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Psychedelic Epistemology: William James and the “Noetic Quality” of Mystical Experience

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Abstract: William James proposed in 1902 that states of mystical experience, central to his idea of religious experience, can be identified based on their ineffability and their noetic quality. The epistemological category of the noetic quality, modified by W. T. Stace in 1960, plays a central but somewhat confounding role in today’s biomedical research involving psychedelic drugs such as psilocybin and LSD. Using scales based on James, it can be shown that psychedelics “reliably occasion” intense subjective states of experience or mystical states. It is debated whether these states are necessary for the wide range of possible mental health therapeutic benefits that appear to follow. This paper reviews what James said about the noetic quality and its relationship to religious experience, epistemology, and states of mystical experience. It explores how the noetic quality is measured in today’s research, addressing a growing list of concerns that psychedelic science can be epistemologically biased, that it is hostile to atheistic or physicalist views, that it injects religion unduly into science, or that it needs to find ways to eliminate the mystical element, if not the entire intense subjective experience altogether.

Keywords: William James; noetic quality; religious experience; mystical experience; mystical states; psychedelics; psychedelic experience; psilocybin; mystical experience questionnaire



Citation: Cole-Turner, Ron. 2021. Psychedelic Epistemology: William James and the “Noetic Quality” of Mystical Experience. *Religions* 12: 1058. <https://doi.org/10.3390/rel12121058>

Academic Editor: Mark Webb

Received: 2 November 2021

Accepted: 25 November 2021

Published: 29 November 2021

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1. Introduction

Few books have had such a wide-ranging and enduring impact as *The Varieties of Religious Experience* by William James. The book, published in 1902, is based on the lectures James gave in Edinburgh in the famed Gifford series (James 2004). The discussion of this book by scholars of religion is not surprising, given the originality of the book and its importance for religion, but interest by psychedelic researchers in university laboratories? Surprising though it may be, there are references in abundance in the latest technical literature, not always to James by name but to the concept that he put forward in his groundbreaking discussion of mystical states of experience. James called it the *noetic quality*, and this term appears almost like a standard fixture in the most recent technical articles on the possible therapeutic value of psychedelic drugs.

The “psychedelic drugs” included here are psilocybin, LSD, DMT, and mescaline. Psilocybin is found naturally in a group of fungi sometimes called “magic” or “sacred” mushrooms. In the human body, psilocybin (technically a “prodrug”) is metabolized to become the psychoactive drug *psilocin*. LSD, the popular name for lysergic acid diethylamide, was first synthesized by Albert Hoffmann in 1938. DMT (N,N-dimethyltryptamine) is found in many plants and animals and is associated with what is known as the “*ayahuasca* brew”. Mescaline is the common name for the active substance found in peyote. These drugs act in different ways and are associated with different cultural traditions and forms of use. The most widely studied drug in today’s psychedelic research is psilocybin.

With only a few exceptions, these drugs are still largely illegal around the world. To study their effects, researchers need official approval, which is now becoming somewhat routine. In the early 2000s, at the beginning of what is now called the “psychedelic renaissance”, the approval process was lengthy and demanding. What motivated researchers

was the possibility that these drugs may have broad, untapped therapeutic potential. Research is underway looking for possible psychedelic treatments for an astonishingly wide range of mental and neurological disorders. These include depression and anxiety, post-traumatic stress disorder, excessive end-of-life anxiety among the terminally ill, eating disorders, substance abuse disorders, and more. In addition, psychedelic states are seen by many researchers as a tool for exploring the experience of consciousness, both “ordinary” and altered. This includes, of course, what is widely called “mystical experience” or the experience of “mystical states”.

To measure mystical states, researchers draw upon ideas that go back to William James, including his idea of the noetic quality. In a best-selling book exploring his first-hand encounter with the “psychedelic renaissance”, Michael Pollan says about the noetic quality: “the conviction that some profound objective truth has been disclosed to you is a hallmark of the mystical experience, regardless of whether it has been occasioned by a drug, meditation, fasting, flagellation, or sensory deprivation. William James gave a name to this conviction: the noetic quality. People feel they have been let in on a deep secret of the universe, and they cannot be shaken from that conviction” (Pollan 2019, p. 41).

The title of Pollan’s book (*How to Change Your Mind*) goes right to the heart of the epistemological or noetic quality. These drugs appear to change the way people think. We see the noetic quality making an even more dramatic appearance in the title of William Richard’s book, *Sacred Knowledge* (Richards 2015). Popular media presentations of research have even implied that atheism and agnosticism could well be added to the list of disorders treatable with psychedelics! Might a drug-occasioned mystical experience convince atheists to become believers? These journalistic reports may in fact be “substantially misleading” (Glausser 2021, p. 1). The underlying concern, however, is real. These drugs “occasion” mystical experience which, as James pointed out a century ago, has an epistemologically authoritative noetic quality that can change the way people think.

One research team is clear that as a group, they “are keen not to endorse any associations between it and supernatural or metaphysical ideas”. Then, they issued this challenge: Anyone “interested in the phenomenology of mystical type/peak experiences may wish to explore these classic texts”, starting specifically with William James (Roseman et al. 2018, p. 2). This essay is an attempt to respond to the challenge.

2. What James Says about the “Noetic Quality”

The Varieties of Religious Experience by William James is based on lectures given in Edinburgh in 1902 as part of the distinguished series, the Gifford Lectures. It contains twenty chapters, only two of which are on “mysticism”. Anyone looking at the book for the first time is likely to think that, for James, the idea of religious experience is the broad category or topic, and that mysticism is a special subset. In fact, there is good reason to think that, in James, mystical experience is the broader category, with religious experience being just one type.

How does James identify a mystical experience or distinguish it from an intense but non-mystical one? He lists four marks by which to “classify a state of mind as mystical”. The first mark is “ineffability”. He calls this the “handiest of the marks”, pointing out that it is inherently “negative” in the sense that the content of the experience “defies expression”. A mystical experience may be spoken of, but “no adequate report of its contents can be given in words” (James 2004, p. 209). As a result, a mystical experience cannot be shared. “Its quality must be directly experienced; it cannot be imparted or transferred to others”. For this reason, James says, experiences of mystical states “are more like states of feeling than like states of intellect”. He calls *ineffability* “the keynote of all mysticism” (James 2004, p. 221).

The second mark of mystical states, which is the focus of this paper, is their “noetic quality”. While *ineffability* is more like a state of feeling than of knowing, the opposite is true when we consider the *noetic quality*. In his key passage, James defines the noetic quality of mystical experiences in this way:

“Although so similar to states of feeling, mystical states seem to those who experience them to be also states of knowledge. They are states of insight into depths of truth unplumbed by the discursive intellect. They are illuminations, revelations, full of significance and importance, all inarticulate though they remain; and as a rule they carry with them a curious sense of authority for after—time.” (James 2004, p. 210)

With this simple statement, James describes the noetic quality. He makes the claim that these two marks, ineffability and the noetic quality, are sufficient in themselves to “entitle any state to be called mystical, in the sense in which I use the word”. However, he adds two additional qualities that “are usually found”. These are *transiency* and *passivity*.

With the “noetic quality” briefly defined, James turns to the broader epistemological question of the truth status of what is known in the mystical state. “Do mystical states establish the truth” arising from their noetic quality? He begins his answer by pointing out that mystical states do not generally lead to the replacement of one set of beliefs with another. Beliefs formerly held are transcended in the sense that their narrowness or exclusivity is negated. In one sense, what is “known” is that there is much more to know; that former beliefs were too restrictive and that the truth is more expansive than previously imagined. He claims that “we pass into mystical states from out of ordinary consciousness as from a less into a more, as from a smallness into a vastness, and at the same time as from an unrest to a rest. We feel them as reconciling, unifying states. In them the unlimited absorbs the limits and peacefully closes the account” (James 2004, p. 227). The experience of the noetic quality of mystical states means that one now knows that there are more ways to know.

Furthermore, James is clear that the noetic quality does not necessarily lead to new concepts or insights. He makes the somewhat surprising point that the mystic learns what is already known, but perhaps now in a deeper and more confident way. He writes: “The simplest rudiment of mystical experience would seem to be that deepened sense of the significance of a maxim or formula which occasionally sweeps over one. ‘I’ve heard that said all my life,’ we exclaim, ‘but I never realized its full meaning until now’” (James 2004, p. 211). He calls this “an extremely frequent phenomenon, that sudden feeling, namely, which sometimes sweeps over us, of having ‘been here before’” (James 2004, p. 211). In different words, Michael Pollan describes this same sense of a new experience of old ideas: “The mystical journey seems to offer a graduate education in the obvious. Yet people come out of the experience understanding these platitudes in a new way; what was merely known is now felt, takes on the authority of a deeply rooted conviction” (Pollan 2019, p. 71).

Foreshadowing later debates, James insists that the authenticity of the noetic quality of the mystical experience does not depend on its cause. Does the experience come from years of spiritual practice in meditation or suddenly from some inhaled substance? This is not decisive for James when it comes to calling the experience mystical. He is very explicit on this question, which was so much debated fifty years later by (Huxley 1954; Stace 1960; Zaehner 1972). Referring to ether and nitrous oxide, James insists that they “stimulate the mystical consciousness in an extraordinary degree. Depth beyond depth of truth seems revealed to the inhaler” (James 2004, p. 212). The “cause” of the experience does not compromise the quality of the experience, including its noetic quality. W. T. Stace refers to this claim as the “principle of causal indifference” (Stace 1960, pp. 29–30). Writing at about the same time as Stace, religion scholar Huston Smith affirms the principle of causal indifference in the strongest terms possible: “Descriptively, drug experiences cannot be distinguished from their natural religious counterpart. When the current philosophical authority on mysticism, W. T. Stace, was asked whether the drug experience is similar to the mystical experience, he answered, ‘It’s not a matter of its being *similar* to mystical experience; it *is* mystical experience’” (Smith 1964, pp. 523–24; emphasis in the original).

To be sure, James expresses some doubt about whether a nitrous oxide experience rises to the same level as the more traditional mystical states. In his lectures, he narrates his

own experience in experimenting with nitrous oxide, something which he had previously discussed in print. Despite the experiment, James does not claim to be a mystic or to have experienced a mystical state. Nevertheless, he seems to suggest that, while the content of what he “knows” when the drug is acting in his brain may be questionable in terms of its enduring authority, the experience of entering a new horizon of consciousness led him permanently to question the sufficiency of “normal waking consciousness”. He writes:

“One conclusion was forced upon my mind at that time, and my impression of its truth has ever since remained unshaken. It is that our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different. We may go through life without suspecting their existence; but apply the requisite stimulus, and at a touch they are there in all their completeness, definite types of mentality which probably somewhere have their field of application and adaptation.” (James 2004, p. 213)

Here, we encounter once again the idea that the noetic quality includes the experience of knowing that there is more than one way to know. When it comes to a nitrous oxide experiment, James does not seem to have much confidence in the content of what he came to “know” while under the gas. However, he does claim to know with great certainty what we might see as a formal principle of his epistemology, that what we ordinarily believe we see and know is not all that there is.

What, then, is the truth status of the content of what is “known” to the one experiencing a mystical state? In a fascinating passage, James asks about the relationship between the noetic quality and epistemic authority that attaches to the mystical experience. A mystical state is *noetic*, but is the knowledge authoritative? “Does it furnish any warrant for the truth of . . . supernaturalism and pantheism which it favors?” His answer is both yes and no. Yes, he asserts, “mystical states, when well developed, usually are, and have the right to be, absolutely authoritative over the individuals to whom they come”. However, at the same time, “no authority emanates from them which should make it a duty for those who stand outside of them to accept their revelations uncritically”. When seen as a claim of authoritative knowledge, the *noetic quality* applies only to the one who experiences the mystical state. For James, the assertion of the *noetic quality* is not based on general knowledge of philosophy or religion, as if it were a rational argument leading to conclusions valid for all rational subjects. It is based not on publicly accessible evidence but solely on the experience of the individual, and, as such, its authority for the individual is taken by James to be a straightforward empirical fact of psychology. “As a matter of psychological fact, mystical states of a well-pronounced and emphatic sort are usually authoritative over those who have them” (James 2004, p. 230). And again: “Mystical truth exists for the individual who has the transport, but for no one else” (James 2004, p. 221). Anyone can know that mystical states include a noetic quality, but only the mystic experiences the authority of noetic dimension of the experience.

Whatever truth an individual encounters is not contained in a specific doctrine or metaphysical belief, much less one that is the same for all who experience mystical states. Nevertheless, according to James, “mystical states in general assert a pretty distinct theoretic drift”. They tend to “point in definite philosophical directions. One of these directions is optimism, and the other is monism” (James 2004, p. 227). Even his own limited mystical experience under the influence of nitrous oxide had a kind of “drift” toward one view rather than another in reference to classical metaphysics. “Looking back on my own experiences, they all converge towards a kind of insight to which I cannot help ascribing some metaphysical significance It is as if the opposites of the world, whose contradictoriness and conflict make all our difficulties and troubles, were melted into unity” (James 2004, p. 214).

If mystical experiences lead to the discovery of truth that is authoritative to the one who experiences the mystical state but not to others, it is also true for James that the sheer fact that mystical states happen often to people commonly thought to be sane leads him to

a further observation about the *negative dimension* of the noetic quality. He writes that, for everyone who is open to taking the evidence seriously, the fact that *others* have mystical experiences is enough to “break down the authority of the non-mystical or rationalistic consciousness, based upon the understanding and the senses alone. They show it to be only one kind of consciousness. They open out the possibility of other orders of truth” (James 2004, p. 230). James refers to this as “negating the negation” (James 2004, p. 227). It is obvious that he wishes to emphasize what he is saying about this, making it clear now that he is speaking not just about what is authoritative for the mystic, but about what is binding on everyone. He writes: “Yet, I repeat once more, the existence of mystical states absolutely overthrows the pretension of non-mystical states to be the sole and ultimate dictators of what we may believe” (James 2004, p. 232).

James is not denying the validity of ordinary empirical and rational thought. What he is rejecting is the denial of the possibility of other ways of knowing. He refers to these other ways of knowing as “gifts to our spirit by means of which facts already objectively before us fall into a new expressiveness and make a new connection with our active life. They do not contradict these facts as such, or deny anything that our senses have immediately seized”. Then he accuses his critics of a kind of epistemic narrow-mindedness. The critic, not the mystic, is the denier. “It is the rationalistic critic rather who plays the part of denier in the controversy, and his denials have no strength, for there never can be a state of facts to which new meaning may not truthfully be added” (James 2004, p. 232).

What, then, is the noetic quality of mystical states of experience according to William James? It is a complex idea, philosophically subtle and epistemological multi-dimensional. Its “curious sense of authority” applies only to the one who experiences the mystical state. The fact that such states are experienced widely by seemingly sane and intelligent people, however, leads James to see mystical states as the negation of ideas that limit the scope of human experience, beginning with the idea that “ordinary experience” is all there is.

3. From James to Stace to the MEQ30

The noetic quality of mystical experience identified by William James is very much alive in today’s research laboratories. How a book published in 1902 continues to shape research methodology today is an interesting story by itself, especially when we consider that James is not writing about neuroscience or pharmacological research but about religious epistemology. In the decades after James, various authors revisited his discussion of mysticism. Foremost among them was W. T. Stace, whose *Mysticism and Philosophy* is the most important direct link between William James and psychedelic research (Stace 1960). This book, published in 1960, coincided with widening attention given to LSD and with the earliest modern Western accounts of psilocybin.

Stace is clear that the idea of the noetic quality originates with James, but Stace himself tends to call it the “sense of objective reality”, speaking of it as “a second universal characteristic” of the mystical experience (Stace 1960, p. 67; cf. 79, 110, 131). In his key discussion of the noetic quality, Stace writes that “the experience is immediately interpreted by the mystic as having objective reference and not being a mere inner or subjective state of the soul. This is what James called ‘noetic quality.’ His word ‘quality,’ since it implies a characteristic of the experience itself and not a mere interpretation, draws attention to the fact that this is how the mystic himself regards it. Objectivity is not for him an opinion but an experienced certainty” (Stace 1960, pp. 67–68).

Elaborating more fully on the meaning of “the feeling of objectivity”, Stace makes several interesting observations. First, although the noetic quality has authority only for the mystic, the non-mystic must contend with the force of the mystic’s feeling of certainty. The mystic is not merely being obstinate about what is claimed as known, Stace argues. “Hence the mystic’s certainty has at least to be explained as a psychological phenomenon” (Stace 1960, p. 153). As later discussed, today’s psychedelic researchers seem to be taking up this challenge of trying to explain this phenomenon, aided now as they are by drugs to reliably “occasion” such experiences (Griffiths et al. 2006). Second, Stace nicely reiterates

and expands on a point already made in James. The noetic quality or “feeling of objectivity” is not an interpretation of the experience. Stace writes that “this feeling of reality is a part of the mystical experience itself and not an intellectual interpretation of it. The self-transcendence of the experience is itself experienced, not thought *Now the fact that self-transcendence is part of the experience itself is the reason why the mystic is absolutely certain of its truth beyond all possibility of arguing him out of it*” (Stace 1960, pp. 153–54; italics in original).

Another modification in Stace is that the noetic quality is one item in a longer list of characteristics of the mystical experience, no longer standing alone with *ineffability* as it did in the original text by William James. Complicating matters even more, Stace (unlike James) distinguishes between what he calls two types of mystical experience, the extrovertive and the introvertive, which differ mainly in the kind of unity that is experienced. Where the extrovertive experience is centered on the feeling that “all things are one”, the introvertive mystic loses a sense of the self in a kind of spaceless, timeless experience. Building on that distinction, Stace identifies two lists of seven characteristics of mystical experience, each slightly different for the extrovertive and the introvertive, but largely similar. The Jamesian “noetic quality”, now relabeled the “sense of objectivity or reality”, appears on both lists.

In 1962, just two years after Stace published his work, Walter Pahnke drew upon it as part of his Harvard Ph.D. project. Pahnke develops the famous “Marsh Chapel” experiment, in which he administered psilocybin to divinity student volunteers to investigate the potential of the drug to bring about a mystical experience. He drew upon Evelyn Underhill (Underhill 1911), along with James and especially on Stace, to create a questionnaire to quantify the mystical marks of the experience. According to Rick Doblin, Pahnke’s scale was based on eight categories. “The categories include (1) sense of unity, (2) transcendence of time and space, (3) sense of sacredness, (4) sense of objective reality, (5) deeply felt positive mood, (6) ineffability, (7) paradoxicality and (8) transiency” (Doblin 1991, p. 7). Doblin adds that “Pahnke arbitrarily determined that for a mystical experience to be considered complete for the purposes of the experiment”, the total score and the score in each of the eight categories needed to be at least 60% of the maximum possible (Doblin 1991, p. 10).

About 25 years after Pahnke’s experiment, Doblin located and surveyed most of the participants in the original experiment, finding that they rated their experience even more highly mystical than they had at the time of the experiment. This included their rating of the noetic factor, which came in at 82% of the maximum possible, the highest of any category (Doblin 1991, pp. 7, 11).

After many revisions, criticisms, and new editions, compounded by the world-wide halt in psychedelic research due to the “war on drugs”, Pahnke’s original questionnaire has evolved and has been supplemented by other survey instruments. Through this process, William Richards has played a key role (Richards 2015). In the late 1960s, Richards collaborated with Pahnke. More recently, he has worked with Roland Griffiths and the team at Johns Hopkins University. The result is consistency over time in the development of what is called the “Mystical Experience Questionnaire” or MEQ, subsequently shortened to become the MEQ43 and now in a form called the MEQ30. At the same time, it must be noted that, in the transition from James to Huxley and Stace and finally to the MEQ, the idea of mystical experience became associated with “perennial philosophy”, the view that mystical states are common across cultures and underlie all religious traditions. This view is widely rejected by religion scholars today.

According to the Hopkins team, “the mystical items have remained largely consistent since the inception of the MEQ” in the work of Walter Pahnke in 1969 (MacLean et al. 2012, p. 4). This questionnaire is also sometimes known as the Pahnke–Richards Mystical Experience Questionnaire, and it is often administered as a part of the larger, 100-item “States of Consciousness Questionnaire” (SOCQ).

Remarkably, the *noetic quality* first put forward by William James in 1902 remains a key item in the current MEQ30. “The four factors of the MEQ30 are: mystical (including items from the internal unity, external unity, noetic quality, and sacredness scales of the

MEQ43), positive mood, transcendence of time and space, and ineffability (all three of which include items from their respective MEQ43 scales)" (Barrett et al. 2015, p. 2). When the MEQ30 is administered within the larger State of Consciousness Questionnaire, research volunteers are given this instruction: "Looking back on the extended session you have just experienced, please rate the degree to which at any time during that session, you experienced the following phenomena. In making each of your ratings, use the following scale: 0—none; not at all. 1—so slight cannot decide 2—slight 3—moderate 4 -strong (equivalent in degree to any previous strong experience or expectation of this description) 5—extreme (more than ever before in my life and stronger than 4)" (States of Consciousness Questionnaire and Pahnke-Richards Mystical Experience Questionnaire n.d.).

Four of the thirty items in the MEQ30 relate directly to the noetic quality. The four items are worded as follows, each preceded here by its number in the 100-item State of Consciousness Questionnaire:

"3. Feeling that the consciousness experienced during part of the session was more real than your normal awareness of everyday reality.

9. Gain of insightful knowledge experienced at an intuitive level.

22. Certainty of encounter with ultimate reality (in the sense of being able to "know" and "see" what is really real) at some time during your session.

69. You are convinced now, as you look back on your experience, that in it you encountered ultimate reality (i.e., that you "knew" and "saw" what was really real) (States of Consciousness Questionnaire and Pahnke-Richards Mystical Experience Questionnaire n.d.). <https://www.ocf.berkeley.edu/~jfkhlstrom/ConsciousnessWeb/Psychedelics/States-of-Consciousness-Questionnaire-and-Pahnke.pdf> (accessed on 28 November 2021)".

Using the MEQ and other questionnaires, researchers working with psychedelics such as psilocybin have consistently found that research volunteers typically report undergoing an intense subjective experience, often characterized as "mystical". The noetic quality, together with other marks or characteristics of mystical experience, are reported at levels researchers themselves find to be surprisingly high. As later discussed, not everyone is completely happy with this finding.

4. For Psychedelics to Work, Are Subjective Effects Necessary?

Within the global community of researchers studying the possible therapeutic benefits of psychedelics, there is optimism bordering on exuberance when they consider the sheer range of mental health problems for which substances like psilocybin seem to offer help. The current list of possible applications includes some of the most persistent and widely diagnosed challenges in mental health. Depression, anxiety, post-traumatic stress disorder (PTSD), drug and alcohol disorders, and eating disorders are just a few items on the list. With opportunities for all these possible new therapies, it is not at all surprising to see a growing number of private companies and investors engaging in their own research, all looking for ways to secure a share of future profits.

Throughout the ranks of the wide and diverse network of researchers and venture capitalists, however, a debate has arisen over the "subjective effects" of psychedelic drugs, especially the key role seemingly played by mystical experience as a part of the therapy. The nub of the question is whether these subjective effects are necessary if therapy is to follow. No one disputes the view that psychedelics substances reliably occasion what have been called "mystical states of experience", and no one seriously rejects the idea that they show amazing promise as a path to therapy for a surprisingly broad spectrum of mental health problems. The debate is whether therapy requires mystical experience. So far, the supporting evidence is correlational.

"A critical question for the field to address is whether or not the acute subjective effects of these drugs are necessary to produce long-lasting therapeutic response" (Olson 2021, p. 563). One reason why the question is important is purely practical. Helping research

subjects and future patients prepare for and work through the subjective experience is a challenge that complicates the therapy process. Some worry that dealing with the subjective experience will mean that “this treatment strategy is limited by the significant healthcare costs associated with it. Due to the powerful subjective effects of the drug, healthcare professionals must provide support before, during, and after treatment to prepare patients for the subjective effects of the drug, ensure that no harm comes to them during the altered state of consciousness, and help them integrate their experience” (Olson 2021, p. 563). So far, however, the evidence suggests that, by whatever name we call it, an intense subjective experience plays a key role in bringing about the full benefits of psychedelic therapies.

In keeping with our focus here on the noetic quality, our question is whether something like the Jamesian noetic quality or Stace’s “sense of objective reality” is a necessary component of the subjective experience. In a recent book entitled *Philosophy of Psychedelics*, Chris Letheby suggests that there is reason to think that the answer is yes. “We have already seen evidence that the mystical experience is a key part of psychedelics’ transformative mechanism, and a defining element of the mystical experience is the noetic quality: the powerful sense of direct, undeniable knowledge—the compelling feeling that the transcendent Reality encountered is ‘more real than real’” (Letheby 2021, p. 28). Writing more than a decade earlier, William Richards predicted that more research would confirm that intense mystical experience is necessary for effective therapies. “As William James observed, although mystical consciousness may entail profound emotions, it also includes intuitive knowledge—James called it ‘the noetic quality’ (1902). This aspect could well prove to be the nexus of its therapeutic potential in the treatment of addictions, depression and anxiety” (Richards 2008, p. 193). The multi-billion-dollar question, it seems, is whether mystical experience, including the noetic factor, is truly the *nexus of therapy*.

Drug companies looking forward to psychedelic therapies certainly hope the answer is no. They would like to avoid the complications that are associated with a weird kind of therapy that occasions mystical experience. Such an intense experience is too big for the fine print about side effects. Just what would the warning label say? What should the informed consent process look like if it is true “that patients might experience significant shifts in their ethical outlook and worldview, which they cannot fully foresee from the perspective of their pre-therapeutic self (52)” (Langlitz et al. 2021, p. 4)? What if taking the drug changes their mind about consent? David Olson goes so far as to say that, unless the mystical element can be tamed, therapy might never become practical or scalable. “Despite the promising therapeutic responses produced by psychedelic-assisted therapy, the intense subjective effects of these drugs make it unlikely that they will ever become widespread treatments for disorders such as depression” (Olson 2021, p. 566).

So far, however, the debate has taken place among researchers rather than drug companies or clinical psychiatrists. The researchers themselves are divided on the matter, all supporting the idea that psychedelics have strong and wide-ranging therapeutic possibilities but with some investigators obviously unhappy with the idea that the path to therapy passes through something that can be called “mysticism”.

There are, in fact, at least two issues at the heart of the conflict. First, do themes such as “mystical experience” have any use in scientific research in the first place? Does the very idea of mystical experience carry with it an undeniable religious connotation that is completely out of place in science, including medical research? Does it sound as though scientists are looking for evidence of divine healing or for other archaic manifestations of the occult? Second, assuming that “mystical experience” can be studied scientifically, is it true that the therapeutic potential of psychedelics hinges significantly on intense subjective experiences that should be called mystical? In other words, is the correlation pointing to a causal relation, even if the causal pathway is not (and may never be) fully understood?

Beginning with the first question, we recognize that many scientists are uncomfortable with religion, at least if it bears on their intellectual work. For some, the problem here is that religious or spiritual notions such as mystical experience are methodologically out of place in scientific research. Sanders and Zijlmans speak of the “risks and difficulties stemming

from the scientific use of a framework associated with supernatural or nonempirical belief systems". What is needed, they say, is "a demystified model of the psychedelic state" (Sanders and Zijlmans 2021, p. 1253). They continue by warning of "the encroachment of supernatural and nonempirical beliefs on psychedelic science". They encourage their collaborators to "imagine the ways in which new frameworks may bring greater benefit for science and society alike" (Sanders and Zijlmans 2021, p. 1253). What is needed, they say, is a new interpretation by which the "psychological phenomena previously explained as mystical might come to be understood in terms that are not encumbered by theological, supernatural, or fantastical baggage" (Sanders and Zijlmans 2021, p. 1255). Terms associated with mysticism, they believe, must be kept out of psychedelic research. "The purported 'sacredness', 'ineffability', and 'noetic quality' of these states may take on characteristics congruent with scientific understanding if an accessible scientific explanation exists, and if questionnaires reflecting this explanation are administered" (Sanders and Zijlmans 2021, p. 1254). Others share the concern, at least in part. "The so-called 'mystical' experience has been a classic problem area for mainstream psychology—if not science more generally. The term 'mystical' is particularly problematic, as it suggests associations with the supernatural that may be obstructive or even antithetical to scientific method and progress" (Roseman et al. 2018, p. 2).

Even those less concerned about keeping religion-related themes out of science will agree at least with this concern: "When we administer a mystical experience questionnaire, we invite participants to interpret their experience through the framework of mysticism. Thus, we risk creating biased data and may fail to learn from participants' own articulation and interpretation We are concerned that if science states that psychedelics induce mystical experiences that are key to their therapeutic action, this is too easily misinterpreted as research advocating a role for the supernatural or divine" (Sanders and Zijlmans 2021, p. 1254).

A solution put forward by some is to reconceive the whole idea of mystical states or mystical experiences, to secularize them, so to speak, so that the religious or transcendent features disappear while leaving subjective intensity and meaning fully intact. Researchers need to learn to use the category of "mystical experience" without being guilty of attempts to "'smuggle in' a supernatural interpretation of the experiences that people have under the influence of psychedelics". This category can be used in a way that "remains agnostic regarding the metaphysical claims about the truth or falsehood of these experiences" (Breeksema and van Elk 2021, p. 1471).

Can the language of mystical experience be used in an "agnostic" way? If we go back to William James with this question, the answer is yes. In fact, we can find the Jamesian view expressed in some of the latest arguments put forward in the current debate. For example, Jussi Jylkkä writes: "From the subjective perspective, the psychedelic experience can indeed be ineffable and mystical and include metaphysical insights, but the truth of the insights is an independent philosophical question" (Jylkkä 2021, p. 1468). Jylkkä is clear about his indebtedness to James. "The psychedelic insights have what William James called 'noetic quality' and are felt as true. It would not do justice to them to completely psychologize them or to treat them as merely neural processes. They are not just any kind of neural—psychological processes, but instead they form the subject's worldview" (Jylkkä 2021, p. 1469). Here, he makes the entirely Jamesian point that respect for the other requires respect for (but not necessarily agreement with) their sense of the noetic quality of their experience.

We return now to the second question, whether the therapeutic possibilities of psychedelic substances can be realized when the requisite subjective experience is not defined as mystical or inclusive of the noetic quality. Must the research volunteer of today or the patient of the future undergo a mystical experience as defined and scored for example by the MEQ30 to receive the full therapeutic benefit of the psychedelic therapy?

Today's leading researchers are sharply divided in their answer. Perhaps any experience of sufficient intensity and personal meaning, mystical or not, is sufficient to "cause"

the benefit. In an early pilot study on nicotine addiction, Garcia-Romeu and colleagues dismiss the idea that intensity per se explains the finding. They write that the “intensity of psilocybin session experiences was not significantly associated with smoking cessation treatment outcomes, suggesting that mystical-type effects specifically, rather than general intensity of subjective drug effects, are associated with long-term abstinence Furthermore, the magnitude of the mystical qualities of the psilocybin experiences as measured with the SOCQ seem to be predictive of subsequent decrease in tobacco craving and use, as observed from reductions in QSU scores and urinary cotinine levels” (Garcia-Romeu et al. 2015, p. 8). Here, a clear “association” of an undefined causal nature is affirmed between the MEQ-defined mystical experience and the benefit. Without the “mystical-type” effects, the therapeutic benefit is not fully realized.

If that is true, it puts psychedelics in a special class among possible therapeutic drugs. Most drugs work regardless of subjective effects. “The position that subjective effects are irrelevant to therapeutic effects is probably true of many pharmacological treatments” (Yaden and Griffiths 2021, p. 568). The report of the nicotine addiction pilot study includes this observation: “The idea that a single discrete experience can result in lasting beneficial effects in an individual’s attitudes or behavior is highly unusual if not unprecedented within the modern biomedical paradigm, wherein curative or therapeutic processes are often conceptualized as occurring gradually” (Garcia-Romeu et al. 2015, pp. 9–10).

There seems, in fact, to be a four-fold or four-dimensional claim of “psychedelic exceptionalism”. First, they are exceptional in the breadth of their possible applications. Second, they are exceptional in that they seem to work in a kind of burst of action, with one administration occasioning one intense experience, all in one afternoon. Third, these drugs are highly unusual if not unique in that they seem to require intense subjective experience as part of the pathway to their effectiveness. Fourth, and most controversially, psychedelic drugs provide therapy through the pathway of mystical experience. Whether these four claims are all true and how they might relate to each other is an open question. Here, we find ourselves coming back once more to William James. When we call to mind his mention of *transience* as one of the marks of mystical experience, we see that his view includes all four claims made above. For James, (1) wide-ranging health benefits come (2) in a flash through (3) intense personal experience that (4) can be called mystical and that includes the noetic quality.

Some researchers remain unconvinced that subjective effects of a mystical nature are truly necessary for therapy. Several alternative theories have been suggested. Perhaps intensive experiences occur but are not causally significant. The real cause, in other words, lies in the interactions between these drugs and the human brain. Or perhaps an intense subjective experience really is necessary as a part of the causal pathway, but must it be understood as “mystical” with the usual religious connotations?

The first theory is that subjective experience is not necessary. The true story of the causal pathway from drug to therapy lies at the usual and familiar level of pharmacology. It is fully accounted for in terms of the biochemical interactions between such things as molecules and cells. When it comes to psychedelics, of course, the complete and exact pathway has not yet been fully understood. That is no reason, however, to think that the pharmacological effectiveness of these drugs is exceptional in its pathway. More research will discover the full details of the molecular/cellular pathways by which these drugs act on the brain. When future advances fill in the gaps in knowledge, the outdated concept of “mystical experience” will be dismissed as one more example of a gap-holding explanation, retired whenever science advances and religious or philosophical explanations retreat. “From this perspective, the subjective experiences elicited by psychedelic substances are merely epiphenomena of the underlying neurobiological mechanisms which convey the beneficial effects” (Yaden and Griffiths 2021, p. 568). Does the causal pathway lie along the lines of drug interaction with serotonin receptors or with neural plasticity? There is little doubt that science will learn more about these pathways. Perhaps it will be able to

describe the causal pathway entirely at the molecular/cellular level, without recourse to subjective experience of any sort.

The second option, of course, is to agree that subjective experience is necessary but that it can be experienced and described in a way that either eliminates or limits the explicit religious or spiritual connotations. In other words, start with this affirmation: “A guiding principle of psychedelic psychotherapy is that the occurrence of a profound, potentially transformative psychological experience is critical to the treatment’s efficacy” (Roseman et al. 2018, p. 2). Then, however, define this “profound, potentially transformative psychological experience” so that it can be expressed in strictly psychological and secular terms.

Mindful though they are that they continue to use the “Mystical Experience Questionnaire”, and knowing very well that it measures key components of classically defined mystical experiences such as the noetic quality, some researchers propose nevertheless that the MEQ can be understood in a way that sets aside the religious connotations of the mystical dimension. “The mystical experience is not conceptually limited to religious experience or practice, and the measurement of mystical experience by the MEQ does not require any direct religious or mystical endorsement. The MEQ serves as a psychometrically sound self-report instrument that assesses philosophically and theoretically identified facets of mystical experiences and, by virtue of scores on these dimensions, can characterize the degree to which a given experience fits the schema of ‘mystical’” (Barrett et al. 2015, pp. 12–13).

Letheby also tries to draw the same fine line between the necessary subjective psychedelic experience and the optional mystical experience. “The ultimate conclusion of this chapter is twofold: psychedelics’ lasting psychological benefits (a) do not depend on their capacity to induce such metaphysical visions, but (b) do depend on some aspect of the psychedelic experience—some aspect, moreover, that correlates fairly reliably with psychometric ratings of mystical-type experience” (Letheby 2021, p. 61). His argument is based on the claim that the category, “mystical experiences”, is not limited to states that include metaphysical or religious features. He writes that “not all ‘mystical experiences’, in the relevant, operational sense, are experiences as of non-naturalistic metaphysical realities. There are states of consciousness that (a) satisfy standard psychometric criteria for a ‘complete’ mystical-type experience, but (b) are not experiences” of a transcendent reality (Letheby 2021, p. 72).

Is it possible to have richly intense or “complete” mystical experiences without religious components such as “non-naturalistic metaphysical realities”? Or, to put it another way, can we have mysticism without religion? The obvious problem here is that, in the popular view, the idea of the “mystical” is entangled in religion, particularly with the religious beliefs of Western theistic traditions such as Christianity, the context, of course, in which James did his work. It may come as a surprise, then, to learn that, for James, the “mystical” is bigger than the “religious”. In other words, not everything that is mystical is religious. It is true, of course, that his book is entitled *The Varieties of Religious Experience*. In it, mysticism occupies a relatively small part of the overall argument. Thus, it is easy to think that James sees mysticism as a subset of religion. In other words, mystical experience is shot through and through with religion. If so, then there is no legitimate way to separate the mystical from the religious. James, however, himself appears to have done just that, at least according to several of today’s leading scholars of his work. The idea is put forward by (Barnard 1997) and affirmed by Richard King, who writes that “the mystical is in many respects a broader and more significant category than the religious, referring to a wider range of mental states with significantly more transformation potential than what James considered to be more mundane and everyday ‘religious’ experiences” (King 2004, p. 108). Scholars of religion debate whether James is right about this. Many today disagree with the Jamesian view that mystical experience, as a private moment of individual consciousness, is at the core of what defines religion. In James, the diverse practices of religion and its communal dimensions are largely ignored.

Here in this study, however, our focus is on how we get from James to contemporary biomedical research. His view of the marks of mystical experience, together with his largely negative view of “religion” as institutional and doctrinal, are key to that story. Why is this important? Because it helps us recognize the Jamesian nature of today’s biomedical research. Our claim is that there is broad support in the writings of William James for the view advanced recently about the meaning of the noetic quality of mystical experience. Noting that the very word “mystical” sounds out of place in science, some biomedical research suggests that we can keep it nonetheless, if it can be understood to include non-religious, non-theistic, and non-supernatural manifestations and meanings.

For instance, Matthew Johnson writes that “‘spiritual’ can mean different things”. It can apply to supernatural belief systems, but it can also refer to a humane and compassionate attitude toward others. Johnson continues: “‘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” (Johnson 2021, pp. 579–80). Would James go that far? No one can say for sure, but James seems to see mystical experience as something bigger than, and not always or altogether friendly to, traditional religious ideas.

When we return once again to the earlier question of whether mystical experience (by any definition) is necessary for the therapeutic benefit of psychedelics, we find that, on this point, James is uncharacteristically silent. According to Barnard, James skirts the question about whether the noetic quality of mystical experience is the *cause* of transformation. “James never clearly discusses the specifics of how we can determine, with any degree of certainty, that the positive transformations observed in the lives of mystics or saints actually *are* the result of their mystical inspirations”. According to Barnard, there is an “unexamined assumption” at play here in James, who seems to believe “that a certain belief is the cause of a corresponding observable effect But is there ever really such a clear-cut, one-to-one correspondence between a distinct belief and an equally distinct outcome of that belief?” (Barnard 2004, pp. 139–40). Here again, we see that it is possible to stand in the tradition of William James and remain agnostic about the question of the causal role of mystical experience. Everything seems to suggest that it is necessary for the therapy and for personal transformation, but proving it?

5. James, Noetic Negation, and REBUS

One promising way to study these subjective experiences is to look for their correlates in the higher levels of the brain. As we already saw, the actions of these drugs on the cellular level of neurons and serotonin receptors have been described. Using brain imaging, however, researchers are also gaining a higher-level view of the action of these drugs on the brain as a functional whole, concentrating of course on key networks. Based on this work, one group of researchers has put forward a proposal for thinking about how these drugs affect what the brain is doing when the research volunteer lets go of prior beliefs. “A recent predictive coding inspired model of the brain action of psychedelics, known as ‘REBUS’ (RElaxed Beliefs Under pSychedelics), may provide some useful inspiration for aiding investigations of the neurobiology of belief change processes”. The core idea here is that brain imaging offers a kind of window into the neurological processes that correspond to the subjective experience of relaxing the mind’s hold on key beliefs. This “relaxation” is key to the therapeutic outcome. Although the picture is far from complete, the idea is being put forward as an attempt to get at a description of the causal pathway of psychedelic therapy. “The REBUS model proposes that rendering high-level beliefs and assumptions more plastic under psychedelics is a key mechanism underlying their acute phenomenological and potential therapeutic effects” (Timmermann et al. 2021, pp. 16–17).

For some mental disorders, it is thought that certain beliefs can be pathological. The idea suggested in the REBUS theory is that psychedelics can release patients from the beliefs that stand in the way of their healing. These beliefs, which the researchers call “priors”, are “relaxed” during the drug experience. “Functionally, the effect of relaxing the precision weighting of high-level priors is to create a state in which these priors are imbued with less confidenceIn brief, our proposal is that psychedelics disrupt functioning at a level of the system (sensitivity of deep-layer pyramidal neurons, power of low-frequency rhythms, and integrity of large-scale networks) that encodes the precision of priors, beliefs, or assumptions” (Carhart-Harris and Friston 2019, pp. 319–20).

Whether psychedelic therapy might offer therapy for conditions that do not involve pathological ideas, or whether the course of therapy might also relax healthy ideas equally with unhealthy ones, are matter for further debate. The more basic question is whether REBUS is a significant and promising step toward understanding what the brain is doing in correlation with the subjective psychedelic experience. No attempt is made here to answer that question. Our focus, rather, is on the noetic significance of the REBUS proposal.

The relaxation of our confidence in our beliefs is an experience with a noetic quality, as is the process by which new beliefs come to define our views of ourselves and our world. It is clear that Carhart-Harris and colleagues see REBUS as a process of relaxing and regaining beliefs and therefore as a noetic experience. “We propose that psychedelics dose-dependently relax the precision weighting of high-level priors (instantiated by high-level cortex), and in so doing, open them up to an upsurge of previously suppressed bottom-up signaling (e.g., stemming from limbic circuitry). We further propose that this sensitization of high-level priors means that more information can impress on them, potentially inspiring shifts in perspective, felt as insight” (Carhart-Harris and Friston 2019, p. 334).

For this team of researchers, this raises the question of whether it is correct to think that psychedelics alter metaphysical beliefs, and, if so, do the alterations tend to run in one direction more than in other directions? The answer to both questions appears to be yes. They write: “The present study found a positive association between changes in metaphysical beliefs away from physicalism and increased psychological well-being” (Timmermann et al. 2021, p. 18). In other words, there is a “drift” (to use the language William James used to describe pretty much the same phenomenon) away from materialism or monistic physicalism towards what might be called “panpsychism”. Continuing their summary, the team writes:

Converging cross-sectional, prospective observational and controlled research data suggest a relationship between psychedelic experiences and shifts away from positions of hard physicalism and towards panpsychism, dualistic, and fatalistic beliefs. The observed changes were enduring, persisting for up to 6 months in most domains. Moreover, the large-sample prospective/observational and smaller-sample but well-controlled research findings converged, implying that psychedelic-use may indeed be a casual determinant of the relevant shifts in metaphysical beliefs. Furthermore, the belief-shifts were correlated with positive mental health changes; namely, improvements in well-being in the observational data and depression scores in the controlled research data. (Timmermann et al. 2021, pp. 14–15)

One concern raised by this finding is that we might come to think of psychedelic therapy as effective because it leads us to embrace delusional ideas. Letheby refers to this as the “Comforting Delusion Objection”. The worry here is that psychedelics may help people “mainly by inducing metaphysical beliefs that are comforting but probably false, and we should therefore hesitate to use these substances for therapeutic or transformative purposes” (Letheby 2021, p. 28). He reassures us that this therapy “involves less epistemic risk than one might suppose” because it is “epistemically innocent”, meaning that it “has significant epistemic benefits that are often unavailable by any alternative means”. He grants that “the induction or strengthening of such beliefs sometimes accompanies the process, but not always” (Letheby 2021, p. 31).

Another problem here is that psychedelics might be seen as an effective therapy for a wide array of disorders, including atheism! Does the “drift” away from physicalism suggest a way to “cure” agnosticism or atheism? Some research reports offer hints in this direction. “An interesting finding of the present study was that, in the Non-Drug Group and each of the psychedelic groups, most of those who identified their religious affiliation as atheist before the experience no longer identified as atheist after the encounter, with this difference being significant in all groups” (Griffiths et al. 2019, pp. 21–22). Some worry especially about the way in which these findings are interpreted in the popular media. The idea of curing atheism is “substantially misleading”, according to Wayne Glausser. The beliefs newly acquired by atheists do “not seem fundamentally incompatible with atheism” (Glausser 2021, p. 614).

Even though these findings can be sensationalized and distorted, there does in fact seem to be evidence of a real “drift” from physicalism to something “spiritual”. According to the Johns Hopkins team, “our findings revealed significant decreases in identification as atheist and agnostic and significant increases in belief in ultimate reality, higher power, God, or universal divinity, which may be viewed as positive outcomes by some, but as negative outcomes by others”. They grant that some might find this “belief in the veracity of messages” to be “alarming” (Davis et al. 2020, p. 2018).

In one respect, it really does not matter whether one favors a physicalist or a spiritual outlook. Any drug that can change the beliefs of other human beings *in any direction* is not socially benign or morally trivial. Obviously, it is true (if slightly understated) that “greater research is therefore clearly needed on the societal implications of putative psychedelic-induced belief-shifts” (Timmermann et al. 2021, p. 20).

6. Conclusions

William James describes “the noetic quality” as one of the two essential marks of mystical experience. The noetic quality means that the experience itself includes a feeling of objective reality. It includes noetic or epistemic implications that are authoritative, but only for the one undergoing the experience. With slight modifications, the Jamesian noetic quality is embedded in various questionnaires used today in scientific experiments with psychedelics to measure the intensity of mystical experiences. Reflecting on the meaning of the noetic quality in today’s research, Letheby writes: “Noetic quality refers to a strong sense of gaining a genuine and unmediated insight, or of encountering ultimate reality; the mystical experience, by definition, is felt to be ‘more real than real’” (Letheby 2021, p. 25). It is widely believed that the intensity of the mystical experience, including the noetic quality, correlates with the likelihood and the strength of the therapeutic benefit.

The idea of the noetic quality put forward by James has survived over the past century and appears as a factor in today’s research. The reason for its endurance is that it continues to do actual work in the research setting, playing a pivotal role in the quest for new approaches to a range of mental health concerns, despite its tendency to complicate the field and to trigger debates about the place of religious motifs in science research. Turning our attention back to what James himself said about the noetic quality provides help in addressing some of these issues.

For example, we can follow the lead of William James in broadening our idea of the mystical to include naturalistic forms. According to James, mysticism is found in many forms. “How different again, apart from the happiness common to all, is the mysticism of Walt Whitman...and other naturalistic pantheists, from the more distinctively Christian sort. The fact is that the mystical feeling of enlargement, union, and emancipation *has no specific intellectual content whatever of its own*” (James 2004, p. 231; emphasis added). The suggestion by some researchers that “mysticism” remain though its meaning be broadened to avoid religious or philosophical beliefs is consistent with the Jamesian notion of the noetic quality.

However, even if “mystical” is seen as a broad category that includes nonreligious forms, we still must ask to what extent the subjective experiences include a noetically-

valent “shift” in beliefs away from physicalism towards a view that can be called vaguely “spiritual”? If these drugs shift beliefs, when is it ethical to use them? How does the noetic quality or the “epistemic risk” appear in the informed consent process? How exactly can it be stated in plain language?

No one will imagine that William James can help us with specific questions such as these, but perhaps it will be worth the effort to recall that, for James, the first part of the meaning of the noetic quality applies only to the person undergoing the experience. What is known in the experience, and with what authority? Only the person with the experience knows. The second part of the noetic quality, however, applies to others, including especially those who may in the future be involved in prescribing psychedelic drugs for therapeutic reasons. As James insists, only the person with the experience feels noetic and epistemic authority attaching itself to what is known, but the rest of us experience the fact that some have come to a new insight or now have a new take on reality. We may disagree with what we consider to be the content of their insight, but we must accept that they have it and that having it seems to help them.

What seems most important here to James is the intellectual virtue of epistemic humility—the awareness that what we know is limited and fragmented. It is not just that we have not read everything or learned everything our discipline has to teach us; it is that we are simply unaware of the value of other ways of knowing the full richness of reality. One psychedelic team, in a distinctly Jamesian way, makes this observation: “Where psychedelic research is concerned, its multi-facetedness, complexities, contextuality, and plurality should remind us that ‘not everything that counts can be counted, and not everything that can be counted counts’” (Breeksema and van Elk 2021, p. 1473). Not only does this sound like William James, but it is also the most epistemologically authentic form of agnosticism, not defined mainly by doubting the beliefs of others, but by questioning the adequacy and comprehensiveness of one’s own knowledge. The noetic quality leads directly to epistemic humility.

Perhaps the enduring voice of William James is heard most clearly in today’s biomedical research journals, in these words of Jussi Jylkkä, who reminds us that, even when they happen to others, “mystical experiences may emphasize our ignorance of reality. It does not conflict with natural science to acknowledge that science is limited to modeling reality or that it cannot tell anything of the reality beyond observations and models This opens room for positive claims about the reality that transcends the scientific observations and models” (Jylkkä 2021, p. 1469).

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

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