## **Entheogens**



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**Entheogen** is a term coined in the late 1970s by a group of botanists and scholars which refers to any psychoactive agent which allows for "generating the divine within" (Ruck et al. 1979). Entheogens are psychedelic substances which, in adequate dosage under supportive conditions, are known to facilitate visionary, mystical, and/or spiritual experiences. Such substances include psilocybin, peyote, LSD (lysergic acid diethylamide), ibogaine, and ayahuasca. Typically of plant origin, entheogens are often called "psychedelics" or more commonly in medical communities "hallucinogens." Many argue this term is a misnomer, given the exceedingly rare occurrence of true hallucinations with such substances (Richards 2015).

The relationship between psychoactive substances and religious experiences extends far into human history and across cultures and religious traditions. Entheogens may be the oldest class of psychopharmacological agents known to humanity (Nichols 2016: 268). Throughout the Rigveda, a canonical sacred text of Hinduism, the hallucinogenic substance known as *Soma* is frequently praised. In ancient Greece, a hallucinogenic brew called *kykeon* was ingested as part of

the Eleusinian Mystery traditions. In what is now Mexico and the southwest USA, indigenous religious communities have made ritual use of the psychoactive peyote cactus for more than 5000 years, according to archaeological and anthropological records. In both Mesoamerican and Australian cultures, psilocybin mushrooms were used for healing and religious rituals. In Aztec communities, such mushrooms were known as teonanacatl, meaning "god's flesh." In indigenous Amazonian communities of South America, a hallucinogenic plant decoction known as ayahuasca, which contains DMT (N, N-dimethyltryptamine, a naturally occurring psychoactive molecule, also called "the spirit molecule"), is used for sacred ritual purposes.

The Western modern era of psychedelics began in Switzerland in 1943, when chemist Alfred Hofmann synthesized a compound he dubbed LSD-25. In the record of his self-experiment, he first experienced "a not unpleasant intoxicated-like condition, characterized by an extremely stimulated imagination. In a dreamlike state, with eyes closed...I perceived an uninterrupted stream of fantastic pictures, extraordinary shapes with intense, kaleidoscopic play of colors." (Hofmann 1979: 15). Intense anxiety and paranoia followed: to Hofmann, his next-door neighbor suddenly seemed to be a "malevolent, insidious witch with a coloured mask," and he sensed a "disintegration of the outer world and the dissolution of my ego...A demon had invaded me, had taken possession of my body, mind and soul. . . I was seized

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by a dreadful fear of going insane" (17-18). Curiously, Hofmann then experienced notably positive sensations. "Exhausted, I then slept, to awake next morning refreshed, with a clear head, though still somewhat tired physically. A sensation of well-being and renewed life flowed through me. Breakfast tasted delicious and gave me extraordinary pleasure. When I later walked out into the garden, in which the sun shone now after a spring rain, everything glistened and sparkled in a fresh light. The world was as if newly created. All my senses vibrated in a condition of highest sensitivity, which persisted for the entire day" (19). Hofmann's account recalls William James' now classic retrospective evaluation of his nitrous oxide experience, in which he concluded, "our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness" and that "Looking back on my own experiences, they all converge toward a kind of insight to which I cannot help ascribing some metaphysical significance" (1902: 308).

In the 1950s, following Hofmann's discovery, many European and American scholars and psychiatrists eagerly explored the clinical and existential potential for what might be a new "royal road to the unconscious." Patients struggling with addiction, depression, autism, and schizophrenia were given doses of LSD (then marketed by Sandoz Laboratories as Delysid), as were terminally ill cancer patients, healthy artists, scientists, and divinity students. In this period, more than a thousand clinical papers were produced. discussing more than 40,000 patients (Grinspoon and Bakalar 1979: 192). Research pioneers of this era concluded that LSD, psilocybin, and similarly psychoactive agents reliably induced altered states of perception, of "portentousness," in which the mind sees and experiences more than it can explicate or rationalize, in modes not experienced outside of dreams or "times of religious exhilaration" (Nichols 2016: 269). The exploratory and clinical use of LSD and of plant-based entheogens, like mescaline and psilocybin, gained national attention, as did the recreational use of LSD and related psychedelic substances. By 1960, the controversial Harvard Psilocybin Project had been founded by Dr. Timothy Leary and

Dr. Richard Alpert, in which psilocybin was administered to graduate students and prison inmates in order to discover whether or not profound religious states could be occasioned by the drug.

In this context, one of the most (in)famous experiments in the history of the psychology of religion was conducted: the 1962 "Good Friday Experiment," also called the "Marsh Chapel Experiment." While Howard Thurman preached on the last words of Christ in Marsh Chapel at Boston University, the clinical study took place in the basement sanctuary, directly below the pulpit. Twenty seminarians participated in a double-blind study designed by Walter Pahnke, an ordained minister and physician completing his doctoral work at Harvard University. Eight of the 10 who received psilocybin reported dramatic mystical experiences, and some reportedly wandered about the chapel crying aloud, "God is everywhere" and "Oh, the glory!" Only one of the 10 control group (who were given nicotinic acid as an active placebo) participants experienced elevated mystical feelings. For scholars of religion, perhaps the most notable participant in the Good Friday Experiment was Huston Smith, the foremost twentieth-century scholar of comparative world religions, who referred to his psilocybin experience that day as his "cosmic rebirth." Despite incomplete reporting of anxiety and other negative experiences, the study was significant in demonstrating the potential of entheogens in triggering mystical experiences.

By the mid- and late 1960s, the "psychedelic era," birthed within the US youth counter-culture included the recreational and exploitative use of entheogens. Psychedelic drug use became embedded in – and even blamed for – complex sociopolitical upheaval of the time. In 1970, the US federal government banned nearly all psychedelic substances, suppressing all research and clinical use. The Controlled Substances Act, initiated by then-President Nixon, regulated psychedelic substances to the maximally restrictive category of Schedule I, along with narcotics such as heroin, citing "high potential for abuse" and "no currently accepted medical use." The all-encompassing federal research bans on entheogens marked an

unprecedented level of taboo in modern science (Pollan 2015), a product of various cultural fears and political agendas.

By the late 1990s, US researchers met some success in easing federal regulations. In 2006, psychopharmacologist Roland Griffiths and his colleagues at Johns Hopkins University School of Medicine published the results of their breakthrough trial, an extension of the Good Friday Experiment. In the double-blind clinical method, 22 of the 36 study participants (all healthy volunteers) reported dramatic mystical experiences after psilocybin sessions, compared with only four following placebo sessions. Griffiths concluded, "when administered to volunteers under supportive conditions, psilocybin occasioned experiences similar to spontaneously occurring mystical experiences and which were evaluated by volunteers as having substantial and sustained personal meaning and spiritual significance" (282). The tentative but highly promising success of Griffiths' study led to several other clinical trials.

Currently, US clinical investigation of the therapeutic uses of entheogens is limited mostly to psilocybin, avoiding the social stigma of LSD, which is being studied in Switzerland and the UK Treatment-resistant major depressive disorder, alcohol dependence, obsessive-compulsive disorder, tobacco addiction, and existential distress associated with terminal illness (palliative care) are all focus treatment areas for recent and ongoing clinical trials (Thomas et al. 2017). Across this broad range of disorders and diagnoses, the physiological and psychological reasons for the success of entheogen-related treatment are widely varying, and any consensus within the medical community on these matters remains preliminary and tentative, at best. Investigators broadly agree however that the often dramatic positive findings thus far support the value of continued research.

Disagreement arises around the reasons for the healing potential of entheogens. Many believe that improvement of symptoms "must be related to neurochemical effects, or neuroadaptation, and refuse to believe that the mystical experience may be relevant" (Nichols 2016: 344). Others are

curious to understand how entheogens seem to trigger such highly meaningful experiences, and why reportedly mystical experiences are of particular help to several psychiatric disorders.

Scholars of religion may find a particular pair of clinical trials to be noteworthy. The NYU School of Medicine and Johns Hopkins School of Medicine are separately recruiting participants to investigate "The Effects of Psilocybin-Facilitated Experience on the Psychology and Effectiveness of Religious Professionals." The trials are premised on the hypothesis that professional leaders of religious communities, "given their interests, training, and life experience, will be able to make nuanced discriminations of their psilocybin experiences, thus contributing to the scientific understanding of mystical-type experience" (Ross 2018).

The controversy and high drama of the Good Friday Experiment may be contrasted with scenes from psilocybin therapy sessions today at Johns Hopkins School of Medicine, New York University, and the University of California in Los Angeles, which usually include a well-appointed room, decorated with books and art representing various myths and religious traditions, a comfortable couch-bed for participants, with headphones and an eye mask. In many such contexts, patients are given a single pill, either a placebo or dose of psilocybin, from a ceramic chalice. Two clinicians (usually male and female) attend the participant for the entire session, which averages about 8 h in duration. Written personal narrative, strictly required by all study participants in the 24 h following their psilocybin therapy session, plays a critical role in the study, as do William James' four marks of mysticism (ineffability, noesis, transiency, and passivity), via the six-category Pahnke-Richards Mystical Experience Questionnaire, which is utilized in several of the US clinical methodologies.

In discussions regarding the recent findings, researchers note the remarkable similarities across participant accounts. In addition to the expected experiences of altered senses of time, space, and self, participants tend to value the experience as one of the most important and authoritative events of their lives, in follow-up studies years later

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(Griffiths et al. 2006). Individuals frequently note frustration when tasked with describing their sensations and insights, given the ineffability of their experiences.

Besides the promising potential for continued research into the beneficial effects of entheogens, the relationship between psychoactive drugs and mystical experience provokes a return to old questions. Within the psychology of religion, what meaning do we make about the nature of entheogens? Ralph W. Hood, Jr., points out the "question of veridicality" that continues to accompany "chemically facilitated mysticism." What does it mean to take a pill to induce a mystical experience – is it still authentic? Are patients glimpsing other dimensions of reality? Does the noetic quality of the induced mystical experiences point us to something "more" than just the consequences, mechanisms, and architecture of the mind?

## See Also

- ► Altered States of Consciousnes
- ► Good Friday Experiment
- **▶** Hallucinations
- ► Peyote Ceremony
- ▶ Peyote Religion
- ► Pharmacotherapy

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