

Best evidence yet that hypnotised people aren't faking it



Now push that button

Scott MacBride/Getty

By **Clare Wilson**

You are feeling sleepy...or are you? In a hypnotism performance, ordinary people seem to somehow become puppets, made to talk in silly accents, or act like a baby or in other embarrassing ways. But have they really lost command of their bodies, or are they just pretending?

Now we have some of the best evidence yet that people who are hypnotised really feel like they are acting involuntarily. When estimating split-second timings, hypnotised people behaved as though their actions were outside their control, in ways that would have been difficult to fake.

Hypnotism has long been contentious. Sceptics think that rather than being in some kind of special state of altered consciousness, hypnotised people do as they're told because it would be socially awkward not to. People who are highly susceptible to hypnosis – about one in ten of us – could just be especially suggestible and eager to please, say the cynics.

Now [Peter Lush](#) at the Sackler Centre for Consciousness Science in Brighton, UK, and his team have used a known trick of the mind to investigate this mystery. When we think we have done something that causes something else, we perceive these two events to occur closer in time than if we think they are unrelated. For example, if we think that pushing a button makes a sound, it seems like the sound occurs sooner after pushing the button than if we think they're independent events – a phenomenon called “intentional binding”.

Lush's team asked 18 people who were highly susceptible to hypnotism to sit in front of a very accurate clock and do a task repeatedly where they pressed a button, triggering a beep after 250 milliseconds, in three different circumstances.

Involuntary action

If their finger was pulled down involuntarily – by an attached string – they perceived the period before the beep as 176 milliseconds. If the string wasn't pulled and they chose when to press the button, they experienced it as 91 milliseconds – showing intentional binding.

But if they pressed the button due to a post-hypnotic command, they perceived it as 156 milliseconds – closer to the involuntary state than the voluntary one.

“This feeling of involuntariness is a key element of the hypnotic experience,” says [David Spiegel](#) of Stanford University.

This result is more convincing than simply asking hypnotised people whether they feel in control of their actions, because they could always be lying, says [Devin Terhune](#) of Goldsmiths University of London. In this latest study, the volunteers were unlikely to have known what their answers should have been in the three different conditions. “It's much better than self-reports,” says Terhune.

[Brain scans of hypnotised people](#) have previously shown that, when told to feel pain, similar regions of the brain become active as when people really are in pain. But brain imaging studies can be hard to interpret, says Lush. “This is the most objective evidence yet that people who are hypnotised feel that their actions are not under their own control.”

Lush says studying intentional binding could also help us to investigate mental conditions that affect our sense of power over our own bodies, such as schizophrenia.

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