

On the Role of Mysticism in Psychedelic Therapy and Research

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Abstract

Should mysticism be excluded from psychedelic therapy and broader scientific research on psychedelics? One camp argues that it should be because experiences are not part of what produces positive effects in psychedelic therapy and because the language of mysticism is inexact and makes psychedelic research appear unscientific. The other camp argues that a mystical experience is needed for the most substantial effect in psychedelic therapy and so must also be studied in psychedelic science. It is argued here that there is evidence that these experiences appear to be a necessary part of the best effect of psychedelic therapy. Unless that data can be refuted, psychedelic-enabled experiences cannot be dismissed from therapy or scientific research on psychedelics. In such circumstances, these experiences must also remain a topic within consciousness studies. Moreover, “mystical” is appropriate for depicting some psychedelic experiences.

Keywords: psychedelics; psychedelic therapy; mysticism; mystical experience; naturalism; consciousness studies

The beneficial therapeutic effects of classic serotonergic psychedelics have been generally accepted ^[1]. Psychedelic therapy has also gained widespread attention since Michael Pollan’s *How to Change Your Mind* ^[2]. However, unlike other psychotropic drugs, psychedelics may have a drastic effect on the phenomenology of a subject’s consciousness. This leads to the issue of whether it is the *chemical effect* of the psychedelic substantives alone or the enabled *mystical experience* of a loss of a sense of self that is the principal cause of the long-lasting psychophysical benefits. Several recent articles have debated whether research on the therapeutic effects of psychedelics should exclude references to mysticism to gain more scientific respectability. One camp ^[3-5] argues that the positive therapeutic effects result only from the drugs’ direct pharmacological actions on the brain. Thus, the subjective experiences sometimes enabled by the drugs are only therapeutically unimportant byproducts of the chemical reactions. Using “a mysticism framework creates a ‘black box’ mentality in which researchers are content to treat certain aspects of the psychedelic state as

beyond the scope of scientific inquiry” ^[5] can be eliminated from psychedelic therapy and any scientific research on psychedelics. Thus, talk of mystical experiences should play no role in psychedelic therapies. The opposing camp ^[6-10] argues that the experiences are essential to the positive (or at least best) psychological results, and so should remain part of psychedelic therapy. Thus, for this camp, any altered state of consciousness (ASC) experiences enabled by the drugs should also be included in psychedelic therapy and broader research. This dispute affects neuroscience and pharmacology, as well as psychology.

Two points will be argued here. First, unless the effects of these drugs can be shown to be strictly chemical, which at present has yet to be shown, the discussion of the experiential dimension in psychedelic therapy remains necessary and thus cannot be expunged. Proponents of decoupling psychedelic therapy and mysticism must base their case on empirical evidence and not simply on the basis of a contentious assumption that only the chemical effects can be significant. Second, the language of mysticism best

captures the experiential dimension for many types of psychedelic-enabled experiences. These positions also impact broader scientific research on psychedelics and models of consciousness.

THE DISPUTE

As part of the “psychedelic renaissance” that began in the 1990s, the therapeutic use of some well-known psychedelics (in particular, psilocybin) has proven that in certain doses, these drugs have long-term benefits for patients dealing with depression, anxiety, post-traumatic stress disorder, cancer, end-of-life distress, and drug or alcohol addiction. Psilocybin-aided therapy has proven helpful in cases resistant to conventional therapies [9]. The beneficial well-being and quality of life changes may last years [11]. Negative symptoms are reduced, and positive traits connected to well-being and optimism are increased after one or a few sessions. There are indications that the positive effects are greater with psychedelics than with other drugs or traditional talk therapies [12]. How the drugs affect the brain is currently not fully known. Indeed, the scientific study of psychedelics and consciousness is still nascent [13]. So, psychological knowledge of ASC experiences is still in its infancy [8]. Some current theories are that the drugs bring about change by disrupting specific serotonin receptors in the brain and that the drugs may disrupt the default mode network underlying our ordinary states of consciousness or that they have broader network effects [4] thereby allowing other types or levels of consciousness to be manifested in waking consciousness.

Proponents of disengaging mystical language from psychedelic therapies argue that, at best, the subjective experiences are irrelevant to the drugs’ effectiveness, and at worst, the experiences are often dangerous.¹ Thus, reference to experiences should be ended —

only the chemical effects on the brain of these psychoactive drugs bring about positive changes. Psychedelics are psychoplastogens that alter neural structure over time — they “rewire” the brain — and this chemical effect by itself accounts for the beneficial psychological effects. David Olson [3] points out that MDMA promotes structural and functional neural plasticity that effects long-lasting changes in most subjects but only a small percentage of the subjects have even extremely mild perceptual alterations. The effects of the drugs as catalysts that bring about the growth of key neurons in the prefrontal cortex would explain the beneficial changes in a person’s behavior long after the compounds have been cleared from the body [3]. So too, the positive effects last after the experiences have faded and, in fact, sometimes grow. Thus, even a sense of well-being or the significance of being must be only a useless byproduct of the chemical effect, not an actual cause of the psychological transformation. Correlating the greater intensity of the experience with better results [14] does not mean that the experiences were the causes but only that the drugs had a greater effect on the patient’s well-being and also produced a more intense byproduct. This camp can also point to the fact that even the short-lived negative “bad experiences “bad trip” psychedelic experiences — or in therapeutic language, “challenging experiences” — may lead to *positive*, cathartic effects later [15], suggesting that only the chemical effects are what produce the positive results rather than the subjective experience during the drug session.

Negative experiences enabled by psychedelic drugs (and meditation) are less often reported than positive experiences and are usually downplayed in scientific reports [16]. In particular, ego-dissolution can cause anxiety and dread. Even when the context is limited to therapy, many participants experience anxiety, which would have a very negative

effect. Such negative experiences affect the issues of whether experiences result from chemical effects on the brain alone and whether the chemical effects alone are responsible for therapeutic outcomes.

The fact that some experiences may be correlated with specific brain states does not mean that the *caused* them — correlation does not imply causation in one direction or the other. So too, correlating changes in brain states with mystical experiences does not explain either the brain activity or the “felt” nature of experiences but only adds one more thing that needs explaining.

This leads these researchers to conclude that the experiences associated with the biological effects are only epiphenomena of the neurobiological mechanisms and have no causal power. That is, these particular experiences have an interesting phenomenology but do not work. Thus, they argue that the actual science of psychedelics should be disentangled from all talk of mysticism, and the focus should be on brain chemistry. Olson^[3] believes the “hallucinogenic” and psychoplastogenic effects can be decoupled through careful design but that work still needs to be done to determine if positive therapeutic responses can be produced without inducing behavioral effects characteristic of classic psychedelics. Companies in the United States funded by the government also want to alter psychedelics or develop new drugs that produce the beneficial effects without the mind-altered subjective experiences^[3]. This would radically change the nature of psychedelic therapies. Nevertheless, even if the non-hallucinogenic analogs of psychedelics fail in therapy, Olson suggests that they “will provide a wealth of information about the fundamental neurobiology underlying both compound-induced neural plasticity and hallucinogenic effects^[3].”

However, those who advocate retaining experiences as part of psychedelic therapy readily acknowledge that a reorganization of

a brain next work is produced by chemical effect of the drugs on areas of the brain connected to a sense of “self,” a sense of boundaries and a sense of emotional importance and that this rewiring is part of the causes of positive therapeutic effects, but they also affirm a mediating role for experiential effects^[6]. Moreover it, it may be the mystical experiences that are responsible for structural changes in the brain^[17]. These advocates point out that analyses suggest that mystical-type experiences play an important role apart from the overall intensity of the drug’s chemical effect^[17]. It may be that the *intensity* of the experiences accounts for their potential transformative effect^[12]. One meta-analysis found that “mystical-type experiences” are associated with positive long-term changes in subjects after the drug sessions and that these changes are not just the result of the chemical action of the drugs but from causation by the experiences^[18]. In anecdotal accounts of psychedelic treatments, meaningful insights and belief changes are also frequently cited by patients as fundamentally important to enduring positive outcomes^[6].

Researchers are now experimenting with low doses of drugs (“microdoses” of perhaps 10% of a normal dose taken several times a week) that produce no psychedelic experiences but hopefully would still have a transformative impact on a sense of well-being. Microdosing can touch off some experiences connected to mysticism — increased awareness and sensations — but not the more robust experiences affecting perception^[19]. In one recent study, the microdosing did not produce experiences that affected the emotion-related symptoms and processing of the patients^[20, 21]. At best, they are no more effective than a placebo^[3]. However, this does not affect the claim by the proponents of decoupling that in the proper doses, psychedelics’ chemical effect is all that matters. These proponents, however, still have the problem

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noted below that placebos can enable some therapeutic-level ASC experiences.

Advocates of the role of experiences in these therapies believe that the case is “compelling” for “the subjective effects playing a major role in the enduring beneficial effects”^[6] or “a profound, potentially transformative psychological experience is critical to the treatment’s efficacy^[9].” They argue that having a mystical-type ASC experience in therapy sessions is a reliable predictor and “key determinant” of long-term positive psychological changes^[8]. The fact that these drugs, unlike other psychoactive ones, enable *experiences* may indicate an important role for them. So too, the correlation of high results with the presence of altered state experiences should not be dismissed out of hand^[9]. The philosopher Chris Letheby^[22] argues that the central mechanism in psychedelic therapy is a psychological factor, not the chemical stimulation of the brain, and this factor correlates with an ASC experience. Proponents of decoupling talk of mysticism can point out that the experiences being an indicator or predictor of therapeutic change does not mean that the experiences are a *cause* in the process. Nevertheless, at least one advocate of decoupling talk of mysticism in therapy, David Olson^[3], is also willing to accept that the experiences may be needed to achieve the psychedelics’ maximal efficacy.

Thus, advocates for retaining a role of experience argue that, unlike for most drugs, it may be the case that with psychedelics, it is the experiences and not the chemical changes in the brain that are most important for producing the psychological benefits and for those benefits to be lasting. The experiences often lead the experiencers to see the world and their lives as more satisfying, purposeful, and meaningful, even if no exact meaning of life is given. Participants often rate their experiences as *the* most meaningful ones in their life or among the top five^[11, 23, 24]. In one study^[23], two-thirds of the participants

stated that it was the most meaningful experience of their lives or among the top five and the equivalent in impact to such things as the birth of a child or death of a parent. That impact, not only the psychedelic’s chemical effects, is the source of the therapeutic change. The experiential mechanism may be complex: it may be that the ego-dissolution that lasts only for the short period of the psychedelic experience is not the direct cause of the therapeutic benefits but rather the resulting sense of connectedness to other things cultivated through meditation is the cause of lasting benefits^[25, 26]. This would remove the physical triggering of chemical changes in the brain by the drug two steps from the changes in the sense of self involved in the therapeutic changes.

In addition, the neuroscientific community today studying the bases of ASC experiences in brain activity is coming to accept that mystical experiences are not merely products of our imagination or emotional embellishments of ordinary experiences but are based in distinctive neurological events^[27-29]. That they are “real” or “genuine” experiences does not necessarily mean that transcendent realities must be involved in some mystical experiences or that mystical experiences provide knowledge of reality but only that ASC experiences are not merely some more ordinary experiences that have simply been interpreted mystically. Furthermore, if these ASC experiences have causal power, these experiences may be able to produce enhanced effects on a person’s well-being. Thus, the experiences may hold the key to the most effective therapies.

TESTING THE COMPETING POSITIONS

Thus, the question now stands: Are ASC experiences the *cause* of the positive (or at least the best) changes, or are they only an expendable *side-effect* of the chemical actions that

produce those changes? That the experiences last long after the drugs have left the body is interpreted by proponents of decoupling to mean that the drugs have rewired the brain. At the same time, proponents of retaining talk of mystical ASC experiences interpret this to mean that, while the drugs may both enable the experiences and rewire the brain, the ASC experiences are also a causal factor in the enduring positive therapeutic results. Both camps can cite data favoring their side, but both concede that more research is needed.

Can the two options be directly tested empirically? That the power of a disputed subjective effect makes testing extremely difficult. However, David Yaden and Roland Griffiths^[6] propose a test to determine the relevance of subjective effects. They claim that the only definitive study that could disprove the importance of the subjective effects would be one in which a psychedelic is administered to individuals who were fully unconscious at the time (e.g., via deep anesthesia) and who subsequently report no memory of psychedelic experiences and yet have the positive psychological effects. They suggest that positive psychological effects will not occur in such an experiment^[6]. Chris Letheby concurs: “almost all relevant clinical trial evidence suggests that a full-blown psychedelic experience is necessary for a complete therapeutic response^[22].” If no changes occur to these patients or only relatively minor changes occur and the patients affirm that no experiences occurred, the case for decoupling mysticism and psychedelic therapy is damaged since advocates of decoupling would predict that the benefits would accrue even to unconscious patients. However, if no changes occur, proponents of decoupling may contend that such a test only shows that psychedelics affect the brain differently when the subjects are awake than when they are asleep. They would then have to find independent evidence establishing that.

Also, note that this dispute over ASC experiences should *not* be seen as a broad dispute between materialism and nonmaterialism on the nature of the mind. Proponents of decoupling need not deny that consciousness has causal powers — they may merely treat *consciousness as physical* in nature and mental causation as material in nature. Instead, proponents may not dismiss all experiences as having causal powers but see only psychedelic-enabled ASC experiences as a type of experience with no causal power and thus treat these specific experiences as extraneous and useless side effects that can be ignored. For them, psychedelics are like any medication in which the patient's mental state is irrelevant. The burden then is on materialists to make a compelling case that these particular experiences play no causal role, and such a case cannot be limited to results of studying the brain's hardware. All neuroimaging can show is what the brain is doing or not doing during an experience. However, it cannot examine the ASC experiences themselves and thus cannot tell us anything about their role or nature.

However, those materialists who treat consciousness as nonmaterial and deny mental causation in favor of the causal closure of the material have a further problem. When all we have are the reports of material activity in the brain during these experiences, what could neuroscientists who adopt an eliminationist metaphysics take as evidence of an ASC experience being a cause of brain activity? Their metaphysics may preclude the possibility of finding evidence that consciousness is a separate causal power from the psychedelic's chemical effects. However, if finding evidence for something is precluded in advance, then *not* finding evidence cannot be evidence against its existence. Thus, no experiment could rule out a conscious event, such as an ASC experience, as a cause guiding neural activity in the brain. Consciousness may be like software guiding the course

of events in the hardware (the brain), but all we can see in any experiment is the activity of the material brain. The problem is how to devise an experiment where consciousness might or might not be a cause.

But until the proponents of decoupling have made a case for excluding psychedelic-enabled ASC experiences as causes, treating them as causes are warranted. Those denying ASC experiences as a cause of positive therapeutic outcomes are not in a position to prove that ASC experiences are not causes in the brain events, and until then, proponents of decoupling can never rule out ASC experiences as possible causes of therapeutic results for experiment-based reasons. In such circumstances, the best course of action is, as Joost Brecksema and Michiel van Elk suggest, “acknowledging the varieties and weirdness of psychedelic experiences should be at the heart of any research program on the topic [7].” In addition, considering that neuroscientists currently do not have complete knowledge of the workings of the brain or how psychedelics affect the brain, or the basic nature of consciousness, common sense suggests that the safer course at present is still to include ASC experiences in psychedelic therapies. This is especially so since, at present, patients attach great significance to the experiences. Thus, therapists should not ignore, dismiss, or downplay the experiences since the patients would not be helped as much — the explicit or implicit denial of the therapist may negatively affect the effectiveness of the therapy.

In sum, as things stand today, non-pharmacological factors appear essential to a positive therapeutic outcome. All who adopt naturalism should remain open-minded until convincing empirical evidence is presented. (As noted below, a positive naturalist interpretation of mystical experiences is possible.) Moreover, including ASC experiences in psychedelic therapy makes it an important

topic for study in psychedelic and consciousness research.

THE VARIETY OF SUBJECTIVE RESPONSES

One problem for proponents of ASC causation is that *there is no universal psychedelic altered state of consciousness or experience*. That is, there is no generic “psychedelic state of consciousness” following the ingestion of these drugs [30]. The research shows that psychedelic drugs enable a variety of psychedelic experiences and states, including a variety of mystical ones, even though researchers routinely refer in the singular to “*the* psychedelic state” and “*the* mystical experience [31].” The psychologist Stanislav Grof [32] also makes the point that LSD has no one invariant pharmacological effect, nor is there one inevitable experience associated with it — rather, he asserts, LSD is a catalyzer that amplifies and brings into consciousness dynamics that are within the person’s subconscious.

Contemporary researchers have found many nonmystical ASC experiences enabled by psychedelics. These include visual, auditory, and tactile experiences, kaleidoscopic and fractal visions, seeing two-dimensional pictures as animated and three-dimensional, synesthesia, and alterations of the perception of time and the body. So too, there is no one mystical experience but significantly different types of mystical experiences [16]. Different psychedelics have different effects on brain activity — e.g., LSD appears to enable more visions than psilocybin. Different dosages of a given drug may also produce different neurochemical states that ground different experiences. In addition, the same person may have psychedelic-enabled experiences that fit the characterization of “mystical” given below and some that do not. Even during one session, there are various states of consciousness under the chemical actions of

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the psychedelics^[30]. Moreover, *no alteration of consciousness at all* may occur. William Richards reports that a substantial number of people have ingested psychedelics on many occasions without experiencing any profound alteration of consciousness^[30]. Indeed, he notes that people can take psychoactive drugs hundreds of times without encountering anything deemed “sacred^[33].” J. Harold Ellens^[34] found the same: many persons have taken psychedelics repeatedly and never come close to experiencing profound states of consciousness, spiritual or otherwise.

If a one-to-one correlation of mystical experiences and psychedelic triggers were established, advocates of decoupling would not have a problem: such a *correlation* does not prove psychedelic-enabled experiences are active *causes* rather than powerless *side-effects* but only that they appear together. However, there is no one-to-one relation between different triggers and different types of experiences: based on the phenomenological accounts of mystics and experimental subjects, different psychedelics, meditation, and other natural (and perhaps non-natural) triggers produce some experientially indistinguishable experiences. The same trigger may produce different experiences, and the same experiences may come from different triggers. It is not as if different triggers “enter” the experiences and produce experiences unique to that trigger. (If multiple significantly different types of experience are associated with the same neural state, there would be the inverse of the “multiple realizability” problem in the philosophy of mind — the same brain state would underlie different mental states. Of course, it may be only that our contemporary technology is not sensitive enough to detect differences in what appears to be the same neural state for different experiences.)

Differences in therapeutic benefits for those with different experiences or no experiences would be significant for the question of whether the chemical effects of the drugs

are all that matters. But if the same benefits accrue despite differences in experiences, this presents a problem for advocates of the retention of a role for ASC experiences. Thus, this presents an empirically testable issue: if different experiences give rise to different positive therapeutic outcomes or if some have no effect, this suggests that some ASC experiences play a role in the outcome; but if all ASC experiences or no changes in consciousness have the same effect, this suggests that only the chemical effect of the psychedelic is all that matters.

Outside of the dispute, researchers today agree that all psychedelic experiences are not simply products of chemical changes alone. As Huston Smith stated, “there is no such thing as the drug experience per se — no experience that the drugs, as it were, secrete^[35].” That is, differences matter in an experienter’s mental “set” (i.e., background beliefs, preparation, expectations, disposition, propensity for altered states of consciousness, personality traits, mood, and past experiences with drugs) and the “setting” (i.e., the social and physical environment) when a drug is ingested^[8]. For example, a subject’s disposition of a “willingness to surrender” is associated with “stronger” mystical experiences^[8, 37], and meditation prior to a psilocybin experience can yield beneficial results^[8]. These are important to whether psychedelic experiences occur and what type of experience occurs. Their differences at least partially account for the great variation in the experiences enabled by the drug. As discussed below, a frame of mind that is prepared for, or expecting, some religious experience to occur or for the possibility of a mystical experience occurring combined with a religiously-inspiring physical and social environment enhances the likelihood of such an experience, even if the resulting visionary or mystical ASC experience is not what the experienter anticipated. A laboratory setting may negatively impact the possibility of a

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mystical experience and its phenomenological content. Even a researcher calling the drug an “entheogen” (“generating God within”) or a “hallucinogen” (“generating hallucinations”) can affect the experiencer’s mental set through an expectancy bias one way or the other. So too, researchers must inform participating subjects that they may receive a mind-altering drug and that may affect the experiences that result.

Thus, every psychedelic experience appears to result from a mixture of at least three ingredients—the drug, set, and setting^[35]. The particular dosage is also a factor in the mix^[18]. Genetics and demographics^[37] and the propensity to become wholly absorbed in an experience^[8] are among other possible factors. In addition, although mystical experiences occur with a higher frequency with a psychedelic than with a placebo, in all of the controlled experiments cited here, some participants who were given only a placebo also had mystical experiences. In one study of placebos, 61% of the participants reported some effect from the placebo — some effects with magnitudes typically associated with moderate or high doses of psilocybin^[3]. The drugs disrupt the neurology underlying our baseline state of consciousness and make the experiencer more susceptible to the effects of set and setting but do not set up any one altered state of consciousness. Instead, our subconscious or other factors complete the experience. Thus, our underlying mental set may be responsible for the differences in experiences in a person’s altered state of consciousness, not a drug’s chemical effects on the brain. For example, if one expects a life-changing experience, one will often get it; if one does not, one will not. This, it is argued, is why expectation and the rest of the set and setting are so important; thus, studying those also in connection with placebos is valuable^[38]. However, proponents of decoupling must explain the placebo effect here if the chemical effect of psychedelics is all that matters. Even if the

placebo effect is explained through a participant’s expectations, still the proponents would have to explain this when there is an apparent lack of a prior chemical alteration in the brain.

One problem with determining the long-term effects of psychedelics (and meditation) will arise if most subjects in these studies are self-selected participants who are members of particular religious traditions or unaffiliated “seekers” already seeking a religious experience.

This would predispose the participants toward a religious understanding and a lasting religious impact. If so, it is difficult to determine if any changes in values or ways of living are the results of chemically-induced neural changes or the participants’ prior religious beliefs or continuing training — do the lasting effects result from new brain conditioning alone or a mixture of a memory of the experience and the subject’s beliefs? Drug study participants may also adjust their impressions of the realness of spiritual experiences over time^[17]. Thus, the long-lasting effects of these experiences on one’s character may result not from rewiring the brain but from the impact of an experience on how the experiencer decides to live. So too, with the waning of the psychological effects. That is, even if there may be some lingering chemical effect of the drugs on the brain, changes in character as a result of the experience account for the increase in some positive effects over time.

Two further problems are that non-psychedelic drugs (e.g., alcohol) can disrupt the default mode network operating in our consciousness without producing psychedelic experiences and that psychedelics cause more comprehensive network changes than merely disrupt the baseline mental state^[4].

All of this complicates the picture for those who believe psychedelic-enabled experiences matter: Does the variety of subjective responses to psychedelics mean that those

responses are irrelevant, or does it mean that the chemical reaction of the drugs is irrelevant and the particular psychedelic response that a particular subject experiences is all that matters? Or is there a combination of the two? If there is no therapeutic benefit from an ASC experience arising from a placebo, that would point to the importance of the chemical effect of the psychedelics. On the other hand, if psychological benefits accrue from experiences occurring when placebos are given or when ASC experiences occur through meditation or spontaneously (i.e., without any preparation or expectation), then the impact of the chemical effects of psychedelics on the brain falls into question. There is an apparent disconnect of the experience from chemical changes in the brain that proponents of decoupling must explain.

It may be that no one mechanism accounts for the therapeutic efficacy of psychedelics and that a pluralistic approach to analysis and explanation may be needed^[39]. Nevertheless, it does appear that the psychedelic drugs in certain doses *open up the mind* to different states of consciousness by *disrupting the everyday state of mind* that sets up a subject/object duality and conceptualizes multiple objects. The drugs have the same disrupting effect on all subjects' neural configurations, but what happens after our baseline state is disrupted *does not depend on the drugs* but on other factors. Different psychedelics may disrupt different brain networks, just to facilitate different types of ASC experiences. In sum, psychedelics enable various ASC experiences to occur but do not mechanically produce, induce, or trigger any experience or determine an experience's significance for the individual experiencer or an experiencer's sense of meaning, and it may be those experiences that matter at least as much as the neural changes in any therapeutic outcome.

Spontaneous mystical ASC experiences have not gained the attention in scientific

circles that they should. The differences between them and psychedelic mystical-type experiences are not well described^[40]. Spontaneous ASC experiences may result from triggers (e.g., the fatigue of long-distance running) that affect the brain the way that psychedelics do, but that would have to be established empirically.

CHARACTERIZING MYSTICISM

The last section brought up some ASC experiences that researchers labeled "mystical," and this leads to the second issue for this article. If it is accepted that psychedelic-enabled experiences play a necessary role in psychedelic therapy, should at least some of these ASC experiences be characterized as *mystical*?^[5] argue that talk of "mystical experience" is too inexact to be scientific and that use of that language biases the reports that patients give of their experiences; it is also an unwarranted and risky "blend of mysticism and science" that "risks damaging the credibility and potential of psychedelic science" and may lead to misinterpreting the findings of psychedelic research or to being seen as advocating a role of a transcendent reality^[5]. In addition, patients who need help may avoid getting treatment because of the stigma attached to mysticism in the general populace. On the other side,^[7] argue that:

1. Critics have an incomplete understanding of mystical experiences as a scientifically validated and rigorously studied domain of human experience.
2. Experiences that are especially mystical in nature are clinically and scientifically highly relevant.
3. Good methodological tools are available for studying these experiences.
4. The scientific community ought to embrace these "weird" experiences and that it would be unscientific to

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ignore mystical frameworks and language simply because they supposedly are incompatible with the metaphysics of naturalism since the experiencers themselves take mystical frameworks seriously — mystical experiences are part of the therapy, and their effects must be noted

Critics are correct about the vagueness of the words “mystical” and “mysticism.” (It should be pointed out that the words “experience” and “consciousness” are also hard to nail down.) Moreover, the term “mysticism” also has a negative connotation in today's culture. This has led to the term being used for a wide range of phenomena that are generally looked down upon and applied in academia to anything academics today generally deem flaky. Even those who advocate a role for experiences in psychedelic therapy and research dance around the term “mystical” — they use “mystical-like” or “mystical-type” experiences or phenomena “related” to mysticism ^[6] rather than accept that the experiences, in fact, *are* mystical. At best, “mystical experiences” are treated as only a subcategory of positive “self-transcending” experiences ^[41].

Unfortunately, researchers in the dispute who employ the term “mystical” often do not define the term or characterize what is deemed “mystical.” It often means any ASC experience or only “union with God.” But a fairly tight definition of “mystical experience” can be seen as applicable to some of the psychedelic-enabled ASC experiences that appear to have a positive effect in psychedelic therapy. That is, “mystical experiences” in the sense of experiences involving a loss of a sense of a distinct “self” separate from the rest of reality and a resulting sense of connection to something deemed more real; conceptual distinctions, in general, are also loosened ^[16]. The state of consciousness loses the duality of subject and object.

As noted above, this may occur introvertively or extrovertively.

Moreover, the subjects’ self-reported phenomenological accounts in these research reports — i.e., first-hand accounts of the “felt” content of the experience without any interpretation of what was experienced — contain language central to any strict definition of “mystical experience.” Researchers have been following or elaborating on Walter Stace’s summary account of the defining characteristics of mystical experiences ^[42] to characterize “mystical-type” experiences: feelings of unity, transcendence of space and time, a noetic quality, ineffability, paradox, and sacredness, as well as positive feelings of bliss, joy, wonder, and awe and a sense of ego-dissolution and an enhanced perception of emotions ^[39]. Any loss of a sense of self or “ego-dissolution” would necessarily disrupt our ego-driven baseline state of consciousness, thereby producing an altered state of consciousness. In a recent review of the reports on meditative experiences, researchers have found that experiencers of “pure consciousness” (i.e., one empty of all thoughts, images, concepts, perceptions, and feelings) retained some content after the experience: stillness, silence, simplicity, naturalness, calm, relaxation, rest, bliss/joy, a sense of knowing, freedom, wholeness, security, unity, depth, and profundity ^[43]. A sense of “oceanic boundlessness,” derived from Freud (see Jones 2021, pp. 98-99), is also gaining use when the ego is dissolved. Broader definitions of “mystical experience” would include such experiences as visions and locutions that were mentioned above under the variety of subject responses that involve a sense of a duality of subject and object.

“Ineffability” is central to modern philosophical characterizations of mysticism. However, it should be noted that when classical mystics used the term, they usually meant only that what is experienced is *more*

than can be described, not that it is completely *indescribable* and that terms designating ordinary phenomena can only be applied metaphorically ^[16]. The term is a type of emphasis for the otherness of the experiences and the reality allegedly experienced. So too, people who have had mystical experiences can characterize the felt phenomenology of the experiences themselves in some terms ^[44].

What exactly is meant by a “loss of a sense of self” (LOSS) in psychedelic and meditative experiences is a matter of debate in neuroscience, and there are different phenomenological features for different types of states labeled “loss of self ^[45, 46].” The LOSS may lead to the best long-term results, but patients often dread the dissolution of a sense of self. From a psychological point of view, there is little reason to suspect that a LOSS would be anything other than negative—terrifying even—and yet LOSS in psychedelic-enabled experiences is often reported to be “profoundly positive ^[44].” In mysticism, it is not a matter of merely not being aware of a subject sensing something (most experiences are like that), but that during the experience (or looking back at it later) it seemed to lack ownership or being attached to the person. Sometimes LOSS results in a state of consciousness that does not seem personal or temporal and leads the experiencer to believe there is no personal or individual survival of death. However, it is not a loss of subjectivity. In Theravada Buddhism, the no-self (*anatta*) doctrine does not mean that there is no subject to our experiences. Only that there is no discrete entity in the phenomenal realm. There is still an impermanent and conditioned configuration of sensing, feeling, and thinking, even though no separate “self” is ever found in our experiences. That is, only the reality of a substantive “experiencer” in addition to our actual mental content is denied, not subjectivity or a subjective point of view. Similarly, in advanced states of

mindfulness, there is no “subject” as a separate reality or a dualism of subject and object. Nevertheless, a subjective element need not be denied.

However, those who equate “mystical experience” with “union with God” will not want to label such a loss and connection as a “mystical experience.” The basic problem in the rejection of mystical language may be only a discomfort with the term “mystical experience,” not a denial that a loss of a sense of “self” sometimes results in a mystical experience. Some types of mystical experiences appear more easily facilitated by psychedelics than others. Introvertive experiences that are free of all differentiated content are less common with psychedelics than extrovertive experiences and visions and voices ^[23, 24]. A resulting increase in mindfulness has also been associated with ingesting psychedelics ^[47, 48]. Researchers in psychedelic studies will have to examine the different types of mystical experiences as related by experiencers for their therapeutic impact, if any. If the different mystical experiences have a different impact, this will point to the issue noted above of whether the uniform changes in the brain produced by the chemicals are the sole source of the psychological effects. Thus, studying mysticism may inform better research on the “subjective” side of psychedelics

Those researchers who reject any role for ASC experiences in psychedelic therapy or research on consciousness, of course, want to disavow any connection to mysticism, but that does not mean that the term “mystical experience” is not appropriate to some of the experiences enabled by psychedelics in therapy sessions. Some researchers may seek to use another term without religious connotations, such as “transpersonal experience” or a “quantum change experience” ^[40] or simply a generic “therapeutic experience ^[49]” Using “self-transcendent experiences ^[17]” may be confusing: it sounds as if the experience transcends itself rather than referring to

experiences that transcend a sense of self. Perhaps a new term derived from Greek or Latin may be invented, but the phenomena covered by that term will still be covered by the term “mystical.” Thus, some ASCs could still be labeled “mystical.”

That being the case, a simpler route would be to retain the term “mystical” but advance an exact stipulated definition of the term for psychedelic studies. Researchers could then work out a typology of mystical and nonmystical psychedelic-enabled experiences and their effects in therapy. The study of mysticism may inform better research in this regard. Then the term could be utilized in scientific research for the limited range of phenomena covered by that term. Nor should the negative attitude of the general public be a deterrence. After all, the general public has a generally negative attitude toward “psychedelics” because of its history, and yet the term has gained respectability in scientific circles. Furthermore, it should be noted that notions of “naturalizing” mystical experiences and of a “secular mysticism” removing alleged transcendent implications are taking root in our culture today ^[50]. Thus, mystical experiences are not inherently tied to a metaphysical belief of realities transcending the natural realm. Thus, this removes some of the religious and transcendent overtones of “mysticism” that secularists want to overcome. In the end, it is not surprising that the term “mystical experience” is becoming common in psychedelic research ^[17].

The danger that participants may mischaracterize their experiences in light of the researchers’ questions cannot be overlooked. They may not have had any ASC experience. Brain scans can at least indicate whether the participant’s brain activity was unusual or not during an alleged ASC experience.

THE PROBLEM OF MYSTICAL AND ANTI-MYSTICAL LANGUAGE

If therapists and researchers accept psychedelic-enabled experiences as part of therapy and that mystical language is appropriate, how should the experiential component be presented? The wording of questionnaires given to subjects in therapy and broader research on psychedelic-enabled ASC experiences should be scrutinized ^[51]. Researchers may be interested more in the experiences themselves than in their therapeutic effects. However, the questions advanced by them may be related to specific metaphysical beliefs and not to the phenomenological content of the experiences themselves. Instead, questions related to the phenomenological content alone should be included and should be first. But when it comes to therapy, patients may see these experiences as provoking the “big questions” of philosophy and science concerning what is real and what is meaningful in life. Then questions about what the experiencers believe they experienced must also be included ^[4]. Psychedelics may indirectly lead to being more open to such questions because of the shock of the unexpected in ASC experiences or the temporary disruption of the normal state of mind. Moreover, experiencers may not clearly distinguish the experience and what they think was experienced — their description of the former may be in terms of the latter. Questions cannot be limited to only those that naturalists think are appropriate and are expressed in naturalist terms — questions should be phrased in such a way that they do not limit the opportunity of respondents to express themselves in their own terms, which are often in terms of their religious tradition’s transcendent realities in order to let the participants have a wide latitude of responses. Experiencers also often modify their beliefs about transcendent realities and express them in more abstract terms, not in terms of a theistic personal god and doctrines of the respondent’s culture and tradition. The beliefs are still religious

even if they do not reflect the doctrines of a specific tradition. Scientists are not constrained by the participants' responses in the *explanations* that they give mystical experiences. However, participants should be afforded the opportunity to express their understanding and description of the experiences and what was allegedly experienced in an open-ended form in order to gain the fullest accounts of the alleged content of these experiences.

Thus, questionnaires should be phrased as neutrally as possible and not predispose respondents toward either transcendent or natural realities and should allow respondents to describe the phenomenology of the felt aspects of an experience without reference to what supposedly was experienced. However, in addition, they also should permit experiencers to express their beliefs about what was experienced. Having a strictly secular questionnaire can be seen as neutral when the researcher is looking only at the phenomenology of the experiences but not when looking for the impact of the experiences on the respondents. On the other hand, the risk of monotheistic bias is particularly significant when it comes to transcendent realities — nonpersonal and deistic realities and naturalistic alternatives, must also be options. Furthermore, religious language can be used without tending to elicit a particular response if used with other options. Thus, resorting to mystical terminology should not be ruled out by fiat.

A related problem is the physical setting of therapy sessions and research labs. As long as ASC experiences are accepted as a necessary part of psychedelic therapy, a purely secular setting^[3] is not “neutral” or “more scientific.” A religiously sterile room may bias participants against where their mental framework would otherwise lead them. So too, for settings that intentionally point in the direction of a general spirituality or transcendent realities. A therapist should

not inadvertently advocate or discourage any type of experience or any understanding of the significance of the experiences. Even different settings may be seen as suggesting either a mystical experience or a naturalist understanding. The setting should be neutral between interpretations to the extent that is possible in terms of experience, lighting, music, and so on to not interfere with the experiential process and its aftermath. As Matthew Johnson^[4] states, “[t]he goal of a 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” — and “open” does not mean religiously sterile. The fact that a setting that makes the participant comfortable, including symbols from his or her religious tradition, may lead to more mystical experiences while a setting void of religious symbols may lead to fewer mystical experiences neither proves that mystical or other psychedelic-enabled experiences are purely hallucinatory nor that only the chemical effects of the drugs have an impact — it only points to the importance of the role of one's mental “set” and the “setting” in these experiences. Finding a truly open setting may prove difficult — a hodgepodge of multiple religious and secular elements may not be best for removing any anxiety a participant may have and setting a mood that is open to having a mystical experience. It may offend or alienate the nonreligious and even members of a Western religion who think they are being indoctrinated into an Eastern religion or some formless “perennial philosophy.” However, the object of therapy is to help people, and there is some evidence that a purely secular standpoint diminishes the effectiveness of psychedelic therapy and is ill-suited to help people process the ontological shock that may be associated with psychedelic-enabled experiences^[8]. Arguably, the secular approach is harmful to the religious (since it may create a conflict in their mind) rather than helpful. As

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noted above, at this early stage of research mystical experiences are the best indicator of a positive therapeutic outcome, and so a setting conducive of mystical experiences should be preferred. But the problems just noted show how difficult it may be to determine the best setting.

The participants' and the therapists' mental framework can also impact what occurs in the ASC experience themselves and the experiencer's post-experience understanding of what was experienced. The state of mind during an experience can be distinguished from the experiencer's post-experience understanding, even though both are "subjective" and may not seem distinct to experiencers but two phases of the same event. So too, the questionnaires should reflect this distinction. A mental framework preconditions experiencers to follow a certain mental track and may predispose them to certain understandings. For example, theistic beliefs may direct experiencers to interpret the felt sense of non-duality or pure consciousness (i.e., a state of consciousness empty of differentiated content) to be the ground of only the soul or to be merely a powerful hallucination and not indicate an actual unity to a "wholly other" creator god who is by definition unexperienceable. Alternatively, theists' expectancy bias may direct experiencers to take any psychedelic experience as a "taste" of transcendent knowledge or a "glimpse" of God. The philosophical issue of whether mystical experiences are, in fact, cognitive of reality [52, 53] can be ignored for the question of therapeutic benefit, but another issue arises: if the patient *believes* the psychedelic-enabled experience is cognitive, is the therapeutic effect different than for a patient that does not believe that?

It may be that the beliefs one holds at the time of the experience do not matter for a transformative effect — all that may matter is the experience, and the experience leads to changing one's beliefs. It may be that ASC

experiences do not introduce new beliefs but only alter a person's existing beliefs and their impact (McGovern et al., 2021). Psychedelics open healthy volunteers up to greater suggestibility [8, 15] and magnify whatever meaning they bring to the experiences. Under the recently proposed REBUS ("RELaxed Beliefs under pSychedelics") model [55], psychedelics weaken the control of one's beliefs, thereby permitting more influence from experiential input and making experiencers more flexible in their resulting beliefs. Indeed, psychedelics do not necessarily make an atheist into a theist, but there may be "significant decreases in identification as atheist and agnostic and significant increases in belief in ultimate reality, higher power, God, or universal divinity [57,58]." It does appear that psychedelic-enabled experiences tend to cause a shift in the experiencers' metaphysics away from "hard" materialism or to accepting transcendent realities [22, 59]. Part of the problem is how "atheist" is defined and its contrast to traditional Western monotheism [58], but psychedelics do appear to have a "robust tendency to make users believe in *some* other (non-physical) Reality that puts this one in the shade [58]." Theists may also change their beliefs to embrace panpsychism, cosmopsychism, or a transcendent consciousness or a nonpersonal "Ultimate Reality" that is the ground of the natural universe. A single psychedelic experience may also have a lasting effect on how the person views consciousness [60]. Such effects on beliefs are correlated with positive mental health changes and a sense of well-being, and the metaphysical changes may be long-lasting [59]. Psychedelics can occasion strong but short-term and reversible disruptions of self-consciousness. However, the long-lasting effects on well-being do not appear to be necessarily mediated by intense experiences but rather by the training of different cognitive mechanisms through meditation [45].

This points to the need for sensitivity to how mystical language and religious symbols are handled in psychedelic therapy and research. If mishandled, the resulting experience or lack thereof may be misconstrued as evidence for the researcher's own position on the issue of mysticism and psychedelic research.

IMPOSING NATURALISM

As discussed above, it is essential to realize the influence of expectations, dominant discourses, and social and cultural beliefs in both the set and setting of psychedelic-enabled experiences and the post-experience understandings. However, it must not be assumed that only the religious have a mental set that affects their experiences and post-experience understanding. Naturalists routinely recognize the danger in scientists and clinicians unconsciously imposing their personal religious or spiritual beliefs in the practice of psychedelic medicine and condemn introducing their own “nonempirically supported beliefs [4].” Clinicians without explicitly endorsing supernatural beliefs may still impose them [4] when gaining a rapport with the participants. Nevertheless, the danger that *naturalists* may unknowingly impose their own unacknowledged naturalist beliefs also must be recognized. Nonreligious, antireligious, and agnostic naturalists are in the same boat as those who are antinaturalists in their metaphysics — their position is as metaphysical as the ones they reject, but naturalists often think that their beliefs are dictated by science and therefore are in a privileged position. However, naturalists often think that their beliefs are dictated by science and thus are in a privileged position. Thus, they believe that imposing their beliefs is permissible.

These changes in metaphysical beliefs occur after the experiences. Thus, the new beliefs are not psychological factors in the therapeutic

effects related to the experiential dissolution of a sense of self [58].

Naturalism, too, is a matter of metaphysics and cannot be equated with science or deduced from scientific findings. It is a worldview based on taking science alone as answering the fundamental questions on the nature of the world. In naturalism, all that exists is open to scientific examination, and thus all that is real is the natural world (with the possible exception of mathematical entities). However, it is not as if science can function unless naturalism is correct. The naturalist position is not neutral for therapy concerning either set or setting, and a naturalist setting or instructions to the participants or in a post-experience session or questionnaire risks biasing participants as much as a religious presentation does — participants may be led to believe that a clinician's presentation in naturalist terms is proven scientific fact.

But Sandeep Nayak and Matthew Johnson [61] have the goal of providing a “common conceptual vocabulary” for psychedelic therapy and advancing a “secular framework [4]” of only naturalist terms [51]. Naturalists believe that only having an “unambiguously secular” framework will enable researchers to describe and explain psychedelic-enabled experiences without seeming to connect science with transcendent realities [5]. This may seem “more scientific” to a naturalist. However, a framework is not neutral that does not give the experiencers' own views an equal status. Imposing such a framework only seems to be a reasonable course of action to one already denying any non-natural options. A purely naturalist framework is one-sided and can distort the experiencers' view of their ASC experiences: providing questionnaires that are devoid of transcendent terms may be taken by the experiencers to mean that the experience cannot be of anything but the natural world — after their experience, experiencers may reconceptualize their experiences in the

preferred terminology even if the experiences did not feel that way. These problems are lessened in research when the focus is only on the phenomenological “felt” content of the experiences alone, but in therapy, this is a problem: the clinician’s naturalism may diminish the effectiveness of the psychedelic therapy [8]. So too, it may result in a “spiritual bypass” in which the experiences are not integrated into the patient’s life.

Many naturalists disparage the term “mystical” because “it suggests associations with the supernatural that may be obstructive or even antithetical to scientific method and progress [9].” But no experiences per se conflict with science — only possible *understandings* of their nature and significance may conflict. And naturalists may give a naturalist interpretation of mystical experiences in which the experiences are taken seriously as more than hallucinations. Indeed, some prominent naturalists — e.g., the philosopher Bertrand Russell and the physicist Alan Lightman — have had mystical experiences without giving up their naturalism or agnosticism. And positive understandings of mystical experiences as cognitive that are consistent with naturalism have been advanced [22, 62-65]. For example, the sense of oneness is explained in terms of the natural mind simply being empty of content. A sense of connection is explained in terms of the experiencer overcoming a sense of a “self” existing independently of the rest of the natural world — all that happens during a mystical experience is that the area of the brain responsible for a sense of a boundary between the sense of a “self” and the rest of the universe receives less input and the area attaching importance to events is more active, and so mystics naturally feel without a separate “self” and feel more connected to the universe, which in naturalistic metaphysics we in fact are. Broader explanations can also be given. For example, Jussi Jylkkä [64] proposes panpsychism to explain the claim that we are merely “waves on

a sea of consciousness” that gives consciousness and naturalized mystical experiences fundamental roles in our understanding of the universe.

In his philosophy of psychedelics, Chris Letheby [66] presents a “naturalized spirituality” supported by a neurocognitive theory that can account for the transcendence of the sense of a discrete experiencing “self” (i.e., a theory in which a “self” does not exist but is only a mental construct), feeling connected to others and the world, heightened emotions and awareness, and in which psychedelic-enabled experiences have a transformative impact. This spirituality also presents a meaning of life, all within a “disenchanted” naturalist worldview congruent with science. Thus, psychedelic-enabled experiences may give genuine insights into reality that transform the experiencer [22]. He believes that this will explain why these experiences are the key causal factor giving rise to the sense of well-being and the other psychological benefits of psychedelic therapies, and that also will get around the “comforting delusion objection [67]” that clinicians should not utilize metaphysical beliefs in a therapy session that they believe are wrong regardless of any pragmatic value.

More generally, there now are also “religious naturalists” who reinterpret monotheistic language into naturalist terms — e.g., “God” becomes only the laws of nature. Such naturalists highlight awe and wonder at the majesty of nature, even though mystical and psychedelic-enabled experiences do not appear to play a major role in this religiosity [68].

Sarah Lane Ritchie [69] connects panpsychism to psychedelic-enabled states and spiritual flourishing. Thus, this secular mysticism changes the understanding of mystical experiences. However, it can still support the idea of “mystical insights” as genuine and experiential, even if no transcendent realities are involved rather than as spurious insights fabricated under the

influence of hallucinogens. This may also lead to the general acceptance that the term “mysticism” need not carry non-naturalist connotations. Naturalists rightly point out that mystical experiences are open to the same type of examination as any experience — their religious impact does not make them off limits — and it is epistemologically legitimate for scientists to advance explanations of the mechanics of the brain during the experience that differ in type from metaphysical explanations of the source and significance of the experiences. Mystical and psychedelic experiences are as open to scientific explanations as any other experiences. In principle, neuroscience can give as complete an account of what is occurring during an ASC experience or state as it can for any conscious event. Thus, consciousness research has no “psychedelic exceptionalism [5].” Nevertheless, when it comes to presentations to patients and participants in psychedelic studies, there also is no “naturalism exceptionalism.”

THE CONTRIBUTION OF MYSTICAL EXPERIENCES TO THE SCIENCE OF PSYCHEDELICS AND CONSCIOUSNESS

Despite the rise of such positive naturalist understandings of mystical experiences, most naturalists may wish to exclude mystical experiences from consciousness studies as no more than hallucinations that tell us no more about how the brain works than other hallucinations. Mystical experiences for many are simply “metaphysical hallucinations [67]” — experiences are perhaps psychologically convincing to the experiencers themselves but of no more interest to scientists than other hallucinations. Moreover, perhaps therapists should embrace “mystical fictionalism [70]” as long as positive results arise. But can the study of mystical experiences add to general psychedelic and consciousness research?

Mystical experiences are more limited in what they can contribute to psychedelic research and to the study of consciousness than what some advocates of psychedelics claim. In particular, these experiences do not explain the relation of the mind to the body, show the true nature of consciousness, or overcome the “hard problem” of why subjectivity is attached to some physical events. In one study, David Yaden and his collaborators concluded that psychedelics are unlikely to provide information relevant to the hard problem [13]. Mystical experiences are exotic cases that add to the pool of data to be studied. However, they remain merely another type of experience or state, even if they are open to interpretations in terms of transcendent realities. So too, mystical experiences, in general, do not prove that consciousness is independent of the brain or matter in general as long as a naturalist explanation of these experiences in which consciousness is either identical to the brain or is a naturally emerging property is a viable alternative [22, 62]. As Matthew Johnson [4] also concludes, to date, psychedelic science may not have provided substantial advancement in our understanding of either the easy or hard problems related to consciousness. Yaden and his collaborators called for “epistemic humility” on this topic in psychedelic studies [13]. Neuroscientists generally adopt a “methodological materialism” in which they tend simply ignore the hard problem and use the term “consciousness” to refer to a wide array of the contents of the mind in general (e.g., perception, thoughts, and emotions) [13].

But mystical experiences can contribute to the study of consciousness in several ways. Most importantly, the different types of mystical ASC experiences and states of consciousness add to the spectrum of consciousness. Thus, they must be accounted for in developing models of consciousness or models of how the brain works in underlying subjectivity, whether mystical experiences

are cognitive or not. Even if they have no causal properties, their presence must be considered. These experiences may be like the high-energy physics that caused physicists to revise Newtonian physics [71]. In particular, the issue of whether a sense of “self” is necessarily part of all human experiences is debated today in the philosophy of mind [72, 73]. Some research suggests that a sense of “self” is not necessary for consciousness [46]. Chris Letheby [22, 65] also defends the possibility of a truly selfless awareness against the claim that all awareness must be to someone — a sense of ownership or “for-me-ness” to all experiences — and thus there must be an experiencing “self.” That is, *subjectivity* is necessary for any experience but not necessarily a separate ontological entity called the “self.” The sense of “self” may be an illusion. It appears that psychedelics disrupt the neural underpinnings of a sense of “self,” and mystical experiences deconstruct the sense of an isolated “self” leading to a possible psychological transformation. Thus, the experiences of selflessness may provide experiential input not only on whether all experiences imply that there must always be some self-awareness, but also on the ontological question of whether there is a phenomenal “self.”

There may also be a state of consciousness devoid of all content except consciousness itself — a “pure” consciousness. Whether a state of consciousness truly empty of all diverse content is in fact possible is a matter of debate in philosophy [74]. The study of “pure” consciousness or awareness has become an increasingly important subject of empirical and philosophical research on consciousness [75]. Whether such a consciousness is a core consciousness that is present in all states of consciousness or is only one state of consciousness would be an issue, but in either case studying a state of consciousness by free of the usual content may prove of value for understanding the nature of consciousness.

Mystical experiences can also contribute to science in other ways. First, the brain states underlying introvertive mystical experiences with diverse content may contribute to scientists’ understanding of vision (through the vividness of these experiences), how information is integrated, how some cognitions are impaired, the sense of unity to consciousness, and other supposedly “easy” problems of consciousness [76]. Second, the experiences may expose something of the subconscious layers of consciousness. Mystical experiences may also help the study of the brain. For example, the experiences may add to the study of neuroplasticity [77] and neurotransmitters.

All of this is part of the broader issue of the nature of consciousness. Mystical and other psychedelic-enabled states and experiences may require some remodeling of the nature of the mind, even though to date, these states and experiences have done less than many advocates of the claim. Indeed, in the end,, these experiences and states may only increase the mystery of consciousness.

CONCLUSION: SITUATING MYSTICISM IN PSYCHEDELIC THERAPY AND RESEARCH

To sum up: proponents of disengaging mysticism from psychedelic therapy have not made their case, and as long as psychedelic-enabled experiences appear to be part of the beneficial effects of psychedelic therapies, experiences appropriately labeled “mystical” are part of the therapeutic picture and the explanations of the effects. Thus, mysticism cannot now be expunged from broader psychedelic research. Scientists can accomplish their explanatory task without mysticism introducing a collision of science and religion or surreptitiously smuggling non-natural transcendent realities into their explanations. Mystical concepts may need to be clarified for purposes of psychedelic science, but

mystical experiences do not per se conflict with science. Mystical experiences are open to naturalist understandings, but as long as consciousness is part of the picture in psychedelic studies, it is not obvious that these experiences must be seen only in naturalist terms. However, the “applied mysticism” of psychedelic therapy and research has less potential in addressing basic issues of consciousness and the mind than many advocates of psychedelics currently assert — the role of mystical experiences is a subset of the general problems of consciousness, not their solution. Nevertheless, if a “new paradigm” in therapy that treats psychedelic-enabled experiences as causal does become mainstream, the study of mysticism should become part of the training of clinicians and researchers in psychedelics studies.

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Jones, R. (2023, June). On the Role of Mysticism in Psychedelic Therapy and Research. *The Journal of Psychedelic Psychiatry*, 5(2).

REFERENCES:

- Andersen, Kristoff A. A., Robin Carhart-Harris, David J. Nutt, and David Erritzoe. 2021. “Therapeutic Effects of Classic Serotonergic Psychedelics: A Systematic Review of Modern-era Clinical Studies.” *Acta Psychiatrica Scandinavica* 143 (no. 2): 101-118.
- Pollan, Michael. 2018. *How to Change Your Mind: What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence*. New York: Penguin Press.
- Olson, David E. 2020. “The Subjective Effects of Psychedelics May Not Be Necessary for Their Therapeutic Effects.” *ACS Pharmacology & Translational Science* 4 (December): 563-67. .
- Johnson, Matthew W. 2021. “Consciousness, Religion, and Gurus: Pitfalls of Psychedelic Medicine.” *ACS Pharmacology & Translational Science* 4 (April): 578-81. 2022. “Introduction: Psychedelic Science Needs Philosophy.” *PhiMiSci: Philosophy and the Mind Sciences* 3 (no.3): 1-6.
- Sanders, James W. and Josjan Zijlmans. 2021. “Moving Past Mysticism in Psychedelic Science.” *ACS Pharmacology & Translational Science* 4 (no. 3): 1253-55.
- Yaden, David B. and Roland R. Griffiths. 2021. “The Subjective Effects of Psychedelics Are Necessary for Their Therapeutic Effects.” *ACS Pharmacology & Translational Science* 4 (April): 568-72.
- Breeksema, Joost J. and Michiel van Elk. 2021. “Working with Weirdness: A Response to ‘Moving Past Mysticism in Psychedelic Science.’” *ACS Pharmacology & Translational Science* 4 (July): 1471- 74.
- Gandy, Sam. 2022. “Predictors and Potentiators of Psychedelic-Occasioned Mystical Experiences.” *Journal of Psychedelic Studies* 6 (no. 1): 31-47.
- Roseman, Leor, David J. Nutt, and Robin L. Carhart-Harris. 2018. “Quality of Acute Psychedelic Experience Predicts Therapeutic Efficacy of Psilocybin for Treatment-Resistant Depression.” *Frontiers in Pharmacology* 8 (January 17).
- Lyon, Aidan and Anya Farennikova. 2022. “Through the Psychedelic Looking Glass.” *PhiMiSci: Philosophy and the Mind Sciences* 3: <https://doi.org/10.33735/phemisci.2022.9323>.
- Aday, Jacob et al. 2020. “Long-Term Effects of Psychedelic Drugs: A Systematic Review.” *Neuroscience & Biobehavioral Review* 113 (June): 179-89.
- Hearn, Benjamin. 2021. “Psychedelics, Mystical Experiences, and Meaning Making: A Renegotiation Process with the Challenges of Existence.” *Journal of Humanistic Counseling* 60 (October): 180- 96.
- Yaden, David B. et al. 2021. “Psychedelics and Consciousness: Distinctions, Demarcations, and Opportunities.” *International Journal of Neuropsychopharmacology* 24 (no. 8): 615-23.
- Davis, Alan K. et al. 2021. “Effects of Psilocybin-Assisted Therapy on Major Depressive Disorder: A Randomized Clinical Trial.” *JAMA Psychiatry* 78 (no. 5): 481-89.
- Schlag, Anne K., Jacob Aday, Irlam Salam, Jo C. Neill, and David J. Nutt. 2022. “Adverse Effects of Psychedelics: From Anecdotes and Misinformation to Systematic Science.” *Journal of Psychopharmacology* 36 (March): 258-72.
- Jones, Richard H. 2021. *An Introduction to the Study of Mysticism*. Albany: State University of

On the Role of Mysticism in Psychedelic Therapy and Research

- New York Press.
17. Yaden, David B. and Andrew B. Newberg. 2022. *The Varieties of Spiritual Experiences: 21st Century Perspectives*. New York: Oxford University Press.
 18. Fuentes, Juan José et al. 2020. "Therapeutic Use of LSD in Psychiatry: A Systematic Review of Randomized-Controlled Clinical Trials." *Frontiers in Psychiatry* (January 21): 1-14.
 19. Wit, Harriet de, Hanna M. Molla, Anya Bershad, Michael Bremmer, and Royce Lee. 2022. "Repeated Low Doses of LSD in Healthy Adults: A Placebo-Controlled, Dose-Response Study." 2022. *Addiction Biology* (1 February) <https://doi.org/10.1111/adb.13143>.
 20. Marschall, Josephine, George Fejer, Pascal Lempe, Luisa Prochazkova, Martin Kuchar, Katerina Hajkova, and Michiel van Elk. 2022. "Psilocybin Microdosing Does Not Affect Emotion-related Symptoms and Processing: A Preregistered Field and Lab-based Study." *Journal of Psychopharmacology* 36 (no. 1): 97-113.
 21. Griffiths, Roland R. et al. 2016. "Psilocybin Produces Substantial and Sustained Decreases in Depression and Anxiety in Patients with Life-threatening Cancer: A Randomized Double-blind Trial." *Journal Psychopharmacology* 30 (no. 12): 1181-97.
 22. Letheby, Chris. 2021. *Philosophy of Psychedelics*. New York: Oxford University Press.
 23. Griffiths, Roland R., et al. 2006. "Psilocybin Can Occasion Mystical-Type Experiences Having Substantial and Sustained Personal Meaning and Spiritual Significance." *Psychopharmacology* 187 (no. 3): 268-83, 284-92.
 24. Griffiths, Roland R. et al. 2008. "Mystical-Type Experiences Occasioned by Psilocybin Mediate the Attribution of Personal Meaning and Spiritual Significance 14 Months Later." *Journal of Psychopharmacology* 22 (no. 3): 621-32
 25. Griffiths, Roland R. et al. 2018. "Psilocybin-Occasioned Mystical-Type Experience in Combination with Meditation and Other Spiritual Practices Produces Enduring Positive Changes in Psychological Functioning and in Trait Measures of Prosocial Attitudes and Behaviors." *Journal of Psychopharmacology* 32 (no. 1): 49-69.
 26. Kałużna, Ada, Marco Schlosser, Emily Gulliksen Craste, Jack Stroud, and James Cooke. 2022. "Being No One, Being One: The role of Ego-dissolution and Connectedness in the Therapeutic Effects of Psychedelic Experience." *Journal of Psychedelic Studies* 6 (no. 2): 111-36.
 27. Newberg, Andrew B., Eugene d'Aquili, and Vince Rause. 2002. *Why God Won't Go Away: Brain Science & the Biology of Belief*. New York: Ballantine Press.
 28. Hood, Ralph W., Jr., et al. 2001. *Dimensions of Mystical Experiences: Empirical Studies and Psychological Links*. Amsterdam: Rodopi.
 29. Yaden, David B. et al. 2017. "The Noetic Quality: A Multimethod Exploratory Study." *Psychology of Consciousness: Theory, Research, and Practice* 4 (no. 1): 54-62.
 30. Richards, William A. 2016. *Sacred Knowledge: Psychedelics and Religious Experiences*. New York: Columbia University Press.
 31. Nour, Matthew M., and Robin L. Carhart-Harris. 2017. "Psychedelics and the Science of Self-Experience." *British Journal of Psychiatry* 210: 177-79.
 32. Grof, Stanislav. 2009. *LSD: Doorway to the Numinous: The Groundbreaking Psychedelic Research into Realms of the Human Unconscious*. 4th ed. Rochester, VT: Park Street Press.
 33. Richards, William A. 2014. "Here and Now: Discovering the Sacred with Entheogens." *Zygon* 49 (September): 652-65.
 34. Ellens, J. Harold, ed. 2015. *Seeking the Sacred with Psychoactive Substances: Chemical Paths to Spirituality and to God*. Vol. 2. Santa Barbara: Praeger.
 35. Smith, Huston. 2000. *Cleansing the Doors of Perception: The Religious Significance of Entheogenic Plants and Chemicals*. New York: Penguin Putnam.
 36. Carhart-Harris, Robin L. et al. 2018. "Psychedelics and the Essential Importance of Context." *Journal of Psychopharmacology* 32: 1-7.
 37. Preller, Katrin H. and Franz X. Vollenweider. 2018. "Phenomenology, Structure, and Dynamic of Psychedelic States." *Current Topics in Behavioral Neuroscience* 36: 221-56.
 38. Hartogsohn, Ido. 2016. "Set and Setting, Psychedelics and the Placebo Effect: An Extra Pharmacological Perspective on Psychopharmacology." *Journal of Psychopharmacology* 30: 1259-67.
 39. van Elk, Michiel and David Bryce Yaden. 2022. "Pharmacological, Neural, and Psychological Mechanisms Underlying Psychedelics: A Critical Review." *Neuroscience & Biobehavioral Reviews* 140 (September 2022): 104793.
 40. James, Edward, Thomas L. Robertshaw, Matthew Hoskin, Ben Sessa. 2020. "Psilocybin Occasioned Mystical-Type Experiences." *Human Psychopharmacology: Clinical & Experimental* 35 (no. 5): e2742. doi: 10.1002/hup.2742.
 41. Yaden, David B. et al. 2017. "The Varieties of Self-Transcendent Experience." *Review of General Psychology* 21 (no. 2): 143-60.

42. Stace, Walter. 1960. *Mysticism and Philosophy*. New York: Macmillan.
43. Woods, Toby J., Jennifer M Windt, and Olivia Carter. 2022. "Evidence Synthesis Indicates Contentless Experiences in Meditation are neither Truly Contentless nor Identical." *Phenomenology and the Cognitive Science*. DOI/10.1007/s11097-022-09811-z.
44. Yaden, David B. et al. 2016. "The Language of Ineffability: Linguistic Analysis of Mystical Experiences." *Psychology of Religion and Spirituality* 8: 244-52.
45. Millière, Raphaël. et al. 2018. "Psychedelics, Meditation, and Self-Consciousness." *Frontiers in Psychology* 9 (September): 1-29 (Article 1475).
46. Millière, Raphaël. 2020. "The Varieties of Selflessness." *PhiMiSci: Philosophy and the Mind Sciences* 1 (no.1): 1-41.
47. Søndergaard, Anna et al. 2022. "Lasting Increases in Trait Mindfulness After Psilocybin Correlate Positively with the Mystical-type Experience in Healthy Individuals." <https://doi.org/10.3389/fpsyg.2022.948729>
48. Radakovic, Chelsea, Ratko Radakovic, Guy Peryer, Jo-Anne Geere. 2022. "Psychedelics and Mindfulness: A Systematic Review and Meta-Analysis." *Journal of Psychedelic Studies* 6 (no. 2): 137-53.
49. Beswerchij Andrew and Dominic Sisti. 2022. "From Underground to Mainstream: Establishing a Medical Lexicon for Psychedelic Therapy." *Frontiers in Psychiatry* 13 (June): Article 870507.
50. Jones, Richard H. 2022. "Secular Mysticism." *Religions* 13 (no. 7): 650-77.
51. Earleywine, Mitch, Fiona Low, and Joseph De Leojdeleo. 2021. "A Semantic Scale Network Analysis of the Revised Mystical Experiences Questionnaire: A Call for Collaboration." *Journal of Psychedelic Studies* 5 (November 16): 1-10.
52. Jones, Richard H. 2016. *Philosophy of Mysticism: Raids on the Ineffable*. Albany: State University of New York Press.
53. Jones, Richard H. 2019. "Limitations on the Scientific Study of Drug-Enabled Mystical Experiences." *Zygon: Journal of Science and Religion* 54 (September): 756-92.
54. Carhart-Harris, Robin L. et al. 2015. "LSD Enhances Suggestibility in Healthy Volunteers." *Psychopharmacology* 232: 785-94.
55. Carhart-Harris, Robin L. and Karl J. Friston. 2019. "REBUS and the Anarchic Brain: Toward a Unified Model of the Brain Action of Psychedelics" *Pharmacological Reviews* 71 (July): 316-44.
56. Glausser, Wayne. 2021. "Psychedelic Drugs and Atheism: Debunking the Myths." *Religions* 12 (no. 8): 614-21.
57. Davis, Alan K. et al. 2020. "Survey of Entity Encounter Experiences Occasioned by Inhaled *N,N*-dimethyltryptamine: Phenomenology, Interpretation, and Enduring Effects." *Journal of Psychopharmacology* 34 (no. 9): 1008-1020.
58. Letheby, Chris. 2022. "Psychedelics, Atheism, and Naturalism: Myth and Reality." *Journal of Consciousness Studies* 29 (nos. 7-8): 69-92.
59. Timmermann, Christopher et al. 2021. "Psychedelics Alter Metaphysical Beliefs." *Scientific Reports* 11 (no. 22166 November 23): 1-13.
60. Nayak, Sandeep M. and Roland Griffiths. 2022. "A Single Belief-Changing Psychedelic Experience is Associated with Increased Attribution of Consciousness to Living and Non-living Entities." *Frontiers in Psychology* (March 28). <https://doi.org/10.3389/fpsyg.2022.852248>.
61. Nayak, Sandeep M. and Matthew W. Johnson. 2021. "Psychedelics and Psychotherapy." *Pharmacopsychiatry* 54 (July):167-175.
62. Angel, Leonard. 2002. "Mystical Naturalism." *Religious Studies* 38 (September): 317-38.
63. Harris, Sam. 2014. *Waking Up: A Guide to Spirituality Without Religion*. New York: Simon & Schuster.
64. Jylkkä, Jussi. 2021. "Reconciling Mystical Experiences with Naturalistic Psychedelic Science: A Reply to Sanders and Zijlmans." *ACS Pharmacology & Translational Science* 4 (July): 1468-70.
65. Letheby, Chris and Jaipreet Mattu. 2022. "Philosophy and Classic Psychedelics: A Review of Some Emerging Themes." *Journal of Psychedelic Studies* 5 (January): 166-75.
66. Letheby, Chris. 2017. "Naturalizing Psychedelic Spirituality." *Zygon: Journal of Science and Religion* 52 (September): 623-42.
67. Flanagan, Owen and George Graham. 2017. "Truth and Sanity: Positive Illusions, Spiritual Delusions, and Metaphysical Hallucinations." In Jeffrey Poland and Serife Tekin, eds., *Extraordinary Science and Psychiatry: Responses to the Crisis in Mental Health Research*, pp. 293-313. Cambridge: MIT Press.
68. Crosby, Donald A. and Jerome A. Stone, eds. 2018. *Routledge Handbook of Religious Naturalism*. New York: Routledge.
69. Ritchie, Sarah Lane. 2021. "Panpsychism and Spiritual Flourishing: Constructive Engagement with the New Science of Psychedelics." *Journal of Consciousness Studies* 28 (nos. 9-10): 268-88.

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70. Garb, Bradley Armour and Mitchell Earleywine. 2022. "Mystical Experiences Without Mysticism: An Argument for Mystical Fictionalism in Psychedelics." *Journal of Psychedelic Studies* 6 (no. 1): 48-53.
71. Wallace, B. Alan, ed. 2003. *Buddhism and Science: Breaking New Ground*. New York: Columbia Univ. Press.
72. Millière, Raphaël and Thomas Metzinger. 2020. "Radical Disruptions of Self-consciousness: Editorial Introduction." *Philosophy and the Mind Sciences* 1(no.1): 1-13.
73. Sebastián, Miguel Ángel. 2020. "Perspectival Self-consciousness and Ego-dissolution: An Analysis of (Some) Altered States of Consciousness." *Philosophy and the Mind Sciences* 1 (no.1): 1-27.
74. Jones, Richard H. 2020. "On Constructivism in the Philosophy of Mysticism." *Journal of Religion* vol. 100 (no. 1): 1- 41.
75. Gamma, Alex and Thomas Metzinger. 2021. "The Minimal phenomenal Experience Questionnaire (MPE-92M): Towards a Phenomenological Profile of 'Pure Awareness' Experiences in Meditators." *Plos One* (July 14): 1-39.
76. Bayne, Tim and Olivia Carter. 2018. "Dimensions of Consciousness and the Psychedelic State." *Neuroscience of Consciousness* 4 (no. 1): 1-8.
77. Doss, Manoj et al. 2021. "Psilocybin Therapy Increases Cognitive and Neural Flexibility in Patients with Major Depressive Disorder." *Translational Psychiatry* 11 (November 8): 574-83.

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