

Why forgetting is a normal function of memory—and when to worry

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Credit: Ivan Samkov from Pexels

Forgetting in our day to day lives may feel annoying or, as we get older, a little frightening. But it is an entirely normal part of memory—enabling us to move on or make space for new information.



In fact, our memories aren't as reliable as we may think. But what level of forgetting is actually normal? Is it OK to mix up the names of countries, as US president Joe Biden recently did? Let's take a look at the evidence.

When we <u>remember something</u>, our brains need to learn it (encode), keep it safe (store) and recover it when needed (retrieve). Forgetting can occur at any point in this process.

When <u>sensory information</u> first comes into the brain we can't process it all. We instead <u>use our attention</u> to filter the information so that what's important can be identified and processed. That process means that when we are encoding our experiences we are mostly encoding the things we are paying attention to.

If someone introduces themselves at a dinner party at the same time as we're paying attention to something else, we never encode their name. It's a failure of <u>memory</u> (forgetting), but it's entirely <u>normal and very common</u>.

Habits and structure, such as always putting our keys in the same place so we don't have to encode their location, can help us get around this problem.

Rehearsal is also important for memory. If we don't use it, we lose it. Memories that last the longest are the ones we've rehearsed and retold many times (although we often adapt the memory with every retelling, and likely remember the last rehearsal rather than the actual event itself).

In the 1880s, German psychologist Hermann Ebbinghaus <u>taught people</u> nonsense syllables they had never heard before, and looked at how much they remembered over time. He showed that, without rehearsal, most of our memory fades within a day or two.



However, if people rehearsed the syllables by having them repeated at regular intervals, this drastically increased the number of syllables that could be remembered for more than just a day.

This need for rehearsal can be another cause of everyday forgetting, however. When we go to the supermarket we might encode where we park the car, but when we enter the shop we are busy rehearsing other things we need to remember (our shopping list). As a result, we may forget the location of the car.

However, this shows us another feature of forgetting. We can forget specific information, <u>but remember the gist</u>.

When we walk out of the shop and realize that we don't remember where we parked the car, we can probably remember whether it was to the left or right of the shop door, on the edge of the car park or towards the center though. So rather than having to walk round the entire car park to find it, we can search a relatively defined area.

The impact of aging

As people get older, they <u>worry about their memory more</u>. It's true that our forgetting becomes more pronounced, but that doesn't always mean there's a problem.

The longer we live, the more experiences we have, and the more we have to remember. Not only that, but the experiences have much in common, meaning it can become tricky to separate these events in our memory.

If you've only ever experienced a holiday on a beach in Spain once you will remember it with great clarity. However, if you've been on many holidays to Spain, in different cities at different times, then remembering whether something happened in the first holiday you took



to Barcelona or the second, or whether your brother came with you on the holiday to Majorca or Ibiza, becomes more challenging.

Overlap between memories, or interference, gets in the way of retrieving information. Imagine filing documents on your computer. As you start the process, you have a clear filing system where you can easily place each document so you know where to find it.

But as more and more documents come in, it gets hard to decide which of the folders it belongs to. You may also start putting lots of documents in one folder because they all relate to that item.

This means that, over time, it becomes hard to retrieve the right document when you need it either because you can't work out where you put it, or because you know where it should be but there are lots of other things there to search through.

It can be disruptive to not forget. Post <u>traumatic stress disorder</u> is an example of a situation in which people can not forget. The memory is persistent, doesn't fade and often interrupts daily life.

There can be similar experiences with persistent memories in grief or depression, conditions which can <u>make it harder to forget</u> negative information. Here, forgetting would be extremely useful.

Forgetting doesn't always impair decision making

So forgetting things is common, and as we get older it becomes more common. But forgetting names or dates, as Biden has, <u>doesn't necessarily impair decision making</u>. Older people can have deep knowledge and good intuition, which can help counteract such memory lapses.

Of course, at times forgetting can be a sign of a bigger problem and



might suggest you need to speak to the doctor. Asking the same questions over and over again is a sign that forgetting is more than just a problem of being distracted when you tried to encode it.

Similarly, forgetting your way around very familiar areas is another sign that you are struggling to use cues in the environment to remind you of how to get around. And while forgetting the name of someone at dinner is normal, forgetting how to use your fork and knife isn't.

Ultimately, forgetting isn't something to fear—in ourselves or others. It is usually extreme when it's a sign things are going wrong.

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