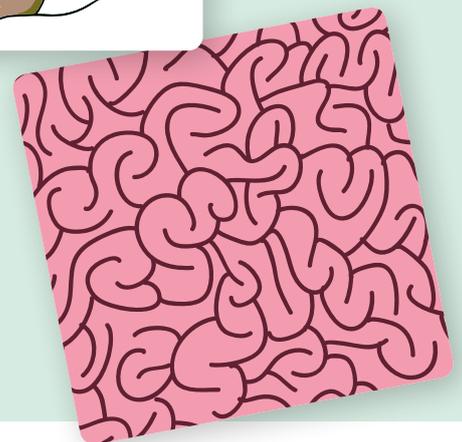
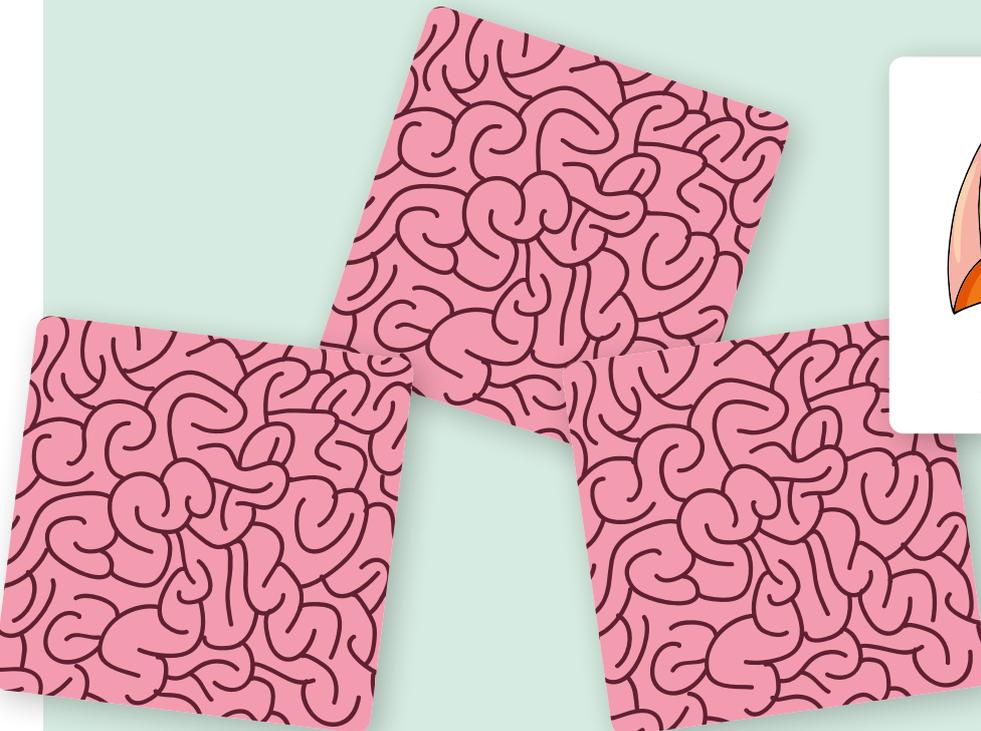


Memory game

A RUSH OF MEMORIES CAN OVERWHELM YOU, BUT YOU HAVE MORE CONTROL OVER HOW AND WHAT YOU REMEMBER THAN YOU MIGHT THINK, DISCOVERS JESSICA FURSETH





Memories are a mysterious thing. Sometimes it's as if they exist outside of our minds, waiting for us to stumble upon them. A little thing can trigger a memory, causing it – and all the associated feelings – to come flooding back. For example, the smell of tar instantly brings to mind my late grandfather, clear as day in his blue overalls. Play a song you loved at 17 and wait for the flood of teen feelings – it's as if all those memories were stored in that one track.

Other memories will be forever associated with a time of year, which is how every autumn, years after leaving school, you might get an urge to buy new stationery and shoes. Chris Bird, Professor of Cognitive Neuroscience at University of Sussex, says this is because reminders, like the leaves turning, cue us to remember everything else associated with that memory. “When we're forming a memory, we're incorporating where we are, who we're with and how we're feeling,” he says.

Memories are often tied to places and people. There's a specific bench on the canal in east London where I'm forever breaking up with someone I loved – one of a million moments that seem to live out there in the city. “We think of memories as an event made up of lots of different parts. Any one of those parts can trigger the reconstruction of that whole memory,” explains Jack Mellor, Professor of Neuroscience at the University of Bristol. “The brain is wonderfully flexible, and it allows you to adapt your memories to changing environments,” says Mellor – so passing a restaurant may remind you of the last meal you had there, or on a different day, you could recall the fight you had afterwards.

MAKING A MEMORY

A memory is stored in nerve cells in the brain, or in the connections between several nerve cells – these cells are then linked to thousands of others. “The way those connections occur, and strengthen and weaken, will determine how you [link] a particular group of experiences together into a memory,” says Mellor. It's a flexible process. “The brain can change the connections between these components of our memories.”

The brain really likes variety and tends to gloss over monotony

This process of forming a memory isn't as random as it might seem; you can actually make a decision to remember things by paying close attention. “One way to do this is to rehearse the memory by going back over what happened,” says Bird. But laying down the memory is only half the job – you have to get it out again. “Often, unless something happens to trigger a memory, we won't remember it.”

We will never remember everything. The brain really likes variety and tends to gloss over monotony – this is why you don't remember yesterday's breakfast, last year's commute, or most of lockdown. “If nothing much is happening, at the time it feels like time is moving incredibly slowly,” says Bird. “But looking back, it seems like it went very quickly because there was nothing really to hang on to.” This is also why we might remember a week of holiday better than an entire year: it was full of novelty. So next time you have a slow Sunday, go and do something new because it's more likely to leave an impression for later.

MEMORY TRICKS

We're more likely to remember what's important to us, “but often, we don't realise what exactly is important to us,” says Mellor. The chances are you have a strong memory associated with a childhood snack, toy or holiday destination, because it was a big deal at the time. “We may have repressed a memory for many years, and [we might come across] a little trail that brings us back to that memory. This tells us that it actually is important to us after all.” This little revelation can be a nice cue to start exploring some of those memories and feelings, as it might help us understand our past and shed light on why we are the way we are.

If you think of your memories as a beautiful archive of your life, forever there to relive in »



How to make good memories

Deborah Smith, Positive Psychologist and author of *Grow Your Own Happiness: How to Harness the Science of Wellbeing for Life* (Aster), has some ideas for good memory making, not just in the moment but also in retrospect.

- Take pictures, but not too many. Being in the moment and enjoying it makes better memories than trying to hold onto it so tightly.
- Looking at pictures is a powerful way to retrieve memories, but it can also influence you by oversimplifying things. If you're looking at a photo of a childhood birthday where you're sitting alone, it could make you feel like you didn't have friends. Remain open to other possibilities, maybe speak to someone who was there, and your perception might change.
- Consider a gratitude journal – simply writing down good things regularly will slowly start to shift how you think and what you notice.
- Rose-tinted glasses are a thing, but so are grey-tinted ones – how we feel affects our perception. To improve a bad day, remind yourself that you can choose to change how you feel: call a friend, dance it out, make a nice dinner and maybe you can turn it around to form a good memory.
- Sometimes you should do something just for the memory! If you're scared, think about how this will be a great story, and about how you'll laugh about it in the years to come.



We tend to recall things consistent with our moods, so if happy, we recall uplifting memories

precise detail, you might be disappointed to learn that memories aren't as accurate as we think they are. Asked why this happens – wouldn't it be better if we remember things correctly? – Mellor laughs: "But it's not correct any more, is it?" We're now at the edge of what memory research can tell us, but this essentially goes back to why we remember anything at all: to help us predict the future. We will notice

when a building has changed, but over time the brain might gloss over the past versions – it simply doesn't matter anymore. "The brain is basically trying to predict what's going to happen next so that you can make the best decisions possible," says Mellor.

The same might be true for emotional memories, too: when we review our memories we might be changing them a little in the process, as we attempt to make better sense of things. This plasticity is what helps us move on, and it's a central component to cognitive behavioural therapy and PTSD treatment. The fact that the connections between the nerves in your brain aren't set in stone means you can re-associate in a way that serves you better. Something to consider if you're tormented by a years-old slight that keeps circling in your mind – it may not actually be entirely correct and, anyway, you can always reframe it.

CHANGING YOUR MIND

When I went to the pub again for the first time after lockdown, feeling ecstatic at being able to do something so normal after so long, it was at a location I'd primarily associated with having drinks the day I got married. Will my plastic brain update this memory now? "It depends on how much effort you put into continuing to associate that pub with your wedding, or with lockdown ending," says Bird, so it's in part up to me. "Certainly, if you carried on going to the pub regularly it would lose its former association and just become a place you go to."

While our memories are constantly being updated, we're not a computer – we'll still remember things from the past, even when those old memories aren't as important to daily life anymore. But reassuringly, we're not doomed to forever watch our past on a cinema reel in our minds. Bird told me that we tend to recall things that are consistent with our moods, so if we're happy, we tend to recall uplifting memories, and vice versa. Knowing that our memories aren't neutral, but in fact are coloured by our moods, is a powerful tool. Next time you're spiralling into a memory well, remember you're just jumping between nerve cells in the brain, so if you don't like the journey, take a step back. There's always a chance to take another look and try for a better outcome. **S**