

# Exploring the nature of anomalous psychedelic experiences

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Credit: Credit: Emma Miller / Unsplash

Psychedelics are among the most intriguing and mysterious psychoactive substances, as they can radically alter people's perceptions, cognitive processes and emotions. Their unique qualities and their effects on the human brain have made these substances an appealing subject of study for several researchers worldwide.

While psychedelics have been extensively studied throughout history, many governments effectively banned research involving the use of these substances both outside and inside laboratory settings, which hindered close investigations into their effects on the brain and on human behavior. In recent years, however, there has been a renewed academic interest in these substances and their singular properties.

David Luke, a researcher at the University of Greenwich, recently carried out a study investigating the nature of anomalous experiences induced by [psychedelic](#) substances from a humanistic, neuroscientific and parapsychological standpoint. His most recent paper on this subject was published in [a special issue of the Journal of](#)

[Humanistic Psychology called "Anomalous Lifeworlds: Mysticism, Magic and Expanded Consciousness."](#)

The key goal of Luke's study was to closely examine anomalous experiences often reported by people under the influence of psychedelics or after a psychedelic trip. The researcher wished to offer an overview of the prevalence and effects of these substances, summarizing past research findings while also introducing insight about the neurobiology of similar experiences that can occur spontaneously (i.e., without psychedelics), such as near-death experiences.

"I have always been intrigued by the extraordinary experiences people report during their psychedelic journeys, which have festooned the literature since the first 'developed world' discoveries of these substances, such as the original naming of the main ayahuasca alkaloid 'telepathine' in the 1920s, or the demonstration of apparent clairvoyance in the first-ever observed use of psilocybin, or the chemist Albert Hofmann's out-of-[body experience](#) on the world's seminal LSD trip," Luke told Medical Xpress. "These anomalous experiences are still commonly reported by people under the influence of psychedelics, but they have been woefully neglected academically in the last 100 years."

Luke has been conducting research exploring anomalous psychedelic experiences for over 20 years now, approaching the subject from an anthropological, psychological and neuroscientific perspective. In his work, he often adopts an interdisciplinary approach, merging ideas from cognitive and behavioural psychology with experimental, lab-based methods, while also conducting surveys, interviews, literature reviews and ethnographical studies with indigenous tribes known to use these substances.

"Much of the available research in this area is extremely nascent, despite these substances

having been studied for over 100 years in some cases," Luke said. "Prohibition stalled nearly all human psychedelic research for about 50 years, which unavoidably slowed things down."

Past interviews with people who took psychedelics revealed patterns in anomalous experiences that are far more common in people under the influence of these [substances](#) than under that of other psychoactive drugs. Interestingly, some interviewees also said that [psychedelic substances](#) had profound and long-lasting positive effects on their life and overall perceptions of the world.

"A recent survey, for instance, found that more than half of all prior atheists reported no longer being atheist after having an entity encounter experience with the potent endogenous chemical DMT," Luke said. "Furthermore, the experiences were rated as among the most meaningful, spiritual, and psychologically insightful lifetime experiences, with persisting positive changes in life satisfaction, purpose and meaning attributed to them."

In his paper, Luke reviews and examines 10 anomalous experiences reported by many people who used psychedelics. These include synaesthesia (e.g., seeing sounds as colourful patterns), extradimensional perceptions, out-of-body experiences, near-death experiences, encounters with seemingly sentient entities, alien abduction experiences, sleep paralysis, interspecies communication, possession, and psychic experiences (e.g., telepathy, precognition, clairvoyance, or psychokinesis).

Luke investigated these experiences in relation with results gathered in past neuroscientific and neurobiological studies, which were carried out on people who were having psychedelic trips and in naturally occurring states of consciousness. In his paper, he concludes that anomalous experiences, such as the ones reported by psychedelic users, appear to be induced by altered states of consciousness rather than by psychedelic chemicals per se, as all the experiences examined in his work were also reported by some individuals who had not taken psychedelics or any other psychoactive drug.

Moreover, the temporary effects of psychedelics on the brain have been found to resemble those observed during naturally occurring altered states of consciousness, for instance, while dreaming, drumming or during a 'creative trance'. According to Luke, while psychedelic-induced and naturally occurring anomalous experiences might be similar in nature and produce analogous patterns in brain activity, each will ultimately have their own 'flavour' depending on how it is induced or how it arises.

"I believe that anomalous experiences with psychedelics have far-reaching implications for the study of consciousness and its applications, including neuroscience, psychiatry, psychology and even philosophy, as regards the mind, and the branches of metaphysics dealing with ontology and epistemology," Luke said.

Overall, Luke's recent study provides a detailed summary and analysis of past research findings associated with 10 of the most common anomalous psychedelic experiences. In the future, his work could inspire new research examining the effects and neurobiological underpinnings of psychedelic use or further investigating the nature of altered states of consciousness reported by individuals under the influence of psychedelics.

"I have several new projects underway, such as mapping some of the psychological correlates of a range of psychedelic and non-drug altered states, to discover commonalities, and exploring the nature of precognitive and shared visionary experiences with DMT under controlled conditions," Luke said.

**More information:** David Luke. Anomalous Psychedelic Experiences: At the Neurochemical Juncture of the Humanistic and Parapsychological, *Journal of Humanistic Psychology* (2020). [DOI: 10.1177/0022167820917767](https://doi.org/10.1177/0022167820917767)

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