026). [DOI: 10.1037/emo0001611](https://doi.org/10.1037/emo0001611)

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