What Happens to Your Brain on the World’s Most Powerful Psychedelic?

6 MIN READ

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A rare glimpse into how the brain constructs and dissolves consciousness and what psychedelics reveal about the nature of the self.

Meditation and mindfulness can help us unhook from rigid attachments to thoughts and feelings, creating space for us to choose a way forward with intention rather than through reactivity alone. For advanced meditators, that journey can sometimes lead to what's called *nonduality*: a state of pure awareness without separation between the self and the world.

These nondual states may represent one of the purest windows into the nature of human consciousness. But these states are generally only reached by highly trained monks who have spent decades cultivating this ability, making them extraordinarily difficult to study.

In a time when AI and neuroscience are forcing us to ask deeper questions about what it means to be human, researchers are finding new tools to explore consciousness. One of the most promising is pharmacological: 5-MeO-DMT, a fast-acting, short-duration psychedelic sometimes called *the world's most powerful psychedelic.*

In **a recent study** from the Imperial College London, published in *Neuroscience of Consciousness*, researchers observed what happens to the brain and mind when people take this compound, which appears to induce a state strikingly similar to advanced meditative states, but within seconds, and without years of training.

Before we go any further: **This is not an endorsement to try 5-MeO-DMT.** This is an extraordinarily powerful substance that can produce overwhelming and destabilizing experiences. Our interest here isn't recreational. We're looking at what this emerging research reveals about the nature of consciousness and, ultimately, what makes us human.

The World's Most Powerful Psychadelic

5-MeO-DMT is a short-acting psychedelic that acts primarily on serotonin receptors in the brain. Its effects come on within seconds and often resolve in under 30 minutes. While it's naturally found in the secretions of the *Incilius alvarius* toad, most scientific studies (including this one) use synthetic versions.

Importantly, while it shares some structural similarity with DMT (the compound often associated with vivid psychedelic "journeys" and colorful visions), 5-MeO-DMT produces a profoundly different experience. Unlike many psychedelics that flood perception with colors, shapes, and visions, 5-MeO-DMT is uniquely known for *deconstructing consciousness itself*. At high doses, users report the complete dissolution of the self, what researchers call "nondual" or "minimal phenomenal" states. Essentially: no you, no thoughts, no sensations. Just awareness.

Researchers Mapped the Dissolution of "Self"

For this study, the research team observed 14 individuals who ingested 5-MeO-DMT during ceremonial settings. They combined brain recordings (EEG), real-time interviews, and questionnaires to map out the phases of the experience. Here's what they found:

1. Onset:
Within seconds, participants described a rapid collapse of sensory and mental structures, described as “crumbling,” “dissolving,” or “shattering.” Body, mind, and perception all began to destabilize.

2. Merging:
Many described becoming pure emotion or energy, which some described as blissful, others overwhelming. The sense of being a person in a body started to fall away.

3. Abstract:
Spatial and bodily awareness dissolved. Some described faint impressions of shapes or colors, but no coherent sensory input. There was no sense of time, space, or thought.

4. Everything/Nothing:
Roughly a third of participants entered the deepest state, which is a paradoxical experience where all distinctions vanished. No self, no world, no content, just vast, featureless awareness. Many likened it to a peaceful “white void.”

5. Reconstitution:
As the drug wore off, there was a gradual return of self, body, and sensory experience: first body sensations, then awareness of surroundings, then thoughts and the narrative self.

6. Afterglow:
A little less than half of the participants experienced a peaceful, meditative calm that lingered for hours or even days, a state many described as more present and clear than ordinary consciousness.

The Brain on The World’s Most Powerful Psychedelic

The EEG recordings revealed something remarkable:

- **Global reductions in alpha brainwaves (8–13 Hz)**, associated with suppressing the brain's "top-down" models that construct our sense of self and reality.
- **Decreases in beta waves (13–30 Hz)**, associated with bodily self-awareness.

In other words, 5-MeO-DMT seems to temporarily switch off the brain networks responsible for generating your normal sense of identity and perception. What's left is raw awareness without content, which is a state often achieved in advanced meditation. Interestingly, there was no clear difference in EEG between those who fully lost a sense of self and those who didn't, likely because of the small sample size.

Why Scientists Are So Interested

States of "deconstructed consciousness," where the self dissolves but wakefulness remains, have fascinated neuroscientists for years because they may help us understand the fundamental ingredients of conscious experience itself. What remains when the sense of "me" vanishes? What are the minimal ingredients of conscious awareness? How does the brain construct and deconstruct our very sense of being?

Of course, there's still much to learn. Experiences vary widely between individuals. Dosage matters. And real-time brain mapping remains a challenge. But these early findings are bringing us closer to answering one of neuroscience's most profound questions: What is consciousness?

We'll keep following the research; no psychedelic toads needed!

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