

Out-of-body experiences explained: Here's how the brain 'creates' your sense of physical self

[Neurologist Josef] Parvizi [encountered a patient](#) with epilepsy who came to him with an unusual set of symptoms. During seizures, the patient said, he would enter a [strange state of dissociation](#) that caused him to lose his sense of coordination and feel disconnected with his inner self. When Parvizi and his colleagues probed the patient's brain to find the source of his seizures, the team found that they originated in a specific region of the PMC known as the anterior precuneus.

This serendipitous discovery led to Parvizi and his colleagues' latest study, [published in *Neuron* in June](#), in which they recruited eight people with epilepsy whose seizures stemmed from areas other than the PMC to ensure they were examining people who had healthy tissue in the region they were investigating. All eight participants had electrodes implanted into the PMC for electrical stimulation.

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Zapping the anterior precuneus caused all eight individuals to report alterations in their subjective experiences similar to what the person with seizures stemming from that region reported. These changes included a feeling of floating, dizziness, a lack of focus and a sense of detachment from themselves. Some participants remarked that the detachment was reminiscent of what they'd felt while on psychedelics. "We discovered that by stimulating this particular region, we can cause distortions in our sense of physical being," Parvizi says.

[**This is an excerpt. Read the full article here**](#)