Entheogens including Salvia, LSD, Peyote, and Mushrooms

Published: 12/29/2010 - 21:10

Subsection Links:

Ayahuasca

LSD

Peyote & Mescaline

Psilocybin (Mushrooms)

Salvia Divinorum

1.

(Entheogen Defined) "'Entheogen' is a word coined by scholars proposing to replace the term 'psychedelic' (Ruck, Bigwood, Staples, Ott & Wasson, 1979), which was perceived to be too socioculturally loaded from its 1960s roots to appropriately denote the revered plants and substances used for traditional sacred rituals.What kinds of plants or chemicals fall into the category of entheogen is a matter of debate, as a large number of inebriants - from tobacco and marijuana to alcohol and opium - have been venerated as gifts from the gods (or God) in different cultures at different times (Fuller, 2000). For the purposes of this paper, however, I will focus on the class of drugs that Lewin (1924/1997) terms 'phantastica,' a name deriving from the Greek word for the faculty of the imagination (Shorter Oxford English Dictionary, 1973). Later these substances became known as hallucinogens or psychedelics, a class whose members include lysergic acid derivatives, psilocybin, mescaline and dimethyltryptamine; these all shared physical, chemical, and, when ingested, phenomenological properties and, more importantly, have a history of ritual use as cultural tools to cure illness and/or to mediate cosmological insight (Grinspoon & Bakalar, 1998; Rudgley, 1994, Schultes & Hofmann, 1992;)."

Source:

Tupper, Ken, "Entheogens & Education: Exploring the Potential of Psychoactives as Educational Tools," Journal of Drug Education and Awareness, Vol. 1, No. 2, p. 146.

http://www.kentupper.com/resources/Entheogens+$26+Education--JDEA+2003.pdf

2.

(Entheogens as Psychedelics) "Another peculiar effect of these drugs is a dramatic change in perception: it appears to the person as if the eyes (the 'doors of perception') have been cleansed and the person could see the world as new in all respects — 'as Adam may have seen it on the day of creation' as Aldous Huxley (1954, p. 17) pointed out in his popular and influential book. This new reality is perceived and interpreted by some individuals as manifestation of the true nature of their mind; hence, the term 'psychedelic' was suggested by Osmond (1957). This interpretation has been embraced not only by professional therapists but also by some segments of the public, and gave rise to the 'Summer of Love' in San Francisco in 1967 with free distribution of LSD. This perception resulted in the formation of numerous cults, communes, and drug-oriented religious groups (Freedman 1968), permeated the lyrics and style of popular music (acid rock), and was viewed by some as one of the contributing sources of the occasional resurgence of popularity of illegal drug use (Cohen 1966, Szára 1968)."

Source:

Szára, Stephen, "Are Hallucinogens Psychoheuristic," National Institute on Drug Abuse Research Monograph Series (Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, 1994) NIDA Research Monograph 146, p. 36.

http://archives.drugabuse.gov/pdf/monographs/146.pdf

3.

(Entheogens as Hallucinogens) "The term 'hallucinogen' is widely used and understood in both professional and lay circles, in spite of the fact that hallucinations in the strict psychiatric sense of the word are a relatively rare effect of these drugs (Hollister 1962). What is probably the first reference to hallucinations as produced by peyote appears in Louis Lewin's book published in 1924 in German and later translated into English with the nearly identical title *Phantastica* (Lewin 1924, 1964). In this book by the noted German toxicologist, the term 'hallucinatoria' appears as a synonym for phantastica to designate the class of drugs that can produce transitory visionary states 'without any physical inconvenience for a certain time in persons of perfectly normal mentality who are partly or fully conscious of the action of the drug' (Lewin 1964, p. 92). Lewin lists peyotl (also spelled 'peyote') (*Anhalonium lewinii*), Indian hemp (*Cannabis indica*), fly agaric (*Agaricus muscarius*), thornapple (*Datura stramonium*), and the South American yahe (also spelled 'yage') (*Banisteria caapi*) as representatives of this class."

Source:

Szára, Stephen, "Are Hallucinogens Psychoheuristic," National Institute on Drug Abuse Research Monograph Series (Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, 1994) NIDA Research Monograph 146, p. 34.

http://archives.drugabuse.gov/pdf/monographs/146.pdf

4. **Ayahuasca**

(Description of Ayahuasca) "Ayahuasca is a hallucinogenic tea originally from the Amazon Basin that is supposedly able to induce strikingly similar visions in people independent of their cultural background. Ayahuasca users commonly claim that this regularity across people's visions is evidence that their visions are not simply the products of their own brains, but rather are representations of spiritual information *learned* from plant-spirits that one gains access to by drinking the tea."

Source:

Anderson, Brian, ""Entheogenic Visions: The Sacred Union of Word & Image," Undergraduate Humanities Forum, Mellon Research Fellows 2005-2006, Word & Image (Philadelphia, PA: May 5, 2006), pp. 2 and 30.

http://repository.upenn.edu/cgi/viewcontent.cgi?article=1000&context=uhf...

5.

(Description of Ayahuasca) "Ayahuasca is a psychedelic decoction made from plants native to the Amazon Basin—most often *Banisteriopsis caapi* and *Psychotria viridis* —and which contains harmala alkaloids and N,Ndimethyltryptamine (DMT), the latter being a controlled substance scheduled under the 1971 Convention on Psychotropic Substances."

Source:

Anderson, B. T.; Labate, B. C.; Meyer, M.; Tupper, K. W.; Barbosa, P. C. R.; Grob, C. S.; Dawson, A. & McKenna, D., "Statement on ayahuasca,". International Journal of Drug Policy (London, United Kingdom: International Harm Reduction Association, March 2012) Vol. 23, No. 2.

http://www.ncbi.nlm.nih.gov/pubmed/22459485

6.

(Ayahuasca Folk Healers) " Vegetalismo is a Peruvian Spanish term denoting the folk healing traditions of mestizo curanderos, or healers of mixed indigenous and non-indigenous ancestry who use ayahuasca and other 'master' plants for diagnosis and treatment of illnesses (Beyer, 2009; Dobkin de Rios, 1972; Luna, 1986). Known as ayahuasqueros, such folk healers undergo a rigorous process of initiation and training, requiring adherence to strict dietary and sexual abstinence protocols, and sometimes prolonged isolation in the jungle."

Source:

Tupper, Kenneth William, "Ayahuasca, Entheogenic Education & Public Policy," PhD Thesis, University of British Columbia Faculty of Graduate Studies (Educational Studies) (Vancouver, BC: April 2011), pp. 14-15.

http://www.kentupper.com/resources/Ayahuasca+Entheogenic+Educ+$26+Public+Policy+-+Tupper+2011.pdf

7.

(Ayahuasca Healing Ceremonies) "Cross-cultural vegetalismo refers to ayahuasca ceremonies based, to varying degrees, on vegetalismo or equivalent traditions from other regions of the Amazon, but conducted primarily for (and increasingly by) non-Amazonians. Urban centres in the region are presently witnessing a boom in what has been pejoratively characterized as 'ayahuasca tourism' (Dobkin de Rios, 1994; see also Davidov, 2010; Holman, 2011; Razam, 2009), but cross-cultural vegetalismo ceremonies are also increasingly common outside the Amazon (Labate, 2004). Canadians and other foreigners regularly invite indigenous or mestizo Amazonian ayahuasqueros to their home countries to conduct ceremonies for people in the circles and networks of the sponsor‘s friends and acquaintances (Tupper, 2009a—see Appendix). Some individuals are undertaking apprenticeships in the vegetalismo tradition to become neo-shamanic practitioners of ayahuasca healing, in a manner similar to how yoga, Buddhist monastic, ayurvedic, or Chinese medicine practices have been taken up by modern Western disciples exogenous to the respective cultures and traditions of origin."

Source:

Tupper, Kenneth William, "Ayahuasca, Entheogenic Education & Public Policy," University of British Columbia (Vancouver, BC: April 2011), pp. 14-15.

http://www.kentupper.com/resources/Ayahuasca+Entheogenic+Educ+$26+Public+Policy+-+Tupper+2011.pdf

8.

(Legal Status of Ayahuasca)

"On February 21 of this year, 2006, the US Supreme Court ruled in favor of the Centro Espírita Beneficente União do Vegetal (the UDV) in the case “Alberto R. Gonzales, Attorney General, et al. Petitioners v. O Centro Espirita Beneficente União do Vegetal et al.” The UDV is now legally allowed to drink ayahuasca (which contains the controlled substance DMT) in their ceremonies here in the US."

Source:

Anderson, Brian, ""Entheogenic Visions: The Sacred Union of Word & Image," Undergraduate Humanities Forum, Mellon Research Fellows 2005-2006, Word & Image (Philadelphia, PA: May 5, 2006), pp. 2 and 30.

http://repository.upenn.edu/cgi/viewcontent.cgi?article=1000&context=uhf...

9.

(Therapeutic Potential of Ayahuasca) "Aside from indicating a general lack of harm from the religious use of ayahuasca, biomedical and ethnographic studies have also generated preliminary evidence in support of the therapeutic potentials of ayahuasca or its constituents for alleviating substance dependence (Grob et al., 1996; Labate, Santos, Anderson, Mercante, & Barbosa, 2010) and mood and anxiety disorders (Fortunato et al., 2010; Santos, Landeira-Fernandez, Strassman, Motta, & Cruz, 2007). The study of ayahuasca could thus contribute to advances in ethnopharmacology and the cognitive sciences (Shanon, 2002), yet such studies are severely compromised when these traditions face the threat of legal sanction."

Source:

Anderson, B. T.; Labate, B. C.; Meyer, M.; Tupper, K. W.; Barbosa, P. C. R.; Grob, C. S.; Dawson, A. & McKenna, D., "Statement on ayahuasca,". International Journal of Drug Policy (London, United Kingdom: International Harm Reduction Association, March 2012) Vol. 23, No. 2.

http://www.ncbi.nlm.nih.gov/pubmed/22459485

10. **LSD**

"LSD (d-lysergic acid diethylamide) is one of the most potent mood-changing chemicals. It was discovered in 1938 and is manufactured from lysergic acid, which is found in ergot, a fungus that grows on rye and other grains."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009).

http://www.drugabuse.gov/sites/default/files/hallucinogens09.pdf

11.

(NIDA's Description of the Physical Characteristics of LSD) "LSD (d-lysergic acid diethylamide)—also known as acid, blotter, doses, hits, microdots, sugar cubes, trips, tabs, or window panes — is one of the most potent moodand perception-altering hallucinogenic drugs. It is a clear or white, odorless, water-soluble material synthesized from lysergic acid, a compound derived from a rye fungus. LSD is initially produced in crystalline form, which can then be used to produce tablets known as 'microdots' or thin squares of gelatin called 'window panes.' It can also be diluted with water or alcohol and sold in liquid form. The most common form, however, is LSD-soaked paper punched into small individual squares, known as 'blotters.'"

Source:

"Hallucinogens and Dissociative Drugs, including LSD, PCP, Ketamine, Dextromethorphan," National Institute on Drug Abuse Research Report Series (Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, 2001), p. 3.

http://www.drugabuse.gov/sites/default/files/hallucinogensrrs4.pdf

12.

(LSD Effects According to NIDA) "Sensations and feelings change much more dramatically than the physical signs in people under the influence of LSD. The user may feel several different emotions at once or swing rapidly from one emotion to another. If taken in large enough doses, the drug produces delusions and visual hallucinations. The user's sense of time and self is altered. Experiences may seem to "cross over" different senses, giving the user the feeling of hearing colors and seeing sounds. These changes can be frightening and can cause panic. Some LSD users experience severe, terrifying thoughts and feelings of despair, fear of losing control, or fear of insanity and death while using LSD.

"LSD users can also experience flashbacks, or recurrences of certain aspects of the drug experience. Flashbacks occur suddenly, often without warning, and may do so within a few days or more than a year after LSD use. In some individuals, the flashbacks can persist and cause significant distress or impairment in social or occupational functioning, a condition known as hallucinogen-induced persisting perceptual disorder (HPPD).

"Most users of LSD voluntarily decrease or stop its use over time. LSD is not considered an addictive drug since it does not produce compulsive drug-seeking behavior. However, LSD does produce tolerance, so some users who take the drug repeatedly must take progressively higher doses to achieve the state of intoxication that they had previously achieved. This is an extremely dangerous practice, given the unpredictability of the drug. In addition, cross-tolerance between LSD and other hallucinogens has been reported.

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009).

https://d14rmgtrwzf5a.cloudfront.net/sites/default/files/hallucinogens_d...

13.

(Prevalence of and Trends in LSD Use Among Youth) "LSD, one of the major drugs in the hallucinogen class, showed a modest decline in use among 12th graders from 1975 to 1977, followed by considerable stability through 1981 (Figure 5-4g). Between 1981 and 1985, there was a second period of gradual decline, with annual prevalence of use falling from 6.5% to 4.4%. However, after 1985, annual prevalence began to rise very gradually to 5.6% by 1992, making it one of the few drugs to show a rise in use in that period. The increase continued through 1996, with annual prevalence reaching 8.8%, double the low point in 1985. After 1996, annual prevalence declined, including sharp decreases in 2002 and 2003, reaching 1.7% in 2006, the lowest LSD prevalence rate recorded since MTF began. By 2011 the rate was up slightly to 2.7%, having risen by a significant 0.7 percentage points in 2010. We believe that the decline prior to 2002 might have resulted in part from a displacement of LSD by sharply rising ecstasy use. After 2001, when ecstasy use itself began to decline, the sharp further decline in LSD use likely resulted from a drop in the availability of LSD, because attitudes generally have not moved in a way that could explain the fall in use, while perceived availability has."

Source:

Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E., Monitoring the Future national survey results on drug use, 1975–2011: Volume I, Secondary school students," Institute for Social Research (Ann Arbor, Michigan: The University of Michigan, 2012), p. 154.

http://www.monitoringthefuture.org/pubs/monographs/mtf-vol1_2011.pdf

14.

(LSD and Marijuana Use by women) "Our results indicate that this population of sexually active female adolescents and young adults have similar rates of lifetime use of LSD (13%) as reported in other surveys, [1,30] and half of these young women report using LSD one or more times in the last year. Prior data suggests that the use of hallucinogens by African Americans is virtually nonexistent across all ages of adolescents and young adults. [2,9] In fact, we found that none of our African American young women reported using LSD. However, the proportion of African Americans who reported using marijuana was much greater than either caucasian or Mexican American women."

Source:

Rickert, Vaughn I.; Siqueira, Lorena M.; Dale, Travis; and Wiemann, Constance M., "Prevalence and Risk Factors for LSD Use among Young Women," Journal of Pediatric and Adolescent Gynecology (Washington, DC: North American Society for Pediatric and Adolescent Gynecology, April 2003) Volume 16, Issue 2, p. 72.

http://www.beckleyfoundation.org/bib/doc/bf/2003_Rickert_11457_1.pdf

15.

(Effects of LSD) "The physiological effects of this powerful drug have been well documented. These effects can be grouped into five general areas of action: LSD works on the sympathetic nervous system (which is involved in regulation of heart muscle, smooth muscle and glandular organs in a response to stressful situations); the motor system (which is involved in carrying out limb movements); the affective states; thought processes; and it has profound effects upon the sensory and perceptual experience.

"LSD is a semisynthetic preparation originally derived from ergot, an extract of the fungus Claviceps purpurea , which grows as a parasite on rye wheat. The dosage that is required to produce a moderate effect in most subjects is 1 to 3mcg per kilogram of body mass, and the effects can last from seven to 10 hours (Bowman & Rand 1980).

"Stimulation of the sympathetic nervous system following LSD ingestion can lead to effects such as hypothermia with piloerection (hairs standing on end, such as can be found in reports of religious ecstasy), sweating, increased heart rate with palpitations, and elevation of blood pressure and blood glucose levels. These reactions of the autonomic nervous system are not as significant as other effects upon the body: action on the motor system can lead to increased activity of monosynaptic reflexes (such as the knee-jerk response), an increase in muscle tension, tremors, and muscular incoordination. This latter effect of muscular incoordination is also a symptom of religious ecstasy in many cultures, where the worshipper has such a profound feeling of love of God that he is said to be 'intoxicated by God.'"

Source:

Goodman, Neil, "The Serotonergic System and Mysticism: Could LSD and the Nondrug-Induced Mystical Experience Share Common Neural Mechanisms?" Journal of Psychoactive Drugs (San Francisco, CA: Haight Ashbury Publications, July-September 2002), Vol. 34, No. 3, p. 266.

http://www.cnsproductions.com/pdf/Goodman.pdf

16.

(Creation of LSD) "Chemist Albert Hofmann, working at the Sandoz Corporation pharmaceutical laboratory in Switzerland, first synthesized LSD in 1938. He was conducting research on possible medical applications of various lysergic acid compounds derived from ergot, a fungus that develops on rye grass. Searching for compounds with therapeutic value, Hofmann created more than two dozen ergot-derived synthetic molecules. The 25th was called, in German, Lyserg-Säure-Diäthylamid 25, or LSD-25."

Source:

"Hallucinogens and Dissociative Drugs, including LSD, PCP, Ketamine, Dextromethorphan," National Institute on Drug Abuse Research Report Series (Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, 2001), p. 3.

http://www.drugabuse.gov/sites/default/files/hallucinogensrrs4.pdf

17.

(Addictive Properties and Tolerance) "Most users of LSD voluntarily decrease or stop its use over time. LSD is not considered an addictive drug since it does not produce compulsive drug-seeking behavior. However, LSD does produce tolerance, so some users who take the drug repeatedly must take progressively higher doses to achieve the state of intoxication that they had previously achieved. This is an extremely dangerous practice, given the unpredictability of the drug. In addition, cross-tolerance between LSD and other hallucinogens has been reported."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009).

http://www.drugabuse.gov/sites/default/files/hallucinogens09.pdf

18.

(Physical Effects of LSD According to NIDA) "The effects of LSD depend largely on the amount taken. LSD causes dilated pupils; can raise body temperature and increase heart rate and blood pressure; and can cause profuse sweating, loss of appetite, sleeplessness, dry mouth, and tremors."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009).

https://d14rmgtrwzf5a.cloudfront.net/sites/default/files/hallucinogens_d...

19. **Peyote**

(Description of Peyote) "Peyote is a small, spineless cactus in which the principal active ingredient is mescaline. This plant has been used by natives in northern Mexico and the southwestern United States as a part of religious ceremonies. Mescaline can also be produced through chemical synthesis."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009)

http://www.drugabuse.gov/sites/default/files/hallucinogens09.pdf

20.

(Description of Peyote) "The top of the peyote cactus, also referred to as the crown, consists of disc-shaped buttons that are cut from the roots and dried. These buttons are generally chewed or soaked in water to produce an intoxicating liquid. The hallucinogenic dose of mescaline is about 0.3 to 0.5 grams, and its effects last about 12 hours. Because the extract is so bitter, some individuals prefer to prepare a tea by boiling the cacti for several hours."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009)

http://www.drugabuse.gov/sites/default/files/hallucinogens09.pdf

21.

(Effects of Mescaline and Peyote) "The long-term residual psychological and cognitive effects of mescaline, peyote's principal active ingredient, remain poorly understood. A recent study found no evidence of psychological or cognitive deficits among Native Americans that use peyote regularly in a religious setting. [2] It should be mentioned, however, that these findings may not generalize to those who repeatedly abuse the drug for recreational purposes. Peyote abusers may also experience flashbacks."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009)

http://www.drugabuse.gov/sites/default/files/hallucinogens09.pdf

22.

(Physical Effects) "Its effects can be similar to those of LSD, including increased body temperature and heart rate, uncoordinated movements (ataxia), profound sweating, and flushing. The active ingredient mescaline has also been associated, in at least one report, to fetal abnormalities."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009)

http://www.drugabuse.gov/sites/default/files/hallucinogens09.pdf

23. Psilocybin

"Psilocybin (4-phosphoryloxy-N,N-dimethyltryptamine) is obtained from certain types of mushrooms that are indigenous to tropical and subtropical regions of South America, Mexico, and the United States. These mushrooms typically contain less than 0.5 percent psilocybin plus trace amounts of psilocin, another hallucinogenic substance."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009)

http://www.drugabuse.gov/sites/default/files/hallucinogens09.pdf

24.

(Methods of Use) "Mushrooms containing psilocybin are available fresh or dried and are typically taken orally. Psilocybin (4-phosphoryloxy-N,N-dimethyltryptamine) and its biologically active form, psilocin (4-hydroxy-N,N-dimethyltryptamine), cannot be inactivated by cooking or freezing preparations. Thus, they may also be brewed as a tea or added to other foods to mask their bitter flavor. The effects of psilocybin, which appear within 20 minutes of ingestion, last approximately 6 hours."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009)

http://www.drugabuse.gov/sites/default/files/hallucinogens09.pdf

25.

(Effects of Psilocybin) "The active compounds in psilocybin-containing 'magic' mushrooms have LSD-like properties and produce alterations of autonomic function, motor reflexes, behavior, and perception. [3] The psychological consequences of psilocybin use include hallucinations, an altered perception of time, and an inability to discern fantasy from reality. Panic reactions and psychosis also may occur, particularly if a user ingests a large dose. Long-term effects such as flashbacks, risk of psychiatric illness, impaired memory, and tolerance have been described in case reports."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD: National Institutes of Health, June 2009)

http://www.drugabuse.gov/sites/default/files/hallucinogens09.pdf

26.

(Physical Effects of Psilocybin) "[Psilocybin] can produce muscle relaxation or weakness, ataxia, excessive pupil dilation, nausea, vomiting, and drowsiness. Individuals who abuse psilocybin mushrooms also risk poisoning if one of many existing varieties of poisonous mushrooms is incorrectly identified as a psilocybin mushroom."

Source:

NIDA InfoFacts, "Hallucinogens: LSD, Peyote, Psilocybin, and PCP" National Institute on Drug Abuse (Bethesda, MD:

National Institutes of Health, June 2009)

http://www.drugabuse.gov/sites/default/files/hallucinogens09.pdf

27.

(Psilocybin and Mystical Experiences) "Overall, the present study shows that psilocybin can dose-dependently occasion mystical-type experiences having persisting positive effects on attitudes, mood, and behavior. The observations that episodes of extreme fear, feeling trapped, or delusions occur at the highest dose in almost 40% of volunteers, that anxiety and fear have an unpredictable time course across the session, and that an ascending sequence of dose exposure may be associated with long-lasting positive changes have implications for the design of therapeutic trials with psilocybin. Considering the rarity of spontaneous mystical experiences in the general population, the finding that more than 70% of volunteers in the current study had 'complete' mystical experiences suggests that most people have the capacity for such experiences under appropriate conditions and, therefore, such experiences are biologically normal."

Source:

Griffiths, Roland R.; Johnson, Matthew W.; Richards, William A.; Richards, Brian D.; McCann, Una; and Jesse, Robert, "Psilocybin occasioned mystical-type experiences: immediate and persisting dose-related effects," Psychopharmacology (Heidelberg, Germany: May 2011), p. 16.

http://link.springer.com/article/10.1007%2Fs00213-011-2358-5

28.

(Safety of Psilocybin) "An important finding of the present study is that, with careful volunteer screening and preparation and when sessions are conducted in a comfortable, well-supervised setting, a high dose of 30 mg/70 kg psilocybin can be administered safely. . It is also noteworthy that, despite meetings and prior sessions with monitors ranging from 8 h (when psilocybin was administered on the first session) up to 24 h (when psilocybin was administered on the third session) of contact time, 22% (8 of 36) of the volunteers experienced a period of notable anxiety/dysphoria during the session, sometimes including transient ideas of reference/paranoia. No volunteer required pharmacological intervention and the psychological effects were readily managed with reassurance. The primary monitor remained accessible via beeper/phone to each volunteer for 24 h after each session, but no volunteer called before the scheduled follow-up meeting on the next day. The 1-year follow-up is ongoing but has been completed by most volunteers (30 of 36). In that follow-up, an open-ended clinical interview reflecting on the study experiences and current life situation provides a clinical context conducive to the spontaneous reporting of study-associated adverse events. To date, there have been no reports of persisting perceptional phenomena sometimes attributed to hallucinogen use or of recreational abuse of hallucinogens, and all participants appear to continue to be high-functioning, productive members of society."

Source:

Griffiths, R. R.; Richards, W. A.; McCann, U.; Jesse, R., " Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance,"Psychopharmacology (Heidelberg, Germany: August 2006), Volume 187, Number 3, p. 281.

http://www.hopkinsmedicine.org/sebin/s/m/GriffithsPsilocybin.pdf

29.

(Medicinal Potential of Psilocybin) "Today, the medical value of hallucinogens is again being examined in formal psychiatric settings. One substance under investigation is psilocybin, 4-phosphoryloxy-N,N-dimethyltryptamine, which occurs in nature in various species of mushrooms. Psilocybin is rapidly metabolized to psilocin, which is a potent agonist at serotonin 5-HT $_{1A/2A/2C}$ receptors, with 5-HT $_{2A}$ receptor activation directly correlated with human hallucinogenic activity. [16] Psilocybin was studied during the 1960s to establish its psychopharmacological profile; it was found to be active orally at around 10 mg, with stronger effects at higher doses, and to have a 4- to 6-hour duration of experience. Psychological effects were similar to those of lysergic acid diethylamide (LSD), with psilocybin considered to be more strongly visual, less emotionally intense, more euphoric, and with fewer panic reactions and less chance of paranoia than LSD." [17,18]

Source:

Grob, Charles S.; Danforth, Alicia L.; Chopra, Gurpreet S.; Hagerty, Marycie; McKay, Charles R.; Halberstadt, Adam L.; Greer, George R., "Pilot Study of Psilocybin Treatment for Anxiety in Patients With Advanced-Stage Cancer, "Archives of General Psychiatry," (Chicago, IL: American Medical Association, January 2011), Volume 68, Number 1, p. 71.

http://www.scribd.com/doc/37039374/Pilot-Study-of-Psilocybin-Treatment-i...

30.

(Safety of Psilocybin in Clinical Setting) "Our investigations provided no cause for concern that administration of PY [psilocybin] to healthy subjects is hazardous with respect to somatic health. However, as our data revealed tendencies of PY to temporarily increase blood pressure, we advise subjects suffering from cardiovascular conditions, especially untreated hypertension, to abstain from using PY or PY-containing mushrooms. Furthermore, our results indicate that PY-induced ASC [altered states of consciousness] are generally well tolerated and integrated by healthy subjects. However, a controlled clinical setting is needful, since also mentally stable personalities may, following ingestion of higher doses of PY, transiently experience anxiety as a consequence of loosening of ego-boundaries."

Source:

Hasler, Felix; Grimberg, Ulrike; Benz , Marco A.; Huber, Theo; and Vollenweider, Franz, "Acute psychological and physiological effects of psilocybin in healthy humans: a double-blind, placebo-controlled dose–effect study," Psychopharmacology (Heidelberg, Germany: March 2004) Volume 172, Number 2, p. 151.

http://www.beckleyfoundation.org/bib/doc/ah/2003/2003_hasler_6232_1.pdf

31.

(Psilocybin and Treatment of End-Stage Cancer Anxiety) "Despite the limitations, this study demonstrates that the careful and controlled use of psilocybin may provide an alternative model for the treatment of conditions that are often minimally responsive to conventional therapies, including the profound existential anxiety and despair that often accompany advanced-stage cancers. A recent review from the psilocybin research group at Johns Hopkins University describes the critical components necessary for ensuring subject safety in hallucinogen research. [36] Taking into account these essential provisions for optimizing safety as well as adhering to strict ethical standards of conduct for treatment facilitators, the results provided herein indicate the safety and promise of continued investigations into the range of medical effects of hallucinogenic compounds such as psilocybin."

Source:

Grob, Charles S.; Danforth, Alicia L.; Chopra, Gurpreet S.; Hagerty, Marycie; McKay, Charles R.; Halberstadt, Adam L.; Greer, George R., "Pilot Study of Psilocybin Treatment for Anxiety in Patients With Advanced-Stage Cancer, "Archives of General Psychiatry," (Chicago, IL: American Medical Association, January 2011), Volume 68, Number 1, p. 77.

http://www.scribd.com/doc/37039374/Pilot-Study-of-Psilocybin-Treatment-i...

32. Salvia Divinorum or Salvinorin A

(Description of Salvia Divinorum) " Salvia divinorum is a perennial herb in the mint family native to certain areas of the Sierra Mazateca region of Oaxaca, Mexico. The plant, which can grow to over three feet in height, has large green leaves, hollow square stems and white flowers with purple calyces, can also be grown successfully outside of this region. Salvia divinorum has been used by the Mazatec Indians for its ritual divination and healing. The active constituent of Salvia divinorum has been identified as salvinorin A. Currently, neither Salvia divinorum nor any of its constituents, including salvinorin A, are controlled under the federal Controlled Substances Act (CSA)."

Source:

Drug Enforcement Administration, Office of Diversion Control, "Salvia Divinorum and Salvinorin A," (Washington, DC: U.S. Department of Justice, July 2012).

http://www.deadiversion.usdoj.gov/drug_chem_info/salvia_d.pdf

33.

(Effects of Salvia Divinorum) "Consistent with results from nonhuman animal research (Mowry et al.,2003), the present results suggest a safe physiological profile for salvinorin A at the studied doses, under controlled conditions, and in psychologically and physically healthy hallucinogen-experienced participants. Salvinorin A produced no significant changes in

heart rate or blood pressure; no tremor was observed; and no adverse events were reported. Participants tolerated all doses. However, because of the small sample and the healthy, hallucinogen-experienced status of participants, conclusions regarding safety are limited."

Source:

Johnson, Matthew W.; MacLean, Katherine A.; Reissig, Chad R.; Prisinzano, Thomas E.; Griffiths, Roland R., "Human sychopharmacology and dose-effects of salvinorin A, a kappa opioid," Drug and Alcohol Dependence (Philadelphia, PA: The College on Problems of Drug Dependence, December 3, 2010), p. 4-5.

http://www.washingtonpost.com/wp-srv/nation/pdfs/salviapaper.pdf

34.

(Description of Salvia and Its Effects) "Salvia divinorum is a psychoactive plant that can induce dissociative effects and is a potent producer of visual and other hallucinatory experiences. By mass, salvinorin A, the psychoactive substance in the plant, appears to be the most potent naturally occurring hallucinogen. Its native habitat is the cloud forests in Mexico. It has been consumed for hundreds of years by local Mazatec shamans, who use it to facilitate visionary states of consciousness during spiritual healing sessions. [57] It is also used in traditional medicine at lower doses as a diuretic to treat ailments including diarrhoea, anaemia, headaches and rheumatism. Effects include various psychedelic experiences, including past memories (e.g. revisiting places from childhood memory), merging with objects and overlapping realities (such as the perception of being in several locations at the same time). [58] In contrast to other drugs, its use often prompts dysphoria, i.e. feelings of sadness and depression, as well as fear. In addition, it may prompt a decreased heart rate, slurred speech, lack of coordination and possibly loss of consciousness. [59] "

Source:

UNODC, World Drug Report 2013 (United Nations publication, Sales No. E.13.XI.6), p. 66.

https://www.unodc.org/unodc/secured/wdr/wdr2013/World_Drug_Report_2013.p...

35.

(Effects of Salvia Divinorum) "The putative primary psychoactive agent in SD [Salvia divinorum] is a structurally novel KOR [kappa opioid receptor] agonist named salvinorin A (Ortega et al., 1982; Valdés et al., 1984). Consistent with KOR agonist activity, users describe SD in lay literature as hallucinogenic: it produces perceptual distortions, pseudo-hallucinations, and a profoundly altered sense of self and environment, including out-of-body experiences (Aardvark, 1998; Erowid, 2008; Siebert, 1994b; Turner, 1996). SD therefore appears to have the potential to elucidate the role of the KOR receptor system in health and disease (Butelman et al., 2004; Chavkin et al., 2004; Roth et al., 2002)."

Source:

Baggott, Matthew J.; Earth Erowid; Fire Erowid; Galloway, Gantt P.; Mendelson, John, "Use patterns and self-reported effects of Salvia divinorum: An internet-based survey," Drug and Alcohol Dependence (Philadelphia, PA: College on

Problems of Drug Dependence, October 2010), p. 2.

http://www.maps.org/w3pb/new/2010/2010_Baggott_23125_1.pdf

http://www.ncbi.nlm.nih.gov/pubmed/20627425

36.

(Potential for Abuse or Dependence of Salvia Divinorum) "There was little evidence of dependence in our survey population. At some point, 0.6% (3 people) felt addicted to or dependent upon SD, while 1.2% (6) reported strong cravings for SD. The DSM-IV-R psychiatric diagnostic system in the United States classifies people as drug dependent based on seven criteria. Of the three who reported feelings of addiction or dependence on SD, only one endorsed any DSM-IV criteria (strong cravings and using more SD than planned). When asked about these signs and symptoms individually, 2 additional respondents (0.4%) reported three dependence criteria. None of these individuals reported more than 2 of 13 after-effects characteristic of mu-opioid withdrawal (such as increased sweating, gooseflesh, worsened mood, and diarrhea)."

Source:

Baggott, Matthew J.; Earth Erowid; Fire Erowid; Galloway, Gantt P.; Mendelson, John, "Use patterns and self-reported effects of Salvia divinorum: An internet-based survey," Drug and Alcohol Dependence (Philadelphia, PA: College on Problems of Drug Dependence, October 2010), p. 4.

http://www.maps.org/w3pb/new/2010/2010_Baggott_23125_1.pdf

37.

(Prevalence of Use of Salvia Divinorum Among Youth) "A tripwire question about use of **salvia** (or salvia divinorum) in the past 12 months was added in 2010. Salvia is an herb with hallucinogenic properties, common to southern Mexico and Central and South America. Although it currently is not a drug regulated by the Controlled Substances Act, several states have passed legislation to regulate its use. The Drug Enforcement Agency has listed salvia as a drug of concern and is considering classifying it as a Schedule I drug, like LSD or marijuana. The drug has an appreciable annual prevalence: 1.6%, 3.9%, and 5.9% among 8th, 10th, and 12th graders in 2011, while lifetime prevalence would be somewhat higher."

Source:

Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E., Monitoring the Future national survey results on drug use, 1975–2011: Volume I, Secondary school students," Institute for Social Research (Ann Arbor, Michigan: The University of Michigan, 2012), p. 84.

http://www.monitoringthefuture.org/pubs/monographs/mtf-vol1_2011.pdf

Related Chapters:

- Ecstasy (MDMA)

- Ibogaine