

Consciousness, Religion, and Gurus: Pitfalls of Psychedelic Medicine

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ABSTRACT: This viewpoint identifies pitfalls in the study of psychedelic compounds, including those that pose challenges for the potential use of psychedelics as medicines. They are as follows: (1) Sloppiness regarding use of the term “consciousness”. (2) Inappropriate introduction of religious/spiritual beliefs of investigators or clinicians. (3) Clinical boundaries and other ethical challenges associated with psychedelic treatments.

KEYWORDS: *psychedelics, psilocybin, consciousness, religion, spirituality, ethics*

Scientific research on psychedelic compounds, particularly in humans, has dramatically increased over the last 20 years. Promising therapeutic results have been published for classic psychedelics, which act as serotonin 2A receptor agonists, and methylenedioxymethamphetamine (MDMA), which is a non-classic psychedelic that acts as a serotonin releaser. Among the classic psychedelics, psilocybin has shown promising findings for the treatment of cancer-related depression and anxiety, tobacco use disorder, alcohol use disorder, and major depressive disorder. Additional studies of lysergic acid diethylamide (LSD) and ayahuasca (which contains dimethyltryptamine; DMT) have also shown promise for treating anxiety associated with life-threatening disease and major depressive disorder, respectively.¹ MDMA has shown promising findings for the treatment of post-traumatic stress disorder (PTSD). Results are remarkable not only for the large treatment effects that have been observed but also for the treatment model and dosing regimens employed. Unlike typical psychiatric medications that require chronic administration, these studies have administered psychedelics only one or a few times, after preparation and with monitoring and follow-up care, yet they have shown persisting clinical benefits, in many cases for at least 6 months or 1 year later. Such treatments bridge the gap between psychology and psychiatric medications, as the biological effects of the medication prompt an experience and likely behavioral plasticity, allowing for learning more akin to psychotherapy or major life experiences. For this reason, it seems fair to characterize psychedelic therapy as a paradigm shift in psychiatric treatment. Aside from therapeutics, psychedelics hold incredible potential as tools for psychological and neuroscientific inquiry.

Psychedelics are powerful therapeutic and scientific tools. It should therefore be no surprise that their use has been surrounded by epistemological and ethical challenges. This Viewpoint identifies and explores several of these potential pitfalls. I hope that this effort helps to shape future psychedelics research as well as the practice of psychedelic medicine should these compounds be approved for medical use.

■ THE SLOPPINESS OF “CONSCIOUSNESS”

Psychedelics have been heralded as providing scientific insights into consciousness by the public, the media, and even scientists. A problem here is that the word “consciousness” is often not defined, and it can have a wide variety of meanings. This puts science at risk of a *jingle fallacy* in which the use of one word to describe multiple phenomena leads to the belief that the multiple phenomena are identical. Strickland and I have recently argued that the jingle fallacy, among other concerns, has rendered *impulsivity* to be untenable as a valid hypothetical construct.² Similarly, one might question whether the different concepts associated with consciousness should even be identified under a singular construct. The answer to this question is beyond the scope of this paper. However, even if the word “consciousness” must be used, I propose that it is important to use additional clarifying terms, often drawn from philosophy, when referring to concepts associated with consciousness.^{3,4} These concepts include but are not limited to sentience (ability to sense and respond to the environment), wakefulness, self-awareness (showing self-reference), the ability to describe mental states (related to metacognition), discrimination of and reaction to stimuli, access consciousness (the process of making internal states available), narrative consciousness (stream of consciousness), integration of information, and control of behavior. Another concept is phenomenal consciousness, which is experience itself or “what is it like” to be something. This involves *qualia* (raw sensory experiences), although phenomenal consciousness involves additional aspects such as the overall structure of experience.

The phenomenal consciousness concept might be distinct from the others in an important way. The other concepts could

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be described as contents or processes associated with consciousness. Chalmers³ called these the “easy problems” of consciousness. They are “easy” because whether or not we currently have sufficient explanations for them it seems likely that they are all explainable with the advancement of science. One could conceivably build a computer system that would show behavioral evidence for all of these phenomena at play with the “easy problems” (e.g., showing self-reference), passing a Turing test for their existence, without necessitating the assumption that the program has an experience (phenomenal consciousness). Explaining the existence of experience itself, which is the “hard problem” of consciousness, is at present something that appears outside of the realm of empirical science. Some philosophers and scientists have disputed the existence of this hard problem, but I do not think the problem should be dismissed.

I suggest that psychedelic science has, to date, not provided substantial advancement in our understanding of any of these concepts purported to relate to consciousness. Evidence suggests that personal psychedelic experience might have influenced ideas regarding consciousness developed by philosophers, e.g., Plato.⁵ It has also been argued that first-person alterations of experience by researchers could inform research on consciousness.⁶ However, to my knowledge no existing empirical research has systematically addressed whether or how psychedelic experience affects one’s personal philosophy on consciousness. Even if psychedelics do systematically affect one’s personal philosophy on consciousness, this does not necessarily suggest that the resulting beliefs are valid. It is also plausible that such experience can lead someone away from the ground truth. Psychedelic effects might generate a noetic quality that can be misplaced. It would nonetheless be valuable to understand how psychedelics affect what people think about the term “consciousness” and related concepts.

Several of the “easy problems” of consciousness are beginning to be addressed by psychology and neuroscience in general, but it is unclear if psychedelic science has provided substantial advancements in these endeavors. Psychedelic science has primarily provided a preliminary understanding and generated testable hypotheses of *how psychedelics work*, not the *nature of consciousness* by any definition of consciousness. A number of theoretical proposals provide testable hypotheses regarding the biological effects of psychedelics.⁷ However, it is not clear that any have led to an advancement in understanding normal functioning. A notion that has been popularized in the media is that a quintessential mechanism by which psychedelics work is decreasing functional connectivity within the default mode network (DMN).⁸ This has attracted attention because DMN connectivity is associated with self-referential processing, which has been interpreted by some as “ego” function. However, there are questions regarding whether this is a key psychedelic mechanism and whether or not such observations have provided insights into the nature of self-awareness. One concern is that decreased functional connectivity within the DMN is observed after the administration of several different drugs that are pharmacologically distinct, i.e., alcohol, amphetamine, cannabis, salvinorin A, and selective serotonin reuptake inhibitors.^{7,9} Another is that psychedelics cause broad network changes, sometimes larger than the effects in the DMN. Regardless, it should also be noted that the notion of a role for the DMN in self-referential processing predated its investigation with psychedelics.

My assessment is that psychedelic research has strong potential in addressing many of the “easy problems” of consciousness. For example, psychedelics might increase access to autobiographical memories.¹⁰ Moreover, therapeutic observation suggests that psychedelics might be involved with the retrieval, processing, and reconsolidation of memories such as those related to trauma, addiction, or depression. Perhaps such observations have implications for understanding so-called access consciousness. As another example, given the frequency with which people report experiences of unity on psychedelics, these compounds will likely be useful experimental tools to understand the psychology and neuroscience of self-awareness. Research should leverage psychedelics in testing falsifiable hypotheses with implications for these concepts associated with consciousness in normal functioning, going beyond the worthy goal of determining psychedelic mechanisms.

Related to phenomenal consciousness, some theoretical proposals have attempted to understand psychedelic effects within theories of consciousness, e.g., Global Workspace Theory and Integrated Information Theory,¹¹ and theoretical work has used empirical psychedelic research to identify potential problems with these theories.¹² This is worthwhile and such work should continue with cautious use of terms. While the hard problem (Why does experience exist?) seems likely out of reach for empirical psychedelic science, approaching the problem somehow with psychedelics is worth exploration as long as attention is paid to rigorous terminology and philosophy of science.

In conversation, some psychedelic researchers have argued that because psychedelics drastically alter subjective experience, the study of psychedelics, by definition, constitutes the study of consciousness. I take issue with this. One can consider the reported subjective experience to be the *contents* of consciousness, but by that standard, a very large portion of human psychological and neuroscientific research would be considered the study of consciousness, rendering the term less meaningful. It is also not uncommon for psychedelic researchers to speak and write as if they assume without question that psychedelic effects expose what is in the unconscious, reveal something fundamental about consciousness, or imply that such effects are biologically normal. These might be the case, but we do not know. An alternative model is that psychedelic effects are not necessarily a marker of normal functioning but rather constitute, under optimal therapeutic conditions, a supranormal and useful state. The efficacy of aspirin for treating headaches does not necessarily reveal the fundamental causes of headaches. By analogy, the strong effects of psychedelics on subjective experience does not necessarily reveal the fundamental nature of subjective experience.

■ INAPPROPRIATE INTRODUCTION OF RELIGIOUS/SPIRITUAL BELIEFS OF INVESTIGATORS OR CLINICIANS

This section is a warning signal regarding a little-discussed danger at play in psychedelic research and one that will surely become apparent if psychedelics are approved as medicines. This danger is scientists and clinicians imposing their personal religious or spiritual beliefs on the practice of psychedelic medicine. A caveat is that “spiritual” can mean different things. Here I am referring to supernatural belief systems or frameworks that are not empirically based, but “spiritual” can also refer to caring for one’s family and friends, a sense of belonging to a community and humanity, and having a sense of meaning in

one's life. This latter category includes qualities that we know lead to psychological health and that any secular clinician should want for her or his patients. These qualities can and should be encouraged by clinicians conducting psychedelic therapy. The concern surrounds the former category of supernatural or religious beliefs. For today's psychedelic scientists and clinicians, frameworks of concern are likely to resemble a loosely held eclectic collection of various beliefs drawn piecemeal from mystical traditions, Eastern religions, and indigenous cultures, perhaps best described by the term "new age," although they could come from any religious or spiritual belief system.

It is important to operate instead from a secular framework that is nonetheless open to working with patients or participant of any religious/spiritual background. This is in alignment with the best practices of clinical psychology and other mental health professions that recognize the importance of strong rapport with patients, religious/spiritual tolerance, and the importance to mental health of having meaning in life. Clinicians and scientists should not introduce their own nonempirically supported beliefs. This is not limited to standard religious beliefs. It would also be inappropriate to introduce meta-religious beliefs such as perennialism (the notion that the major religious traditions point toward a core truth). It is also not appropriate to present nonempirically supported descriptions of psychedelic effects as known truths for participants, e.g., instructing participants that a psychedelic session will inform them about the nature of the mind. Conveying such descriptions is concerning at a general level because patients may take such descriptions as scientific fact rather than opinion when coming from scientific or clinical authorities. They are also concerning because if participants do come away from sessions with their own such conclusions from the effects then it is more scientifically interesting if such notions were not directly fed to participants from the treatment team.

In addition to being mindful about the scope of concepts introduced to participants, scientists and clinicians should not include religious icons in the session room or other clinical space. It has unfortunately become fashionable and commonplace for statues of Buddha to be present in psychedelic session treatment rooms. In addition to other concerns about conflating religious beliefs with empirically based clinical practice, the introduction of such religious icons into clinical practice unnecessarily alienates some people from psychedelic medicine, e.g., atheists, Christians, and Muslims. It will ultimately interfere with the mainstream adoption of these treatments to help the greatest number of appropriate individuals if they are approved as treatments, e.g., coverage by insurance and government medical programs.

Some clarifications are important. I am certainly not advocating for being neutral or cold in the relationship with the patient. Indeed, solid rapport and positive regard are important for maximizing efficacy and minimizing risks.¹³ Moreover, scientists and clinicians can certainly have their own religious or nonempirically based beliefs. My advice is rather that they should not bring up these personal beliefs and insert them into therapeutic practice. It also does not mean that participants should not bring their own belief systems to their therapy. It is not uncommon for people having psychedelic sessions to touch on what I call the "big questions," e.g., the nature of reality and the nature of self. Patient beliefs often play a large role in her or his meaning making from sessions. Just as with the practice of secular clinical psychology or psychiatry, a patient can certainly bring up religious beliefs and concepts in

therapeutic discussion, e.g., Buddha, Christ, kundalini, and plant spirits, but it is not the role of the clinician or scientists to introduce such concepts. The goal of the clinician should be to create an open and supportive environment where the patient can make her or his own meaning, if any, from such experiences. In my research I ask participants to bring in pictures of family and other meaningful objects for psychedelic session days. This can certainly include religious icons if they are meaningful to a participant. Another caveat is that my recommendations only relate to the administration of psychedelics in science and medicine; they do not relate to the use of psychedelics by religions or indigenous societies. Finally, it is not inappropriate to study the religious use of psychedelics as long as scientists are not recommending religious beliefs for participants.

■ CLINICAL BOUNDARIES AND OTHER ETHICAL CHALLENGES ASSOCIATED WITH PSYCHEDELIC TREATMENTS

In this final section, I warn against falling prey to the notion of what I call "psychedelic exceptionalism." This is the inclination to believe that the nature of the experiences people have on psychedelics are so sacred or important that the normal rules do not apply, whether they be the rules governing clinical boundaries, the practice of clinical psychology or medicine, sound philosophy of science, or ethics. This psychedelic exceptionalism was one of the mistakes made by a subset of investigators in the earlier era of psychedelic research in the 1960s. My observation suggests that psychedelic therapy is like putting a magnifying glass on many of the aspects of nonpsychedelic psychotherapy, including both positive aspects, e.g., the importance of rapport, and negative ones, e.g., potential for abusing a position of expertise or authority. The powerful subjective nature of psychedelic experiences can be leveraged toward explicit harm, as in the extreme case of Charles Manson and his followers. Far more likely for scientists and clinicians, however, are abuses that come from the lack of clinical boundaries, e.g., temptations for sexual or other inappropriate relationships. Even short of sexual impropriety, psychedelics might magnify the subtle abuses of differential power that can be at play in the routine practice of clinical psychology or medicine. It can be challenging to be associated with what might be one of the meaningful experiences in a person's life. The scientist or clinician might, perhaps without explicit awareness, fall into the trap of playing guru or priest, imparting personal philosophies without a solid empirical basis as discussed in the previous section. My brief advice to guard against such risks is to have a transparent process, e.g., inclusion of multiple treatment individuals during psychedelic and nondrug sessions, and to adhere strongly to the wisdom of established professional boundaries.

■ CONCLUSIONS

I conclude by providing the following summary of my recommendations for addressing epistemological and ethical challenges in psychedelic research and therapeutic use.

1. Use specific and well-grounded terms when speaking of concepts related to consciousness with regard to psychedelics.
2. Avoid using the word "consciousness" with regard to psychedelic research, e.g., when referring to subjective ratings of experiences, except when directly investigating

well-defined and specified concepts associated with consciousness.

3. I encourage research on how psychedelic experience might change an individual's personal philosophy of consciousness, with caution against conflating these potential changes with evidence of the validity of these philosophies.
4. I encourage experimental research attempting to use psychedelics as tools to investigate the multiple concepts associated with consciousness.
5. Do not introduce religious or other nonempirically based concepts in psychedelic therapy or research.
6. Do not include religious icons in treatment settings.
7. Maximize transparency in the psychedelic therapy process.
8. Adhere strongly to the wisdom of professional boundaries.

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Notes

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