

Psychedelic Psychotherapy: An Investigation Into the Historical Use and  
Potential Benefits of Psychedelic Drugs in Psychotherapeutics

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Psychedelic drugs are some of the most enigmatic substances known to man. Their complexity extends beyond their pharmacological mechanisms of action, and into deeply rooted social and scientific division. Hailed by some as a panacea against mental illness, spiritual disillusion, and uncreative thought, and damned by others as schizophrenia-inducing, unpredictable, and destabilizing, these compounds became the center of one of the most misunderstood cultural, political, and scientific revolutions of the 20th century. In this paper we will examine the history of these drugs, particularly through their use in therapeutic settings, as well as examine the potential benefits they may hold therein. It is important to note we will focus on the serotonergic psychedelics, such as LSD, DMT, psilocybin, and mescaline, as they are the most popularly studied in the scientific world. These drugs all mimic the neurotransmitter serotonin, specifically binding to the 5-HT<sub>2A</sub> receptor (Iverson, 2008). Other psychedelic substances do exist that do not follow this mechanism of action, and all claims further made refer to the previously mentioned subset only.

The history of psychedelic use extends almost as far as the history of humanity itself. Archeologists have found evidence of cultural use extending over 5,000 years in religious ceremonies across the globe (Merlin, 2003). Ancient Hindu texts make mention of *soma*, a brew that sent the drinker into vision states once it was consumed, often believed to be made from psilocybin mushrooms. In North America there is a long tradition of eating the peyote cactus among indigenous people, a mescaline containing plant. In South America, shamans concocted

ayahuasca, a brew made from a vine containing DMT, and have been using it in ceremonies for thousands of years. Although these drugs had been around for so long, they seemingly evaded the modern scientific world until 1938 when Albert Hoffman, a Swiss scientist, synthesized LSD from an ergot mushroom when looking for a drug to stop postpartum uterine bleeding. It had no effect on rats in experiments, and so Hoffman did not again touch the substance until 1943, when he accidentally spilled some on his skin, propelling him into a, “dreamlike state... [with] an uninterrupted stream of fantastic pictures...” (Hoffman, 1980, pg. 19).

In the following years research on psychedelics skyrocketed, as more and more substances were found, and studied. As described in Richard Strassman’s *DMT: The Spirit Molecule*, “For more than two decades, generous government and private funding supported this effort. Researchers published hundreds of papers and dozens of books. Many international conferences, meetings, and symposia discussed the latest findings in human psychedelic research,” (Strassman, 2001, pg. 24-25). Many of these articles and conferences rallied behind psychedelic psychotherapy, in which therapy was facilitated by hallucinogens such as LSD. Fantastic victories were described, where patients with previously untreatable depression, anxiety, addiction, compulsion, and eating disorders were tremendously improved after sessions under the influence of these drugs. Volunteers believed they could gain access to emotions and memories previously suppressed, and were given immense clarity into themselves and the world that allowed them to work through their toughest problems. Subjects had emotional breakdowns and intellectual breakthroughs, and scientists advocated the technique due to its “miraculous” benefits (Pahnke, 1970). By the mid 1960’s over 40,000 patients had been administered

psychedelic drugs in a clinical setting, culminating in over 1,000 published, and peer reviewed papers by the scientific community (Grinspoon, 1997).

At the same time that this was all unfolding, a counterculture began growing in the United States. Championed by figureheads such as Timothy O'Leary, Aldous Huxley, Jack Kerouac, and Ken Kesey, it grew out of feelings of emptiness, angst, and disillusionment with what was viewed as modern society's materialism, hate, and corporate greed. It coincided with the Civil Rights Movement and opposition to the Vietnam War, as well as the musical works of Jimi Hendrix, The Beatles, and the Grateful Dead. The movement was characterized by the desire for peaceful living, harmony with nature, sexual freedom, drug use, the search for spiritual enlightenment, music, governmental distrust, and the abandonment of societal norms. Middle America became frightened, as more and more "normal" middle and upper class children began running away from home, moving out west, doing drugs, and overall abandoning their family's way of living, for what was viewed as a degenerate and dangerous freedom.

LSD and other psychedelics were extremely popular at the time, hailed by many inside the counterculture as mind-expanding and mentally freeing. The media began exaggerating the negative consequences of the drugs, as fake or exaggerated stories of chromosome damage, suicides, and schizophrenia began circulating, playing into the growing fear behind them. The public panic prompted the US to call an emergency labeling of LSD and other psychedelics in 1970 as Schedule I drugs (alongside substances like heroin), much to the objection of the scientific community. Schedule I drugs are those considered by the DEA as "highly addictive" with "no recognized medicinal value". Research had pointed to zero physical or mental dependence in relation to the psychedelics, while scientists and psychologists were making

miraculous discoveries in the field psychotherapy, and yet the verdict was the harshest any drug could receive. Thus, “with the new drug laws in place, interest in human psychedelic research died off almost as rapidly as it had begun. It was as if the psychedelic drugs had become ‘undiscovered,’” (Strassman, 2001, pg. 27).

To this day research remains difficult to undertake due to the Schedule I status of the drugs. So much is still unknown about how they actually work on our brains, what the long term effects on the body are (if any), and what exact benefits we as a society could gain from their use, however, some recent studies are pushing science and society to view them in a new light, and are reinvigorating the desire for researchers to continue the work that was seemingly halted about 40 years ago.

One study done at USF, published in the *Experimental Brain Research* journal in 2013, used mice and psilocybin mushrooms to test if psychedelics could increase neuroplasticity, which is the brain’s ability to form new neural connections. The study found that the mushrooms indeed promoted cell growth and regeneration in the mice’s brains, a miraculous feat that could have amazing consequences in the psychotherapeutic world. Scientists are recently beginning to understand that mental illness and neuroplasticity are deeply intertwined, especially in people diagnosed with depression, where the growth of new cells in the hippocampus is slowed, halted, or even reversed (Kays, 2012). More studies have shown that psychedelics seem to bypass the brain’s natural filter, letting us form previously unexplored connections (Stanislov, 1976). This gives us a biological basis for the subjective experience of volunteers in the early studies of psychedelics. It was believed they had access to parts of their psyche previously unlocked or

suppressed, and finally felt like they had the tools to change, or at least understand their negative mental processes.

Without further research, however, it is too soon to say with any certainty the exact effects psychedelics can have on combating mental illness. In addition, there are numerous red flags, such as the possibility of a “bad trip” experience in particularly troubled individuals, as well as research that might point to psychedelics as an environmental trigger that can worsen or awaken latent schizophrenia in certain individuals. This being said, countless studies show time and time again the amazing possibility of these drugs, when used in the proper setting, and it is imperative we do not stop or slow this gathering of information. As groups like MAPS (the Multidisciplinary Association for Psychedelic Studies) advocate for the government to reconsider the Schedule I classification of LSD and other psychedelics, many hope that research can be undertaken more regularly, as we search for the truth behind these ever-enigmatic substances, and unlock the mysteries they hold.

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