

The researchers say there have been numerous neurobiological studies conducted on how the brain stores information, a process called persistence. However, it is only lately that scientists have begun paying attention to forgetting, or transience. That's because like us all, scientists also assumed that our occasional inability to recall facts was due to a failure in the brain.

In 2013, Frankland and his team discovered that as new neurons integrate with the hippocampus, a region of the brain that plays a significant role in learning and remembering, they overwrite old memories, making them harder to access. There is also evidence that the brain deliberately weakens or eliminates synaptic connections between neurons, in which memories are encoded.

Richards and Frankland, who published their findings in the journal *Neuron*, have a theory on why the brain spends so much energy erasing memories. They believe that doing this with old information makes the brain more efficient. For evidence, they cite a 2016 study where an independent team of scientists taught a group of mice to locate a maze. The researchers then erased the memories of a subset of the rodents with drugs and moved the maze. The mice who still had memories of its original location had a harder time finding the new site than those that had no recollection.

Additionally, the team believes that retaining too much detail could prevent us from making good decisions. Richards, who studies the parallels between artificial intelligence (AI) and neuroscience, likens this behavior to a phenomenon called regularisation in the AI world. This is where a machine is trained to forget the little details to understand the bigger picture. For example, if you teach a computer to recognise faces by memorising each one,

it will be unable to identify a new face. That's because instead of recognising faces are generally oval, have two eyes, one nose, and a mouth, the computer learns the particulars of distinct faces – things like the colour of eyes or shape of lips.

Although we may all admire people who can win quizzes and general knowledge tests, the fact is that our brains are developed not to trawl up old facts but to make intelligent decisions. Forgetting things is healthy and clears pathways for making better choices. The scientists say what the brain decides to forget is determined by our daily life. An example Richards gives is that of our brains dispensing with the need to remember phone numbers. He says, "Instead of storing this irrelevant information that our phones can store for us, our brains are freed up to store memories that actually do matter for us."

In fact, the researcher encourages people to help their brains declutter by exercising regularly, stating, "We know that exercise increases the number of neurons in the hippocampus." While that may cause us to lose some memories, Richards believes that they're the **mundane** details from your life that don't actually matter. It may be keeping you from making good decisions. So, the next time you're unable to recall a seemingly important everyday fact, don't be hard on yourself. Just chalk it down to your brain's "spring cleaning" to make room for information that can contribute to making you smarter. Remember, even Albert Einstein was absent-minded!

36. Choose the best title or heading for the passage.
- A. AI will Enlarge our Memory
  - B. Poor Memory is Best
  - C. Top Things we Need to Forget
  - D. Remember to Forget