A group of people standing in front of a green board with a colorful drawing

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**Psychedelics and potential benefits in “healthy normals”: A review of the literature**

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A group of mushrooms with brown cap

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**“Magic mushrooms have been linked to lower crime rates”**

**“Psychedelic drugs seem to mellow people out in a way that could prevent future crimes.**

**Researchers at the University of Alabama at Birmingham recently found that people who have taken drugs like like magic mushrooms, LSD, or DMT, are statistically less likely to steal or assault anyone. They**[**published**](http://journals.sagepub.com/eprint/4qZVEfJB5bkeHpNhh9Vf/full)**their work on Oct. 17 in the Journal of Psychopharmacology.**

**For their work, researchers collected data from the National Survey on Drug Use and Health survey over the course of 13 years from 2002 to 2014 (all that were available at the time of analysis). In total, they looked at survey responses from over 480,000 individuals, and focused specifically on their answers to the questions regarding illicit drug use (like heroin, cocaine, off-label painkillers, and marijuana), psychedelic drugs, and whether or not participants have committed or been arrested for various crimes within the past year.**

**About 14% of the respondents reported they had taken psychedelic drugs at least once, and most were between 26 and 49 years old. Controlling for age, gender, and employment, the researchers found that people who reported that they had had ever taken a psychedelic drugs were roughly 27% less likely to have stolen something 12% less likely to have committed to some kind of assault in the past year than those who never had.**

**Respondents were also 18% less likely to have been arrested for any kind of violent crime in the same time period. Conversely, people who reported taking other types of illicit drugs were *more* likely to have committed these types of crimes or been arrested for them within the past year (except for sedatives and PCP, which were not statistically significant).”**

Foley, K. E. (2017, October 19). *Psychedelics may make people less likely to commit violent crimes*. Magic mushrooms have been linked to lower crime rates. https://qz.com/1105554/psychedelics-may-make-people-less-likely-to-commit-violent-crimes

**“Psilocybin use is associated with lowered odds of crime arrests in US adults: A replication and extension…”**

**“Background:**

**The United States boasts the largest prison population in the world, conferring significant direct and indirect costs (e.g. lost wages for the incarcerated, increased morbidity/mortality, etc.) to society. Recidivism rates are high for the imprisoned and most interventions to reduce criminality are minimally effective. Thus, in addition to the need for criminal justice reform, there is a need to better understand factors linked to lowered criminal behavior.**

**Aim:**

**The aim of this study was to assess the relationships between the use of classic psychedelic substances (psilocybin, LSD, peyote, and mescaline) and past year arrests for various crimes (i.e. property, violence, alcohol and substance use, miscellaneous crimes).**

**Methods:**

**This study used nationally representative data from The National Survey on Drug Use and Health (NSDUH) (2015–2019) (*N* = 211,549) to test the aforementioned associations.**

**Results:**

**Lifetime psilocybin use was associated with lowered odds of seven of 11 past year arrest variables (adjusted odds ratio (aOR) range = 0.30–0.73). Peyote was associated with reduced odds of motor vehicle theft (aOR = 0.30) and driving under the influence (aOR = 0.52), and mescaline was associated with reduced odds of drug possession/sale (aOR = 0.51). Virtually all other substances either shared no relationship to our outcomes or conferred higher odds of arrest.**

**Conclusion:**

**This study suggests that use of classic psychedelic substances is associated with lowered odds of crime arrests. Future research should explore whether causal factors and/or third variable factors (e.g. personality, political orientation) underlie the relationship between classic psychedelic use and reduced criminal behavior.”**

***In addition to research on their potential clinical use, over the last two decades, researchers have begun investigating chronic and acute effects of psychedelic substances on healthy individuals. For example, psychedelics were found to be able to reliably induce dose-dependent mystical-type experiences with substantial personal meaning in a sample of healthy adults that had both short and long-term positive effects on their mental well-being and quality of life. Increases in mood as a result of a psychedelic experience were further found to persist for up to 1 month. Likewise, research found an increase in the personality trait of openness to experience in participants after the use of psilocybin and Lysergic acid diethylamide, as well as an increase in the feeling of connectedness to oneself and others…***

(REFERENCE)

***“Psychological and Psychosocial Effects of Ayahuasca***

***After an approximately 35 to 40-min latency period, the consumption of ayahuasca induces an intense modified state of consciousness that lasts approximately 4 h (***[***McKenna, 2004***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B83)***). Perception, spatiotemporal orientation, beliefs about reality and the self, cognitive and emotional processes can all alter significantly during the experience. Visions of beautiful visual scenery are commonly reported together with some typical elements of the “ayahuasca world”: ayahuasca beings, power animals, spirit guides, tropical motifs, vibrant, and varying geometric patterns known from the literature of the cultural anthropology of shamanism. The neurological background of the strong visual effects has been revealed by functional magnetic resonance imaging studies as it was discussed above (***[***de Araujo et al., 2012***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B24)***).***

***Considering the psychological therapeutic benefits, the emphasis is on the induction of an introspective dream-like experience characterized by visions, autobiographic and emotional memories which increase mindfulness capacities (***[***Soler et al., 2015***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B121)***), as well as on the intellectual and spiritual insights gained during the encounters with ayahuasca. Ayahuasca experiences are a constant flow of mental contents, during which knowledge is gained by intuition rather than logic. They also show a high level of overall coherence. The level of self-reflection, reminiscence, ethical sensation, prosocial behavior (***[***Frecska, 2008***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B42)***), creative thinking (***[***Frecska et al., 2012***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B44)***), and redemption (***[***de Rios et al., 2002***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B26)***) can be increased or elicited during the experiences. Various psychological blockages and denials may enter awareness and become illuminated from multiple perspectives allowing the participants to gain insight into their maladaptive behavioral, emotional and/or cognitive patterns. These psychodynamic contents are often accompanied by an enhanced internal moral attitude that forces the participants to face their deep thoughts and emotions that confront them with earlier wrongdoings, self-deceptions, and lies (***[***Frecska, 2011***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B43)***). Repressed memories can surface causing emotional catharsis and opening the way to abreaction, relief, and remission. The strong serotonergic effect of ayahuasca and the internal phenomenon of being held or guided by an intelligent power can be considered responsible for the observation found in many personal reports that indicate that the retraumatization by the experience is avoided by reaching a certain flip-point, a “slew-round” to a previously inaccessible, corrective positive aspect of the emotional pattern. In such cases post traumatic growth becomes possible.***

***The emotional charge of ayahuasca experiences often follows a sine wave.*** [***Kjellgren et al. (2009)***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B68) ***described an initial “contractile frightening state” during which participants frequently confront their innermost fears: fear of insanity, fear of death, paranoid thoughts or the despair of cosmic loneliness and outcast. Distressful somatic symptoms such as dizziness, diarrhea, nausea, and vomiting may also arise and become essential part of the process, carrying the subjective experience of purge and relief. If the subject is able to surrender, this unpleasant initial phase is usually followed by a sudden transformation of the experience into transcendental experiences, reflections, changed worldview and/or new orientation to life.***

***It is frequently reported—especially in what Metzner (***[***Metzner, 1998***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B85)***) called hybrid shamanic and psychotherapeutic ritual setting—that participants arrive at ayahuasca ceremonies with a predefined personal intention such as asking for healing, guidance, teaching or a solution to a personal problem. These intentions seem to support the experience by two means. They seem to provide a basic structure to the unconscious materials that arise during the experience as well as a narrative frame for the interpretation and integration of the experience.***

***Scientific interest toward ayahuasca has grown rapidly over the last decades and so the most pregnant directions of its possible therapeutic use have begun to be outlined. However, the illicit legal status of the brew that ensues from its DMT content imposes heavy impediments to its scientific understanding. Many findings therefore come from investigations carried out among the members of the Brazilian syncretic churches, where the legal use of ayahuasca primarily serves religious aims instead of therapeutic ones.***

***The Hoasca Project was first to provide scientific findings regarding the psychopharmacological and psychological effects of ayahuasca (***[***Grob et al., 1996***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B53)***). The study involved 15 members of the União do Vegetal and suggested that the long-term use of ayahuasca resulted in positive behavioral and lifestyle changes in the participants’ lives. An unexpected finding was the possible anti-addictive effect of the brew as revealed from the reports of several participants of the study who had struggled with alcohol and substances abuse before having joined the União do Vegetal. Two decades later a similar study involving 32 members of Santo Daime arrived at the same conclusions (***[***Halpern et al., 2008***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B55)***).***

***Barbosa’s team (***[***Barbosa et al., 2005***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B6)***) concluded that the use of ayahuasca increased assertiveness, joy of life and liveliness among the members of the Brazilian syncretic churches, while da Silveira and others (***[***da Silveira et al., 2005***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B23)***) found that adolescents who regularly consume ayahuasca show less signs of anxiety, are more optimistic, self-confident, insistent, and emotionally mature than their peers. Similarly, results of psychometric tests applied by dos Santos’ group (***[***dos Santos et al., 2007***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B34)***) revealed that after ayahuasca use, individuals respond with less anxiety to states that involve hopelessness and resemble panic, while measures of state- or trait-anxiety remain unaffected. Recently Barbosa’s team (***[***Barbosa et al., 2012***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B7)***) performed a meta-analysis on publications listed on PubMed with the aim to summarize current knowledge about the effect of ayahuasca on health. It concludes that the consumption of ayahuasca is safe and under certain conditions may even be beneficial. Results of a longitudinal prospective study on a large population of regular users showed no signs of cognitive impairment and the decoction had no negative effect on coping strategies or the general mental health (***[***Bouso et al., 2012***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B12)***). While there are occasional reports of ayahuasca users dying during the episode, they typically reflect underlying health conditions or prolonged neglect of participants during rituals.***

***The prolonged social contact among participants that is typical of ayahuasca based treatments provides the opportunity for developing the social support that is crucial to recovery from many mental illnesses including addiction. The ceremonial context enhances bonding among participants that can facilitate therapeutic processes, especially through the provision of social support and the enforcement of social norms that encourage an abstinent lifestyle. The participants in ayahuasca ceremonies of the churches provides social support for managing stress and gives a sense of belonging that motivates lasting behavioral changes.***

***Since DMT is known to be a very potent 5-HT agonist, it can decrease impulsive behavior and facilitate social interactions (***[***Frecska, 2008***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B42)***). A rapid 5-HT receptor action can explain the traditional indication of ayahuasca use in crisis prevention and occasioning redemption (***[***de Rios et al., 2002***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B26)***). The prosocial, cohesive action effect of ayahuasca is reflected in the quality of the elicited subjective experience, which commonly involves ethical lessons (***[***Shanon, 2002***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B117)***). Ayahuasca is highly revered by mestizo curanderos as a stern moral teacher (***[***Luna, 1986***](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773875/#B76)***).”***

Frecska, E., Bokor, P., & Winkelman, M. (2016). The therapeutic potentials of ayahuasca: Possible effects against various diseases of civilization. *Frontiers in Pharmacology*, *7*. https://doi.org/10.3389/fphar.2016.00035