Brain 'can be trained to forget'

It is possible to persuade the brain to consciously suppress unwanted memories, say experts.

Research from US universities used brain scans to show that people can use willpower to "block" thoughts in the same way they stop unwanted actions.

There has been controversy for years over whether a mechanism exists to hide away unpleasant memories.

Experts say it could help psychiatrists aid people scarred by traumatic experiences.

Some experts previously held the view that there was no mechanism in the brain capable of helping someone suppress an unwanted memory.

This was supported by what seemed an intuitive fact about humans - that the more you try to forget something, the more often it comes back to haunt you.

Clean slate

Now, however, the US research teams from Stanford and Oregon universities seem to have demonstrated that, given the right circumstances, an individual can wipe a memory out - or at least suppress it deeply.

It backs the original thesis from Sigmund Freud suggesting the existence of "voluntary memory suppression".

In the study, MRI scans were used to measure activity in different areas of the brain.

Scientists already broadly know what functions are represented by activity in various different areas, so by testing activity, they can work out what is going on in the minds of their volunteers.

A word test was given to the volunteers, involving pairs of words such as ordeal-roach, steam-train and jaw-gum.
The participants were ordered to learn the word pairs, then given the first word and either asked to remember its other half or suppress it.

**Word test**

Remarkably, when a formal test on the dozens of word pairs was later given, the researchers found that their volunteers had more trouble remembering those they had been asked to suppress than the others.

While this suppressing process was going on, the brain scans revealed that the activity in the brain was similar to that spotted when a person sets out to complete a physical manoeuvre, but pulls back at the last minute because of a perceived danger.

Professor Michael Anderson, one of the researchers, explained that mechanism by describing an incident where he knocked a pot plant off his windowsill.

"As I saw the plant falling off the sill out of the corner of my eye, I reflexively went to catch it - but at the very last second, I stopped myself, midstream, when I realised the plant was a cactus."

He said that understanding how the brain in normal circumstances could be trained to "forget" might enable doctors to help those plagued by traumatic memories.

"Survivors of natural disasters, crime, acts of terror such as 9/11, the loss of someone close all undergo a process that may continue for a very long time.

"My goal is to expand on this model so we can better understand these important experiences."

---

**REFERENCES**

BBC News | Health | Brain 'can be trained to forget'
http://news.bbc.co.uk/2/hi/health/3380635.stm

BBC NEWS | Health | Brain 'can be trained to forget'
http://news.bbc.co.uk/2/hi/health/3380635.stm