



Déjà vu: a magic of the mind



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“**H**aven’t I been here before?”

“These are the exact words that you uttered yesterday!”

“Wait a minute; I already met this guy !!”

Well, for starters, these lines may seem familiar, just like the situations in our everyday life that we feel have already happened.

These things never seem to connect, and all that is left is a faint stroke of sensation that we are re-living the same moment.

This incredible yet unexplainable state is popularly called the Déjà Vu, a French phrase that means “already seen.”

The human mind is an impeccable creation of nature. Billions of neurons fire each second, giving rise to our thoughts, ideas, dreams and other cranky phenomena that modern science still fails to explain.

Over time, innumerable theories have been put forward to explain Déjà vu. Some believe that a glitch in the “Matrix simulation” (created by machines) leads

to déjà vu while some link this state of mind to an incident of past life.

Although these theories would make up a good movie script someday, they lack the fundamental scientific evidence to serve as a convincing explanation for Déjà vu.

Scientific studies, like the one conducted in 2006 by the Leeds memory group, have attempted to link déjà vu with memory. Researchers first created a memory of an object or colours for subjects under hypnosis which would later create a sense of déjà vu when they encountered the same colour or object again.

Some other scientists tried to demonstrate Déjà vu using virtual reality, where one kind of object was replaced with another using VR, which led to the Déjà vu sensation.

Though all these studies don't quite efficiently pinpoint the cause of déjà vu, they do support that this “tricky” state of mind has something to do with our memory circuits. The human brain stores and revives data in a complicated way. Data being fed as a part of short-term memory is converted into long-term memory over a period of time by the process of potentiation, where ionic changes like increased calcium ion influx in the postsynaptic neurons lead to alteration in the strength of selected synaptic connections.

However, sometimes new information can directly be stored as long-term memory without passing through the short-term phase (like a short circuit), which is believed to lead to déjà vu. Almost similar events in life spaced sufficiently apart in time can trigger our memory circuits,

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creating a trance where we feel like we have already experienced these things but can't fully remember them.

Of all the explanations provided for déjà vu, the most interesting one is perhaps its linkage with dreams. Dreams are postulated to produce an altered state of mind, which blur and weakens our ability to perceive the fabric of reality and say what's real and what's not. Some research studies done with fMRI have paradoxically noticed active brain areas (involved in decision-making) to be active during déjà vu. The possible reason for this is thought to be our brain scanning through our memories to see if there is any mismatch between what we have experienced and what has happened.

The phenomena of déjà vu have also been reported to occur in people just before or during epileptic seizures. A report of 60 to 80 per cent of the population has claimed to have experienced déjà vu at some point.

While a lot of exciting research has been done to explain déjà vu, the real reason behind its existence remains uncertain, and we can only hope that the mystery unravels soon. So the next time you see a familiar-looking cat passing by or feel you have already been to the new coffee shop down street, it's your brain pulling off the trick of déjà vu on you !!