# Psychedelics and Psychotherapy

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## Abstract

This paper is a short discussion of the possible use of psychedelic substances in psychotherapy. The topic covers the past and evolving attitudes towards the use of psychedelics like psilocybin, LSD and DMT, for the treatment of psychological problems. Mention is given to the special conditions in which such treatment can work with the backing of neuroscience.

Keywords: psychedelics, psychotherapy, neuroscience, psilocybin, LSD

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## Introduction

"(T)he unintended consequence on the war on drugs… not only causes misery and violence worldwide but it also blocks scientific research into the potential benefits of psychoactive substances" (ICEERS, 2014). Those were the words of Amanda Feilding, Director of The Beckley Foundation at an opening speech at the Ayahuasca conference 2014 in Ibiza.

The Beckley Foundation, which was set up in 1998 to conduct scientific research on the potential benefits of psychoactive substances. The foundation has special consultative status at United Nations and is calling for a departure from prohibitionist national and international drug policies through evidence-based scientific research on substances like psilocybin, LSD, MDMA, Ayahuasca and cannabis. (ICEERS, 2014).

"There was officially not a term for use, only abuse", and prohibition, Feilding goes on to say, as can be observed through mainstream news on the "war on drugs", does not work. What Feilding says is not new. Leary and Zinberg (1966) had expressed this sentiment elaborately in their lecture at Harvard Law School entitled, *LSD: Methods of Control*.

### Psychedelic Drugs on the Brain

Hallucinogens, such as LSD, mescaline, psilocybin, and ecstasy work by attaching to seratonin receptor sites, block transmissions in perceptual pathways (Springer, 2015). Psychedelic drugs are useful "tools" to modify state of consciousness, which can nowadays be studied with brain imaging technology. Studies reveal that he intensity of the psychedelic experience correlates with the degree of reduction of blood supply to the Default Mode Network (DMN) in the brain (Carhart-Harris et al. 2001, ICEERS 2014, Palhano-Fontes et. al. 2014). The DMN is a network of highly interconnected brain region that act as a "top-down" control mechanism which senses and coordinates the activity in other brain areas thereby limiting experiences of the world to a manageable and familiar level.

Raichle et al. (2001).

Carhart-Harris et al. (2010) in a paper entitled, *The default-mode, ego-functions and free-energy: a neurobiological account of Freudian ideas,* explored the notion of Freudian constructs regarding the ego and id, as having "neurobiological substrates", and demonstrated the theory that Freud's descriptions of primary process are consistent with the neurophysiological changes in the DMN during hallucinogenic drug states. The DMN has also been implicated in processes involving self-judgments, recall of autobiographical memories, mental simulations, mind wandering, and day-dreaming. (Bruckner et al. 2008 & Northoff et.al., 2006). To further demonstrate the link between the DMN and ego function, Ino et al. (2011) found brain activation at the DMN during activity of autobiographical memory retrieval.

The experience of the effects of psychedelics has been well documented, with writers describing their experience during altered states of consciousness (ASC):

"I was seeing what Adam had seen on the morning of his creation—the miracle, moment by moment of naked existence." (Huxley 1959).

Research on ASC in psychology, psychopharmacology, psychotherapy, theology, creativity is well established and much focus of interest lies at the boundaries between ASC and psychotic states (Springer 2015). The experience of ASC seems also to be the antithesis to what I would call neurotic experiences, which are traits of the personality faced by most functioning people, and used in diagnostic questionnaires like SCL-90 (Derogatis & Lipman, 1977). See Figure 1.

The effect of psychedelic drugs is now being studied with brain imaging technology, fMRI. A notable study was done by Carhart-Harris et al. (2001), on psilocybin, which demonstrated the effect of the substance on the blood flow to the region of the brain associated with the DMN; and went on to conclude that their "finding is consistent with Aldous Huxley's (1954) 'reducing valve' metaphor and Karl Fristons (2010) 'free energy principle' which propose that the mind/brain works to constrain it's experience of the world.

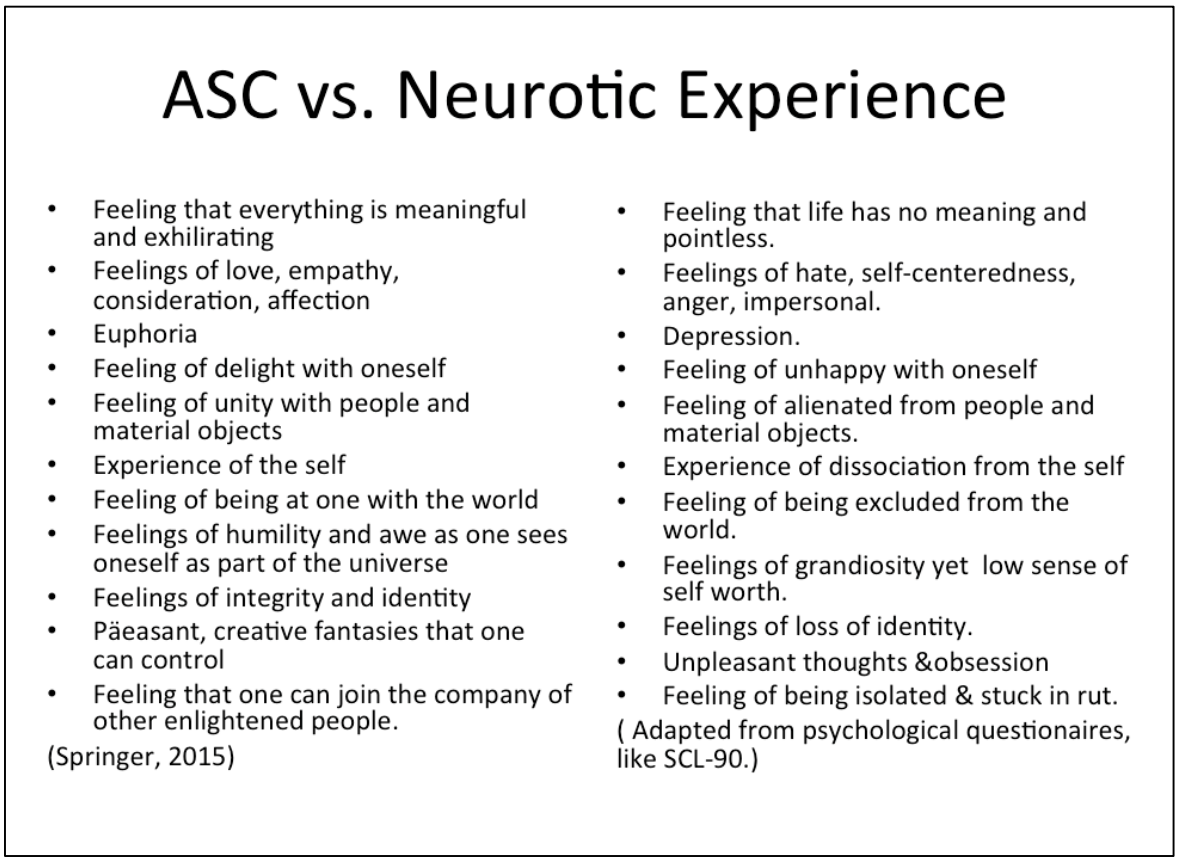


**Figure 1**

## Psychedelics in the Treatment of Psychiatric Disorders

Psychedelics have been proven to produce long-term healing effects for psychiatric disorders.

Studies have indicated that activity in and connectivity with medial pre-frontal cortex (mPFC), associated with the DMN, is known to elevate depression (Drevets et al. 2008, Sheline et al., 2010), which is normalized after effective treatment (Holtzheimer & Mayberg, 2011). The mPFC was consistently deactivated by psilocybin. Recent work has shown that psilocybin can increase subjective well-being and trait openness for several months after acute depression (Grob et.al 2011). Ecstacy-Assisted Psychotherapy was found to be effective, and its curative outcomes durable for PTSD when treatment was combined with psychotherapy (Mithoefer et al. 2012, Nielson & Megler, 2014).

Psychedelics also have been found to have long-term therapeutic effects on substance abuse (Winkelman 2014, Buoso & Riba 2014).

## Psychedelic Drugs in Combination with Psychotherapy

In order to understand the significance of psychotherapy in psychedelic-treatment of psychological disorders, one has to take into account what is known as the psychopharmacological paradigm: the phenomenon that the effect of psychotropic drugs is dependent on a variety of factors, and not purely biochemical. These variable factors include the personality of the client, his/her physical state and sensitivity, the dosage and route of administration oft he drug, the duration oft he drug effect and the environmental conditions surrounding the intake.

"Zinberg's classic description of drug use, "drug, set and setting" is the best description of the complexity of drug use experience being a subjective and conditioned *individual* experience and not simply a consequence of biochemistry." (Springer, 2015)

Griffiths et al. (2006), in a study, found that when administered under supportive conditions, psilocybin occasioned experiences similar to spontaneously occurring mystical experiences. Therapists are in agreement that outcome of LSD treatment is highly dependent on the setting of the therapy sessions. The drug acts as a catalyst that works on the unconscious processes in an unspecific way. The psychotherapeutic program surrounding the administration of the drug has profound influence on the outcome (Grof, 1980), and when the therapeutic situation is properly structured the patient can, with the therapist's help, get better understanding and acceptance of the self (Blewett & Chwelos, 1959). It is possible that it is the *felt* experience during ASC that is more effective and lasting than therapy from understanding the experience through psychoanalysis alone.

## Experience at an Ayahuasca Retreat Recounted

While prohibitions in many countries worldwide have impeded the use of psychedelic drugs in psychotherapy, in certain countries of Latin America like Peru and Brazil, Ayahuasca retreats exist. In well-established retreats, consuming the drugs is part of a retreat program, which includes days of psychotherapeutic-like work like meditation, yoga, bodywork and counseling. All this sets the client in the right frame-of-mind and guides them in order to benefit from the effects of the drug.

This is an encounter experienced by Mary (not real name), who is a therapist herself by profession, and is thus a sophisticated client for the therapy.

"*I was in the temple room with about 8 other people. They played drums and we were given the brew to drink… I did not convulse like some others, but instead became totally paralyzed. I was dead. I knew I was dead. I saw what looked like the cosmos, the birth and ending of the universe. I could hear all that was going on in the room, but I was dead. I felt that I am unimportant. I felt freedom.*"

After her experience with Ayahuasca, she felt the anxiety of being constantly "on-guard" permanently disappear. While the traits of her personality was "known" to her, it was only through the experience of letting go of this trait through the *experience* of death in ASC, could Mary be cured of her ego-synotnic patterns.

Mary's description is not unlike Huxley's (1959), "In the final stage of egolessness there is an 'obscure knowledge' that All is in all—that All is actually each. This is as near, I take it, as a finite mind can ever come to 'perceiving everything that is happening everywhere in the universe'."

## Dangers, Risk and Limitations

While with psychedelics the risk of addiction is almost non-existent, there may be contraindications in combination with other drugs, or with certain health conditions.

Cooperation with a medical professional can help to reduce risk to clients' health. Since the effects of drugs are so varied, clients may suffer a bad experience or go on a "bad trip". This is managed by providing the client with knowledge of the possibility beforehand. In the context of illegality of using psychedelics in therapy, may put the therapist in danger. It would be of foremost importance for therapists to be sure of the legal status of such work (Fischer, 2015).

## Potential Benefits of Psychedelic Drug with Therapy

It could be that Hollister's (1975) idea of the *ideal psychotherapeutic drug* already exists; albeit in combination with the appropriate form of psychotherapy. Within good psychotherapeutic settings, the use of these drugs can be:

- Is effective & cures disorder and symptoms.
- Acts rapidly.
- Efficient.
- No dependency or habituation.
- No tolerance
- Minimal toxicity with right dosage.
- No secondary side effects.
- Does not lead to deadly intoxication in case of overdose.
- Can be used in therapist office. (no in-patient needed)
- No negative consequence to perception, thought processes or motor function.

(Adapted from Springer, 2015).

While there is much written about the potential benefits of psychedelic-assisted psychotherapy, clinical studies have also shown that the use of the drugs are safe and do not contribute to mental health problems when administered to healthy volunteers (Kerbs & Johanson, 2013). It would be beneficial to work at understanding effects of these drugs and their effects on consciousness and altered states. These studies can work to enhance our capacities and improve mental health and overall wellbeing.

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